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Contents

Federal Register

Vol. 68, No. 100

Friday, May 23, 2003

Agency for Toxic Substances and Disease Registry
NOTICES
Hazardous substances releases and facilities:
Public health assessments and effects; list, 28228

Agricultural Marketing Service
PROPOSED RULES
Pistachio nuts, in shell and shelled; grade standards, 28141–28157

Agriculture Department
See Agricultural Marketing Service
See Animal and Plant Health Inspection Service
See Commodity Credit Corporation
See Forest Service

Animal and Plant Health Inspection Service
RULES
Hawaiian and territorial quarantine notices:
Fruits and vegetables from—
Puerto Rico and U.S. Virgin Islands; movement and importation, 28114–28115
Plant Protection and Quarantine Treatment Manual:
Mangoes; hot water dip treatment, 28111–28114
Plant-related quarantine, foreign:
Potato brown rot prevention, 28115–28119
PROPOSED RULES
Interstate transportation of animals and animal products (quarantine):
Swine; inspection and interstate movement within production system, 28167–28168
Plant-related quarantine, domestic and foreign:
Gypsy moth, 28157–28161
Plant-related quarantine, foreign:
Fragrant pears from China, 28161–28166
Poultry improvement:
National Poultry Plan and auxiliary provisions—
Plan participants and participating flocks; new or modified sampling and testing procedures, 28169–28175
NOTICES
Environmental statements; availability, etc.:
Hydrilla control, 28190–28191
Pigeonpea pod fly control, 28191–28192
Tropical soda apple control, 28192–28193
Meetings:
Genetically engineered forest and fruit trees, 28193

Antitrust Division
NOTICES
Competitive impact statements and proposed consent judgments:
Northrop Grumman Corp. and TRW, Inc., 28264–28297

Army Department
See Engineers Corps
RULES
Personnel:
United States Soldiers' and Airmen's Home; CFR part removed, 28138

Blind or Severely Disabled, Committee for Purchase From People Who Are
See Committee for Purchase From People Who Are Blind or Severely Disabled

Centers for Disease Control and Prevention
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28228–28230
Meetings:
Immunization Practices Advisory Committee, 28230

Children and Families Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28230–28234

Commerce Department
See Economic Development Administration
See Economics and Statistics Administration
See Industry and Security Bureau
See International Trade Administration
See National Institute of Standards and Technology
See National Oceanic and Atmospheric Administration

Committee for Purchase From People Who Are Blind or Severely Disabled
NOTICES
Procurement list; additions and deletions, 28194–28195

Commodity Credit Corporation
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28193–28194

Consumer Product Safety Commission
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28198–28199

Corporation for National and Community Service
NOTICES
Meetings:
Civilian Community Corps Advisory Board, 28199

Customs and Border Protection Bureau
NOTICES
Uruguay Round Agreements Act:
Foreign enitites violating textile transshipment and country of origin rules; list, 28238–28239

Defense Department
See Army Department
See Engineers Corps
See Navy Department
RULES
Freedom of Information Act; implementation:
National Security Agency/Central Security Service Freedom of Information Act Program, 28132–28138
PROPOSED RULES
Acquisition regulations:
Information assurance, 28187–28188

Economic Development Administration
NOTICES
Grants and cooperative agreements; availability, etc.:
University research parks, 28671–28675

Economics and Statistics Administration
NOTICES
Committees; establishment, renewal, termination, etc.:
Decennial Census Advisory Committee, 28195–28196

Education Department
NOTICES
Grants and cooperative agreements; availability, etc.:
Elementary and secondary education—
Safe and Drug-Free Schools; Cooperative Civic Education and Economic Education Exchange Program, 28201–28203

Employment and Training Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals; correction, 28297

Employment Standards Administration
NOTICES
Minimum wages for Federal and federally-assisted construction; general wage determination decisions, 28297–28298

Energy Department
See Energy Information Administration
See Federal Energy Regulatory Commission
NOTICES
Floodplain and wetlands protection; environmental review determinations; availability, etc.:
Moab Project Site, Colorado River, UT, 28203–28204
Meetings:
International Energy Agency Industry Advisory Board, 28204

Energy Information Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28204–28206

Engineers Corps
NOTICES
Environmental statements; notice of intent:
Houma Navigation Canal, LA; deepening feasiblity study, 28200

Environmental Protection Agency
RULES
Air pollutants, hazardous; national emission standards:
Metal furniture surface coating operations, 28605–28646
PROPOSED RULES
Air pollution control; new motor vehicles and engines:
Nonroad diesel engines and fuel; emissions standards, 28327–28603
NOTICES
Air quality; prevention of significant deterioration (PSD):
North Dakota and Montana; Class I increment consumption; dispersion modeling analysis, 28211–28212
Environmental statements; availability, etc.:
Agency statements—
Comment availability, 28213–28214
Weekly receipts, 28212–28213
Meetings:
Association of American Pesticide Control Officials/State FIFRA Issues Research and Evaluation Group, 28214–28215
Science Advisory Board, 28215–28216
Pesticide, food, and feed additive petitions:
ISK Biosciences Corp., 28218–28222
Pesticide programs:
Risk assessments; availability, etc.—
MGK Repellent 326, 28216–28218
Superfund; response and remedial actions, proposed settlements, etc.:
Central Steel Drum Site, NJ, 28222

Federal Aviation Administration
RULES
Airworthiness directives:
Airbus, 28119–28121
Class E2 airspace, 28128
Class E5 airspace, 28128–28129
Class E airspace, 28121–28128
PROPOSED RULES
Air traffic operating and flight rules, etc.:
Supersonic aircraft noise; technical information request; workshop, 28181–28182
Airworthiness directives:
Bombardier, 28177–28179
McDonnell Douglas, 28175–28177
Federal airways, 28179–28181
NOTICES
Advisory circulars; availability, etc.:
Transport category airplanes—
Flight in icing conditions; certification, 28315–28316
Passenger facility charges; applications, etc.:
Lebanon Municipal Airport, NH, 28316
San Antonio International Airport, TX, 28317

Federal Communications Commission
RULES
Radio stations; table of assignments:
Texas, 28138–28139
Television broadcasting:
Cable television systems—
Cable television relay service; eligibility requirements, 28139
PROPOSED RULES
Radio frequency devices:
Broadband power line systems, 28182–28186
Radio stations; table of assignments:
New York, 28186–28187
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28223–28224

Federal Emergency Management Agency
NOTICES
Disaster and emergency areas:
Alabama, 28239–28240
Kansas, 28240
Maine, 28240
Mississippi, 28240–28241
Missouri, 28241
Oklahoma, 28241
Tennessee, 28241–28242

Federal Energy Regulatory Commission
NOTICES
Electric rate and corporate regulation filings:
Tri-State Power, LLC, et al., 28210–28211

Oil pipelines:
Producer Price Index for Finished Goods; annual change, 28211
Applications, hearings, determinations, etc.:
Alliance Pipeline L.P., 28206–28207
Blumenthal, Richard, Connecticut state attorney general, et al., 28207–28208
Central New York Oil & Gas Co., LLC, 28208–28209
Colorado Interstate Gas Co., 28209
Dominion Transmission, Inc., 28209
Northern Natural Gas Co., 28209
Tractebel Energy Marketing, Inc., 28210

Federal Reserve System
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28224–28226
Banks and bank holding companies:
Formations, acquisitions, and mergers, 28226
Permissible nonbanking activities, 28226–28227

Fish and Wildlife Service
PROPOSED RULES
Endangered and threatened species:
California tiger salamander, 28647–28670
NOTICES
Meetings:
Sport Fishing and Boating Partnership Council, 28248–28249

Food and Drug Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28235–28237
Reports and guidance documents; availability, etc.:
U.S. dairy product manufacturers/processors with interest in exporting to Chile; list establishment and maintenance, 28237–28238

Forest Service
NOTICES
Meetings:
Black Hills National Forest Advisory Board, 28194

Health and Human Services Department
See Agency for Toxic Substances and Disease Registry
See Centers for Disease Control and Prevention
See Children and Families Administration
See Food and Drug Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28227–28228
Grants and cooperative agreements; availability, etc.:
Family planning; male reproductive health research; correction, 28228

Homeland Security Department
See Customs and Border Protection Bureau
See Federal Emergency Management Agency
See Transportation Security Administration

Housing and Urban Development Department
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28243–28244
Grants and cooperative agreements; availability, etc.:
Facilities to assist homeless—
Excess and surplus Federal property, 28244–28248

Industry and Security Bureau
NOTICES
Export transactions:
List of unverified persons in foreign countries, guidance to exporters as to ''red flags'' (Supplement No. 3 to 15 CFR 732); correction, 28325

Interior Department
See Fish and Wildlife Service
See Land Management Bureau

Internal Revenue Service
NOTICES
Meetings:
Taxpayer Advocacy Panels, 28323

International Trade Administration
NOTICES
Antidumping:
Fresh Atlantic salmon from—
Chile, 28196–28197
Applications, hearings, determinations, etc.:
North Carolina State University et al., 28197–28198

International Trade Commission
NOTICES
Import investigations:
4,4'-diamino-2,2'-stilbenedisulfonic acid chemistry from—
Various countries, 28252–28253
Durum and hard red spring wheat from—
Canada, 28253–28254
Lens-fitted film packages, 28254–28255
Refined brown aluminum oxide from—
China, 28255–28256
Reports and guidance documents; availability, etc.:
Administrative Protective Orders; summary of commission practice, 28256–28263

Justice Department
See Antitrust Division
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28263–28264

Labor Department
See Employment and Training Administration
See Employment Standards Administration
See Mine Safety and Health Administration
See Occupational Safety and Health Administration
NOTICES
Organization, functions, and authority delegations:
Chief Information Officer, 28677–28686

Land Management Bureau
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28249–28250
Environmental statements; availability, etc.:
Nevada Test and Training Range Resource Area, NV, 28250
Survey and Manage mitigation measure standards and guidelines; removal or modification, 28251
Withdrawal and reservation of lands:
Idaho, 28251–28252

Maritime Administration
NOTICES
Coastwise trade laws; administrative waivers:
ARC TIME, 28317–28318
INTERNATIONAL HARVESTER, 28318
ISLAND TIME, 28318
KEY PLAYER, 28318–28319
LA LUNA, 28319
SURPRISE, 28319–28320
YES DEAR! II, 28320

Mine Safety and Health Administration
NOTICES
Safety standard petitions:
CONSOL of Kentucky et al., 28298

National Institute of Standards and Technology
NOTICES
Meetings:
Advanced Technology Visiting Committee, 28198

National Oceanic and Atmospheric Administration
PROPOSED RULES
Fishery conservation and management:
Northeastern United States fisheries—
Northeast multispecies, 28188–28189

Navy Department
NOTICES
Inventions, Government-owned; availability for licensing, 28200
Patent licenses; non-exclusive, exclusive, or partially exclusive:
Harbor Offshore, Inc., 28200–28201

Neighborhood Reinvestment Corporation
NOTICES
Meetings; Sunshine Act, 28300

Nuclear Regulatory Commission
NOTICES
Applications, hearings, determinations, etc.:
Entergy Nuclear Operations, Inc., 28300–28301

Occupational Safety and Health Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28299–28300

Postal Service
NOTICES
Meetings; Sunshine Act, 28301

Railroad Retirement Board
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28301–28302

Securities and Exchange Commission
NOTICES
Meetings; Sunshine Act, 28302
Self-regulatory organizations; proposed rule changes:
American Stock Exchange LLC, 28302–28312
National Association of Securities Dealers, Inc., 28312–28313

State Department
RULES
Visas; nonimmigrant documentation:
Student and Exchange Visitor Information System, 28129–28132
NOTICES
Art objects; importation for exhibition:
Hendrick Goltzius, Dutch Master (1558-1617): Drawings, Prints and Paintings, 28313–28314
Meetings:
Shipping Coordinating Committee, 28314
Missile technology proliferation activities; sanctions:
North China Industries Corp., 28314–28315
Shahid Hemmat Industrial Group, 28315

Surface Transportation Board
RULES
Railroad consolidations, mergers, and acquisitions of control:
Temporary trackage rights exemption, 28139–28140
NOTICES
Rail carriers:
District of Columbia; railroad agent designation requirement; exemption; withdrawal and policy statement, 28320–28322

Thrift Supervision Office
NOTICES
Applications, hearings, determinations, etc.:
Community First Bancorp., Inc., et al., 28323
Jefferson Bancshares, MHC, et al., 28324

Toxic Substances and Disease Registry Agency
See Agency for Toxic Substances and Disease Registry

Transportation Department
See Federal Aviation Administration
See Maritime Administration
See Surface Transportation Board

Transportation Security Administration
NOTICES
Agency information collection activities; proposals, submissions, and approvals, 28242–28243

Treasury Department
See Internal Revenue Service
See Thrift Supervision Office
NOTICES
Organization, functions, and authority delegations:
Homeland Security Secretary, 28322–28323

Separate Parts In This Issue

Part II
Environmental Protection Agency, 28327–28603

Part III
Environmental Protection Agency, 28605–28646

Part IV
Interior Department, Fish and Wildlife Service, 28647–28670

Part V
Commerce Department, Economic Development Administration, 28671–28675

Part VI
Labor Department, 28677–28686

Reader Aids
Consult the Reader Aids section at the end of this issue for phone numbers, online resources, finding aids, reminders, and notice of recently enacted public laws.

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CFR PARTS AFFECTED IN THIS ISSUE

A cumulative list of the parts affected this month can be found in the Reader Aids section at the end of this issue.

7 CFR
300 28111
318 (2 documents) 28111, 28114
319 (2 documents) 28114, 28115

Proposed Rules:
51 28141
301 28157
319 (2 documents) 28157, 28161

9 CFR

Proposed Rules:
71 28167
82 28169
145 28169
147 28169

14 CFR
39 28119
71 (11 documents) 28121, 28122, 28123, 28124, 28125, 28126, 28127, 28128

Proposed Rules:
39 (2 documents) 28175, 28177
71 28179
91 28181

22 CFR
41 28129

32 CFR
299 28132
574 28138

40 CFR
63 28606

Proposed Rules:
69 28328
80 28328
89 28328
1039 28328
1065 28328
1068 28328

47 CFR
73 28138
78 28139

Proposed Rules:
15 28182
73 28186

48 CFR

Proposed Rules:
239 28187
252 28187

49 CFR
1180 28139

50 CFR

Proposed Rules:
17 28648
648 28188

Rules and Regulations

Federal Register
Vol. 68, No. 100
Friday, May 23, 2003

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

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DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Parts 300 and 318

[Docket No. 02–026–5]

Hot Water Dip Treatment for Mangoes

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Final rule.

SUMMARY: We are amending the Plant Protection and Quarantine Treatment Manual, which is incorporated by reference into the Code of Federal Regulations, by amending the hot water dip treatment schedule for rounded varieties of mangoes from Mexico, Central America, Puerto Rico, the U.S. Virgin Islands, and the West Indies to provide for the treatment of mangoes weighing between 701 and 900 grams. Because that hot water dip treatment schedule previously provided only for the treatment of mangoes weighing up to 700 grams, this action will provide for the importation or interstate movement of larger rounded-variety mangoes from Mexico, Central America, Puerto Rico, the U.S. Virgin Islands, and the West Indies. We are also making other changes to the treatment schedule, including the extension of the treatment time if the mangoes are to be hydrocooled within 30 minutes of the treatment.

DATES: This regulation is effective May 23, 2003. The incorporation by reference of the material described in the rule is approved by the Director of the Federal Register as of May 23, 2003.

FOR FURTHER INFORMATION CONTACT: Dr. Inder P. Gadh, Import Specialist, Phytosanitary Issues Management Team, PPQ, APHIS, 4700 River Road Unit 140, Riverdale, MD 20737–1236; (301) 734–6799.

SUPPLEMENTARY INFORMATION:

Background

To prevent the introduction into, and the dissemination within, the United States of plant pests, the Animal and Plant Health Inspection Service (APHIS) restricts the importation and interstate movement of many articles, including fruits. As a condition of importation or interstate movement, some fruits are required to be treated for plant pests in accordance with our regulations in title 7, chapter III, of the Code of Federal Regulations (7 CFR parts 300 to 399). The Plant Protection and Quarantine (PPQ) Treatment Manual contains approved treatment schedules and is incorporated by reference into the regulations at 7 CFR 300.1.

On January 2, 2003, we published a proposed rule in the **Federal Register** (68 FR 69–71, Docket No. 02–026–3) to amend the PPQ Treatment Manual to provide for the treatment of rounded mangoes from Mexico or Central America weighing from 701 to 900 grams. We also proposed to make other changes to the treatment schedule, including extending the treatment time for mangoes that would be hydrocooled within 30 minutes of treatment.

We solicited comments concerning our proposal for 45 days ending February 18, 2003. We received 11 comments by that date. They were from growers, a student, and State Government representatives. Nine commenters supported our proposal, although two of the nine raised issues concerning the proposed rule; the remaining two commenters voiced objections to the proposal. The issues raised by the commenters are discussed below.

Comment: Large mangoes, like the mangoes discussed in the proposed rule, are also grown in Puerto Rico. Will growers in Puerto Rico be able to use the amended treatment schedule to qualify their large mangoes for movement?

Response: As noted in the proposed rule, the duration of the hot water dip treatment is determined based on the origin, shape, and weight of the mangoes. Three tables, sorted by region of origin, are provided under treatment T102-a: Table 5–2–1 for Puerto Rico, U.S. Virgin Islands, or West Indies (excluding Aruba, Bonaire, Curacao, Margarita, Tortuga or Trinidad and Tobago); table 5–2–2 for Mexico or Central America (north of and including Costa Rica); and table 5–2–3 for Panama, South America, or West Indies islands of Aruba, Bonaire, Curacao, Margarita, Tortuga, or Trinidad and Tobago.

Because the proposed rule was prompted by a request from producers in Mexico, we had proposed to include the treatment for rounded variety mangoes weighing between 701 and 900 grams in table 5–2–2 only (*i.e.*, for mangoes from Mexico or Central America). However, based on this comment, we have carefully evaluated the available research and have determined that the same treatment schedule for rounded variety mangoes weighing between 701 and 900 grams can also address the risks presented by such mangoes produced in Puerto Rico, the U.S. Virgin Islands, or the West Indies. Therefore, in this final rule, we have also amended table 5–2–1 under treatment schedule T102-a to provide for the treatment of rounded variety mangoes weighing between 701 and 900 grams from Puerto Rico, the U.S. Virgin Islands, or the West Indies.

The regulations in § 318.58–2(b) of ''Subpart—Fruits and Vegetables from Puerto Rico or Virgin Islands'' contain a 700-gram limit on the size of mangoes that are eligible for movement if they meet certain conditions, which include treatment in accordance with the PPQ Treatment Manual. Because that limitation was based on the size limitation in the PPQ Treatment Manual, we are also amending § 318.58–2(b) in this final rule to reflect the availability of the treatment of mangoes weighing up to 900 grams.

Comment: Since the Commonwealth of Puerto Rico is a mango producer and a territory of the United States, Puerto Rico's mango production should have been reflected in the discussion of U.S. production contained in the proposed rule's regulatory flexibility analysis. Mangoes grown in Puerto Rico are shipped to the mainland United States, exported, or sold locally in Puerto Rico.

Response: The commenter is correct that we should have included data on Puerto Rico's mango production in our economic analysis. In addition, we should have considered Guam, the Northern Mariana Islands, and the U.S. Virgin Islands. We have adjusted the information presented under ''Executive Order 12866 and Regulatory Flexibility Act'' in this final rule to include available data concerning mango

production in Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. According to the country notes for the data we used from the Food and Agriculture Organization (FAO) of the United Nations, the data for U.S. exports and imports includes Puerto Rico and the U.S. Virgin Islands. According to these data, however, there were no U.S. exports.

Comment: The hot water dip treatment should be approved only for use against the Mexican fruit fly (*Anastrepha ludens*) because the research performed by the U.S. Department of Agriculture's Agricultural Research Service (ARS) was limited to that species. Prior research has shown that the West Indian fruit fly (*A. obliqua*) is more heat tolerant than the Mexican fruit fly. No information was provided on the heat tolerances for other important *Anastrepha* species, including *A. fraterculus*, *A. striata*, and *A. serpentina.*

Response: While the research that ARS conducted was limited to the Mexican fruit fly, we disagree that the treatment of mangoes should be approved only for the Mexican fruit fly. The genus *Anastrepha* contains at least 150 species or strains, and it would be impractical for us to test them all, especially when other scientific research would preclude the need for such testing. The specific fruit flies of concern in Mexico and Central America are *A. ludens*, *A. obliqua*, *A. serpentina*, *A. striata*, and the Mexican and Central American populations of the *A. fraterculus* species complex. In Puerto Rico, the U.S. Virgin Islands, and the West Indies, the fruit flies of concern are *A. suspensa* and *A. obliqua.* We have carefully reviewed the available research on this topic and have determined that the hot water dip treatment can be used to mitigate the risk of fruit flies associated with rounded mangoes weighing from 701 and 900 grams from Mexico, Central America, Puerto Rico, the U.S. Virgin Islands, and the West Indies.

We agree with the commenter that an earlier study (Sharp *et al.* [1989a. J. Econ. Entomol. 82(6) 1657–1662]) had shown the West Indian fruit fly to be more heat tolerant than the Mexican fruit fly. These results were likely influenced by the stage of larva used in the study. It is likely that early third-instar larvae were used instead of late third-instar larvae; late third-instar larvae appear to tolerate heat better than the younger larva. In a subsequent study using a number of isolates and late third-instar larvae, ARS research concluded the Mexican fruit fly to be consistently more heat tolerant than the West Indian fruit fly, especially when heat treated for 75 minutes or longer. These results became the basis for their later research on large mangoes.

Comment: The recurring breakdown in treatment compliance at several hot water treatment facilities in Mexico reinforces the need for APHIS to upgrade its oversight and monitoring of hot water dip treatments and other similar treatments. APHIS should provide timely written reports on compliance to States and other interested parties.

Response: We believe that our oversight and notification procedures are adequate and responsive. APHIS routinely maintains oversight of treatment programs. For mangoes produced in Mexico for export to the United States, we monitor trapping and controls in orchards, cut and inspect fruit prior to treatment, directly supervise all treatments, and inspect the mangoes upon their arrival at ports of entry. Further, box marking requirements allow us to trace mangoes back to their production area. When pests are intercepted following treatment, APHIS investigates possible causes and responds appropriately. Our response includes increasing our oversight for as long as necessary and, depending on the specific situation, could extend to rejecting shipments or terminating the preclearance program at a treatment facility. Although we do not routinely notify States and other interested parties of all compliance issues, we notify appropriate representatives of significant compliance problems, including when live fruit flies are found.

Comment: During 2 consecutive years (2001 and 2002), State personnel in California intercepted live *Anastrepha* larvae in mangoes imported from Mexico that were certified as having been treated according to the protocol. California officials have not yet been informed of the reason for this program failure.

Response: Our investigations into the fruit fly interceptions in 2001 and 2002 in treated mangoes from Mexico revealed two possible explanations for the presence of larvae in the mangoes. First, we believe the fruit may have been hydrocooled immediately after the authorized hot water treatment, with no adjustment to the dip time. Recent research conducted by ARS indicates that extending the dip time by 10 minutes for mangoes that will be hydrocooled within 30 minutes of removal from the hot water immersion tank compensates for any reduction in efficacy when hydrocooling is used. (Copies of the ARS report are available by contacting the person listed under **FOR FURTHER INFORMATION CONTACT.**) We believe that the 10-minute extension of the dip time for mangoes that will be hydrocooled within 30 minutes of their removal from the hot water immersion tank addresses past failures associated with hydrocooling.

The second possibility is that the mangoes were misrepresented as originating from a registered orchard. If the mangoes did originate from an unregistered orchard, then it is possible that they originated from an orchard with an uncontrolled population of fruit flies, which could lower the effectiveness of the hot water dip treatment. In response to this possibility, APHIS increased its monitoring, rejected shipments, and terminated the preclearance program at the particular treatment facility until APHIS determined that appropriate remedial actions had been taken to allow the treatment facility to resume its operation.

Comment: Is irradiation approved as an alternative treatment to the hot water dip treatment, or is additional research necessary to determine whether larger mangoes can undergo irradiation as an alternative to the hot water dip treatment?

Response: Irradiation treatment could be used as an alternative to the hot water dip treatment for mangoes if the applicable provisions of the regulations in 7 CFR 305.2 have been met. According to § 319.56–2(k) of ''Subpart—Fruits and Vegetables,'' treatment by irradiation in accordance with § 305.2 may be substituted for treatments in the PPQ Treatment Manual for the mango seed weevil *Sternochetus mangiferae* (Fabricus) or for one or more of the following 11 species of fruit flies: *A. fraterculus*, *A. ludens*, *A. obliqua*, *A. serpentina*, *A. suspensa*, *Bactrocera cucurbitae*, *B. dorsalis*, *B. tryoni*, *B. jarvisi*, *B. latifrons*, and *Ceratitis capitata.* Because the ARS conducted exhaustive research to determine appropriate commodity-generic irradiation dose rates for certain pests, additional research would not be needed in order for irradiation to be used as an approved treatment for rounded mangoes weighing from 701 to 900 grams.

Miscellaneous

In addition to the changes discussed previously, we are also amending § 318.58(a) to replace the obsolete scientific name ''*A. mombinpraeoptans* Sein'' with ''*A. obliqua.*''

Therefore, for the reasons given in the proposed rule and in this document, we

are adopting the proposed rule as a final rule, with the changes discussed in this document.

Effective Date

This is a substantive rule that relieves restrictions and, pursuant to the provisions of 5 U.S.C. 553, may be made effective less than 30 days after publication in the **Federal Register**.

Immediate implementation of this rule is necessary to provide relief to those persons who are adversely affected by restrictions we no longer find warranted. The shipping season for mangoes from Mexico, Central America, Puerto Rico, the U.S. Virgin Islands, and the West Indies is in progress. Making this rule effective immediately will allow interested producers and others in the marketing chain to benefit during this year's shipping season. Therefore, the Administrator of the Animal and Plant Health Inspection Service has determined that this rule should be effective upon publication in the **Federal Register**.

Executive Order 12866 and Regulatory Flexibility Act

This rule has been reviewed under Executive Order 12866. For this action, the Office of Management and Budget has waived its review process under Executive Order 12866.

We are amending the PPQ Treatment Manual, which is incorporated by reference at 7 CFR 300.1, to provide for the treatment of rounded-variety mangoes from Mexico, Central America, Puerto Rico, the U.S. Virgin Islands, and the West Indies weighing between 701 and 900 grams. Prior to this rule, the approved hot water dip treatment for mangoes from Mexico, Central America, Puerto Rico, the U.S. Virgin Islands, and the West Indies was limited to mangoes weighing 700 grams or less.

According to FAO, U.S. production of mangoes is supplemented with mango imports in order to satisfy the domestic demand, and that demand appears to be increasing:

PRODUCTION, IMPORT, AND EXPORT DATA FOR MANGOES FROM THE UNITED STATES, MEXICO, CENTRAL AMERICA, AND WEST INDIES [1]

[In metric tons]

Country and activity	1997	1998	1999	2000
U.S. production (includes Puerto Rico and Guam)	20,145	20,145	20,145	20,145
U.S. exports (includes Puerto Rico and U.S. Virgin Islands)	0	0	0	0
U.S. imports (includes Puerto Rico and U.S. Virgin Islands)	186,520	197,393	219,144	235,080
Mexico production	1,500,317	1,473,852	1,508,468	1,559,351
Mexico exports	187,127	209,426	204,002	206,782
Central America production	1,712,251	1,686,828	1,728,457	1,787,151
Central America exports	204,177	225,406	220,595	228,653
West Indies production	434,151	449,444	445,397	470,747
West Indies exports	12,451	8,523	10,828	12,029

[1] Includes Antigua and Barbuda, Cayman Islands, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Saint Lucia, and Saint Vincent/Grenadines.

Although FAO production data for mangoes were not available for the U.S. Virgin Islands and the Northern Mariana Islands, data were reported in the 1998 Census of Agriculture. In 1998, the U.S. Virgin Islands harvested 61,621 pounds (approximately 28 metric tons), and the Northern Mariana Islands harvested 3,940 pounds (approximately 1.79 metric tons). FAO data were not available for imports and exports of mangoes into and from Guam or the Northern Mariana Islands.

U.S. mango imports are far greater than domestic production. U.S. production of mangoes has primarily been in Puerto Rico and southern Florida, with lesser quantities grown in California, Guam, Hawaii, the Northern Mariana Islands, and the U.S. Virgin Islands. According to the 1997 Census of Agriculture, there were 218 mango farms in Florida, 171 in Hawaii, and 2 in California. According to the 1998 Census of Agriculture, there were 255 mango farms in Puerto Rico, 163 in the U.S. Virgin Islands, 36 in Guam, and 14 in the Northern Mariana Islands.

The Regulatory Flexibility Act requires that agencies consider the economic effects of their rules on small entities. Whether affected entities may be considered small in this case depends on their annual gross receipts. Annual receipts of $750,000 or less is the small entity criterion set by the Small Business Administration for establishments primarily engaged in ''other noncitrus fruit farming'' (North American Industry Classification System code 111339). It is likely that most, if not all, mango producers in the United States are small entities. However, because the U.S. production of mangoes is supplemented with imports in order to satisfy the demand, we do not expect this rule will have a significant economic effect on domestic producers, large or small.

Mango producers in Puerto Rico and Florida contribute to the bulk of the mango production in the United States and are the entities more likely to be affected by this rule. Mangoes grown in Puerto Rico are shipped to the contiguous United States, exported, or sold locally. By providing for the treatment of larger mangoes produced in Puerto Rico, this rule may increase opportunities for producers there to ship additional fruit to mainland U.S. markets, but we are unable to predict the number of producers affected, or the extent to which those producers will be affected, by this rule.

According to information provided by the University of Florida's Institute of Food and Agricultural Sciences (IFAS), about 10 to 15 growers manage the bulk of the producing mango acreage in Florida. According to IFAS, about 25 percent of Florida growers produce mangoes alone, while the remaining 75 percent are diversified operations growing other tropical fruits in addition to mangoes. Florida growers occupy niche markets in the State by providing green fruit for processing into chutney and other products and by providing fresh, untreated, tree-ripened fruit for consumption. The availability of larger mangoes from Mexico and Central America in the larger U.S. market is expected to have little to no impact on Florida producers who occupy those niche markets, as producers in Mexico and Central America are not expected to be shipping green fruit for processing and would be unable to provide untreated, tree-ripened fruit to U.S. markets.

The availability of a treatment for larger mangoes of the rounded varieties

is not expected to significantly affect U.S. mango producers, as the amount of those larger mangoes likely to be imported from Mexico, Central America, and the West Indies would represent a fraction of current import levels. These markets are unlikely to be affected by the availability of larger mangoes from Mexico, Central America, and the West Indies. Therefore, we do not expect that the economic effects of this rule on U.S. entities, large or small, will be significant.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action will not have a significant economic impact on a substantial number of small entities.

Executive Order 12988

This rule has been reviewed under Executive Order 12988, Civil Justice Reform. This rule: (1) Preempts all State and local laws and regulations that are inconsistent with this rule; (2) has no retroactive effect; and (3) does not require administrative proceedings before parties may file suit in court challenging this rule.

Paperwork Reduction Act

This final rule contains no new information collection or recordkeeping requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects

7 CFR Part 300

Incorporation by reference, Plant diseases and pests, Quarantine.

7 CFR Part 318

Cotton, Cottonseeds, Fruits, Guam, Hawaii, Plant diseases and pests, Puerto Rico, Quarantine, Transportation, Vegetables, Virgin Islands.

■ Accordingly, 7 CFR parts 300 and 318 are amended as follows:

PART 300—INCORPORATION BY REFERENCE

■ 1. The authority citation for part 300 continues to read as follows:

Authority: 7 U.S.C. 7701–7772; 7 CFR 2.22, 2.80, and 371.3.

■ 2. In § 300.1, paragraph (a) is amended as follows:

■ a. In paragraph (a)(4), by removing the word ''and''.

■ b. In paragraph (a)(5), by removing the period and adding the word ''; and'' in its place.

■ c. By adding a new paragraph (a)(6) to read as follows:

§ 300.1 Plant Protection and Quarantine Treatment Manual.

(a) * * *

(6) Treatment T102–a, dated March 2003.

* * * * *

PART 318—HAWAIIAN AND TERRITORIAL QUARANTINE NOTICES

■ 3. The authority citation for part 318 continues to read as follows:

Authority: 7 U.S.C. 7711, 7712, 7714, 7731, 7754, and 7756; 7 CFR 2.22, 2.80, and 371.3.

§ 318.58 [Amended]

■ 4. In § 318.58, paragraph (a) is amended by removing the words ''*mombinpraeoptans* Sein'' and adding the word ''*obliqua*'' in their place.

§ 318.58–2 [Amended]

■ 5. In § 318.58–2, paragraph (b)(1), the entry for mangoes is amended by removing the words ''no larger than size 8 (no more than 700 g each)'' and adding the words ''no larger than 900 grams each'' in their place.

Done in Washington, DC, this 16th day of May, 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12986 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Parts 318 and 319

[Docket No. 00–059–2]

Movement and Importation of Fruits and Vegetables

AGENCY: Animal and Plant Health Inspection Service.

ACTION: Affirmation of interim rule as final rule.

SUMMARY: We are adopting as a final rule, without change, an interim rule that amended the regulations that govern the movement of fruits and vegetables from Puerto Rico and the U.S. Virgin Islands to require the treatment of pigeon peas (fresh shelled or in the pod) from Puerto Rico for movement into any other area of the United States. In addition, we amended the regulations that govern the importation of fruits and vegetables to require the treatment of pigeon peas (fresh shelled or in the pod) from the Dominican Republic imported into any area of the United States except Puerto Rico, and to prohibit the importation of mangoes from the British Virgin Islands into the U.S. Virgin Islands. These actions were necessary to prevent the introduction and dissemination of plant pests that are new to or not widely distributed within the United States.

DATES: The interim rule became effective January 21, 2003.

FOR FURTHER INFORMATION CONTACT: Mr. Hesham A. Abuelnaga, Import Specialist, Phytosanitary Issues Management Team, PPQ, APHIS, 4700 River Road Unit 140, Riverdale, MD 20737–1236; (301) 734–5334.

SUPPLEMENTARY INFORMATION:

Background

The regulations in ''Subpart—Fruits and Vegetables from Puerto Rico or Virgin Islands'' (7 CFR 318.58 through 318.58–16) are designed to prevent the dissemination of plant pests, including diseases, from Puerto Rico and the U.S. Virgin Islands into other parts of the United States. The regulations in ''Subpart—Fruits and Vegetables'' (7 CFR 319.56 through 319.56–8) prohibit or restrict the importation of fruits and vegetables into the United States from certain parts of the world to prevent the introduction and dissemination of plant pests that are new to or not widely distributed within the United States.

In an interim rule effective and published in the **Federal Register** on January 21, 2003 (68 FR 2681–2684, Docket No. 00–059–1), we amended the regulations in ''Subpart—Fruits and Vegetables from Puerto Rico or Virgin Islands'' to require the treatment of pigeon peas (fresh shelled or in the pod) from Puerto Rico for movement into any other area of the United States, including the U.S. Virgin Islands. (The **Federal Register** published a correction (68 FR 6544) to the interim rule on February 7, 2003.) In addition, we amended the regulations in ''Subpart—Fruits and Vegetables'' to require the treatment of pigeon peas (fresh shelled or in the pod) from the Dominican Republic for importation into any area of the United States, except Puerto Rico, and to prohibit the importation of mangoes from the British Virgin Islands into the U.S. Virgin Islands. These actions were necessary to protect the United States from the introduction or spread of injurious plant pests.

Comments on the interim rule were required to be received on or before March 24, 2003. We did not receive any comments. Therefore, for the reasons given in the interim rule, we are adopting the interim rule as a final rule.

This action also affirms the information contained in the interim

rule concerning Executive Order 12866 and the Regulatory Flexibility Act, Executive Order 12988, and the Paperwork Reduction Act.

Further, for this action, the Office of Management and Budget has waived its review under Executive Order 12866.

List of Subjects

7 CFR Part 318

Cotton, Cottonseeds, Fruits, Guam, Hawaii, Plant diseases and pests, Puerto Rico, Quarantine, Transportation, Vegetables, Virgin Islands.

7 CFR Part 319

Bees, Coffee, Cotton, Fruits, Honey, Imports, Logs, Nursery stock, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements, Rice, Vegetables.

PART 318—HAWAIIAN AND TERRITORIAL QUARANTINE NOTICES

PART 319—FOREIGN QUARANTINE NOTICES

■ Accordingly, we are adopting as a final rule, without change, the interim rule that amended 7 CFR parts 318 and 319 and that was published at 68 FR 2681–2684 on January 21, 2003.

Authority: 7 U.S.C. 450, 7711–7714, 7718, 7731, 7732, 7751–7754, 7756, and 7760; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

Done in Washington, DC, this 16th day of May, 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12984 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Part 319

[Docket No. 03–019–1]

Additional Declaration for Imported Articles of *Pelargonium* spp. and *Solanum* spp. To Prevent Introduction of Potato Brown Rot

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Interim rule and request for comments.

SUMMARY: We are amending the regulations to require that an additional declaration appear on the phytosanitary certificate that must accompany all articles of *Pelargonium* spp. and *Solanum* spp. imported into the United States, except those imported under the Canadian greenhouse-grown restricted plant program. The additional declaration must state either that the articles of *Pelargonium* spp. and *Solanum* spp. were produced in a production facility that has been tested and found to be free of *Ralstonia solanacearum* race 3 biovar 2 or that *Ralstonia solanacearum* race 3 biovar 2 is not known to occur in the region in which the articles were produced. We have recently discovered that articles of *Pelargonium* spp. and *Solanum* spp. imported into the United States pose a risk of carrying this bacterial strain, which causes potato brown rot. This action is necessary to prevent the introduction of this bacterial strain into the United States.

DATES: This interim rule was effective May 16, 2003. We will consider all comments that we receive on or before July 22, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 03–019–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 03–019–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 03–019–1'' on the subject line.

You may read any comments that we receive on this docket in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Mr. William Thomas, Import Specialist, Phytosanitary Issues Management Team, PPQ, APHIS, 4700 River Road, Unit 140, Riverdale, MD 20737–1236; (301) 734–5214.

SUPPLEMENTARY INFORMATION:

Background

The regulations in 7 CFR part 319 prohibit or restrict the importation of certain plants and plant products into the United States to prevent the introduction of plant pests. The regulations contained in ''Subpart—Nursery Stock, Plants, Roots, Bulbs, Seeds, and Other Plant Products,'' §§ 319.37 through 319.37–14 (referred to below as the regulations), restrict, among other things, the importation of living plants, plant parts, seeds, and plant cuttings for propagation.

Nursery stock, plants, and other propagative plant material that cannot be feasibly inspected, treated, or handled to prevent them from introducing plant pests new to or not known to be widely prevalent in or distributed within and throughout the United States are listed in the regulations as prohibited articles. Prohibited articles may not be imported into the United States, unless imported by the U.S. Department of Agriculture (USDA) for experimental or scientific purposes under specified safeguards.

Nursery stock, plants, and other propagative plant material that can be inspected, treated, or handled to prevent them from spreading plant pests are listed in the regulations as restricted articles. Under § 319.37–4 of the regulations, any restricted article offered for importation into the United States must be accompanied by a phytosanitary certificate of inspection or, in the case of greenhouse-grown plants from Canada imported in accordance with the greenhouse-grown restricted plant program described in § 319.37–4(c), a certificate of inspection in the form of a label. Other restrictions may apply to specific restricted articles under the regulations, including permit requirements, inspection, treatment, or postentry quarantine.

Tuber-bearing *Solanum* spp. from all regions except certain regions of Canada are prohibited from entering the United States in § 319.37–2, due to the presence of various potato diseases in the rest of the world. However, prior to the publication of this interim rule, the only restriction on the importation of articles of *Pelargonium* spp. (geraniums) and other articles of the genus *Solanum* (which includes eggplants, weeds such as nightshade, shrubs, vines, huckleberry plants, and other garden plants) other than the certification requirements of § 319.37–4 noted previously was that lots of 13 or more of such articles could only be imported or offered for importation into the United States after issuance of a written

permit by the Plant Protection and Quarantine (PPQ) program of USDA's Animal and Plant Health Inspection Service (APHIS) under § 319.37–3(a)(5).

It has recently come to our attention that articles of *Pelargonium* spp. and *Solanum* spp. can serve as vectors for the transmission of potato brown rot. Potato brown rot is caused by a bacterium, *Ralstonia solanacearum;* race 3 of this bacterium affects the potato (*Solanum tuberosum L.*). This bacterium is widely distributed in temperate areas of the world, including some parts of the United States. It causes potatoes to rot through, making them unusable and seriously affecting potato yields. The bacterium is extremely difficult to eradicate both because of its many alternate hosts and because of its ability to survive in water. Letting an infected field lie fallow or using alternate, non-potato crops for a growing season is not effective, as the bacterium survives in various common weeds, including *Solanum* species such as nightshade. The bacterium can also be transmitted from infected fields to other fields by streams and runoff.

At least three biovars of *R. solanacearum* race 3 are distinguished on the basis of biochemical properties. Biovar 1, which is currently established in the United States, does not tolerate cold temperatures; its establishment is thus limited to the southern part of the United States. However, biovar 2, which is not present in the United States, is adapted to low temperatures and is found in temperate zones, meaning that it could thrive in the northern States where most U.S. potatoes are produced.

Because of the danger *R. solanacearum* race 3 biovar 2 poses to U.S. potatoes, it is listed in our regulations in 7 CFR 331.3(a) as a biological agent capable of posing a severe threat to plant health or plant products; accordingly, the possession, use, and transfer of *R. solanacearum* race 3 biovar 2 is subject to the restrictions in part 331. If *R. solanacearum* race 3 biovar 2 were to become established in the United States, it would likely have a devastating impact on potato production.

In 1999, *R. solanacearum* race 3 biovar 2 was detected on geranium cuttings in greenhouses in Pennsylvania, Delaware, New Jersey, New York, South Dakota, and Wisconsin. These detections were traced back to a production facility in Guatemala that was found to have *R. solanacearum* race 3 biovar 2 on its premises. PPQ inspectors found that the production facility in question and its parent ''mother stock'' facility in California took adequate measures to ensure that the *Pelargonium* spp. cuttings the Guatemala facility exported to the United States were not infected with the *R. solanacearum* race 3 biovar 2 bacterium. More recently, in February 2003, *R. solanacearum* race 3 biovar 2 was detected at nursery facilities that had received suspect geraniums from Kenya. As of March 20, 2003, there have been positive confirmations in 48 establishments, including 2 rooting stations, located in 17 States (Alabama, Delaware, Georgia, Iowa, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Missouri, North Carolina, New Hampshire, South Carolina, Tennessee, Virginia, and Wisconsin), and samples from plants with symptoms continue to arrive at USDA laboratories after screening at State or university diagnostic laboratories.

The regulations have not included specific provisions to ensure that articles of *Pelargonium* spp. offered for importation into the United States are not infected with the *R. solanacearum* race 3 biovar 2 bacterium. In addition, *R. solanacearum* race 3 biovar 2 can spread to uninfected potatoes via many articles of the genus *Solanum,* but the regulations have not included provisions to ensure that non-tuber-bearing *Solanum* spp., which may be imported into the United States with a written permit as described above, are not infected with the *R. solanacearum* race 3 biovar 2 bacterium.

Therefore, we are amending the regulations to require that an additional declaration appear on the phytosanitary certificate that must accompany all articles of *Pelargonium* spp. and *Solanum* spp. imported into the United States, except those imported under the Canadian greenhouse-grown restricted plant program. The additional declaration must state either that *R. solanacearum* race 3 biovar 2 is not known to occur in the region in which the articles in the consignment were produced or that the production facility in which the articles in the consignment were produced has been tested and found to be free of *R. solanacearum* race 3 biovar 2.

R. solanacearum race 3 biovar 2 is currently not known to occur in the following foreign regions: Algeria, Austria, Belarus, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Ireland, Israel, Italy, Latvia, Lithuania, Moldavia, Morocco, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, and Ukraine.

Production facilities outside of those regions wishing to export articles of *Pelargonium* spp. or *Solanum* spp. to the United States must be tested for *R. solanacearum* race 3 biovar 2 using a method acceptable to APHIS. We are currently aware of two acceptable testing methods: An enzyme-linked immunosorbent assay that can confirm that no *Ralstonia* spp. bacteria are present, and a polymerase chain reaction test that can confirm that no *R. solanacearum* race 3 biovar 2 bacteria are present. Other testing methods may be used if those methods are adequate to confirm that production facilities are free of *R. solanacearum* race 3 biovar 2.

We will continue to allow articles of *Pelargonium* spp. and *Solanum* spp. produced in Canada under the greenhouse-grown restricted plant program described in paragraph (c) of § 319.37–4 to be imported into the United States with the inspection label issued in accordance with that paragraph. The Canadian greenhouse-grown restricted plant program mandates pest and disease control practices, provides extensive information on greenhouses in Canada exporting to the United States, and requires a certification statement reading ''This shipment of greenhouse grown plants meets the import requirements of the United States, and is believed to be free from injurious plant pests. Issued by Plant Protection Division, Agriculture Canada.'' Because *R. solanacearum* race 3 biovar 2 is not known to occur in Canada, and because these additional controls are in place, we believe that restricted articles grown under this program may be safely imported without the phytosanitary certificate and additional declaration.

We are also adding articles of *Pelargonium* spp. and *Solanum* spp. that do not meet the requirements of the new paragraph § 319.37–5(r) of the regulations to the list of prohibited articles in § 319.37–2(a) so that inspectors can refuse the entry of any shipment of articles of *Pelargonium* spp. and *Solanum* spp. not meeting these requirements.

This action will help to prevent the introduction of *R. solanacearum* race 3 biovar 2 into the United States while allowing the continued importation of articles that have been determined to be safe.

Emergency Action

This rulemaking is necessary on an emergency basis to prevent the importation of articles of *Pelargonium* spp. and *Solanum* spp. that come from regions where *R. solanacearum* race 3 biovar 2 is known to occur and that have been produced in facilities that may not be free of that bacterium. Because these articles may serve as

vectors for *R. solanacearum* race 3 biovar 2, allowing their importation to continue without specific restrictions would pose an unacceptable risk of introducing of *R. solanacearum* race 3 biovar 2 into the United States. Under these circumstances, the Administrator has determined that prior notice and opportunity for public comment are contrary to the public interest and that there is good cause under 5 U.S.C. 553 for making this rule effective less than 30 days after publication in the **Federal Register**.

We will consider comments we receive during the comment period for this interim rule (see **DATES** above). After the comment period closes, we will publish another document in the **Federal Register**. The document will include a discussion of any comments we receive and any amendments we are making to the rule.

Executive Order 12866 and Regulatory Flexibility Act

This rule has been reviewed under Executive Order 12866. The rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

Prior to the publication of this interim rule, articles of *Pelargonium* spp. (geraniums) and articles of non-tuber-bearing *Solanum* spp. such as eggplants were being imported into the United States with few restrictions. (Imports of tuber-bearing *Solanum* spp. from any region other than parts of Canada are prohibited by § 319.37–2.) Apart from the certification requirements of § 319.37–4 described previously, the only restriction on the importation of articles of *Pelargonium* spp. and non-tuber-bearing *Solanum* spp. was that lots of 13 or more required a written permit from PPQ. Recently, APHIS became aware that articles of *Pelargonium* spp. and *Solanum* spp. can serve as vectors for the transmission of potato brown rot.

Potato brown rot is caused by a bacterium, *R. solanacearum* race 3 biovar 2. This bacterium is widely distributed in temperate areas of the world and could cause severe damage to U.S. production of potatoes if it were to become established in the United States. In 2001, 1.2 million acres of potatoes were harvested in the United States. The U.S. potato harvest that year was valued at $2.9 billion, with $90 million worth of U.S. potatoes exported to the rest of the world.[1] The bacterium causes the potatoes to develop unsightly brown rings in their tubers, making them worthless for human consumption. If U.S. potato fields were to become infected with this strain of *R. solanacearum*, their value could be drastically reduced, if not completely eliminated, due to the bacterium's ability to resist eradication. Furthermore, U.S. producers would most likely be required to quarantine their fields and destroy any potatoes present to prevent the spread of the disease.

The United Kingdom has experienced five outbreaks of potato brown rot that have had minor impacts on overall potato production, losses equivalent to less than a fraction of a percentage point of the total value of the potato industry in the United Kingdom.[2] However, certain areas in South America have endured potato losses ranging from 5 percent to 100 percent due to potato brown rot. If potato brown rot was to become established in the United States, the potato industry could potentially lose hundreds of millions of dollars due to direct crop losses and indirect losses from quarantines and diminished export markets.

Pelargonium (geranium) spp.

U.S. floriculture and nursery crop sales based on grower's receipts were $14 billion in 2002. Total sales of U.S. geraniums were estimated at $204 million for 2002.[3] The United States imported $44 million worth of cuttings and slips, of which geraniums comprised some unknown part.[4] No specific data are available for geranium plant imports; cuttings most likely comprise the bulk of imports of geranium articles.

Solanum spp.

The genus *Solanum* comprises a large group of both tender and hardy, herbaceous shrubby climbing plants. Several species can be found in North America either growing wild or as decorative plants, but two—potatoes and eggplants—are grown as vegetables. Imports of potatoes are largely prohibited, except for imports from parts of Canada, which totaled $67 million worth of potatoes in 2001. Under this interim rule, Canadian potatoes will continue to be able to enter the United States with the certification required by the greenhouse-grown restricted plant program or with a phytosanitary certificate containing an additional declaration. Because Canadian potatoes imported for propagation must be accompanied by a phytosanitary certificate attesting to their region of origin to be eligible for importation into the United States, this rule is not expected to impose significant additional costs on their importation.

The United States imported $11 million worth of eggplants in 2001. Imports of eggplants and potatoes account for less than 3 percent of the value of overall U.S. production.

This interim rule will continue to allow imports of articles of *Pelargonium* spp. and *Solanum* spp. subject to specific certification requirements. This interim rule will have an insignificant impact on imports of articles of *Pelargonium* spp. and *Solanum* spp., while safeguarding U.S. agriculture from *R. solanacearum* race 3 biovar 2.

Impact on Small Entities

The Regulatory Flexibility Act requires that agencies specifically consider the economic effects of their rules on small entities. The Small Business Administration (SBA) classifies nursery and tree production businesses (North American Industry Classification System code 111421) as small entities if their annual sales receipts are $750,000 or less. According to the National Agricultural Statistics Service (2001), 1,691 floriculture operations out of a total of 10,965 operations had sales of $500,000 or more. Therefore, at least 85 percent of all floriculture operations can be classified as small entities, and it is likely that an even higher percentage can be classified as small entities due to the $250,000 discrepancy.[5]

This interim rule will continue to allow imports of articles of *Pelargonium* spp. and *Solanum* spp. as long as the facility in which they were produced has been found to be free of *R. solanacearum* race 3 biovar 2 or the bacterium is not known to occur in the region in which they were produced. All such articles are currently required by § 319.37–4 to be accompanied by a phytosanitary certificate of inspection when imported into the United States; the expected cost of obtaining the certification for the additional declaration is expected to be minor compared both to the value of shipments of articles of *Pelargonium* spp. and *Solanum* spp. and compared to

[1] National Agricultural Statistics Service data, U.S. potato production, 2001.

[2] United Kingdom Department for Environment, Food and Rural Affairs.

[3] Electronic Outlook Report from the Economic Research Service, Floriculture and Nursery Crops Outlook, September 12th, 2002, Alberto Jerardo.

[4] World Trade Atlas 2002, U.S. imports of unrooted cuttings and slips of plants, code # 0602100000.

[5] National Agricultural Statistics Service, Agricultural Statistics Board, U.S. Department of Agriculture, 2001 Floriculture Crops.

the total cost of certification. In addition, exporters participating in the Canadian greenhouse-grown restricted plants program will not have to obtain any additional certification, further mitigating the total effect on import costs.

Small entities in the U.S. floriculture industry will not be significantly impacted due to the expected low percentage of geranium imports, the low percentage of geranium sales as a part of all floriculture sales, and the expected low cost of certification. This interim rule will safeguard U.S. agriculture from potato brown rot by restricting the entry of plants that can serve as its vectors.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action will not have a significant economic impact on a substantial number of small entities.

Executive Order 12988

This rule has been reviewed under Executive Order 12988, Civil Justice Reform. This rule: (1) Preempts all State and local laws and regulations that are inconsistent with this rule; (2) has no retroactive effect; and (3) does not require administrative proceedings before parties may file suit in court challenging this rule.

Paperwork Reduction Act

In accordance with section 3507(j) of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the information collection and recordkeeping requirements included in this interim rule have been submitted for emergency approval to the Office of Management and Budget (OMB). OMB has assigned control number 0579–0221 to the information collection and recordkeeping requirements.

We plan to request continuation of that approval for 3 years. Please send written comments on the 3-year approval request to the following addresses: (1) Office of Information and Regulatory Affairs, OMB, Attention: Desk Officer for APHIS, Washington, DC 20503; and (2) Docket No. 03–019–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comments refer to Docket No. 03–019–1 and send your comments within 60 days of publication of this rule.

This interim rule requires that an additional declaration appear on the phytosanitary certificate that must accompany all articles of *Pelargonium* spp. and *Solanum* spp. imported into the United States, except those imported under the Canadian greenhouse-grown restricted plant program. This additional declaration must state either that the production facility in which the articles were produced has been tested and found free of *R. solanacearum* race 3 biovar 2 or that *R. solanacearum* race 3 biovar 2 is not known to occur in the region in which the articles were produced. In order to import articles of *Pelargonium* spp. and *Solanum* spp., importers will need to obtain the additional declaration that must appear on the phytosanitary certificate from the national plant protection organization in the country of origin. We are soliciting comments from the public (as well as affected agencies) concerning our information collection and recordkeeping requirements. These comments will help us:

(1) Evaluate whether the information collection is necessary for the proper performance of our agency's functions, including whether the information will have practical utility;

(2) Evaluate the accuracy of our estimate of the burden of the information collection, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the information collection on those who are to respond (such as through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.*, permitting electronic submission of responses).

Estimate of burden: Public reporting burden for this collection of information is estimated to average 4 hours per response.

Respondents: Growers and State plant regulatory officials.

Estimated annual number of respondents: 1,040.

Estimated annual number of responses per respondent: 20.

Estimated annual number of responses: 20,800.

Estimated total annual burden on respondents: 83,200 hours. (Due to averaging, the total annual burden hours may not equal the product of the annual number of responses multiplied by the reporting burden per response.)

Copies of this information collection can be obtained from Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 734–7477.

Government Paperwork Elimination Act Compliance

The Animal and Plant Health Inspection Service is committed to compliance with the Government Paperwork Elimination Act (GPEA), which requires Government agencies in general to provide the public the option of submitting information or transacting business electronically to the maximum extent possible. For information pertinent to GPEA compliance related to this interim rule, please contact Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 734–7477.

List of Subjects in 7 CFR Part 319

Bees, Coffee, Cotton, Fruits, Honey, Imports, Logs, Nursery stock, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements, Rice, Vegetables.

■ Accordingly, we are amending 7 CFR 319 as follows:

PART 319—FOREIGN QUARANTINE NOTICES

■ 1. The authority citation for part 319 continues to read as follows:

Authority: 7 U.S.C. 450, 7711–7714, 7718, 7731, 7732, 7751–7754, and 7760; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

■ 2. In the table in § 319.37–2(a), new entries for ''*Pelargonium* spp. not meeting the conditions for importation in § 319.37–5(r)'' and ''*Solanum* spp. not meeting the conditions for importation in § 319.37–5(r)'' are added, in alphabetical order, to read as follows:

§ 319.37–2 Prohibited articles.

(a) * * *

Prohibited article (includes seeds only if specifically mentioned)	Foreign places from which prohibited	Plant pests existing in the places named and capable of being transported with the prohibited article
* * *	*	* * *
Pelargonium spp. not meeting the conditions for importation in § 319.37–5(r).	All	Potato brown rot (*Ralstonia solanacearum* race 3 biovar 2).

Prohibited article (includes seeds only if specifically mentioned)	Foreign places from which prohibited	Plant pests existing in the places named and capable of being transported with the prohibited article
* * *	*	* * *
Solanum spp. not meeting the conditions for importation in § 319.37–5(r).	All	Potato brown rot (*Ralstonia solanacearum* race 3 biovar 2).
* * *	*	* * *

* * * * *

■ 3. In § 319.37–5, a new paragraph (r) is added and the OMB control number citation at the end of the section is revised to read as follows:

§ 319.37–5 Special foreign inspection and certification requirements.

* * * * *

(r) Any restricted article of *Pelargonium* spp. or *Solanum* spp. presented for importation into the United States must meet the following requirements:

(1) Any article of *Pelargonium* spp. or *Solanum* spp. imported from Canada under the provisions of the greenhouse-grown restricted plant program as described in § 319.37–4(c) may be presented for importation at the port of first arrival in the United States with a certificate of inspection in the form of a label in accordance with § 319.37–4(c)(1)(iv).

(2) For any article of *Pelargonium* spp. or *Solanum* spp. that does not meet the requirements of paragraph (r)(1) of this section and is from a region where *Ralstonia solanacearum* race 3 biovar 2 is not known to occur at the time of arrival at the port of first arrival in the United States, the phytosanitary certificate of inspection required by § 319.37–4 must contain an additional declaration that states ''*Ralstonia solanacearum* race 3 biovar 2 is not known to occur in the region of origin of the articles in this shipment.''

(3) For any article of *Pelargonium* spp. or *Solanum* spp. that is from a region where *Ralstonia solanacearum* race 3 biovar 2 is known to occur at the time of arrival at the port of first arrival in the United States, the phytosanitary certificate of inspection required by § 319.37–4 must contain an additional declaration that states ''The production facility where these plants were produced has been tested and found to be free of *Ralstonia solanacearum* race 3 biovar 2.''

(Approved by the Office of Management and Budget under control number 0579–0049, 0579–0176, and 0579–0221.)

Done in Washington, DC, this 16th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12988 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–NM–124–AD; Amendment 39–13159; AD 2003–10–14]

RIN 2120–AA64

Airworthiness Directives; Airbus Model A319–131, –132, and –133; A320–232 and –233; and A321–231 Series Airplanes; Equipped With International Aero Engines (IAE) V2500–A5 Series Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to all Airbus Model A319–131, –132, and –133; A320–232 and –233; and A321–231 series airplanes; equipped with International Aero Engines (IAE) V2500–A5 series engines. This action requires revising the airplane flight manual to incorporate new procedures to follow in the event of an oil filter clog message. This action is necessary to require the flightcrew to follow the procedures necessary to prevent smoke caused by an oil filter clog from entering the cabin during flight. This action is intended to address the identified unsafe condition.

DATES: Effective June 9, 2003.

Comments for inclusion in the Rules Docket must be received on or before June 23, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2003–NM–124–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-iarcomment@faa.gov.* Comments sent via the Internet must contain ''Docket No. 2003–NM–124–AD'' in the subject line and need not be submitted in triplicate. Comments sent via fax or the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

Information pertaining to this amendment may be examined at the FAA, Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Tim Dulin, Aerospace Engineer, International Branch, ANM–116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2141; fax (425) 227–1149.

SUPPLEMENTARY INFORMATION: The FAA has received a report of a recent incident of dense smoke in the cabin on an Airbus Model A319 series airplane that resulted in an emergency landing. The smoke rapidly filled the cabin and cockpit, reducing the visibility to the point that the flightcrew had difficulty seeing the instruments. Investigation revealed that the smoke was caused by the failure of the number 3 bearing on an International Aero Engines (IAE) V2500–A5 series engine, resulting in oil being ingested into the cabin air conditioning system through the engine high pressure compressor. The ''ENG 1 Oil Filter Clog'' message appeared on the electronic centralized aircraft monitoring (ECAM) display about 10–15 minutes prior to the smoke filling the cabin; however, there is currently no pilot action associated with this message. In-service reports have shown that the ''oil filter clog'' message is frequently a symptom of engine bearing damage that could potentially lead to smoke entering the cabin through the air conditioning pack on the affected side. This condition, if not corrected, could reduce the flightcrew's ability to see and

result in the flightcrew having difficulty in controlling the airplane while applying smoke removal procedures.

U.S. Type Certification of the Airplane

This airplane model is manufactured in France and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement.

Explanation of Requirements of Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, this AD is being issued to require the flightcrew to follow the procedures necessary to prevent smoke caused by an oil filter clog from entering the cabin during flight. This AD requires revising the airplane flight manual to incorporate new procedures to follow in the event of an oil filter clog message.

Interim Action

We consider this AD interim action. If final action is later identified, we may consider further rulemaking then.

Changes to 14 CFR Part 39/Effect on the AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance (AMOC). Because we have now included this material in part 39, only the office authorized to approve AMOCs is defined in each individual AD.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption **ADDRESSES.** All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 2003–NM–124–AD.'' The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a ''significant regulatory action'' under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES.**

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

■ Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. Section 39.13 is amended by adding the following new airworthiness directive:

2003–10–14 Airbus: Amendment 39–13159. Docket 2003–NM–124–AD.

Applicability: All Airbus Model A319–131, –132, and –133; A320–232 and –233; and A321–231 series airplanes; certificated in any category; equipped with International Aero Engines (IAE) V2500–A5 series engines.

Compliance: Required as indicated, unless accomplished previously.

To require the flightcrew to follow the procedures necessary to prevent smoke caused by an oil filter clog from entering the cabin during flight, accomplish the following:

Airplane Flight Manual (AFM) Revision

(a) Within 7 days after the effective date of this AD, revise the Limitations section of the Airbus A318/319/320/321 AFM to include the following statements (this may be accomplished by inserting a copy of this AD into the AFM):

Procedure for Oil Filter Clog ECAM Caution

The ECAM does not require any pilot action in case of ENG 1(2) OIL FILTER CLOG ECAM warning.

However, to minimize the risk of air conditioning system contamination by oil fumes, systematically apply the following procedure in any event of oil filter clog:

Eng 1(2) Oil Filter Clog

In-service reports have shown that this ECAM warning is frequently a symptom of engine bearing damage that could potentially lead to smoke entering the cabin via the pack of the affected side. This procedure aims to avoid air conditioning smoke, while continuing normal engine operation.

Eng Bleed (affected side)—Off.

(Prevents possible bleed contamination by engine oil.)

Pack (affected side)—Off.

(Switching off one pack enables the remaining pack to operate at 120 percent without any risk of remaining bleed misbehavior. Keep the pack on in case of an MEL dispatch with one pack inoperative.

The pack that has been switched off remains available with the crossbleed valve open. Therefore, switch it on in case of a subsequent independent malfunction affecting the operating pack.)

Crossbleed—Open.

(Opening the crossbleed valve enables the wing anti-ice to be used when needed.)

Closely Monitor Engine Parameters for Surge/Stall, Oil Pressure Fluctuations, or Abnormal Engine Vibrations; and, When Necessary, Apply the Associated Procedure.

If, after the oil filter clog, the engine experiences or has already experienced a surge/stall possibly accompanied by a yaw-effect on the aircraft:

Eng (Affected) Thrust Lever—Idle.

(Reducing the thrust of the affected engine minimizes further damage to the engine rotary machinery, but will not necessarily prevent more oil from entering the gas path.

Maintain engine at idle, and consider engine shutdown if high vibration occurs or oil quantity/oil pressure drops low.)

Oil Filter Clog ECAM warnings occurring on the ground during engine start are frequently due to low oil viscosity and may be self-recoverable. In the event of an Oil Filter Clog warning during engine start, please refer to FCOM 3.02.70 page 2.''

Alternative Methods of Compliance

(b) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM–116, FAA, is authorized to approve alternative methods of compliance for this AD.

Effective Date

(c) This amendment becomes effective on June 9, 2003.

Issued in Renton, Washington, on May 16, 2003.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–12836 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–15077; Airspace Docket No. 03–ACE–45]

Modification of Class E Airspace; Pocahontas, IA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: The action modifies Class E airspace at Pocahontas, IA. An examination of controlled airspace for Pocahontas, IA revealed description for the Pocahontas, IA Class E airspace area. This action corrects the discrepancies by modifying the Pocahontas, IA Class E airspace area. It also incorporates the revised Pocahontas Municipal Airport, IA airport reference point in the Class E airspace legal description.

DATES: This direct final rule is effective on 0901 UTC, September 4, 2003. Comments for inclusion in the Rules Docket must be received on or before June 25, 2003.

ADDRESSES: Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2003–15077/ Airspace Docket No. 03–ACE–45, at the beginning of your comments. You may also submit comments on the Internet at *http://dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Airspace Branch, ACE–520C, DOT Municipal Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: This amendment to 14 CFR part 71 modifies the Class E airspace area extending upward from 700 feet above the surface of the earth at Pocahontas, IA. An examination of controlled airspace for Pocahontas, IA revealed discrepancies in the Pocahontas Municipal Airport airport reference point used in the legal description for this airspace area. This amendment incorporates the revised Pocahontas, IA Class E airspace area into compliance with FAA Order 7400.2E, Procedures for Handling Airspace Matters. This area will be depicted on appropriate aeronautical charts. Class E airspace extending upward from 700 feet or more above the surface of the earth are published in paragraph 6005 of FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be published subsequently in the Order.

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. Unless a written adverse or negative comment, or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register,** and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Interested parties are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2003–15077/Airspace Docket No. 02–ACE–45.'' The postcard will be date/time stamped and returned to the commenter.

Agency Findings

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is noncontroversial and unlikely to result in adverse or negative comments. For the reasons discussed in the preamble, I certify that this regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria for the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

■ Accordingly, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

* * * * *

Paragraph 6005 Class E Airspace Areas Extending upward from 700 feet or more above the surface of the earth.

* * * * *

ACE IA E5 Pocahontas, IA

Pocahontas Municipal Airport, IA
(Lat 42°44′34″ N., long 94°38′50″ W.)
Pocahontas NDB
(Lat. 42°44′49″ N., long 94°38′53″ W.)

That airspace extending upward from 700 feet above the surface within a 6-mile radius of Pocahontas Municipal Airport and within 2.6 miles each side of the 276° bearing from the Pacahontas NDB extending from the 6-mile radius to 7 miles west of the airport.

* * * * *

Issued in Kansas City, MO, on May 13, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13047 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–15076; Airspace Docket No. 03–ACE–44]

Modification of Class E Airspace; Kaiser, MO

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: This action modifies Class E airspace at Kaiser, MO. It corrects discrepancies in airport reference points and in airport names that are used in the legal description of the Class E airspace area and it modifies the title of the airspace area from Kaiser, MO to Kaiser/Lake Ozark, MO. This action incorporates the data in the Class E airspace legal description and brings the airspace area into compliance with FAA Order 7400.2E, Procedures for Handling Airspace Matters.

DATES: This direct final rule is effective on 0901 UTC, September 4, 2003. Comments for inclusion in the Rules Docket must be received on or before June 25, 2003.

ADDRESSES: Send comments on this proposal to the Docket Management System, U.S Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2003–15076/Airspace Docket No. 03–ACE–44, at the beginning of your comments. You may also submit comments on the Internet at *http://dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–55227) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

FOR FURTHER INFORMATION CONTACT: Brenda Mumper, Air Traffic Division, Airspace Branch, ACE–520A, DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2524.

SUPPLEMENTARY INFORMATION: This amendment to 14 CFR part 71 modifies the Class E airspace area extending upward from 700 feet above the surface at Kaiser, MO. The National Aeronautical Charting Office (NACO) revised the Camdenton Memorial Airport airport reference point effective February 20, 2003. The Kaiser, MO Class E airspace area is defined, in part, by the Camdenton Memorial Airport airport reference point. This same data is also used in the legal description for the airspace area. An examination of controlled airspace for Kaiser, MO revealed additional discrepancies in the Kaiser, MO Class E airspace area. Two other airports, also used in the legal description for the airspace area, were not named correctly in the legal description and their location incorrectly identified. this amendment incorporates the revised Camdenton Memorial Airport airport reference point. It modifies the name of the airport at Osage Beach, MO from ''Linn Creek-Grand Glaize Memorial Airport'' to ''Grand Glaize-Osage Beach Airport'' and corrects an error in the airport reference point. This amendment also modifies the name of the airport at Kaiser, MO from ''Lee E. Fine Memorial Airport'' to ''Lee C. Fine Memorial Airport'' and identifies the location as Kaiser/Lake Ozark, MO. Finally, this action modifies the title of the Kaiser, MO Class E airspace area to become the Kaiser/Lake Ozark, MO Class E airspace area. These changes bring the legal description of the Class E airspace area into compliance with FAA Order 7400.2E, Procedures for Handling Airspace Matters. This area will be depicted on appropriate aeronautical charts. Class E airspace areas extending upward from 700 feet or more above the surface of the earth are published in paragraph 6005 of FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be published subsequently in the Order.

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. Unless a written adverse or negative comment, or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close

of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register,** and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Interested parties are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2003–15076/Airspace Docket No. 03–ACE–44.'' The postcard will be date/time stamped and returned to the commenter.

Agency Findings

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is noncontroversial and unlikely to result in adverse or negative comments. For the reasons discussed in the preamble, I certify that this regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

■ Accordingly, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS, ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

* * * * *

ACE MO E5 Kaiser/Lake Ozark, MO

Kaiser/Lake Ozark, Lee C. Fine Memorial Airport, MO
(Lat. 38°05′46″ N., long. 92°32′58″ W.)
Camdenton Memorial Airport, MO
(Lat. 37°58′26″ N., long. 92°41′28″ W.)
Osage Beach, Grand Glaize-Osage Beach Airport, MO
(Lat. 38°06′38″ N., long. 92°40′50″ W.)
Kaiser NDB
(Lat. 38°05′48″ N., long. 92°33′11″ W.)

That airspace extending upward from 700 feet above the surface within the 6.5-mile radius of Lee C. Fine Memorial Airport and within 2.6 miles each side of the 045° bearing from the Kaiser NDB extending from the 6.5-mile radius of the Lee C. Fine Memorial Airport to 7.8 miles northeast of the airport and within a 6.3-mile radius of Camdenton Memorial Airport and within a 6.3-mile radius of Grand Glaize-Osage Beach Airport.

* * * * *

Issued in Kansas City, MO, on May 13, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13046 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No.FAA–2003–15078; Airspace Docket No. 03–ACE–46]

Modification of Class E Airspace; Red Oak, IA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: This action modifies Class E airspace at Red Oak, IA. An examination of controlled airspace for Red Oak, IA revealed discrepancies in the Red Oak Municipal Airport airport reference point used in the legal description for the Red Oak, IA Class E airspace area. It also incorporates the revised Red Oak Municipal Airport, IA airport reference point in the Class E airspace legal description.

DATES: This direct final rule is effective on 0901 UTC, September 4, 2003. Comments for inclusion in the Rules Docket must be received on or before June 25, 2003.

ADDRESSES: Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2003–15078/Airspace Docket No. 03–ACE–46, at the beginning of your comments. You may also submit comments on the Internet at *http://dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Airspace Branch, ACE–520C, DOT Municipal Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: This amendment to 14 CFR part 71 modifies the Class E airspace area extending upward from 700 feet above the surface at Red Oak, IA. An examination of controlled airspace for Red Oak, IA revealed discrepancies in the Red Oak Municipal Airport airport reference point used in the legal description for

this airspace area. This amendment incorporates the revised Red Oak Municipal Airport airport reference point and brings the legal description of the Red Oak, IA Class E airspace area into compliance with FAA Order 7400.2E, Procedures for Handling Airspace Matters. This area will be depicted on appropriate aeronautical charts. Class E airspace areas extending upward from 700 feet or more above the surface of the earth are published in paragraph 6005 of FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1 The Class E airspace designation listed in this document will be published subsequently in the Order.

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. Unless a written adverse or negative comment, or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register**, and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Interested parties are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2003–15078/Airspace Docket No. 03–ACE–46.'' The Postcard will be date/time stamped and returned to the commenter.

Agency Findings

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is noncontroversial and unlikely to result in adverse or negative comments. For the reasons discussed in the preamble, I certify that this regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

■ Accordingly, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES, AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

* * * * *

Paragraph 6005 Class E Airspace Areas Extending Upward From 700 Feet or More Above the Surface of the Earth.

* * * * *

ACE IA E5 Red Oak, IA

Red Oak Municipal Airport, IA
(Lat. 41°00′38″ N., long. 95°15′36″ W.)
Red Oak NDB
(Lat. 41°00′58″ N., long. 95°15′12″ W.)

That airspace extending upward from 700 feet above the surface within a 6-mile radius of Red Oak Municipal Airport and within 2.6 miles each side of the 326° bearing from the Red Oak NDB extending from the 6-mile radius to 8.3 miles northwest of the airport.

* * * * *

Issued in Kansas City, MO, on May 13, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13045 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14600; Airspace Docket No. 03–ACE–23]

Modification of Class E Airspace; Knoxville, IA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; confirmation of effective date.

SUMMARY: This document confirms the effective date of the direct final rule which revised Class E airspace at Knoxville, IA.

EFFECTIVE DATE: 0901 UTC, July 10, 2003.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Airspace Branch, ACE–520C DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: The FAA published this direct final rule with a request for comments in the **Federal Register** on April 4, 2003 (68 FR 16409) [FR Doc. 03–8142]. The FAA uses the direct final rulemaking procedure for a non-controversial rule where the FAA believes that there will be no adverse public comment. This direct final rule advised the public that no adverse comments were anticipated, and that unless a written adverse comment, or a written notice of intent to submit such an adverse comment, were received within the comment period, the

regulation would become effective on July 10, 2003. No adverse comments were received, and thus this notice confirms that this direct final rule will become effective on that date.

Issued in Kansas City, MO on May 15, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13044 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14601; Airspace Docket No. 03–ACE–24]

Modification of Class E Airspace; Marshalltown, IA

AGENCY: Federal Aviation Administration, DOT.

ACTION: Direct final rule; confirmation of effective date.

SUMMARY: This document confirms the effective date of the direct final rule which revises Class E airspace at Marshalltown, IA.

EFFECTIVE DATE: 0901 UTC, July 10, 2003.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air traffic Division, Airspace Branch, ACE–520C DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: The FAA published this direct final rule with a request for comments in the **Federal Register** on April 4, 2003 (68 FR 16410) [FR Doc. 03–8141]. The FAA uses the direct final rulemaking procedure for a non-controversial rule where the FAA believes that there will be no adverse public comment. This direct final rule advised the public that no adverse comments were anticipated, and that unless a written adverse comment, or a written notice of intent to submit such an adverse comment, were received within the comment period, the regulation would become effective on July 10, 2003. No adverse comments were received, and thus this notice confirms that this direct final rule will become effective on that date.

Issued in Kansas City, MO on May 15, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13043 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14657; Airspace Docket No. 03–ACE–26]

Modification of Class E Airspace; St. Louis, MO

AGENCY: Federal Aviation Administration, (FAA), DOT.

ACTION: Direct final rule; confirmation of effective date.

SUMMARY: This document confirms the effective date of a direct final rule which revises Class E airspace at St. Louis, MO.

EFFECTIVE DATE: 0901 UTC, July 10, 2003.

FOR FURTHER INFORMATION CONTACT: Brenda Mumper, Air Traffic Division, Airspace Branch, ACE–520A, DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2524.

SUPPLEMENTARY INFORMATION: The FAA published this direct final rule with a request for comments in the **Federal Register** on April 3, 2003 (68 FR 16207) (FR Doc. 03–8126). The FAA uses the direct final rulemaking procedure for a non-controversial rule where the FAA believes that there will be no adverse public comment. This direct final rule advised the public that no adverse comments were anticipated, and that unless a written adverse comment, or a written notice of intent to submit such an adverse comment, were received within the comment period, the regulation would become effective on July 10, 2003. No adverse comments were received, and thus this notice confirms that this direct final rule will become effective on that date.

Issued in Kansas City, MO on May 15, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13042 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14845; Airspace Docket No. 03–ACE–30]

Modification of Class E Airspace; Shenandoah, IA

AGENCY: Federal Aviation Administration, DOT.

ACTION: Direct final rule; confirmation of effective date.

SUMMARY: This document confirms the effective date of the direct final rule which revises Class E airspace at Shenandoah, IA.

EFFECTIVE DATE: 0901 UTC, July 10, 2003.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Airspace Branch, ACE–520C, DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: The FAA published this direct final rule with a request for comments in the **Federal Register** on April 15, 2003 (68 FR 18114) (FR Doc. 03–9181). The FAA uses the direct final rulemaking procedure for a non-controversial rule where the FAA believes that there will be no adverse public comment. This direct final rule advised the public that no adverse comments were anticipated, and that unless a written adverse comment, or a written notice of intent to submit such an adverse comment, were received within the comment period, the regulation would become effective on July 10, 2003. No adverse comments were received, and thus this notice confirms that this direct final rule will become effective on that date.

Issued in Kansas City, MO on May 15, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13041 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–15080; Airspace Docket No. 03–ACE–48]

Modification of Class E Airspace; Sibley, IA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: This action modified Class E airspace at Sibley, IA. An examination of controlled airspace for Sibley, IA revealed discrepancies in the Sibley Municipal Airport airport reference point used in the legal description for the Sibley, IA Class E airspace area. This action corrects the discrepancies by modifying the Sibley, IA Class E airspace area. It also incorporates the revised Sibley Municipal Airport airport reference point in the Class E airspace legal description.

DATES: This direct final rule is effect on 0901 UTC, September 4, 2003. Comments for inclusion in the Rules Docket must be received on or before June 25, 2003.

ADDRESSES: Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2003–15080/ Airspace Docket No. 03–ACE–48, at the beginning of your comments. You may also submit comments on the Internet at *http:dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Airspace Branch, ACE–520C, DOT Municipal Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: This amendment to 14 CFR part 71 modifies the Class E airspace area extending upward from 700 feet above the surface of the earth at Sibley, IA. An examination of controlled airspace for Sibley, IA revealed discrepancies in the Sibley Municipal Airport airport reference point used in the legal description for this airspace area. This amendment incorporates the revised Sibley Municipal Airport airport reference point and brings the legal description of the Sibley, IA Class E airspace area into compliance with FAA Order 7400.2E, Procedures for Handling Airspace Matters. This area will be depicted on appropriate aeronautical charts. Class E airspace areas extending upward from 700 feet or more above the surface of the earth are published in paragraph 6005 of FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be published subsequently in the Order.

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. Unless a written adverse or negative comment, or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register**, and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Interested parties are invited to participate in this rulemaking by submitting such written date, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2003–15080/Airspace Docket No. 03–ACE–48.'' The postcard will be date/time stamped and returned to the commenter.

Agency Findings

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is noncontroversial and unlikely to result in adverse or negative comments. For the reasons discussed in the preamble, I certify that this regulation (1) is not ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

■ Accordingly, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

* * * * *

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

* * * * *

ACE IA E5 Sibley, IA

Sibley Municipal Airport, IA
(Lat 43°22′10″ N., long 94°45′35″ W.)
Sibley, NDB
(Lat. 43°22′05″ N., long 95°45′09″ W.)

That airspace extending upward from 700 feet above the surface within a 6-mile radius of Sibley Municipal Airport and within 2.6 miles each side of the 198° bearing from the Sibley NDB extending from the 6-mile radius to 7.4 miles south of the airport and within 2.6 miles each side of the 344° bearing from the Sibley NDB extending from the 6-mile radius to 7.4 miles northwest of the airport.

* * * * *

Issued in Kansas City, MO, on May 13, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13040 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–15079; Airspace Docket No. 03–ACE–47]

Modification of Class E Airspace; Sac City, IA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: An examination of controlled airspace for Sac City, IA revealed discrepancies in the Sac City Municipal Airport airport reference point and in the location of the Sac City nondirectional radio beacon (NDB), both used in the legal description for the Sac City, IA Class E airspace. This action corrects the discrepancies by modifying the Sac City, IA Class E airspace and by incorporating the current Sac City Municipal Airport airport reference point and the current location of the Sac City NDB in the Class E airspace legal description.

DATES: This direct final rule is effective on 0901 UTC, September 4, 2003.

Comments for inclusion in the Rules Docket must be received on or before June 25, 2003.

ADDRESSES: Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2003–15079/Airspace Docket No. 03–ACE–47, at beginning of your comments. You may also submit comments on the Internet at *http://dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Airspace Branch, ACE–520C, DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329–2525.

SUPPLEMENTARY INFORMATION: This amendment to 14 CFR 71 modifies the Class E airspace area extending upward from 700 feet above the surface at Sac City, IA. It incorporates the current airport reference point for Sac City Municipal Airport and the current location of the Sac City NDB. It brings the legal description of this airspace area into compliance with FAA Order 7400.2E, Procedures for Handling Airspace Matters. The area will be depicted on appropriate aeronautical charts. Class E airspace areas extending upward from 700 feet or more above the surface of the earth are published in paragraph 6005 of FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be published subsequently in the Order.

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. Unless a written adverse or negative comment, or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register**, and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Interested parties are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2003–15079/Airspace Docket No. 03–ACE–47.'' The postcard will be date/time stamped and returned to the commenter.

Agency Findings

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is noncontroversial and unlikely to result in adverse or negative comments. For the reasons discussed in the preamble, I certify that this regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

■ Accordingly, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120, E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

* * * * *

ACE IA E5 Sac City, IA

Sac City Municipal Airport, IA
(Lat. 42°22′45″ N., long 94°58′47″ W.)
Sac City NDB
(Lat. 42°22′50″ N., long. 94°58′57″ W.)

That airspace extending upward from 700 feet above the surface within a 6-mile radius of Sac City Municipal Airport and within 2.6 miles each side of the 170° bearing from the Sac City NDB extending from the 6-mile radius to 7.4 miles south of the airport.

* * * * *

Issued in Kansas City, MO, on May 13, 2003.

Herman J. Lyons, Jr.,

Manager, Air Traffic Division, Central Region.

[FR Doc. 03–13039 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–31–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14673; Airspace Docket No. 03–ASO–2]

Establishment of Class E2 Airspace; Elizabeth City, NC

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class E2 airspace at Elizabeth City, NC. The Elizabeth City Airport Traffic Control Tower is a part time facility. When the control tower is closed, Norfolk Terminal Radar Approach Control (TRACON) provides approach control service. This requires establishment of Class E2 surface area airspace.

DATES: 0901 UTC, July 10, 2003.

FOR FURTHER INFORMATION CONTACT: Walter R. Cochran, Manager, Airspace Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone (404) 305–5627.

SUPPLEMENTARY INFORMATION:

History

On April 3, 2003, the FAA proposed to amend part 71 of the Federal Aviation Regulations (14 CFR part 71) by establishing Class E2 airspace at Elizabeth City, NC, (68 FR 16229). This action provides adequate Class E2 airspace for IFR operations at Elizabeth City CGAS/Regional Airport. Designations for Class E are published in FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR part 71.1. The Class E designations listed in this document will be published subsequently in the Order.

Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments objecting to the proposal were received.

The Rule

This amendment to part 71 of the Federal Aviation Regulations (14 CFR part 71) establishes Class E2 airspace at Elizabeth City, NC.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (Air).

Adoption of the Amendment

■ In consideration of the foregoing, the Federal Aviation Administration is amending 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

■ 1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, Airspace Designations and Reporting Points, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

Paragraph 6002 Class E Airspace Designated as Surface Areas.

* * * * *

ASO MS E2 Elizabeth City, NC [NEW]

Elizabeth City CGAS/Regional Airport, NC
(Lat. 36°15′38″ long. 76°10′29″)

That airspace extending upward from the surface within a 4.1-mile radius of the Elizabeth City CGAS/Municipal Airport.

* * * * *

Issued in College Park, Georgia on May 14, 2003.

Walter R. Cochran,

Acting Manager, Air Traffic Division, Southern Region.

[FR Doc. 03–12816 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14268; Airspace Docket No. 03–ASO–1]

Establishment of Class E5 Airspace; Tuncia, MS

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class E5 airspace at Tunica, MS. A Area Navigation (RNAV) Global Positioning System (GPS) Runway (RWY) 35 Standard Instrument Approach Procedure (SIAP) has been developed for Tunica Municipal Airport. As a result, controlled airspace extending upward from 700 feet Above Ground

Level (AGL) is needed to contain the SIAP.

DATES: 0901 UTC, July 10, 2003.

FOR FURTHER INFORMATION CONTACT: Walter R. Cochran, Manager, Airspace Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone (404) 305–5627.

SUPPLEMENTARY INFORMATION:

History

On April 3, 2003, the FAA proposed to amend part 71 of the Federal Aviation Regulations (14 CFR part 71) by establishing Class E5 airspace at Tunica, MS (68 FR 16230). This action provides adequate Class E5 airspace for IFR operations at Tunica Municipal Airport. Designations for Class E are published in FAA Order 7400.9K, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR part 71.1. The Class E designations listed in this document will be published subsequently in the Order.

Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments objecting to the proposal were received.

The Rule

This amendment to part 71 of the Federal Aviation Regulations (14 CFR part 71) establishes Class E5 airspace at Tunica, MS.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace Incorporation by reference, Navigation (Air).

■ In consideration of the foregoing, the Federal Aviation Administration is amending 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g); 40103, 4013, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9K, Airspace Designations and Reporting Points, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

Paragraph 6005 Class E Airspace Areas Extending Upward from 700 Feet or More Above the Surface of the Earth.

* * * * *

ASO MS E5 Tunica, MS [NEW]

Tunica Municipal Airport, MS
(Lat. 34°41′32″ long. 90°21′02″

That airspace extending upward from 700 feet or more above the surface within a 6.7-mile radius of the Tuncia Municipal Airport.

* * * * *

Issued in College Park, Georgia on May 14, 2003.

Walter R. Cochran,

Acting Manager, Air Traffic Division, Southern Region.

[FR Doc. 03–12817 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF STATE

22 CFR Part 41

[Public Notice 4368]

Visas: Documentation of Nonimmigrants Under the Immigration and Nationality Act, as Amended: Student and Exchange Visitor Information System (SEVIS)

ACTION: Interim Rule; request for comments.

SUMMARY: This rule amends the Department's regulations pertaining to foreign students and exchange visitors who enter the United States in F, M, or J nonimmigrant visa categories. The new regulations will establish the verification and reporting procedures required by the Department of Homeland Security (DHS) foreign student monitoring system known as Student and Exchange Visitor Information System (SEVIS). As SEVIS was fully implemented on February 15, 2003, the Department's transitional foreign student database known as Interim Student and Exchange Authentication System (ISEAS) is no longer available to the educational and exchange visitor communities. However, it remains available to consular sections in the field as a means of electronically verifying student and exchange visitor documentation issued prior to February 15, 2003.

DATES: This interim rule is effective on May 23, 2003. Comment date: Written comments must be submitted on or before July 22, 2003.

ADDRESSES: Submit comments in duplicate to Chief, Legislation and Regulations Division, Visa Services, Department of State, 20520–0106. Comments may also be forwarded via e-mail to *VisaRegs@state.gov* or faxed to 202–663–3898.

FOR FURTHER INFORMATION CONTACT: Nancy Altman, Legislation and Regulations Division, Visa Services, Department of State, Washington, DC 20520–0106, 202–261–8040.

SUPPLEMENTARY INFORMATION:

What Is the Background for This Action?

SEVIS is an internet-based DHS system that will track ''F'' and ''M'' student visa recipients, and ''J'' visa exchange program participants from the time they receive their initial documentation (Form I–20 for F-visa academic students and for M-visa vocational students, or Form DS–2019 for exchange visitor program participants) until they graduate, leave school or a designated program, or depart the United States. The legislative mandate for SEVIS is section 641 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Public Law 104–208, which requires that DHS, in consultation with the Secretary of State and the Secretary of Education, establish a reporting and tracking system for collecting and maintaining data and information on foreign students and exchange visitors. In response to this legislative mandate, the DHS established the Student and Exchange Visitor Program (SEVP) and the internet-based electronic information collection and reporting system known as the Student and Exchange Visitor Information System (SEVIS).

Subsequent legislation has enhanced the foreign student tracking system mandated by IIRIRA. For example, on October 26, 2001, the President signed into law the ''Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism'' (USA Patriot Act),

Public Law 107–56. Section 416 of the USA Patriot Act allots $36.8 million to support the nationwide deployment of SEVIS and requires that SEVIS be fully implemented by January 1, 2003.

On May 14, 2002, the President signed into law the ''Enhanced Border Security and Visa Reform Act of 2002'' (Border Security Act), Public Law 107–173. To address heightened national security concerns, Title V of the Border Security Act mandates the Department to establish a transitional foreign student monitoring system to be in place within 120 days of enactment and to remain in operation until such time as the system described in section 641 of IIRIRA (*i.e.* SEVIS) is fully implemented.

The Bureau of Consular Affairs introduced the transitional database known as ISEAS on September 11, 2002. On September 18, 2002, the Department published an interim rule in the **Federal Register** at 67 FR 181, which set forth the procedures for data sharing between schools and sponsors, the Department and the former INS. The Department's transitional database, ISEAS, has been phased-out now that SEVIS is fully implemented. The ISEAS internet site which was open to institutional users for the entry of ISEAS records, will no longer be available, and SEVIS has assumed the electronic student and exchange visitor status verification role for visa adjudication and visa issuances formerly served by ISEAS. ISEAS does, however, remain available to consular sections worldwide for the purpose of electronic student and exchange visitor status verification of visa applicants presenting Forms I–20 A–B, I–20 M–N or DS–2019 issued prior to the February 15, 2003 full implementation date of SEVIS.

On December 11, 2002, the Immigration and Naturalization Service (INS, since taken over by the Department of Homeland Security (DHS); all subsequent references are to DHS, even if done by INS) published in the **Federal Register** (67 FR 238) its final rule regulating SEVIS participation by F and M visa-issuing institutions. On December 12, 2002, the State Department's Bureau of Educational and Cultural Affairs (ECA) published a proposed rule in the **Federal Register** (67 FR 239) regulating SEVIS participation by Exchange Visitor Program Sponsors. Reference to these rules is recommended for additional background and other information about SEVIS.

What Procedures Are Required by SEVIS?

SEVIS is fully implemented and as of February 15, 2003, all new Forms I–20 issued by academic educational institutions, by vocational educational institutions, and all Forms DS–2019 issued by exchange visitor program sponsors, must be created within the SEVIS system. The SEVIS compliant versions of the I–20 are the SEVIS Form I–20, Certificate of Eligibility for Nonimmigrant (F–1) Student Status—For Academic and Language Students, and the SEVIS Form I–20, Certificate of Eligibility for Nonimmigrant (M–1) Student Status—For Vocational Students. These are one-page documents featuring a two-dimensional bar code on the right-hand side with a SEVIS Identification number in the top-right corner. The Form DS–2019 that is issued from SEVIS is a one-page document that, like the SEVIS compliant form I–20, features a two-dimensional bar code and SEVIS Identification number on the right-hand side.

Both the DHS and ECA require all schools and program sponsors to use SEVIS to issue new forms I–20/DS–2019 as of February 15, 2003. Educational institutions and exchange visitor program sponsors are no longer able to enter records in ISEAS. However, the ISEAS database will remain available for consular employees to verify all forms I–20 A–B, I–2–M–N, and DS–2019 that were issued prior to February 15, 2003.

Educational institutions and exchange visitor program sponsors will be given additional time to enter information concerning continuing foreign students and exchange visitors into SEVIS. Information on all continuing students and exchange visitors must be entered into SEVIS by August 1, 2003. Both the DHS and ECA rules identify certain reportable actions (*e.g.* issuance of SEVIS Forms I–20, and DS–2019, visa issuance, extension of status, employment authorization) that necessitate the issuance of a SEVIS document prior to that date.

How Does Compliance With SEVIS Requirements Affect Other Visa Issuance Requirements?

Compliance with SEVIS requirements does not exempt a student or exchange visitor from complying with all other requirements for visa issuance. For example, all male nonimmigrant visa applicants between the ages of 16 and 45, regardless of nationality and regardless of where they apply, must fill out and submit to the post a form DS–157 to be submitted at the same time as the nonimmigrant visa application, form DS–156. Applicants seeking to enter the United States in F, M, or J classifications must meet all other requirements that are separate from, and in addition to, those pertaining to their student or exchange visitor status.

Are Border Commuter Students Subject to SEVIS Requirements?

On November 2, 2002, the President signed into law the ''Border Commuter Student Act of 2002'' (Border Commuter Act) Public Law 107–274. This legislation amended the Immigration and Nationality Act to create new nonimmigrant visa classifications (F–3 and M–3) for citizens and residents of Mexico or Canada who seek to commute into the United States for the purpose of attending an approved F or M school. Border commuter students are permitted to study on either a full-time or part-time basis and are subject to the same reporting requirements and SEVIS processes as those required for F–1 and M–1 students. Border commuter students, however, may not obtain F–2 or M–2 status for their dependents. On August 27, 2002, the DHS published in the **Federal Register** (67 FR 166) an interim rule regulating the full or part-time study of certain Mexican and Canadian border commuter students. Reference to this regulation is recommended for additional background and other information relating to the border commuter student.

How Are F, M and J Dependents Processed Under SEVIS?

Under SEVIS, every F–2, M–2 and J–2 dependent receives his or her individual Form I–20 or DS–2019 with a unique identification number. The SEVIS-generated forms issued to dependents reflect the name of the F–1, M–1 or J–1 participant and will also indicate their dependent status.

What Role Does SEVIS Play in the Visa Adjudication and Visa Issuance Process?

SEVIS is an internet-based reporting and tracking system that is accessible by DHS, the Department, and certified educational institution and exchange visitor program sponsors. Data and information is collected and maintained on foreign students and exchange visitors throughout their stay in the United States.

Aliens who wish to study or participate in an exchange program in the United States must first apply to an educational institution that has been approved by the DHS, or to an exchange visitor program approved by the

Department's Bureau of Educational and Cultural Affairs. When a student or exchange visitor accepts an offer to study or participate in an exchange program, the designated educational institution or program official will access SEVIS to enter the information electronically, collecting the student or exchange visitor data in a central database prior to issuing a Form I–20 or DS–2019.

The SEVIS-compliant versions of the I–20 are the SEVIS Form I–20, Certificate of Eligibility for Nonimmigrant (F–1) Student Status-For Academic and Language Students, and SEVIS Form I–20, Certificate of Eligibility for Nonimmigrant (M–1) Student Status-For Vocational Students. The SEVIS compliant form for the exchange visitor is the SEVIS Form DS–2019, ''Certificate of Eligibility for Exchange Visitor (J–1) Status. Visa applicants will present their SEVIS-generated form to the consular officer when applying for a visa.

Authorized consular officials will use SEVIS' data to verify in the Consolidated Consular Database (CCD) Forms I–20 and DS–2019, and to report the associated F, M, and J visa issuances to the DHS. SEVIS acts as a verification mechanism much like ISEAS, in that prior to visa issuance the SEVIS Form I–20 or DS–2019 presented with a visa application must be verified against the SEVIS data. After the authorized consular official verifies the provenance of the form presented by the visa applicant, and the appropriate F, M or J visa is issued, the existing State Department-DHS ''datashare'' link will be utilized to notify SEVIS of visa issuance. Once DHS implements the SEVIS user fee, authorized consular officials may also verify the payment of that fee by inspecting the appropriate receipt or reviewing the applicable data in SEVIS.

For Forms I–20 and DS–2019 issued prior to February 15, 2003, consular officials and academic advisors in the field as well as DHS Inspectors at the ports of entry will continue to receive and accept as valid pre-SEVIS ''paper'' Forms I–20 A–B, Certificate of Eligibility for Nonimmigrant (F–1) Student Status-For Academic and Language Students, Forms I–20 M–N, Certificate of Eligibility for Nonimmigrant (M–1) Student Status-For Vocational Students, and Forms DS–2019, Certificate of Eligibility for Exchange Visitor (J–1) Status until August 1, 2003.

How Is the Department Amending Its Regulations?

The Department is amending its regulations at 22 CFR 41.61 and 41.62 regarding students and exchange visitors by adding the requirement that authorized consular officials verify the provenance of SEVIS-generated Forms I–20 or DS–2019 against SEVIS data in the CCD. It is also amending its regulations by adding the requirement that authorized consular officials verify the payment of any applicable SEVIS fee, and to make Border Commuter Students (F–3 and M–3) subject to SEVIS requirements. No F–1, F–2, F–3, M–1, M–2, M–3, J–1 or J–2 visa may be issued unless an authorized consular official has verified the provenance of the student or exchange visitor acceptance documentation against SEVIS data in the CCD, or via direct access to SEVIS.

Regulatory Analysis and Notices

Administrative Procedure Act

The Department's implementation of this regulation as an interim rule with request for comments is based upon the ''good cause'' exceptions found at 5 U.S.C. 553(b) and (d)(3). The U.S.A. Patriot Act, Public Law 107–56, mandates that SEVIS be fully implemented and expanded prior to January 1, 2003. The DHS intends to have the SEVIS database fully operational as soon as is practicable after the January 1, 2003 implementation deadline. The Department determined that it had insufficient time to publish a proposed rule with a request for comments, given the need to promulgate regulations prior to the time constraints imposed by the statutory implementation deadline.

Regulatory Flexibility Act

The Department, in accordance with the Regulatory Flexibility Act (5 U. S.C. 605(b)), has reviewed this regulation and, by approving it, certifies that this rule will not have a significant economic impact on a substantial number of entities.

Unfunded Mandates Reform Act of 1995

This rule will not result in the expenditure by state, local and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any year and it will not significantly or uniquely affect small governments. Therefore, no actions were deemed necessary under the provisions of the Unfunded Mandates Reform Act of 1995.

Small Business Regulatory Enforcement Fairness Act of 1996

This rule is not a major rule as defined by section 804 of the Small Business Regulatory Enforcement Act of 1996. This rule will not result in an annual effect on the economy of $100 million or more; a major increase in costs or prices: or significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based companies to compete with foreign-based companies in domestic and export markets.

Executive Order 12866

The Department of State does not consider this rule to be a ''significant regulatory action'' under Executive Order 12866, section 3(f), Regulatory Planning and Review. In addition, the Department is exempt from Executive Order 12866 except to the extent that it is promulgating regulations in conjunction with a domestic agency that are significant regulatory actions. The Department has nevertheless reviewed the regulation to ensure its consistency with the regulatory philosophy and principles set forth in that Executive Order.

Executive Order 13132

This regulation will not have substantial direct effects on the States on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government., Therefore, in accordance with section 6 of Executive Order 13132, it is determined that this rule does not have sufficient federalism implications to require consultations or warrant the preparation of a federalism summary impact statement.

Paperwork Reduction Act

■ This rule does not impose any new reporting or recordkeeping requirements subject to the Paperwork Reduction Act, 44 U.S.C. Chapter 35.

PART 41—[AMENDED]

■ 1. The authority citation for part 41 continues to read as follows:

Authority: 8 U.S.C. 1104; Pub. L. 105–277, 112 Stat. 2681 *et seq.*

■ 2. Amend paragraphs (b)(1), (b)(1)(i), (b)(1)(iii) and (d) of §41.61 to read as follows:

§ 41.61 Students-academic and nonacademic.

* * * * *

(b) *Classification.* (1) An alien is classifiable under INA 101(a)(15)(F) (i)

or (iii) or INA 101(a)(15)(M) (i) or (iii) if the consular officer is satisfied that the alien qualifies under one of those sections, and:

(i) The alien has been accepted for attendance for the purpose of pursuing a full course of study, or, for students classified under INA 101(a)(15) (F)(iii) and (M)(iii) Border Commuter Students, full or part-time course of study, in an academic institution approved by the Attorney General for foreign students under INA 101(a)(15)(F)(i) or a nonacademic institution approved under 101(a)(15)(M)(i). The alien has presented a SEVIS Form I–20, Form I–20A–B/I–20ID. Certificate of Eligibility For Nonimmigrant Student Status—For Academic and Language Students, or Form I–20M–N/I–20ID, Certificate of Eligibility for Nonimmigrant Student Status—For Vocational Students, properly completed and signed by the alien and a designated official as prescribed in regulations found at 8 CFR 214.2(F) and 214.2(M);

* * * * *

(iii) The alien, unless coming to participate exclusively in an English language training program, has sufficient knowledge of the English language to undertake the chosen course of study or training. If the alien's knowledge of English is inadequate, the consular officer may nevertheless find the alien so classifiable if the accepting institution offers English language training, and has accepted the alien expressly for a full course of study (or part-time course of study for Border Commuter Students) in a language with which the alien is familiar, or will enroll the alien in a combination of courses and English instruction which will constitute a full course of study if required; and

* * * * *

(d) *Electronic verification and notification.* A student's acceptance documentation must be verified by a consular official's review of the SEVIS data in the Consolidated Consular Database or via direct access to SEVIS or ISEAS prior to the issuance of an F–1, F–2, M–1 or M–3 visa. Evidence of the payment of any applicable fees, if not presented with other documentation, may also be verified through the Consolidated Consular Database or direct access to SEVIS. Upon issuance of an F or M visa, notification of such issuance must be entered into the SEVIS database.

■ 3. Amend paragraphs (a)(1) and (5) of § 41.62 to read as follows:

§ 41.62 Exchange Visitors.

(a) * * *

(1) Has been accepted to participate, and intends to participate, in an exchange visitor program designated by the Department of State, as evidenced by the presentation of a properly executed Form DS–2019, Certificate of Eligibility for Exchange Visitor (J–1) Status as prescribed in regulations found at 22 CFR 41.62 and 41.63;

* * * * *

(5) *Electronic verification and notification.* An exchange visitor's acceptance documentation and payment of any applicable fees must be verified by a consular official's review of the SEVIS database or via direct access to SEVIS or ISEAS prior to the issuance of a J–1 or J–2 visa. Evidence of the payment of any applicable fees, if not presented with other documentation, may also be verified through the Consolidated Consular Database or direct access to SEVIS. Upon issuance of a J–1 or J–2 visa, notification of such issuance must be entered into the SEVIS database.

Dated: April 9, 2003.

Maura Harty,

Assistant Secretary for Consular Affairs, Department of State.

[FR Doc. 03–12653 Filed 5–22–03; 8:45 am]

BILLING CODE 4710–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

32 CFR Part 299

RIN 0790–AG96

National Security Agency/Central Security Service (NSA/CSS) Freedom of Information Act Program

AGENCY: Department of Defense.

ACTION: Interim final rule.

SUMMARY: The part implements the Freedom of Information Act, as amended. It assigns responsibility for responding to written requests made pursuant to the Act and provides for the review required to determine the appropriateness of classification.

DATES: This rule is effective August 5, 2002. Consideration will be given to all comments received on or before July 22, 2003.

ADDRESSES: Forward comments to National Security Agency, FOIA Office (DC321), 9800 Savage Road STE 6248, Ft. George G. Meade, MD 20755–6248.

FOR FURTHER INFORMATION CONTACT: Pamela Phillips, 301–688–6527.

SUPPLEMENTARY INFORMATION:

Executive Order 12866

It has been determined that 32 CFR part 299 is not a significant regulatory action. The rule does not (1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of the recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

Unfunded Mandates Reform Act

It has been certified that 32 CFR part 299 does not contain a Federal Mandate that may result in the expenditure by State, local and tribal governments, in aggregate, or by the private sector, of $100 million or more in any one year.

Regulatory Flexibility Act

It has been determined that this rule is not subject to the Regulatory Flexibility Act (5 U.S.C. 601) because it would not, if promulgated, have a significant economic impact on a substantial number of small entities.

Paperwork Reduction Act

It has been certified that 32 CFR part 299 does not impose any reporting or recordkeeping requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 44).

Executive Order 13132

It has been certified that 32 CFR part 299 does not have federalism implications, as set forth in Executive Order 13132.

List of Subjects in 32 CFR Part 299

Freedom of Information.

■ Accordingly, 32 CFR part 299 is revised to read as follows:

PART 299—NATIONAL SECURITY AGENCY/CENTRAL SECURITY SERVICE (NSA/CSS) FREEDOM OF INFORMATION ACT PROGRAM

Sec.
§ 299.1 Purpose.
§ 299.2 Definitions.
§ 299.3 Policy.
§ 299.4 Responsibilities.
§ 299.5 Procedures.
§ 299.6 Fees.
§ 299.7 Exempt records.

Authority: 5 U.S.C. 552.

§ 299.1 Purpose.

(a) This part implements 5 U.S.C. 552, as amended, and DoD 5400.7–R,[1] assigns responsibility for responding to written requests made pursuant to 5 U.S.C. 552; and provides for the review required to determine the appropriateness of classification pursuant to DoD 5200.1–R.[2]

(b) This part applies to all NSA/CSS elements, field activities and personnel, and governs the release or denial of any information under the terms of the Freedom of Information Act (FOIA).

§ 299.2 Definitions.

Terms used in this part, with the exception of the terms in § 299.4, are defined in DoD 5400.7–R. For ease of reference, however, some terms are defined in this section.

(a) FOIA request. (1) A written request for NSA/CSS records, that reasonably describes the records sought, made by any person, including a member of the public (U.S. or foreign citizen/entity), an organization or a business, but not including a Federal Agency or a fugitive from the law that either explicitly or implicitly invokes 5 U.S.C. 552, as amended, 5 U.S.C. 552a, as amended, DoD 5400.7–R, or NSA/CSS Freedom of Information Act Program, within the National Security Agency/Central Security Service. Requesters should also indicate a willingness to pay fees associated with the processing of their request or, in the alternative, why a waiver of fee may be appropriate.

(2) An FOIA request may be submitted by U.S. mail or its equivalent, by facsimile or electronically through the NSA FOIA Home Page on the Internet. The mailing address is FOIA/PA Services (DC321), National Security Agency, 9800 Savage Road STE 6248, Ft. George G. Meade, MD 20755–6248. The Web-based system contains a form to be completed by the requester, requiring name and postal mailing address. The URL is *http://www.nsa.gov/docs/efoia/*.

(3) When a request meeting the requirements stated in this section is received by the FOIA office and there is no remaining question about fees, that request is considered perfected.

(b) Privacy Act (PA) request. A written request submitted by a U.S. citizen or an alien admitted for permanent residence for access to or amendment of records on himself/herself which are contained in a PA system of records. For purposes of this part, PA request refers to a request for copies of records. Regardless of whether the requester cites the FOIA, PA or neither law, the request will be processed under both this part and NSA/CSS Regulation 10–35, Implementation of the Privacy Act of 1974.[3].

(c) Agency records. (1) The products of data compilation, such as all books, papers, maps, and photographs, machine readable materials, including those in electronic form or format (including e-mails), or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the United States Government under Federal law in connection with the transaction of public business and in NSA/CSS's possession and control at the time the FOIA request is made. The term ''records'' does not include:

(i) Objects or articles such as structures, furniture, vehicles and equipment, whatever their historical value or value as evidence;

(ii) Intangible records such as an individual's memory or oral communication; and

(iii) Personal records of an individual not subject to agency creation or retention requirements, created and maintained primarily for the convenience of an agency employee, and not distributed to other agency employees for their official use.

(2) A record must exist and be in the possession and control of the NSA/CSS at the time of the request to be subject to this part. There is no obligation to create or compile a record or obtain a record not in the possession of the NSA/CSS to satisfy an FOIA request. The NSA/CSS may compile or create a new record when doing so would be less burdensome to the Agency than providing existing records and the requester does not object.

(3) Hard copy or electronic records that are subject to FOIA requests under 5 U.S.C. 552(a)(3) and are available through an established distribution system on the Internet, normally need not be processed under the FOIA. The Agency shall provide guidance to the requester on how to obtain the material outside of the FOIA process. If the requester insists that the request be processed under the FOIA, then it shall be so processed.

§ 299.3 Policy.

(a) Pursuant to written requests submitted in accordance with the FOIA, the NSA/CSS shall make records available to the public consistent with the Act and the need to protect government interests pursuant to subsection (b) of the Act. Oral requests for information shall not be accepted. Before the Agency responds to a request, the request must comply with the provisions of this part. In order that members of the public have timely access to unclassified information regarding NSA activities, requests for information that would not be withheld if requested under the FOIA or the Privacy Act (PA) may be honored through appropriate means without requiring the requester to invoke the FOIA or the PA. Although a record may require minimal redaction before its release, this fact alone shall not require the Agency to direct the requester to submit a formal FOIA or PA request for the record.

(b) Requests for electronic records shall be processed, and the records retrieved whenever retrieval can be achieved through reasonable efforts (in terms of both time and manpower) and these efforts would not significantly interfere with the operation of an automated information system. Reasonable efforts shall be undertaken to maintain records in forms of formats that render electronic records readily reproducible.

(c) The NSA/CSS does not originate final orders, opinions, statements of policy, interpretations, staff manuals, or instructions that affect members of the public of the type generally covered by the indexing requirement of 5 U.S.C. 552. Therefore, it has been determined, pursuant to the pertinent statutory and executive order requirements, that it is unnecessary and impracticable to publish an index of the type required by 5 U.S.C. 552. However, should such material be identified, it will be indexed and placed in the library at the National Cryptologic Museum (NCM), which serves as the NSA/CSS FOIA reading room, and made available through the Internet. Copies of records which have been released under the FOIA and which NSA/CSS has determined are likely to become the subject of subsequent requests will be placed in the library of the NCM. In addition, these records are made available to the public through the Internet. An index of this material is available in hard copy in the museum library and on the Internet.

§ 299.4 Responsibilities.

(a) The Director's Chief of Staff (DC) is responsible for overseeing the administration of the FOIA, which includes responding to FOIA requests

[1] Copies may be obtained, at cost, from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

[2] *See* footnote 1 to this section.

[3] Copies may be obtained through a FOIA request to the National Security Agency, Ft. George G. Meade, MD 20755–6248.

and for collecting fees from FOIA requesters.

(b) The Director of Policy (DC3), or the Deputy Director of Policy (D/DC3), if so designated, is the initial denial authority (IDA) and is responsible for:

(1) Receiving and staffing all initial, written requests for the release of information;

(2) Conducting the necessary reviews to determine the releasability of information pursuant to DoD 5200.1-R;

(3) Providing the requester with releasable material;

(4) Notifying the requester of any adverse determination, including informing the requester of his/her right to appeal an adverse determination to the appeal authority (*see* §299.5(n));

(5) Assuring the timeliness of responses;

(6) Negotiating with the requester regarding satisfying his request (*e.g.*, time extensions, modifications to the request);

(7) Authorizing extensions of time within Agency components (*e.g.*, time needed to locate and/or review material);

(8) Assisting the Office of General Counsel (OGC) in judicial actions filed under 5 U.S.C. 552;

(9) Maintaining the FOIA reading room and the Internet home page; and

(10) Compiling the annual FOIA report.

(c) The Chief, Accounting and Financial Services (DF22) is responsible for:

(1) Sending initial and follow-up bills to FOIA requesters as instructed by the FOIA office, with a copy of all bills going to the FOIA office. In cases where an estimate of fees is provided to the requester prior to the processing of his/her request, no bill shall be sent. Although the FOIA office asks FOIA requesters to send payment to the FOIA office, for subsequent forwarding to Accounting and Financial Services, payment may be received directly in Accounting and Financial Services. Such payment may be identified by the payee as payment for a Freedom of Information Act request, by the letters ''FOIA,'' or as payment for XXXXX. (FOIA requesters are provided a case number to refer to in correspondence with NSA);

(2) Receiving and handling all checks or money orders remitted in payment for FOIA requests, crediting them to the proper account and notifying the FOIA office promptly of all payments received;

(3) Notifying the FOIA office promptly of any payments received directly from requesters even if no bill was initiated by Accounting and Financial Services; and

(4) Issuing a prompt reimbursement of overpaid fees to the requester upon being notified of such overpayment by the FOIA office.

(d) The Deputy Director, NSA/CSS, is the FOIA Appeal Authority required by 5 U.S.C. 552 for considering appeals of adverse determinations by the Director of Policy. In the absence of the Deputy Director, the Director's Chief of Staff serves as the Appeal Authority.

(e) The General Counsel (GC) or his designee is responsible for:

(1) Reviewing responses to FOIA requests to determine the legal sufficiency of actions taken by the Director of Policy, as required on a case-by-case basis;

(2) Reviewing the appeals of adverse determinations made by the Director of Policy. The GC will prepare an appropriate reply to such appeals and submit that reply to the NSA/CSS FOIA Appeal Authority for final decision; and

(3) Representing the Agency in all judicial actions relating to 5 U.S.C. 552 and providing support to the Department of Justice.

(f) The Chief of Installation and Logistics (I&L) shall establish procedures to ensure that:

(1) All inquiries for information pursuant to 5 U.S.C. 552 are delivered promptly to the Director of Policy; and

(2) Any appeal of an adverse determination is delivered promptly and directly to the NSA/CSS Appeal Authority staff.

(g) The Directorates, Associate Directorates, and Field Elements shall:

(1) Establish procedures to ensure that any inquiries for information pursuant to 5 U.S.C. 552 are referred immediately and directly to the Director of Policy. Field Elements should forward, electronically, any requests received to the DIRNSA/CHCSS, ATTN: DC3; and

(2) Designate a senior official and an alternate to act as a focal point to assist the Director of Policy in determining estimated and actual cost data, in conducting searches reasonably calculated to retrieve responsive records and assessing whether information can be released or should be withheld.

(h) Military and civilian personnel assigned or attached to or employed by the NSA/CSS who receive a Freedom of Information Act request shall deliver it immediately to the Director of Policy. Individuals who are contacted by personnel at other government agencies and asked to assist in reviewing material for release under the FOIA must direct the other agency employee to the NSA/CSS FOIA office promptly.

§ 299.5 Procedures.

(a) Requests for copies of records of the NSA/CSS shall be delivered to the Director of Policy immediately upon receipt once the request is identified as a Freedom of Information Act or Privacy Act requestor appears to be intended as such a request.

(b) The Director of Policy, or Deputy Director of Policy, if so designated, shall endeavor to respond to a direct request to NSA/CSS within 20 working days of receipt. If the request fails to meet the minimum requirements of a perfected FOIA request, the FOIA office shall advise the requester of how to perfect the request. The 20 working day time limit applies upon receipt of the perfected request. In the event the Director of Policy cannot respond within 20 working days due to unusual circumstances, the chief of the FOIA office shall advise the requester of the reason for the delay and negotiate a completion date with the requester.

(c) Direct requests to NSA/CSS shall be processed in the order in which they are received. Requests referred to NSA/CSS by other government agencies shall be placed in the processing queue according to the date the requester's letter was received by the referring agency if that date is known, in accordance with Department of Justice Guidelines. If it is not known when the referring agency received the request, it shall be placed in the queue according to the date of the requester's letter.

(d) The FOIA office shall maintain six queues (''super easy,'' ''sensitive/personal easy,'' ''non-personal easy,'' ''sensitive/personal voluminous,'' ''non-personal complex,'' and ''expedite'') for the processing of records in chronological order. The processing queues are defined as follows:

(1) Super easy queue. The super easy queue is for requests for which no responsive records are located or for material that requires minimal specialized review.

(2) Sensitive/personal easy queue. The sensitive/personal easy queue contains FOIA and PA records that contain sensitive personal information, typically relating to the requester or requester's relatives, and that do not require a lengthy review. These requests are processed by DC321 staff members who specialize in handling sensitive personal information.

(3) Non-personal easy queue. The non-personal easy queue contains all other types of NSA records not relating to the requester, that often contain classified information that may require coordinated review among NSA components, and that do not require a lengthy review. These requests are

processed by DC321 staff members who specialize in complex classification Issues.

(4) Sensitive/personal voluminous queue. The sensitive/personal voluminous queue contains FOIA and PA records that contain sensitive personal information, typically relating to the request or the requester's relatives, and that require a lengthy review because of the high volume of responsive records. These records may also contain classified information that may require coordinated review in several NSA components. These requests are processed by DC321 staff members who specialize in handling sensitive personal information.

(5) Non-personal complex queue. The non-personal complex queue contains FOIA records not relating to the requester that require a lengthy review because of the high volume and/or complexity of responsive records. These records contain classified, often technical information that requires coordinated review among many specialized NSA components, as well as consultation with other government agencies. These requests are processed by DC321 staff members who specialize in complex classification issues.

(6) Expedite queue. Cases meeting the criteria for expeditious processing as defined in paragraph (f) of this section shall be processed in turn within that queue by the appropriate processing team.

(e) Requesters shall be informed immediately if no responsive records are located. Following a search for and retrieval of responsive material, the initial processing team shall determine which queue in which to place the material, based on the criteria in paragraph (d)(1) through (6) of this section and shall so advise the requester. If the material requires minimal specialized review (super easy), the initial processing team shall review, redact if required, and provide the non-exempt responsive material to the requester immediately. All other material shall be processed by the appropriate specialized processing team on a first-in, first-out basis within its queue. These procedures are followed so that a requester shall not be required to wait a long period of time to learn that the Agency has no records responsive to his request or to obtain records that require minimal review. For statistical reporting purposes for the Annual Report, super easy, sensitive/personal easy, and non-personal easy cases shall be counted as ''Easy'' cases, and sensitive/personal voluminous and non-personal complex cases shall be counted as ''Hard'' cases.

(f) Expedited processing shall be granted to a requester if he/she requests such treatment and demonstrates a compelling need for the information. A demonstration of compelling need by a requester shall be made by a statement certified by the requester to be true and correct to the best of his/her knowledge. A compelling need is defined as follows:

(1) The failure to obtain the records on an expedited basis could reasonably be expected to pose an imminent threat to the life or physical safety of an individual.

(2) The information is urgently needed by an individual primarily engaged in disseminating information to inform the public about actual or alleged Federal Government activity. Urgently needed means that the information has a particular value that will be lost if not disseminated quickly.

(3) A request may also be expedited, upon receipt of a statement certified by the requester to be true and correct to the best of his/her knowledge, for the following reasons:

(i) There would be an imminent loss of substantial due process rights.

(ii) There is a humanitarian need for the material. Humanitarian need means that disclosing the information will promote the welfare and interests of mankind.

(4) Requests which meet the criteria for expedited treatment as defined in paragraph (f)(3) of this section will be placed in the expedite queue behind requests which are expedited because of a compelling need (*see* paragraphs (f)(1) and (2) of this section).

(5) A decision on whether to grant expedited treatment shall be made within 10 calendar days of receipt. The requester shall be notified whether his/her request meets the criteria for expedited processing within that time frame. If a request for expedited processing has been granted, a substantive response shall be provided within 20 working days of the date of the decision to expedite. If a substantive response cannot be provided within 20 working days, a response shall be provided as soon as practicable and the chief of the FOIA office shall negotiate a completion date with the requester, taking into account the number of cases preceding it in the expedite queue and the complexity of the responsive material.

(g) If the Director of Policy, in consultation with the GC, determines that the fact of the existence or non-existence of requested material is a matter that is exempt from disclosure, the requester shall be so advised.

(h) If the FOIA office determines that NSA/CSS may have information of the type requested, the office shall contact each Directorate or Associate Directorate reasonably expected to hold responsive records.

(i) The FOIA office shall assign the requester to the appropriate fee category under 5 U.S.C. 552, as amended, and DoD 5400.7–R, and, if a requester seeks a waiver of fees, the FOIA office shall, after determining the applicable fee category, determine whether to waive fees pursuant to DoD 5400.7–R. (See also § 299.6.) If fees are to be assessed in accordance with the provisions of 5 U.S.C. 552 and DoD 5400.7–R, the Directorate or Associate Directorate shall prepare an estimate of the cost required to locate, retrieve and, in the case of commercial requesters, review the records. Cost estimates shall include only direct search, duplication costs and review time (for commercial requesters) as defined in DoD 5400.7–R.

(1) If the cost estimate does not exceed $25.00, the component shall search for and forward to the FOIA office the documents responsive to the request. Fees $25.00 and under shall be waived.

(2) If the costs are estimated to exceed $25.00, the component shall provide an estimate to the FOIA office without conducting the search. The chief of the FOIA office shall advise the requester of the costs to determine a willingness to pay the fees. A requester's willingness to pay fees shall be satisfactory when the estimated fee does not exceed $250.00 and the requester has a history of prompt payment. A history of prompt payment means payment within 30 calendar days of the date of billing. If fees are expected to exceed $250.00, the requester shall be required to submit payment before processing is continued if the requester does not have a history of prompt payment. All payments shall be made by certified check or money order made payable to the Treasurer of the United States.

(3) When a requester has previously failed to pay a fee charged within a timely fashion (*i.e.*, within 30 calendar days from the date of billing) payment is required before a search is initiated or before review is begun. When a requester has no payment history, an advance payment may be required of the requester after the case has been completed, but prior to providing the final response.

(4) If a requester has failed to pay fees after three bills have been sent, additional requests from that requester and/or the organization or company he/she represents will not be honored until all costs and interest are paid.

(j) Upon receipt of a statement of willingness to pay assessable fees or the payment from the requester, the FOIA office shall notify the NSA/CSS component to search for the appropriate documents.

(1) The component conducting the search shall advise the FOIA office of the types of files searched (*e.g.*, electronic records/e-mail, video/audio tapes, paper), the means by which the search was conducted (*e.g.*, subject or chronological files, files retrievable by name or personal identifier) and any key words used in an electronic search.

(2) If the search does not locate the requested records, the Director of Policy shall so advise the requester and offer appeal rights.

(3) If the search locates the requested records, the holding organization shall furnish copies of these records immediately to the FOIA office. The Director of Policy shall make a determination as to the releasability of the records in consultation with the GC, the Legislative Affairs Office (if any information relates to members of Congress or their staffs) and other Agency components, as appropriate. This determination shall also state, with particularity, that a search reasonably calculated to locate responsive records was conducted and that all reasonably segregable, non-exempt information was released. The located records will be handled as follows:

(i) All exempt records or portions thereof shall be withheld and the requester so advised along with the statutory basis for the denial; the volume of material being denied, unless advising of the volume would harm an interest protected by exemption (see 5 U.S.C. 552); and the procedure for filing an appeal of the denial.

(ii) All segregable, non-exempt records or portions thereof shall be forwarded promptly to the requester.

(k) Records or portions thereof originated by other agencies or information of primary interest to other agencies found in NSA/CSS records shall be handled as follows:

(1) The originating agency's FOIA Authority shall be provided with a copy of the request and the stated records.

(2) The requester shall be advised of the referral, except when notification would reveal exempt information.

(l) Records of portions thereof originated by a commercial or business submitter and containing information that is arguably confidential commercial or financial information as defined in Executive Order 12600 (52 FR 23781, 3 CFR, 1987 Comp., p. 235) shall be handled as follows:

(1) The commercial or business submitter shall be provided with a copy of the records as NSA/CSS proposes to release them, and the submitter shall be given an opportunity to inform the FOIA office about its objections to disclosure in writing.

(2) The Director of Policy or his/her designee shall review the submitter's objections to disclosure and, if DC3 decides to release records or portions thereof to the requester, provide the submitter with an opportunity to enjoin the release of such information.

(m) Records may be located responsive to an FOIA request which contain portions not responsive to the subject of the request. The non-responsive portions shall be processed as follows:

(1) If the information is easily identified as releasable, the non-responsive portions shall be provided to the requester.

(2) If additional review or coordination with other NSA/CSS elements or other government agencies or entities is required to determine the releasability of the information, and the processing of the material would be facilitated by excluding those portions from review, the requester should be consulted regarding the need to process those portions. If the requester states that he is interested in the document in its entirety, including those portions not responsive to the subject of his request, the entire document shall be considered responsive and reviewed accordingly.

(3) If the conditions as stated in paragraph (m)(2) of this section pertain, but it is not a simple matter to contact and/or reach an agreement with the requester, the non-responsive portions shall be marked to differentiate the removal of non-responsive material from the removal of exempt portions. The requester shall be advised that portions were removed as non-responsive. In addition, he/she shall be given an indication of the manner in which those portions would be treated if responsive (*e.g.*, the information would be protected by exemptions, would require extensive review/consultation). Such a response is not considered an adverse determination. If the requester informs the FOIA office of his interest in receiving the non-responsive portions, the request shall be placed in the same location within the processing queue as the original request and those portions of the documents shall be processed.

(4) If the requester states in his initial request that he/she wants all non-responsive portions contained within documents containing responsive information, then the documents shall be processed in their entirety.

(n) Any person advised of an adverse determination shall be notified of the right to submit an appeal postmarked within 60 days of the date of the response letter and that the appeal must be addressed to the NSA/CSS FOIA Appeal Authority, National Security Agency, Ft. George G. Meade, MD 20755–6248. The following actions are considered adverse determinations:

(1) Denial of records or portions of records;

(2) Inability of NSA/CSS to locate records;

(3) Denial of a request for the waiver or reduction of fees;

(4) Placement of requester in a specific fee category;

(5) Amount of estimate of processing costs;

(6) Determination that the subject of a request is not within the purview of NSA/CSS and that a search for records shall not be conducted;

(7) Denial of a requester for expeditious treatment; and

(8) Non-agreement regarding completion date of request.

(o) The GC or his designee shall process appeals and make a recommendation to the Appeal Authority.

(1) Upon receipt of an appeal regarding the denial of information or the inability of the Agency to locate records, the GC or his designee shall provide a legal review of the denial and/or the adequacy of the search for responsive material, and make other recommendations as appropriate.

(2) If the Appeal Authority determines that additional information may be released, the information shall be made available to the requester within 20 working days from receipt of the appeal. The conditions for responding to an appeal for which expedited treatment is sought by the requester are the same as those for expedited treatment on the initial processing of a request. (*See* paragraph (f) of this section.)

(3) If the Appeal Authority determines that the denial was proper, the requester must be advised within 20 days after receipt of the appeal that the appeal is denied. The requester likewise shall be advised of the basis for the denial and the provisions for judicial review of the Agency's appellate determination.

(4) If a new search for records is conducted and produces additional material, the additional records shall be forwarded to the Director of Policy, as the IDA, for review. Following his/her review, the Director of Policy shall return the material to the GC with his/her recommendation for release or

withholding. The GC shall provide a legal review of the material, and the Appeal Authority shall make the release determination. Upon denial or release of additional information, the Appeal Authority shall advise the requester that more material was located and that the IDA and the Appeal Authority each conducted an independent review of the documents. In the case of denial, the requester shall be advised of the basis of the denial and the right to seek judicial review of the Agency's action.

(5) When a requester appeals the absence of a response to a request within the statutory time limits, the GC shall process the absence of a response as it would denial of access to records. The Appeal Authority shall advise the requester of the right to seek judicial review.

(6) Appeals shall be processed using the same multi-track system as initial requests. If an appeal cannot be responded to within 20 working days, the requirement to obtain an extension from the requester is the same as with initial requests. The time to respond to an appeal, however, may be extended by the number of working days (not to exceed 10) that were not used as additional time for responding to the initial request. That is, if the initial request is processed within 20 working days so that the extra 10 days of processing which an agency can negotiate with the requester are not used, the response to the appeal may be delayed for that 10 days (or any unused portion of the 10 days).

§ 299.6 Fees.

(a) Upon receipt of a request, DC3 shall evaluate the request to determine the fee category or status of the requester, as well as the appropriateness of a waiver or reduction of fees if requested. There are no fees associated with a Privacy Act request, except as stated in NSA/CSS Regulation 10–35, Implementation of the Privacy Act of 1974. If fees are assessable, a search cost estimate shall be sent to the Directorate(s) and Associate Directorate(s) expected to maintain responsive records. If DC3 assigns a fee category to a requester which differs from that claimed by the requester or determines that a waiver or reduction of fees is not appropriate, DC3 shall notify the requester of this discrepancy and of the estimated cost of processing the request. The requester shall be given 60 days to provide additional substantiation for the fee status claimed or for a fee waiver or reduction. The requester shall be advised that his/her request shall not be processed until the discrepancy over the fee category, fee waiver or reduction, or both are resolved. He/she shall also be advised of his/her right to appeal/DC3's determination. A fee waiver or reduction shall be granted or denied in accordance with DoD 5400.7–R and based on information provided by the requester. If the requester does not respond to DC3's initial notification of the discrepancy in fee assessment within the 60 days, DC3's determination about that requester's fee status shall be final.

(b) Fees shall reflect only direct search, review (in the case of commercial requesters) and duplication costs, recovery of which are permitted by 5 U.S.C. 552. Fees shall not be used to discourage requesters.

(c) No minimum fee may be charged. Fees under $25.00 shall be waived.

(d) Fees shall be based on estimates provided by appropriate organizational focal points. Upon completion of the processing of the request and computation of all assessable fees, the request shall be handled as follows:

(1) If the earlier cost estimate was under $250.00 and the requester has not yet paid and has no payment history, the requester shall be notified of the actual cost and shall be sent a bill under separate cover. Upon receipt of payment, processing results and non-exempt information shall be provided to the requester.

(2) In cases where the requester paid prior to processing, if the actual costs exceed the estimated costs, the requester shall be notified of the remaining fees due. Processing results and non-exempt information shall be provided to the requester upon payment of the amount in excess or, if less than $250.00, receipt of the requester's agreement to pay. If the requester refuses to pay the amount in excess, processing of the request will be terminated with notice to the requester.

(3) In cases where the requester paid prior to processing, if the actual costs are less than estimated fees which have been collected from the requester, processing results and the non-exempt information shall be provided to the requester, and the FOIA office shall advise Accounting and Financial Services of the need to refund funds to the requester.

(e) Fees for manual searches, review time and personnel costs associated with computer searches shall be computed according to the following schedule:

Type	Grade	Hourly rate
(1) Clerical	E9/GS8 and below.	$20
(2) Professional	O1–O6/GS9–GS15.	44
(3) Executive	O7/SCE/SLE/SLP.	75
(4) Contractor		44

(f) Fees for machine time involved in computer searches shall be based on the direct cost of retrieving information from the computer, including associated input/output costs.

(g) Search costs for audiovisual documentary material shall be computed as for any other record. Duplication costs shall be the actual, direct cost of reproducing the material, including the wage of the person doing the work. Audiovisual materials provided to a requester need not be in reproducible format or quality.

(h) Duplication fees shall be assessed according to the following schedule:

Type	Cost per page
(1) Office Copy	$.15
(2) Microfiche	.25
(3) Printed Material	.02

§ 299.7 Exempt records.

(a) Records meeting the exemption criteria of 5 U.S.C. 552 need not be published in the **Federal Register**, made available in a reading room, or provided in response to requests made under 5 U.S.C. 552.

(b) The first seven of the following nine FOIA exemptions may be used by the NSA/CSS to withhold information in whole or in part from public disclosure when there is a sound legal basis for protecting the information. Discretionary releases shall be made following careful Agency consideration of the interests involved.

(1) Records specifically authorized under criteria established by an Executive Order to be kept secret in the interest of national defense or foreign policy and which are in fact properly classified pursuant to such Executive Order.

(2) Records relating solely to the internal personnel rules and practices of an agency.

(3) Records which concern matters that a statute specifically exempts from disclosure, so long as the statutory exemptions permit no discretion on what matters are exempt; or matters which meet criteria established for withholding by the statute, or which are particularly referred to by the statute as being matters to be withheld. Examples of such statutes are:

(i) The National Security Agency Act of 1959 (Public Law 86–36 Section 6);

(ii) 18 U.S.C. 798;

(iii) 50 U.S.C. 403–3(c)(6);

(iv) 10 U.S.C. 130; and

(v) 10 U.S.C. 2305(g).

(4) Records containing trade secrets and commercial or financial information obtained from a person and privileged or confidential.

(5) Interagency or intra-agency memoranda or letters that would not be available by law to a party other than an agency in litigation with the agency.

(6) Personnel and medical files and similar files, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

(7) Investigatory records compiled for law enforcement purposes, but only to the extent that the production of such records:

(i) Could reasonably be expected to interfere with enforcement proceedings;

(ii) Would deprive a person of the right to a fair trial or to an impartial adjudication;

(iii) Could reasonably be expected to constitute an unwarranted invasion of personal privacy of a living person, including surviving family members of an individual identified in such a record;

(iv) Could reasonably be expected to disclose the identity of a confidential source, including a source within NSA/CSS, state, local, or foreign agency or authority, or any private institution which furnishes the information on a confidential basis, or could disclose information furnished from a confidential source and obtained by a criminal law enforcement authority in a criminal investigation or by an agency conducting a lawful national security intelligence investigation;

(v) Would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law; and

(vi) Could reasonably be expected to endanger the life or physical safety of any individual.

(8) Records contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions.

(9) Geological and geophysical information and data, including maps, concerning wells.

(c) Information which has not been given a security classification pursuant to the criteria of an Executive Order, but which may be withheld from the public for one or more of FOIA exemptions 2 through 9 cited in paragraphs (b)(2) through (b)(9) of this section, shall be considered ''UNCLASSIFIED//FOR OFFICIAL USE ONLY'' (U//FOUO). No other material shall be considered or marked U//FOUO. The marking of appropriate records with the U//FOUO designation at the time of their creation provides notice of U//FOUO content and shall facilitate review when a record is requested under the FOIA. However, records requested under the FOIA which do not bear the U//FOUO designation shall not be assumed to be releaseable without examination for the presence of information that requires continued protection and qualifies as exempt from public release.

Dated: May 16, 2003.

Patricia L. Toppings,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 03–12969 Filed 5–22–03; 8:45 am]

BILLING CODE 5001–08–P

DEPARTMENT OF DEFENSE

Department of the Army

32 CFR Part 574

RIN 0702–AA37

United States Soldiers' and Airmen's Home

AGENCY: Department of the Army, DoD.

ACTION: Final rule.

SUMMARY: This action removes obsolete regulations concerning the U.S. Soldiers' and Airmen's Home facility.

EFFECTIVE DATE: May 23, 2003.

ADDRESSES: Headquarters, Army Retirement Services, ATTN: DAPE–RSO, 200 Stovall St. Alexandria, VA 22332–0470

FOR FURTHER INFORMATION CONTACT: Mr. John Radke, (703) 325–9158.

SUPPLEMENTARY INFORMATION: The Headquarters. Army Retirement Services (DAPE–RSO), is the proponent for regulations in 32 CFR part 574 and, acting with the advice of his operations and legal staffs, had concluded these regulations are obsolete. Due to changes in the laws governing oversight of the U.S. Soldiers' and Airmen's Home, there is no longer a necessity for these regulations. After coordination with The Judge Advocate General (ATTN: DAJA–ALG) and the Office of the Deputy Chief of Staff, Air Force (ATTN: AF/DPI), it was rescinded April 1994. In August, DOD has rescinded DOD directive 1338.20, ''Armed forces Retirement Home (AFRH). Therefore, it would be helpful in avoiding confusion with the public if 32 CFR, Part 574, is removed.

List of Subjects in 32 CFR Part 574

United States Soldiers' and Airmens Home

PART 574—[REMOVED]

■ Accordingly, for reasons stated in the preamble, under the authority of the Armed Forces Retirement Home Act of 1991 (Pub. L. 101–510, Title XV, Nov. 5, 1990) and subsequent amendments now codified at Chapter 10 Title 24, U.S. Code (24 U.S.C. 401–433), 32 CFR part 574, *United States Soldiers' and Airmen's Home,* is removed in its entirety.

Luz D. Ortiz,

Army Federal Register Liaison Officer.

[FR Doc. 03–13009 Filed 5–22–03; 8:45 am]

BILLING CODE 3710–08–M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[DA 03–1226; MB Docket No. 03–27, RM–10631]

Radio Broadcasting Services; Cotulla and Dilley, TX

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Audio Division, at the request of IH–35 Broadcasters, allots Channel 264A to Cotulla, Texas, as the community's third local FM service. In order to accommodate the allotment at Cotulla, the Audio Division substitutes Channel 229A for vacant Channel 264A at Dilley, Texas. *See* 68 FR 7963, February 19, 2003. Channel 264A can be allotted to Cotulla, Texas, consistent with the minimum distance separation requirement of the Commission's rules at city reference coordinates. The reference coordinates for Channel 264A at Cotulla are 28–26–12 north latitude and 99–14–05 west longitude. Although concurrence has been requested for Channel 264A at Cotulla, notification has not been received. If a construction permit is granted prior to the receipt of formal concurrence in the allotment by the Mexican government, the construction permit will include the following condition: ''Operation with the facilities specified for Cotulla herein is subject to modification, suspension or, termination without right to hearing, if found by the Commission to be necessary in order to conform to the 1992 USA-Mexico FM Broadcast Agreement.'' Additionally, Channel

229A can be allotted to Dilley, Texas, consistent with the minimum distance separation requirements of the Commission's rules, provided there is a site restriction 6.3 kilometers (3.9 miles) south of the community. The reference coordinates for Channel 229A at Dilley are 28–36–56 north latitude and 99–10–48 west longitude.

Although concurrence has been requested for Channel 229A at Dilley, notification has not been received. If a construction permit is granted prior to the receipt of formal concurrence in the allotment by the Mexican government, the construction permit will include the following condition: ''Operation with the facilities specified for Dilley herein is subject to modification, suspension or, termination without right to hearing, if found by the Commission to be necessary in order to conform to the 1992 USA-Mexico FM Broadcast Agreement.'' A filing window for Channel 264A at Cotulla, Texas and Channel 229A at Dilley, Texas, will not be opened at this time. Instead, the issue of opening a filing window for these channels will be addressed by the Commission in a subsequent order.

DATES: Effective June 16, 2003.

ADDRESSES: Federal Communications Commission, 445 Twelfth Street, SW., Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: Rolanda F. Smith, Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's report and order, MB Docket No. 03–27, adopted April 28, 2003, and released April 30, 2003. The full text of this Commission decision is available for inspection and copying during regular business hours at the FCC's Reference Information Center, Portals II, 445 Twelfth Street, SW., Room CY–A257, Washington, DC 20554. The complete text of this decision may also be purchased from the Commission's duplicating contractor, Qualex International, Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone 202–863–2893, facsimile 202–863–2898, or via e-mail *qualexint@aol.com.*

List of Subjects in 47 CFR Part 73

Radio, Radio broadcasting.

PART 73—RADIO BROADCAST SERVICES

■ 1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334 and 336.

§ 73.202 [Amended]

■ 2. Section 73.202(b), the Table of FM Allotments under Texas, is amended by adding Channel 264A at Cotulla, by removing Channel 264A and by adding Channel 229A at Dilley.

Federal Communications Commission.

John A. Karousos,

Assistant Chief, Audio Division, Media Bureau.

[FR Doc. 03–12966 Filed 5–22–03; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 78

[CS Docket No. 99–250, FCC 02–149]

Cable Television Relay Service

AGENCY: Federal Communications Commission.

ACTION: Final rule, announcement of effective date.

SUMMARY: The Federal Communications Commission has received Office of Management and Budget (OMB) approval for the public information collection contained in the Commission's decision expanding the eligibility for licenses in the Cable Television Relay Service (CARS) to all Multichannel Video Programming Distributors (MVPDs).

DATES: Section 78.13(f) published at 67 FR 43257, June 27, 2002, received OMB approval and was effective March 13, 2003.

FOR FURTHER INFORMATION CONTACT: Wayne T. McKee, 202–418–2355.

SUPPLEMENTARY INFORMATION: The Federal Communications Commission has received OMB approval for the expansion of the class of those eligible to file FCC Form 327, Application for a Television Relay Service Station Authorization, OMB Control No. 3060–0055. The information collection was revised in the Order in CS Docket No. 99–250 which appears at 67 FR 43257, June 27, 2002. The effective date of the rules adopted in that Order was published as July 29, 2002, except for § 78.13(f) which contains modified information collection requirements that would not be effective until approved by the Office of Management and Budget. Through this document, the Commission announces that it has received this approval (OMB Control No. 3060–0110, Expiration Date: August 31, 2003) and that § 78.13(f) is effective on March 13, 2003.

Pursuant to the Paperwork Reduction Act of 1995, Public Law 96–511, an agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. Notwithstanding any other provisions of law, no person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Questions concerning the OMB control numbers and expiration dates should be directed to Les Smith, Federal Communications Commission, (202) 418–0217.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 03–12918 Filed 5–22–03; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

49 CFR Part 1180

[STB Ex Parte No. 282 (Sub–No. 20)]

Railroad Consolidation Procedures—Exemption For Temporary Trackage Rights

AGENCY: Surface Transportation Board.

ACTION: Final rule.

SUMMARY: The Surface Transportation Board (Board) amends its rules to exempt from regulation, under 49 U.S.C. 10502, as a class, authorization of temporary trackage rights proposals under 49 U.S.C. 11323 that are based on written agreements, are not filed or sought in responsive applications in rail consolidation proceedings, are limited to overhead operations, and expire on a date certain. This class exemption would permit authorization of temporary trackage rights for a limited period of time, not to exceed 1 year from the effective date of the exemption. It would also permit termination of such rights without the need to file for discontinuance authority at the end of the authorization period, as the authority would automatically terminate on the date specified. Carriers taking advantage of this class exemption are subject to the standard provisions for the protection of employees. The exemption automatically removes these transactions from regulatory oversight and simplifies and expedites the process for commencing temporary trackage rights operations. The regulations at 49 CFR Part 1180 are amended, as set forth in the Appendix, to implement this action.

DATES: This rule is effective on June 22, 2003.

FOR FURTHER INFORMATION CONTACT: Joseph H. Dettmar, (202) 565–1600. [Federal Information Relay Service (FIRS) for the hearing impaired: 1–800–877–8339.]

SUPPLEMENTARY INFORMATION: The rules adopted here were initially proposed in the **Federal Register** at 68 FR 6695, on February 10, 2003. Additional information is contained in the Board's decision. Copies of the Board's decision may be purchased from Da-2-Da Legal Copy Service by calling 202–293–7776 (assistance for the hearing impaired is available through FIRS at 1–800–877–8339) or visiting Suite 405, 1925 K Street, NW., Washington, DC 20006.

By a separate decision served on February 10, 2003, in these proceedings, the Director of the Office of Proceedings has certified that this rule would not have a significant impact on a substantial number of small entities. The Board has received no public comment disputing the certification.

This action will not significantly affect either the quality of the human environment or the conservation of energy resources.

List of Subjects in 49 CFR Part 1180

Administrative practice and procedure, Railroads.

Authority: 49 U.S.C. 10502(b) and 5 U.S.C. 553.

Decided: May 9, 2003.

By the Board, Chairman Nober and Commissioner Morgan.

Vernon A. Williams,

Secretary.

■ For the reasons set forth in the preamble, the Surface Transportation Board amends part 1180 of title 49, chapter X, of the Code of Federal Regulations as follows:

PART 1180—RAILROAD ACQUISITION, CONTROL, MERGER, CONSOLIDATION PROJECT, TRACKAGE RIGHTS, AND LEASE PROCEDURES

■ 1. The authority citation for Part 1180 continues to read as follows:

Authority: 5 U.S.C. 553 and 559; 11 U.S.C. 1172; 49 U.S.C. 721, 10502, and 11323–11325.

■ 2. Amend § 1180.2 by revising the first sentence of paragraph (d) introductory text and by adding a new paragraph (d)(8) to read as follows:

§ 1180.2 Types of transactions.

* * * * *

(d) A transaction is exempt if it is within one of the eight categories described in paragraphs (d)(1) through (8). * * *

* * * * *

(8) Acquisition of temporary trackage rights by a rail carrier over lines owned or operated by any other rail carrier or carriers that are: (i) based on written agreements, (ii) not filed or sought in responsive applications in rail consolidation proceedings, (iii) for overhead operations only, and (iv) scheduled to expire on a specific date not to exceed 1 year from the effective date of the exemption. If the operations contemplated by the exemption will not be concluded within the 1-year period, the parties may, prior to expiration of the period, file a request for a renewal of the temporary rights for an additional period of up to 1 year, including the reason(s) therefor. Rail carriers acquiring temporary trackage rights need not seek authority from the Board to discontinue the trackage rights as of the expiration date specified under 49 CFR 1180.4(g)(2)(iii). All transactions under these rules will be subject to applicable statutory labor protective conditions.

■ 3. Amend § 1180.4 by adding new paragraphs (g)(2)(iii) and (iv) to read as follows:

§ 1180.4 Procedures.

* * * * *

(g) * * *

(2) * * *

(iii) To qualify for an exemption under § 1180.2(d)(8) (acquisition of temporary trackage rights), in addition to the notice, the railroad must file a caption summary suitable for publication in the **Federal Register**. The caption summary must be in the following form:

Surface Transportation Board

Notice of Exemption

STB Finance Docket No.

(1)—Temporary Trackage Rights—(2)

(2) (3) to grant overhead temporary trackage rights to (1) between (4). The temporary trackage rights will be effective on (5). The authorization will expire on (6).

This notice is filed under § 1180.2(d)(8). Petitions to revoke the exemption under 49 U.S.C. 10502(d) may be filed at any time. The filing of a petition to revoke will not stay the transaction.

Dated:
By the Board.
[Insert name]
Secretary.

The following key identifies the information symbolized in the summary.

(1) Name of the tenant railroad.

(2) Name of the landlord railroad.

(3) If an agreement has been entered use ''has agreed,'' but if an agreement has been reached but not entered use ''will agree.''

(4) Describe the temporary trackage rights.

(5) State the date the temporary trackage rights agreement is proposed to be consummated.

(6) State the date the authorization will expire (not to exceed 1 year from the date the trackage rights will become effective).

(iv) The Board will publish the caption summary in the **Federal Register** within 20 days of the date that it is filed with the Board. The filing of a petition to revoke under 49 U.S.C. 10502(d) does not stay the effectiveness of an exemption.

* * * * *

[FR Doc. 03–12449 Filed 5–22–03; 8:45 am]

BILLING CODE 4915–00–P

Proposed Rules

Federal Register
Vol. 68, No. 100
Friday, May 23, 2003

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 51

[Docket Number FV–98–304]

United States Standards for Grades of Pistachio Nuts in the Shell, and United States Standards for Grades of Shelled Pistachio Nuts

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Proposed rule.

SUMMARY: The proposed rule would revise the United States Standards for Grades of Pistachio Nuts in the Shell and the United States Standards for Grades of Shelled Pistachio Nuts. The proposed revisions would modify the standards to more closely align grade names with other tree-nut commodities and current industry-recognized marketing terms, reduce the tolerance for internal defects for the purpose of providing a higher degree of quality assurance, relax tolerances of the level of light stain on the shell in the various grade levels based on consumer preferences, more objectively define when nuts are damaged by various factors, and include two in-shell grade specifications which reflect the industry's byproduct. These changes are being proposed by the Agricultural Marketing Service (AMS) to promote greater uniformity and consistency in the standards. The current grades and standards were adopted in 1986 and 1990, respectively. These changes are needed to provide consistency with current marketing practices.

DATES: Comments must be received by June 23, 2003.

ADDRESSES: Interested parties are invited to submit written comments concerning this proposal. Comments must be sent to the Standardization Section, Fresh Products Branch, Fruit and Vegetable Programs, Agricultural Marketing Service, U.S. Department of Agriculture, 1400 Independence Avenue, SW., Room 2065 South Building, Stop 0240, Washington, DC 20250–0240; Fax (202) 720–8871; E-mail *FPB.DocketClerk@usda.gov.* Comments should reference the date and page number of this issue of the **Federal Register** and will be made available for public inspection at the above office during regular business hours.

FOR FURTHER INFORMATION CONTACT: David L. Priester, at the above address or call (202) 720–2185; E-mail *David.Priester@usda.gov.*

SUPPLEMENTARY INFORMATION:

Executive Order 12988 and 12866

This rule has been reviewed under Executive Order 12988, Civil Justice Reform. This action is not intended to have retroactive effect. This rule will not preempt any State or local laws, regulations, or policies, unless they present an irreconcilable conflict with this rule. There are no administrative procedures which must be exhausted prior to any judicial challenge to the provisions of the rule. The Office of Management and Budget has waived the review process required by Executive Order 12866 for this action.

Regulatory Flexibility Act

Pursuant to the requirements set forth in the Regulatory Flexibility Act (RFA), AMS has considered the economic impact of this action on small entities. The purpose of the RFA is to fit regulatory actions to the scale of businesses subject to such actions so that small businesses will not be unduly or disproportionately burdened. Accordingly, AMS has prepared this initial regulatory flexibility analysis. Interested parties are invited to submit information on the regulatory and informational impacts of this action on small businesses.

Available information provided by the California Pistachio Commission (CPC) show that there are 647 California pistachio producers and 19 California handlers of pistachio nuts, most of which are also growers or have grower members. Additional information provided by CPC show that 445 California pistachio producers (69% of the total) produce less than 100,000 pounds per year; 100 producers (15%) produce more than 100,000 and less than 250,000 pounds; 43 growers (7%) produce more than 250,000 and less than 500,000 pounds; and 59 producers (9%) grow more than 500,000 pounds. U.S. grade standards for pistachios would normally be used at the sales level of marketing, which is ordinarily carried out at the processor/packer level or after processing has been completed. Pistachio nuts may be marketed by multiple commodity marketing firms.

The California Department of Food and Agriculture Resource Directory 2002, reports that California accounted for more than 99 percent of domestic pistachio production. More current information available to the Department indicates that California has 97 percent of domestic production with Arizona at 2 percent and New Mexico with less than 1 percent.

Small agricultural service firms, which include handlers (packers, brokers, distributors, importers, *etc.*), have been defined by the Small Business Administration (SBA) (13 CFR 121.601) as those having annual receipts of less than $5,000,000 and small agricultural producers are defined as those having annual receipts of less than $750,000. The pistachio industry is characterized by growers that produce from .1 to more than 500 acres. Approximately 9 percent of the California pistachio growers receive more than $550,000 annually. Only a portion of these producers would meet SBA's definition of a small agricultural producer. At least 12 of the California pistachio handlers (or 63 percent of the total) could be considered small businesses under SBA's definition. We would expect that similar size determinations would hold for the remainder of domestic production.

This rule revises the standards in order to more closely align the grade names with other tree nut commodities and current industry recognized marketing terms, reduce the tolerance for internal defects for the purpose of providing a higher degree of quality assurance to consumers, relax the level of light stain on the shell, more objectively define when nuts are damaged by various factors, and establish two additional grades which reflect the industry's marketing of in-shell byproducts. The benefits of this rule are not expected to be disproportionately greater or smaller for small handlers or producers than for large entities.

Alternatives were considered for this action. One alternative would be to not

issue a rule. However, the need for revisions have increased as a result of changing marketing characteristics by industry, several years of work with the industry to assess market and grower implications, and other input from all sectors of the pistachio industry and government. Since the purpose of these standards is to expedite the marketing of pistachio nuts in the U.S., not revising the standards would result in disuse of national standards and confusion in terms of industry marketing and the proper application of the grade standards.

This action will make the standards more consistent and uniform with current industry terms and practices. This action would not impose substantial direct economic cost, record keeping, or personnel workload changes on small entities, and it would not alter the market share or competitive position of these entities relative to large businesses. USDA has not identified any Federal rules that currently duplicate, overlap, or conflict with this rule. In addition, under the Agricultural Marketing Act of 1946, the use of these standards is voluntary.

This proposed rule would revise the United States Standards for Grades of Pistachio Nuts in the Shell and the United States Standards for Grades of Shelled Pistachio Nuts that were issued under the Agricultural Marketing Act of 1946. These standards are voluntarily used by industry as a common trading language to market pistachio nuts under established and known specifications. In some transactions, the buyer and seller may establish their own specifications for the sale, use portions of the U.S. standards while altering other portions to fit the sale and needs of the parties, or use the U.S. standards as written.

At the time of its 1998 request to AMS, the CPC issued ''industry standards'' based on the requested changes and encouraged California pistachio nuts to be marketed under those standards. The use of the voluntary ''industry standards'' for national and international marketing with official certification by USDA inspectors based on these standards has continued for three marketing seasons. The changes proposed herein are based on the standards currently being used by the industry to market U.S. grown pistachio nuts nationally and internationally.

Background

The United States Standards for Grades of Pistachio Nuts in the Shell and the United States Standards for Grades of Shelled Pistachio Nuts were developed in 1986 and 1990, respectively. At that time, the U.S. pistachio industry was beginning to compete in a global market. As the industry has grown in numbers of growers and processors and in volume, the current grade standards have been regularly used as a basis of marketing. In recent years, foreign and domestic buyers have developed customers that have uses for nuts which have specifications outside the scope of the U.S. grade standards. In addition, U.S. marketers have begun to offer for sale byproduct forms of pistachio nuts for which there are no uniform marketing specifications in the form of recognized grade standards.

AMS received a request to update and revise the United States Standards for Grades of Pistachio Nuts in the Shell and the United States Standards for Grades of Shelled Pistachio Nuts from the CPC. The CPC is the State-approved marketing agent for the California pistachio industry and represents nearly all commercial pistachio producers and handlers in California. AMS and its State cooperator in California have been closely working with the CPC and its members since 1994 to review and update the industry grade standards. Official inspection services, with these U.S. grade standards as the basis, have been used by the industry since the inception of the standards.

Currently, the majority of U.S. pistachio production, and more than 30 percent of worldwide pistachio production, originates from California. The California industry, in cooperation with the CPC, began a comprehensive review of the current standards in 1994. As this process evolved, the industry tested possible revision theories through hands-on testing in the packing plants, through consumer preference studies, and through public meetings with processors, growers and other interested parties. This was initiated in order to review the standards and meet the marketing needs of the U.S. pistachio industry and the preferences of industry buyers and the general public. As a result of this study, the CPC, acting on behalf of California growers and shippers, requested an amendment to the standards.

This proposal would revise the standards to more closely align the grade names with other tree nut commodities and current industry recognized marketing terms, reduce the tolerance for internal defects for the purpose of providing a higher degree of quality assurance to consumers, relax the level of light stain on the shell, more objectively define when nuts are damaged by various factors, and establish two additional grades which reflect the industry's marketing of in-shell byproducts. These changes are intended to update the standards to maintain their usefulness as they are applied to today's marketing challenges, both nationally and internationally.

The following is an outline of these changes, including discussion on the need for the changes.

UNITED STATES STANDARDS FOR GRADES OF PISTACHIO NUTS IN THE SHELL

Current standard	Proposed	Discussion
§ 51.2540 General (a) Compliance with the provisions of these standards shall not excuse failure to comply with provisions of applicable Federal or State laws. (b) These standards are applicable to pistachio nuts in the shell which may be in a natural, dyed, raw, roasted, or salted state; or in any combination thereof. However, nuts of obviously dissimilar forms shall not be commingled.	**§ 51.2540 General** (a) Compliance with the provisions of these standards shall not excuse failure to comply with provisions of applicable Federal or State laws. (b) These standards are applicable to pistachio nuts in the shell which may be in a natural, dyed, raw, roasted, or salted state; or in any combination thereof.	Removal of the sentence ''However, nuts of obviously dissimilar forms shall not be commingled,'' would provide industry with additional flexibility to meet customer specifications and needs.

UNITED STATES STANDARDS FOR GRADES OF PISTACHIO NUTS IN THE SHELL—Continued

Current standard	Proposed	Discussion
§ 51.2541 Grades	**§ 51.2541 U.S. Fancy, U.S. Extra No. 1, U.S. No. 1 and U.S. Select Grades**	The title of this section is proposed to be changed to accommodate revised grade name designations and the addition of by-product grades following this section.
''U.S. Fancy,'' ''U.S. No. 1,'' ''U.S. No. 2,'' and ''U.S. No. 3'' consist of pistachio nuts in the shell which meet the following requirements:	''U.S. Fancy,'' ''U.S. Extra No. 1,'' ''U.S. No. 1,'' and ''U.S. Select'' consist of pistachio nuts in the shell which meet the following requirements:	It is proposed to change the grade names of ''U.S. No. 1,'' ''U.S. No. 2,'' and ''U.S. No. 3'' to ''U.S. Extra No. 1,'' ''U.S. No. 1,'' and ''U.S. Select.'' This would harmonize the grade references to be similar with other tree nut standards and observe current industry marketing terms.
(a) Basic requirements: (1) Free from: (i) Foreign material; (ii) Loose kernels; (iii) Shell pieces; (iv) Particles and dust; and, (v) Blanks. (b) Shells: (1) Free from: (i) Non-split shells; and, (ii) Shells not split on suture. (2) Free from damage by: (i) Adhering hull material; (ii) Light stained; (iii) Dark stained; and, (iv) Other External (shell) defects. (c) Kernels: (1) Well dried, or, very well dried when specified in connection with the grade.	(a) Basic requirements: (1) Free from: (i) Foreign material; (ii) Loose kernels; (iii) Shell pieces; Particles and dust; and, (v) Blanks. (b) Shells: (1) Free from: (i) Non-split shells; and, (ii) Shells not split on suture. (2) Free from damage by: (i) Adhering hull material; (ii) Light stained; (iii) Dark stained; and, (iv) Other External (shell) defects. (c) Kernels: (1) Well dried, or, very well dried when specified in connection with the grade.	There is no change in this text.
(2) Free from damage by: (i) Minor mold; (ii) Immature kernels; (iii) Kernel spots; and, (iv) Other Internal (kernel) defects.	(2) Free from damage by: (i) Immature kernels; (ii) Kernel spotting; and, (iii) Other Internal (kernel) defects.	It is proposed to delete the term ''minor mold'' as the term is no longer used by the industry. All visible mold is considered under the same definition and grading category. This would result in a rearrangement of the current numerical outline designations for other factors in the standards.
(3) Free from serious damage by: (i) Minor insect or vertebrate injury; (ii) Insect damage; (iii) Mold; (iv) Rancidity; (v) Decay; and, (vi) Other Internal (kernel) defects.	(3) Free from serious damage by: (i) Minor insect or vertebrate injury; (ii) Insect damage; (iii) Mold; (iv) Rancidity; (v) Decay; and, (vi) Other Internal (kernel) defects.	There is no change in this text.
(d) The nuts are of a size not less than 26/64 inch in diameter as measured by a round hole screen.	(d) The nuts are of a size not less than 30/64 inch in diameter as measured by a round hole screen.	It is proposed to increase the minimum size by 4/64 inch in diameter, which is the current industry trading practice. Nuts smaller than 30/64 inch in diameter typically have more defects affecting the quality of the end product and it is general industry practice to use nuts smaller than this minimum size as a shelled product or for manufacturing. This change conforms with current industry practices and will ultimately provide consumers with higher quality and larger nuts.
(e) For Tolerances, see § 51.2542.	(e) For Tolerances, see § 51.2544.	The section number is changed to accommodate the addition of two byproduct grade definitions.
§ 51.2542 Tolerances (See tolerances section below for a side-by-side comparison of current and proposed standards.)	**§ 51.2542 U.S. Artificially Opened**	The title for this section is re-designated to allow for the establishment of the U.S. Artificially Opened grade.

UNITED STATES STANDARDS FOR GRADES OF PISTACHIO NUTS IN THE SHELL—Continued

Current standard	Proposed	Discussion
	''U.S. Artificially Opened'' consists of artificially opened pistachio nuts in the shell which meet the following requirements: (a) Basic Requirements: (1) Free from: (i) Foreign material; (ii) Loose kernels; (iii) Shell pieces; (iv) Particles and dust; and, (v) Blanks. (b) Shells: (1) Free from: (i) Non-split shells; and, (ii) Shells not split on suture. (2) Free from damage by: (i) Adhering hull material; (ii) Light stained; (iii) Dark stained; and, (iv) Other External (shell) defects. (c) Kernels; (1) Well dried, or, very well dried when specified in connection with the grade; (2) Free from damage by: (i) Immature kernels; (ii) Kernel spotting; and, (iii) Other Internal (kernel) defects. (3) Free from serious damage by: (i) Minor insect or vertebrate injury; (ii) Insect damage; (iii) Mold; (iv) Rancidity; (v) Decay; and, (vi) Other Internal (kernel) defects. (d) The nuts are of a size not less than 30/64 inch in diameter as measured by a round hole screen. (e) For Tolerances, *see* § 51. 2544.	It is proposed to establish a ''U.S. Artificially Opened'' grade, which would acknowledge the evolution in the industry's practice of marketing its byproducts. Tables I, II and III establish tolerances for this grade level. Current industry marketing practices are to artificially open nuts which do not open naturally on the tree. This is accomplished either mechanically or through hand cracking. Specific requirements for this grade level are the same as is currently being proposed in the previously discussed U.S. grades. Tolerances for defective nuts are established at the same level as the proposed U.S. Select grade level. Internal (kernel) defects are the same as those cited in other grade levels.
§ 51.2543 Application of Tolerances (See application of tolerances section below for a side-by-side comparison of current and proposed standards.)	**§ 51.2543 U.S. Non-Split Grade**	The title for this section is re-designated to allow for the establishment of the ''U.S. Non-Split'' grade.
	''U.S. Non-Split'' consists of non-split pistachio nuts in the shell which meet the following requirements: (a) Basic requirements: (1) Free from: (i) Foreign material; (ii) Loose kernels; (iii) Shell pieces; (iv) Particles and dust; and, (v) Blanks.	It is proposed to establish a ''U.S. Non-Split'' grade which would acknowledge the evolution in the industry's practice of marketing its byproducts. Tables I, II and III establish tolerances for this grade level. Current industry marketing practices are to artificially open, shell or sort and sell nuts which do not open naturally on the tree. Use of this grade level would be for nuts that are primarily sorted and sold for further processing. Ultimate users of unopened nuts may artificially open these nuts by hand or mechanical means or mechanically shell them and use the kernel as a food source. Artificially opened nuts may be further sorted and designated according to the ''U.S. Artificially Opened'' grade, previously discussed, or shelled and designated according to grade levels defined in the U.S. Standards for Grades of Shelled Pistachio Nuts, discussed elsewhere in this proposed rule.

UNITED STATES STANDARDS FOR GRADES OF PISTACHIO NUTS IN THE SHELL—Continued

Current standard	Proposed	Discussion
	(b) Shells: (1) Free from damage by: (i) Adhering hull material; and, (ii) Dark stain. (c) Kernels: (1) Well dried, or very well dried when specified in connection with the grade. (2) Free from damage by: (i) Immature kernels; (ii) Kernel spotting; and, (iii) Other internal (kernel) defects. (3) Free from serious damage by: (i) Minor insect or vertebrate injury; (ii) Insect damage; (iii) Mold; (iv) Rancidity; (v) Decay; and, (vi) Other internal (kernel) defects. (d) The nuts are of a size not less than 30/64 inch in diameter as measured by a round hole screen. (e) For Tolerances, see § 51.2544.	External (shell) defects under this grade are only adhering hull material and dark stain. Other factors affecting the shells would not be considered as a defect. Internal (kernel) defects are the same as those noted in other grade levels.
§ 51.2544 Size (See size section below for a side-by-side comparison of current and proposed standards.)	**§ 51.2544 Tolerances**	The title and section number is proposed to be re-designated to allow for the previous establishment of the ''U.S. Artificially Opened'' and ''U.S. Non-Split'' grades.
§ 51.2542 Tolerances (a) In order to allow for variations incident to proper grading and handling, the tolerances in Tables I, II, III and paragraph (b) of this section are provided. (*See* tables below.) (b) No lot shall contain more than 4 percent loose kernels, by weight.	**§ 51.2544 Tolerances** (a) In order to allow for variations incident to proper grading and handling, the tolerances in Tables I, II, III of this section are provided.	The tolerance for nuts smaller than the minimum size is proposed to be reduced from 5 percent to 4 percent. This is included in Table 1. Industry sorting and sizing practices and the use of electronic sorting equipment make it possible to eliminate the smaller nuts and further reduce this tolerance. Paragraph (b), which establishes a tolerance for loose kernels, and the reference to it are proposed to be deleted from this section. The tolerance established under this paragraph has been incorporated into Table III, Line (d). Refer to Tables I, II and III and to subsequent discussion for proposed changes and established tolerances for the grades.

Tolerances and Proposed Tolerances for United States Standards for Grades of Pistachio Nuts in the Shell

TABLE I.—EXTERNAL (SHELL) DEFECTS

Factor	Current	Proposed	Current	Proposed	Current	Proposed	Current	Proposed	Proposed	Proposed
	U.S. fancy	U.S. fancy	U.S. No. 1	U.S. extra No. 1	U.S. No. 2	U.S. No. 1	U.S. No. 3	U.S. select	U.S. artificially opened	U.S. non-split
External (shell Defects) (tolerances by weight)	Percent		Percent		Percent		Percent		Percent	Percent
(a) Non-split and not split on suture	2	2	3	3	6	6	10	10	10	N/A
(1) Non-split included in (a)	1	1	2	2	4	3	4	4	4	N/A
(b) Adhering hull material	1	1	1	1	2	1	2	2	2	2
(c) Light stained	7	7	12	12	20	25	35	N/A	N/A	N/A
(1) Dark stained, included in (c)	2	2	3	3	4	3	6	3	3	3
(d) Damage by other means	1	1	1	1	1	2	2	3	10	N/A
(e)Total external defects	N/A	9	N/A	16	N/A	N/A	N/A	N/A	N/A	N/A
	5	(1)	5	(1)	5	(1)	5	(1)	N/A	N/A
(f) Undersized (Less than 30/64 inch in diameter)	N/A	4	N/A	4	N/A	4	N/A	4	4	4

[1] Delete.

Table I Discussion:

In Line (a), pertaining to Non-Split and Not Split on Suture nuts, there are no changes in tolerances for the current grades. In Line (a)(1), included in Line (a), pertaining to Non-Split, the tolerance is reduced from 4 percent to 3 percent, in the U.S. No. 1 grade (Previously U.S. No. 2).

In Line (b), pertaining to Adhering Hull Material, the tolerance in the U.S. No. 1 grade (Previously U.S. No. 2) is reduced from 2 percent to 1 percent. In Line (c), pertaining to Light Stained, the tolerance in the U.S. No. 1 grade (Previously U.S. No. 2) is increased from 20 percent to 25 percent and increased from a maximum of 35 percent to unlimited in the U.S. Select grade (Previously U.S. No. 3). In Line (c)(1), included in Line (c), pertaining to Dark Stained, the tolerance in the U.S. No. 1 grade (Previously U.S. No. 2) is reduced from 4 percent to 3 percent and is reduced from 6 percent to 3 percent in the U.S. Select grade (Previously U.S. No. 3).

In line (d), pertaining to Damage by Other Means, the tolerance in the U.S. No. 1 grade (Previously U.S. No. 2) is increased from 1 percent to 2 percent and in the U.S. Select grade (Previously U.S. No. 3) is increased from 2 percent to 3 percent.

Line (e), pertaining to nuts less than 26⁄64 inch in diameter and which established a tolerance of 5 percent for small and 1 percent for larger sizes, is deleted and replaced by a new Line (e) which establishes a maximum percentage of total External Defects allowed in the U.S. Fancy and U.S. Extra No. 1 grades. Previously, these maximums were only limited by the total additive percentage of all primary defects allowed under the applicable grade level. Maximum tolerances for other grade levels established in these grade standards are not specified and the maximum allowable is dependent on the total additive percentage of all primary defects listed.

Line (f) is established to provide a maximum of 4 percent for Undersized (Less than 30⁄64 inch in diameter) in all grades, including the newly established levels.

Tolerances in the U.S. Artificially Opened grade are established at the same levels at the U.S. Select (previously U.S. No. 3) grade, except that any amount of light stain of the shell shall be allowed the tolerance for Damage by Other Means (line (d)) is established at 10 percent and that there shall be no established maximum tolerance for shell defects.

Tolerances in the U.S. Non-Split grade are established for Adhering Hull Material and Dark Stained. Other defects, applicable under the other grade levels do not apply under this grade. Any factors other than Adhering Hull Material or Dark Stained are unlimited as to the percentage of which may be contained.

TABLE II.—INTERNAL (KERNEL) DEFECTS

Factor	Current	Proposed	Current	Proposed	Current	Proposed	Current	Proposed	Proposed	Proposed
	U.S. fancy	U.S. fancy	U.S. No. 1	U.S. extra No. 1	U.S. No. 2	U.S. No. 1	U.S. No. 3	U.S. select	U.S. artificially opened	U.S. non-split
Internal (Kernel) Defects (tolerances by weight)	Percent		Percent		Percent		Percent		Percent	Percent
(a) Damage	3	3	6	6	8	6	8	6	6	6
(b) Serious Damage	3	3	4	4	5	4	5	4	4	4
(1) Insect Damage, mold, rancid, decay, included in (b)	1	1	2	2	3	2	3	2	2	2
(c) Total Internal Defects	5	4	9	8	10	9	10	9	9	9

Table II Discussion:

In Line (a), pertaining to Damage, tolerances are reduced from 8 percent to 6 percent in the U.S. No. 1 (Previously U.S. No. 2) and U.S. Select (Previously U.S. No. 3) grades. Maximum tolerances for Damage are established at 6 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

In Line (b), pertaining to Serious Damage, tolerances are reduced from 5 percent to 4 percent in the U.S. No. 1 (Previously U.S. No. 2) and U.S. Select (Previously U.S. No. 3) grades. Maximum tolerances for Serious Damage are established at 4 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

In Line (b) (1), pertaining to Insect Damage, Mold, Rancid, and Decay, Included in Line (b), tolerances are reduced from 3 percent to 2 percent in the U.S. No. 1 (Previously U.S. No. 2) and U.S. Select (Previously U.S. No. 3) grades. Maximum tolerances for these factors are established at 2 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

In Line (c), pertaining to Total Internal Defects, tolerances are reduced from 5 percent to 4 percent in the U.S. Fancy grade; from 9 percent to 8 percent in the U.S. Extra No. 1 grade (Previously U.S. No. 2); from 10 percent to 9 percent in the U.S. No. 1 and U.S. Select grades (Previously U.S. No. 2 and U.S. No. 3). Maximum tolerances for these factors are established at 9 percent for the U.S. Artifically Opened and the U.S. Non-Split grades.

TABLE III.—OTHER DEFECTS

Factor	Current	Proposed	Current	Proposed	Current	Proposed	Current	Proposed	Proposed	Proposed
	U.S. fancy	U.S. fancy	U.S. No. 1	U.S. extra No. 1	U.S. No. 2	U.S. No.1	U.S. No. 3	U.S. Select	U.S. artifically opened	U.S. non-split
Other Defects (tolerances by weight)	Percent		Percent		Percent		Percent		Percent	Percent
(a) Shell pieces and blanks	1	2	1	2	2	2	2	2	2	2
(1) Blanks, included in (a)		1		1		1		1	1	1
(b) Foreign material (No glass, metal or live insects shall be permitted)	.25	.25	.25	.25	.50	.25	.50	.25	.25	.25
(c) Particles and Dust	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25
(d) Loose kernels	4	4	4	5	4	6	4	6	6	6

Table III Discussion:

In Line (a), pertaining to Shell Pieces and Blanks, tolerances are increased from 1 percent to 2 percent in the proposed U.S. Fancy and U.S. Extra No. 1 grades (Previously U.S. Fancy and U.S. No. 1, respectively). There is no change in the subsequent grade levels. Maximum tolerances are established at 2 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

In Line (a) (1), included as a part of Line (a) and pertaining to Blanks, a separate tolerance of 1 percent for Blanks is established in all grade levels. This is the same tolerance previously established for a combination of shell pieces and Blanks. Thus, the absolute tolerance for Blanks remains the same as previously established. Maximum tolerances are established at 1 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

In Line (b), pertaining to Foreign Material, the total tolerance in the U.S. No. 1 and U.S. Select grades (Previously U.S. No. 2 and U.S. No. 3 grades, respectively) is reduced from .50 percent to .25 percent. Maximum tolerances are established at .25 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

In Line (c), pertaining to Particles and Dust, there is no change in the tolerances for any of the established grade levels. The tolerance level for the U.S. Artificially Opened and the U.S. Non-Split grades is established at .25 percent.

In Line (d), pertaining to Loose Kernels, tolerances are established as a part of this table. Previously, the tolerances were established at 4 percent under paragraph (b) of the section. For the U.S. Fancy grade, tolerances remain at 4 percent. For the U.S. Extra No. 1 grade (Previously U.S. No. 1), the tolerance is increased to 5 percent. For the U.S. No. 1 and U.S. Select grades (Previously U.S. No. 2 and U.S. No. 3, respectively), tolerances are increased to 6 percent. Maximum tolerances are established at 6 percent for the U.S. Artificially Opened and the U.S. Non-Split grades.

Current Standard	Proposed	Discussion
§ 51.2545 Definitions (*See* definitions section below for a side-by-side comparison of current and proposed standards.)	**§ 51.2545 Application of Tolerances**	The title and section number is proposed to be redesignated to allow for the previous establishment of the ''U.S. Artificially Opened'' and ''U.S. Non-Split'' grades.

Current Standard	Proposed	Discussion
§ 51.2543 Application of Tolerances The tolerances for the grades apply to the entire lot and shall be based on a composite sample drawn from containers throughout the lot. Any container or group of containers which have nuts obviously different in quality or size from those in the majority of the containers shall be considered a separate lot and shall be sampled separately.	**§ 51.2545 Application of Tolerances** The tolerances for the grades apply to the entire lot and shall be based on a composite sample drawn from containers throughout the lot. Any container or group of containers which have nuts obviously different in quality or size from those in the majority of the containers shall be considered a separate lot and shall be sampled separately.	There is no change in this text just a change in the section number.
§ 51.2546 Average Moisture Content Determination (*See* average moisture content determination section below for a side-by-side comparison of current and proposed standards.)	**§ 51.2546 Size**	The title and section number is proposed to be redesignated to allow for the previous establishment of the ''U.S. Artificially Opened'' and ''U.S. Non-Split'' grades.
§ 51.2544 Size Nuts may be considered as meeting a size designation specified in Table IV or a range in number of nuts per ounce, provided, the weight of 10 percent, by count, of the largest nuts in a sample does not exceed 1.70 times the weight of 10 percent, by count, of the smallest and the average number of nuts per ounce is not more than one-half nut above or below the extremes of the range specified.	**§ 51.2546 Size** Nuts may be considered as meeting a size designation specified in Table IV or a range in number of nuts per ounce, provided, the weight of 10 percent, by count, of the largest nuts in a sample does not exceed 1.50 times the weight of 10 percent, by count, of the smallest and the average number of nuts per ounce is not more than one-half nut above or below the extremes of the range specified.	It is proposed to decrease the ratio of largest to smallest nuts in the size classification from 1.70 to 1.50. This would result in more uniformly sized nuts. Current sizing apparatus used by the industry has the capability to accomplish this uniformity during sizing and packing.

TABLE IV.—NUT SIZE

Size designations		Average number of nuts per ounce	
Current	Proposed	Current [1]	Proposed [1]
(Not in current standard)	Colossal	(Not in current standard)	Less than 18.
Extra Large	Extra Large	20 or less	18 to 20,
Large	Large	21 to 25	21 to 25.
Medium	Medium	26 to 30	26 to 30.
Small	Small	31 or more	More than 30.

[1] Before Roasting.

Discussion:

It is proposed to establish a Colossal size designation to provide a designation for larger size nuts. Cultural and marketing changes and technological advances in processing apparatus have allowed for the production, sorting and marketing of larger size nuts. Buyers have been demanding, and industry has been supplying, larger nuts; this classification would provide a uniform size classification for larger nuts. This would result in a new definition for the Extra Large category.

Current standard	Proposed	Discussion
§ 51.2547 Metric Conversion Table (*See* metric conversion table section below for a side-by-side comparison of current and proposed standards.)	**§ 51.2547 Definitions**	The title and section number is proposed to be re-designated to allow for the previous establishment of the ''U.S. Artificially Opened'' and ''U.S. Non-Split'' grades.
§ 51.2545 Definitions (a) ''Well dried'' means the kernel is firm and crisp. (b) ''Very well dried'' means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7.00 percent or is specified. (*See* § 51.2546).	**§ 51.2547 Definitions** (a) ''Well dried'' means the kernel is firm and crisp. (b) ''Very well dried'' means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7.00 percent or is specified. (*See* § 51.2548).	There is no change in this text, except for section number references in subparagraphs (b) and (d)(1).

Current standard	Proposed	Discussion
(c) ''Loose kernels'' means edible kernels or kernel portions which are out of the shell and which cannot be considered particles and dust. (d) ''External (shell) defects'' means any blemish affecting the hard covering around the kernel. Such defects include, but are not limited to, non-split shells, shells not split on suture, adhering hull material, light stained, or dark stained.	(c) ''Loose kernels'' means edible kernels or kernel portions which are out of the shell and which cannot be considered particles and dust. (d) ''External (shell) defects'' means any blemish affecting the hard covering around the kernel. Such defects include, but are not limited to, non-split shells, shells not split on suture, adhering hull material, light stained, or dark stained.	
(1) ''Damage'' by external (shell) defects means any specific defect described in paragraph (d)(1)(i) through (v) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual shell or of the lot. (For tolerances *see* § 51.2542, Table I).	(1) ''Damage'' by external (shell) defects means any specific defect described in paragraph (d)(1)(i) through (v) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual shell or of the lot. (For tolerances *see* § 51.2544, Table I).	There is no change in this text, except for section number references in subparagraphs (d)(1).
(i) ''Non-split shells'' when shells are not opened or are partially opened and will not allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening. (ii) ''Not split on suture'' when shells are split other than on the suture and will allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening.	(i) ''Non-split shells'' means shells are not opened or are partially opened and will not allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening. (ii) ''Not split on suture'' means shells are split other than on the suture and will allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening.	The word ''when'' is proposed to be replaced by the word ''means'' to clearly define the term noted. There is no change in the application of the term to the product.
(iii) ''Adhering hull material'' when an aggregate amount covers more than one-sixteenth of the total shell surface, or when readily noticeable on dyed shells.	(iii) ''Adhering hull material'' means an aggregate amount covers more than one-eighth of the total shell surface, or when readily noticeable on dyed shells.	It is proposed to increase the surface area allowed for adhering hull material. The industry believes that small amounts of adhering hull material do not detract from the marketability of nuts, that this change promotes uniformity of defining similar factors as this factor is similar in appearance to Dark Stained, that the change enables more accurate product grading, and that the tolerance allowed is sufficiently restrictive in order to promote orderly marketing.
(iv) ''Light stained'' on raw or roasted nuts, when an aggregate amount of yellow to light brown or light gray discoloration is noticeably contrasting with the predominate color of the shell and affects more than one-fourth of the total shell surface or, on dyed nuts, when readily noticeable.	(iv) ''Light stained'' on raw or roasted nuts, means an aggregate amount of yellow to light brown or light gray discoloration is noticeably contrasting with the predominate color of the shell and affects more than one-fourth of the total shell surface or, on dyed nuts, when readily noticeable.	The word ''when'' is proposed to be replaced by the word ''means'' to clearly define the term noted. There is no change in the application of the term to the product.
(v) ''Dark stained'' on raw or roasted nuts, when an aggregate amount of dark brown, dark gray or black discoloration affects more than one-eighth of the total shell surface, or, on dyed nuts, when readily noticeable.	(v) ''Dark stained'' on raw or roasted nuts, means an aggregate amount of dark brown, dark gray or black discoloration affects more than one-eighth of the total shell surface, or, on dyed nuts, when readily noticeable, provided that speckled appearing stain located within the area of one-fourth of the shell surface nearest the stem end shall be disregarded.	The word ''when'' is proposed to be replaced by the word ''means'' to clearly define the term noted. There is no change in the application of the term to the product. It is proposed to exempt speckled appearing stain on the stem end of the nut. The industry believes that this type of stain is routinely overlooked, is inconspicuous, does not adversely affect the marketing of affected nuts, and that this change will enable more accurate product grading.

Current standard	Proposed	Discussion
(e) ''Internal (kernel) defects'' means any blemish affecting the kernel. Such defects include, but are not limited to evidence of insects, immature kernels, rancid kernels, mold, or decay. (1) ''Damage'' by internal (kernel) defects means any specific defect described in paragraphs (e)(1)(i) through (iii) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2542, Table II.)	(e) ''Internal (kernel) defects'' means any blemish affecting the kernel. Such defects include, but are not limited to evidence of insects, immature kernels, rancid kernels, mold, or decay. (1) ''Damage'' by internal (kernel) defects means any specific defect described in paragraphs (e)(1)(i) through (ii) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2544, Table II.)	There is no change in this text, except for section number references in subparagraph (e)(1) and the redesignation of paragraphs (i through iii) as (i through ii) as a result of the removal of paragraph (i), as discussed below.
(i) ''Minor white or gray mold'' when not readily noticeable on the kernel and which can be easily rubbed off with the fingers.		It is proposed to delete the term ''minor mold'' as the term is no longer used by the industry. All visible mold is considered under the same grading category. This would result in a rearrangement of the current outline designations for other factors in the standards.
(ii) ''Immature kernels'' when they are excessively thin or when a kernel fills less than three-fourths, but not less than one-half the shell cavity. (iii) ''Kernel spots'' when dark brown or dark gray and aggregating more than one-eighth of the surface of the kernel.	(i) ''Immature kernels'' are excessively thin or when a kernel fills less than three-fourths, but not less than one-half the shell cavity. (ii) ''Kernel Spotting'' refers to dark brown or dark gray spots aggregating more than one-eighth of the surface of the kernel.	All proposed changes of text in this section are for clarification of the definition. There is no change in the application of the term to the product. The paragraph designations are changed to correspond with the deletion of paragraph (i).
(2) ''Serious damage'' by internal (kernel) defects means any specific defect described in paragraphs (e)(2)(i) through (v) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or the marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2542, Table II.)	(2) ''Serious damage'' by internal (kernel) defects means any specific defect described in paragraphs (e)(2)(i) through (v) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or the marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2544, Table II.)	There is no change in this text, except for the re-designation of the parenthetical reference to § 51.2544, required because of the rearrangement of the section numbers.
(i) ''Minor insect or vertebrate injury'' when the kernel shows conspicuous evidence of feeding. (ii) ''Insect damage'' when an insect, insect fragment, web or frass is attached to the kernel. No live insects shall be permitted. (iii) ''Mold'' when any type is readily visible on the shell or kernel.	(i) ''Minor insect or vertebrate injury'' means the kernel shows conspicuous evidence of feeding. (ii) ''Insect damage'' is an insect, insect fragment, web or frass attached to the kernel. No live insects shall be permitted. (iii) ''Mold'' which is readily visible on the shell or kernel.	All proposed changes in this text are for clarification of the definition. There is no change in the application of the term to the product.
(iv) ''Rancidity'' means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity.	(iv) ''Rancidity'' means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity.	There is no change in this text.
(v) ''Decay'' when any portion of the kernel is decomposed.	(v) ''Decay'' means one-sixteenth or more of the kernel surface is decomposed.	It is proposed that the scoring of decay on individual kernels be amended to recognize it on the basis of surface area. Areas of decay smaller than the one-sixteenth surface area are difficult to see and verify as decay. Smaller areas are routinely dry and do not affect the taste or marketing of nuts.
(f) ''Other defects'' means defects which cannot be considered internal defects or external defects. Such defects include, but are not limited to shell pieces, blanks, foreign material or particles and dust. The following shall be considered other defects. (For tolerances *see* § 51.2542, Table III.)	(f) ''Other defects'' means defects which cannot be considered internal defects or external defects. Such defects include, but are not limited to shell pieces, blanks, foreign material or particles and dust. The following shall be considered other defects. (For tolerances *see* § 51.2544, Table III.)	There is no change in this text, except for the re-designation of the parenthetical reference to § 51.2544, required because of the rearrangement of the section numbers.

Current standard	Proposed	Discussion
(1) ''Shell pieces'' means half shells or pieces of shell which are loose in the sample. (2) ''Blank'' means a split or a non-split shell not containing a kernel or containing a kernel that fills less than one-half the shell cavity.	(1) ''Shell pieces'' means open in-shell nuts not containing a kernel, half shells or pieces of shell which are loose in the sample. (2) ''Blank'' means a non-split shell not containing a kernel or containing a kernel that fills less than one-half the shell cavity.	It is proposed to amend the definition of ''Shell Pieces'' to include split shell nuts without a kernel and to remove this type of empty shell from the definition of ''Blanks.'' Such empty shells are naturally split, whole shells without a resident kernel. Blanks are considered as an empty or partially filled shell which has not become naturally opened. This will provide a more logical and uniformly applicable definition for treating loose shells or shell pieces. All empty shells, half shells or pieces of shells will be considered under the same definition.
(3) ''Foreign material'' means leaves, sticks, loose hulls or hull pieces, dirt, rocks, insects or insect fragments not attached to nuts, or any substance other than pistachio shells or kernels. Glass, metal or live insects shall not be permitted. (4) ''Particles and dust'' means pieces of nut kernels which will pass through a 5/64 inch round opening.	(3) ''Foreign material'' means leaves, sticks, loose hulls or hull pieces, dirt, rocks, insects or insect fragments not attached to nuts, or any substance other than pistachio shells or kernels. Glass, metal or live insects shall not be permitted. (4) ''Particles and dust'' means pieces of nut kernels which will pass through a 5/64 inch round opening.	There is no change in this text.
	(5) ''Undersized'' means pistachio nuts in the shell which fall through a 30/64 inch round hole screen.	This definition is proposed to be added in order to interpret the term as it is used in the grade level specifications and application of the tolerance established in Table I.
§ 51.2546 Average Moisture Content Determination	**§ 51.2548 Average Moisture Content Determination**	This section number is proposed to be added to allow for the previous establishment of the U.S. Artificially Opened and U.S. Non-Split grades. The title and accompanying text has been moved from § 51.2546, and is changed as noted.
(a) Determining average moisture content of the lot is not a requirement of the grades, except when nuts are specified as ''very well dried.'' It may be carried out upon request in connection with grade analysis or as a separate determination.	(a) Determining average moisture content of the lot is not a requirement of the grades, except when nuts are specified as ''very well dried.'' It may be carried out upon request in connection with grade analysis or as a separate determination.	There is no change in this text from § 51.2546, as written.
(b) Nuts shall be obtained from a randomly drawn composite sample and only kernels shall be used for analysis. Shells and all non-kernel material shall be removed immediately before analysis. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and the owner of any equipment used.	(b) Nuts shall be obtained from a randomly drawn composite sample. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and the owner of any equipment used.	The requirement that the nuts be shelled to determine the moisture content of the kernels is proposed to be deleted. It is industry practice to determine moisture content on the entire nut (shell and kernel).
§ 51.2547 Metric Conversion Table	**§ 51.2549 Metric Conversion Table**	This section number is proposed to allow for the previous establishment of the ''U.S. Artificially Opened'' and ''U.S. Non-Split'' grades. The title and text have been moved from § 51.2547.
Inches Millimeters 5/64..... 1.98 18/1000..... 0.46 1/4..... 6.35 26/64..... 10.32 **Ounces..... Grams** 1..... 28.35 2..... 56.70	**Inches Millimeters** 5/64..... 1.98 18/1000..... 0.46 1/4..... 6.35 30/64..... 11.88 **Ounces..... Grams** 1..... 28.35 2..... 56.70	A conversion from fractions of an inch to millimeters has been provided for the measurement 30/64, as this is the minimum nut size referenced in the standards. It replaces the fraction 26/64.

UNITED STATES STANDARDS FOR GRADES OF SHELLED PISTACHIO NUTS

Current standard	Proposed	Discussion
§ 51.2555 General (a) Compliance with the provisions of these standards shall not excuse failure to comply with provisions of applicable Federal or State laws. (b) These standards are applicable to raw, roasted, or salted pistachio kernels; or any combination thereof. However, nuts of obviously dissimilar forms shall not be commingled.	**§ 51.2555 General** (a) Compliance with the provisions of these standards shall not excuse failure to comply with provisions of applicable Federal or State laws. (b) These standards are applicable to raw, roasted, or salted pistachio or salted/roasted pistachio kernels.	The proposed change in section (b) provides the latitude to use the U.S. grade standards for kernels which have been both salted and roasted.
§ 51.2556 Grades (a) ''U.S. Fancy,'' ''U.S. No. 1,'' and ''U.S. No. 2'' consist of pistachio kernels which meet the following basic requirements:	**§ 51.2556 Grades** (a) ''U.S. Fancy,'' ''U.S. Extra No. 1,'' and ''U.S. No. 1'' consist of pistachio kernels which meet the following basic requirements:	The grade names of ''U.S. No. 1'' and ''U.S. No. 2'' are proposed to be changed to ''U.S. Extra No. 1'' and ''U.S. No. 1.'' This would harmonize the grade references with other tree nut standards and observe current industry marketing terms.
(1) Well dried, or very well dried when specified in connection with the grade. (2) Free from: (1) Foreign material, including in-shell nuts, shells, or shell fragments. (3) Free from damage by:	(1) Well dried, or very well dried when specified in connection with the grade. (2) Free from: (1) Foreign material, including in-shell nuts, shells, or shell fragments. (3) Free from damage by:	There is no change in this text.
(i) Minor mold; (ii) Immature kernels; (iii) Spotting; and, (iv) Other defects.	(i) Immature kernels; (ii) Kernel spotting; and, (iii) Other defects.	The term ''minor mold'' is proposed to be deleted as the term is no longer used by the industry. All visible mold is considered under the same grading category. This would result in a rearrangement of the current outline designations for other factors in the standards. The term ''Spotting'' is revised to ''Kernel spotting'' to correspond with the term defined in § 51.2560.
(4) Free from serious damage by: (i) Mold; (ii) Minor insect or vertebrate injury; (iii) Insect damage; (iv) Rancidity; (v) Decay; and, (vi) Other defects.	(4) Free from serious damage by: (i) Mold; (ii) Minor insect or vertebrate injury; (iii) Insect damage; (iv) Rancidity; (v) Decay; and, (vi) Other defects.	(vi) There is no change in this text.
(5) Unless otherwise specified, kernels shall meet the size classification of Whole Kernels (*See* § 51.2559).	(5) Unless otherwise specified, kernels shall meet the size classification of Jumbo Whole Kernels (*See* § 51.2559).	The size classification ''Whole Kernels'' is proposed to be changed to ''Jumbo Whole Kernels'' to be the same as current industry use.
§ 51.2557 Tolerances (a) In order to allow for variations incident to proper grading and handling, the tolerances, by weight, in Table I are provided.	**§ 51.2557 Tolerances** (a) In order to allow for variations incident to proper grading and handling, the tolerances, by weight, in Table I are provided.	There is no change in this text.

TABLE I

Factor (tolerances by weight)	Current	Proposed	Current	Proposed	Current	Proposed
	U.S. fancy	U.S. fancy	U.S. No. 1	U.S. extra No. 1	U.S. No. 2	U.S. No. 1
	Percent		Percent		Percent	
(a) Damage	2.0	2.0	2.5	2.5	3.0	3.0
(b) Serious Damage	1.5	1.5	2.0	2.0	2.5	2.5
(1) Insect Damage, mold, rancid, decay, included in (b)	.3	.3	.4	.4	.5	.5
(c) Foreign Material	.03	.03	.05	.05	.1	.1

Table I Discussion:

Column headings are changed to correspond with grade name changes. There is no change in the tolerances for the re-designated grade names, as compared to previous grade names.

Current standard	Proposed	Discussion
§ 51.2558 Application of Tolerances The tolerances for the grades apply to the entire lot and shall be based on a composite sample representative of the lot. Any container or group of containers which have kernels obviously different in quality or size from those in the majority of containers shall be considered a separate lot and shall be sampled separately.	**§ 51.2558 Application of Tolerances** The tolerances for the grades apply to the entire lot and shall be based on a composite sample representative of the lot. Any container or group of containers which have kernels obviously different in quality or size from those in the majority of containers shall be considered a separate lot and shall be sampled separately.	There is no change in this text.
§ 51.2559 Size Classifications (a) The size of pistachio kernels may be specified in connection with the grade in accordance with one of the following size classifications.	**§ 51.2559 Size Classifications** (a) The size of pistachio kernels may be specified in connection with the grade in accordance with one of the following size classifications.	No change in subparagraph (a); however, size classifications and definitions previously designated as subparagraphs (1) through (5) have been changed as noted. These changes are proposed to conform with current industry terminology and definitions of sizes used in marketing pistachio kernels.
(1) Whole Kernels: 80 percent or more by weight shall be whole kernels and not more than 5 percent of the total sample shall pass through a 16/64 inch round opening, including not more than 1 percent of the total sample shall pass through a 5/64 inch round opening. (2) Whole and Pieces: 40 percent or more by weight shall be whole kernels and not more than 15 percent of the total sample shall pass through a 16/64 inch round opening, including not more than 2 percent of the total sample shall pass through a 5/64 inch round opening.	(1) Jumbo Whole Kernels: 80 percent or more by weight shall be whole kernels and not more than 5 percent of the total sample shall pass through a 24/64 inch round hole screen with not more than 1 percent passing through a 16/64 inch round hole screen. (2) Large Whole Kernels: 80 percent or more, by weight, shall be whole kernels and not more than 2 percent of the total sample shall pass through a 16/64 inch round hole screen.	Kernel size definitions are proposed to be redefined to conform to current industry terminology and marketing practices.
(3) Large Pieces: Portions of kernels of which not more than 10 percent will remain on a 24/64 inch round opening, provided that not more than 20 percent of the total sample shall pass through a 16/64 inch round opening, including not more than 2 percent of the total sample shall pass through a 5/64 inch round opening. Not more than 25 percent of the total sample shall be whole kernels. (4) Small Pieces: Portions of kernels of which not more than 10 percent will remain on a 16/64 inch round opening, provided that not more than 3 percent of the total sample shall pass through a 5/64 inch round opening. Not more than 3 percent of the total sample shall be whole kernels. (5) Mixed sizes: Means a mixture of any combination of whole kernels or pieces. The percentage of whole kernels and/or pieces may be specified. Not more than 5 percent of the total sample shall pass through a 5/64 inch round opening.	(3) Large Split Kernels: 75 percent or more, by weight, shall be half kernels split lengthwise and not more than 5 percent of the total sample shall pass through a 16/64 inch round hole screen. (4) Whole and Broken Kernels: means a mixture of any combination of whole kernels or pieces. The percentage of whole kernels and/or pieces may be specified. Not more than 5 percent of the total sample shall pass through a 5/64 inch round hole screen.	Kernel size definitions are proposed to be redefined to conform to current industry terminology and marketing practices.
§ 51.2560 Definitions (a) ''Well dried'' means the kernel is firm and crisp. (b) ''Very well dried'' means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7 percent or lower levels, if specified (*See* § 51.2561). (c) ''Foreign material'' means leaves, sticks, in-shell nuts, shells or pieces of shells, dirt, or rocks, or any other substance other than pistachio kernels. No allowable tolerances for metal or glass. (d) ''Whole kernel'' means ¾ of a kernel or more.	**§ 51.2560 Definitions** (a) ''Well dried'' means the kernel is firm and crisp. (b) ''Very well dried'' means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7 percent or is specified (*See* § 51.2561). (c) ''Foreign material'' means leaves, sticks, in-shell nuts, shells or pieces of shells, dirt, or rocks, or any other substance other than pistachio kernels. No allowable tolerances for metal or glass. (d) ''Whole kernel'' means ¾ of a kernel or more.	The proposed change in subparagraph (b) allows levels of moisture to be specified under special marketing purposes or customer specifications.

Current standard	Proposed	Discussion
(e) ''Pieces'' means less than ¾ of a kernel.	(e) ''Splits'' means more than ¾ of a half kernel split lengthwise.	The term ''Pieces'' is proposed to be deleted and replaced with the term and definition for ''Splits'' to harmonize the standards terminology with current industry marketing practices.
(f) ''Damage'' means any specific defect described in paragraph (f) (1) through (3) of this section or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances, *see* § 51.2557, Table I.)	(f) ''Damage'' means any specific defect described in paragraph (f) (1) through (2) of this section or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances, *see* § 51.2557, Table I.)	There is no change in this portion, except for the proposed change in paragraph numbering account of the deletion of the definition of ''minor mold.''
(1) ''Minor white or gray mold'' is mold that is not readily noticeable on the kernel and which can be easily rubbed off with the fingers.		The term ''minor mold'' is proposed to be deleted as the term is no longer used by the industry. All visible mold is considered under the same grading category. This would result in a rearrangement of the current outline designations for other factors in the standards.
(2) ''Immature kernels'' are excessively thin kernels.	(1) ''Immature kernels'' are excessively thin kernels and can have black, brown or gray surface with a dark interior color and the immaturity has adversely affected the flavor of the kernel. (2) ''Kernel spotting'' refers to dark brown or dark gray spots aggregating more than one-eighth of the surface of the kernel.	The definition of ''Immature kernels'' is proposed to be revised to objectively describe the appearance and taste of immature kernels. The paragraphs are renumbered to accommodate a previous paragraph deletion.
(g) ''Serious damage'' means any specific defect described in paragraph (g) (1) through (5) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2557 Table I.) (1) ''Mold'' which is readily visible on the kernel.	(g) ''Serious damage'' means any specific defect described in paragraph (g) (1) through (5) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2557 Table I.) (1) ''Mold'' which is readily visible on the kernel.	There is no change in this text.
(2) ''Minor insect or vertebrate injury'' means the kernel shows conspicuous evidence of feeding on the kernel.	(2) ''Minor insect or vertebrate injury'' means the kernel shows conspicuous evidence of feeding.	The phrase ''on the kernel'' is proposed to be removed as it is redundant.
(3) ''Insect damage'' is an insect, insect fragment, web, or frass attached to the kernel. No live insects shall be permitted. (4) ''Rancidity'' means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity. (5) ''Decay'' means any portion of the kernel is decomposed.	(3) ''Insect damage'' is an insect, insect fragment, web, or frass attached to the kernel. No live insects shall be permitted. (4) ''Rancidity'' means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity. (5) ''Decay'' means one-sixteenth or more of the kernel is decomposed.	It is proposed that the scoring of decay on individual kernels be amended to recognize it on the basis of surface area. Areas of decay smaller than the one-sixteenth surface area are difficult to see and verify as decay. Smaller areas are routinely dry and do not affect the taste or marketing of nuts.

Current standard	Proposed	Discussion
§ 51.2561 Average Moisture Content Determination (a) Determining average moisture content of the lot is not a requirement of the grades, except when kernels are specified as ''very well dried.'' It may be carried out upon request in connection with grade analysis or as a separate determination. (b) Kernels shall be obtained from a randomly drawn composite sample. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and owner of any equipment used.	**§ 51.2561 Average Moisture Content Determination** (a) Determining average moisture content of the lot is not a requirement of the grades, except when kernels are specified as ''very well dried.'' It may be carried out upon request in connection with grade analysis or as a separate determination. (b) Kernels shall be obtained from a randomly drawn composite sample. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and owner of any equipment used.	There is no change in this text.
	§ 51.2562 Metric Conversion Chart **Inches Millimeters** 5/64..... 1.98 16/64..... 6.35 24/64..... 9.53 **Ounces Grams** 1..... 28.35 2..... 56.7	This section, title and chart is proposed to be created in order to establish a metric conversion chart. USDA strives to provide metric conversions for users to have a readily available means of converting U.S. standards of measure to internationally recognized metric measurements for those designations found in the U.S. Grade Standards.

A 30-day comment period is provided for interested persons to comment. Thirty days is deemed appropriate because the proposed revisions are currently being used by the industry for trade facilitation. Therefore, AMS amends the United States Standards for Grades of Pistachio Nuts in the Shell and the United States Standards for Grades of Shelled Pistachio Nuts as follows:

List of Subjects in 7 CFR Part 51

Agricultural commodities, Food grades and standards, Fruits, Nuts, Reporting and recordkeeping requirements, Trees, Vegetables.

PART 51—[AMENDED]

For reasons set forth in the preamble, it is proposed that 7 CFR part 51 be amended as follows:

1. The authority citation for part 51 continues to read as follows:

Authority: 7 U.S.C. 1621—1627.

2. Section 51.2541 is revised to read as follows:

§ 51.2541 U.S. Fancy, U.S. Extra No. 1, U.S. No. 1 And U.S. Select Grades.

''U.S. Fancy,'' ''U.S. Extra No. 1,'' ''U.S. No. 1,'' and ''U.S. Select'' consists of pistachio nuts in the shell which meet the following requirements:

(a) Basic requirements:
(1) Free from:
(i) Foreign material;
(ii) Loose kernels;
(iii) Shell pieces;
(iv) Particles and dust; and,
(v) Blanks.
(b) Shells:
(1) Free from:
(i) Non-split shells; and,
(ii) Shells not split on suture.
(2) Free from damage by:
(i) Adhering hull material;
(ii) Light stained;
(iii) Dark stained; and,
(iv) Other External (shell) defects.
(c) Kernels:
(1) Well dried, or, very well dried when specified in connection with the grade.
(2) Free from damage by:
(i) Immature kernels;
(ii) Kernel spotting; and,
(iii) Other Internal (kernel) defects.
(3) Free from serious damage by:
(i) Minor insect or vertebrate injury;
(ii) Insect damage;
(iii) Mold;
(iv) Rancidity;
(v) Decay; and,
(vi) Other Internal (kernel) defects.
(d) The nuts are of a size not less than 30/64 inch in diameter as measured by a round hole screen.
(e) For tolerances, see § 51.2544.

3.–4. Section 51.2542 is revised to read as follows:

§ 51.2542 U.S. Artificially Opened.

''U.S. Artificially Opened'' consists of artificially opened pistachio nuts in the shell which meet the following requirements:

(a) Basic Requirements:
(1) Free from:
(i) Foreign material;
(ii) Loose kernels;
(iii) Shell pieces;
(iv) Particles and dust; and,
(v) Blanks.
(b) Shells:
(1) Free from:
(i) Non-split shells; and,
(ii) Shells not split on suture.
(2) Free from damage by:
(i) Adhering hull material;
(ii) Light stained;
(iii) Dark stained; and,
(iv) Other External (shell) defects.
(c) Kernels;
(1) Well dried, or, very well dried when specified in connection with the grade;
(2) Free from damage by:
(i) Immature kernels;
(ii) Kernel spotting; and,
(iii) Other Internal (kernel) defects.
(3) Free from serious damage by:
(i) Minor insect or vertebrate injury;
(ii) Insect damage;
(iii) Mold;
(iv) Rancidity;
(v) Decay; and,
(vi) Other Internal (kernel) defects.
(d) The nuts are of a size not less than 30/64 inch in diameter as measured by a round hole screen.
(e) For Tolerances, see § 51.2544.

5. Section 51.2543 is revised to read as follows:

§ 51.2543 U.S. Non-Split.

''U.S. Non-Split'' consists of non-split pistachio nuts in the shell which meet the following requirements:

(a) Basic requirements:

(1) Free from:

(i) Foreign material;

(ii) Loose kernels;

(iii) Shell pieces;

(iv) Particles and dust; and,

(v) Blanks.

(b) Shells:

(1) Free from damage by:

(i) Adhering hull material; and,

(ii) Dark stain.

(c) Kernels:

(1) Well dried, or very well dried when specified in connection with the grade.

(2) Free from damage by:

(i) Immature kernels;

(ii) Kernel spotting; and,

(iii) Other internal (kernel) defects.

(3) Free from serious damage by:

(i) Minor insect or vertebrate injury;

(ii) Insect damage;

(iii) Mold;

(iv) Rancidity;

(v) Decay; and,

(vi) Other Internal (kernel) defects.

(d) The nuts are of a size not less than 30/64 inch in diameter as measured by a round hole screen.

(e) For Tolerances, see § 51.2544.

6. Section 51.2544 is revised to read as follows:

§ 51.2544 Tolerances.

(a) In order to allow for variations incident to proper grading and handling, the tolerances in Tables I, II, and III of this section are provided.

TABLE I.—TOLERANCES

Factor	U.S. fancy	U.S. extra No. 1	U.S. No. 1	U.S. select	U.S. artificially opened	U.S. non-split
External (shell) Defects (tolerances by weight)	Percent	Percent	Percent	Percent	Percent	Percent
(a) Non-split and not split on suture	2	3	6	10	10	N/A
(1) Non-split included in (a)	1	2	3	4	4	N/A
(b) Adhering hull material	1	1	1	2	2	2
(c) Light stained	7	12	25	N/A	N/A	N/A
(1) Dark stained, included in (c)	2	3	3	3	3	3
(d) Damage by other means	1	1	2	3	10	N/A
(e) Total External Defects	9	16	N/A	N/A	N/A	N/A
(f) Undersized (Less than 30/64 inch in diameter):	5	5	5	5	4	5

TABLE II.—TOLERANCES

Factor	U.S. fancy	U.S. extra No. 1	U.S. No. 1	U.S. select	U.S. artificially opened	U.S. non-split
Internal (Kernel) Defects (tolerances by weight)	Percent	Percent	Percent	Percent	Percent	Percent
(a) Damage	3	6	6	6	6	6
(b) Serious Damage	3	4	4	4	4	4
(1) Insect Damage, Mold, Rancid, Decay, included in (b)	1	2	2	2	2	2
(c) Total Internal Defects	4	8	9	9	9	9

TABLE III.—TOLERANCES

Factor	U.S. fancy	U.S. extra No. 1	U.S. No. 1	U.S. select	U.S. artificially opened	U.S. non-split
Other Defects (tolerances by weight)	Percent	Percent	Percent	Percent	Percent	Percent
(a) Shell pieces and Blanks	2	2	2	2	2	2
(1) Blanks, included in (a)	1	1	1	1	1	1
(b) Foreign material (No glass, metal or live insects shall be permitted)	.25	.25	.25	.25	.25	.25
(c) Particles and Dust	.25	.25	.25	.25	.25	.25
(d) Loose kernels	4	5	6	6	6	6

7. Section 51.2545 is revised to read as follows:

§ 51.2545 Application of tolerances.

The tolerances for the grades apply to the entire lot and shall be based on a composite sample drawn from containers throughout the lot. Any container or group of containers which have nuts obviously different in quality or size from those in the majority of the containers shall be considered a separate lot and shall be sampled separately.

8. Section 51.2546 is revised to read as follows:

§ 51.2546 Size.

Nuts may be considered as meeting a size designation specified in Table IV or a range in number of nuts per ounce, provided, the weight of 10 percent, by count, of the largest nuts in a sample does not exceed 1.50 times the weight of 10 percent, by count, of the smallest and the average number of nuts per ounce is not more than one-half nut above or below the extremes of the range specified.

TABLE IV.—NUT SIZE

Size designations	Average number of nuts per ounce [1]
Colossal	Less than 18.
Extra Large	18 to 20.
Large	21 to 25.
Medium	26 to 30.
Small	More than 30.

[1] Before roasting

9. Section 51.2547 is revised to read as follows:

§ 51.2547 Definitions.

(a) *Well dried* means the kernel is firm and crisp.

(b) *Very well dried* means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7.00 percent or is specified. (*See* § 51.2548.)

(c) *Loose kernels* means edible kernels or kernel portions which are out of the shell and which cannot be considered particles and dust.

(d) *External (shell) defects* means any blemish affecting the hard covering around the kernel. Such defects include, but are not limited to, non-split shells, shells not split on suture, adhering hull material, light stained, or dark stained.

(1) *Damage* by external (shell) defects means any specific defect described in paragraphs (d) (1) (i) through (v) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual shell or of the lot. (For tolerances *see* § 51.2544, Table I.)

(i) *Non-split shells* means shells are not opened or are partially opened and will not allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening.

(ii) *Not split on suture* means shells are split other than on the suture and will allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening.

(iii) *Adhering hull material* means an aggregate amount covers more than one-eighth of the total shell surface, or when readily noticeable on dyed shells.

(iv) *Light stained* on raw or roasted nuts, means an aggregate amount of yellow to light brown or light gray discoloration is noticeably contrasting with the predominate color of the shell and affects more than one-fourth of the total shell surface or, on dyed nuts, when readily noticeable.

(v) *Dark stained* on raw or roasted nuts, means an aggregate amount of dark brown, dark gray or black discoloration affects more than one-eighth of the total shell surface, or, on dyed nuts, when readily noticeable, provided that speckled appearing stain located within the area of one-fourth of the shell nearest the stem end shall be disregarded.

(e) *Internal (kernel) defects* means any blemish affecting the kernel. Such defects include, but are not limited to evidence of insects, immature kernels, rancid kernels, mold, or decay.

(1) *Damage* by internal (kernel) defects means any specific defect described in paragraphs (e)(1)(i) through (ii) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2544, Table II.)

(i) *Immature kernels* are excessively thin or when a kernel fills less than three-fourths, but not less than one-half the shell cavity.

(ii) *Kernel spotting* refers to dark brown or dark gray spots aggregating more than one-eighth of the surface of the kernel.

(2) *Serious damage* by internal (kernel) defects means any specific defect described in paragraphs (e)(2)(i) through (v) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or the marketing quality of the individual kernel or of the lot. (For tolerances *see* § 51.2544, Table II.)

(i) *Minor insect or vertebrate injury* means the kernel shows conspicuous evidence of feeding.

(ii) *Insect damage* is an insect, insect fragment, web or frass attached to the kernel. No live insects shall be permitted.

(iii) *Mold* which is readily visible on the shell or kernel.

(iv) *Rancidity* means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity.

(v) *Decay* means one-sixteenth or more of the kernel surface is decomposed.

(f) *Other defects* means defects which cannot be considered internal defects or external defects. Such defects include, but are not limited to shell pieces, blanks, foreign material or particles and dust. The following shall be considered other defects. (For tolerances see § 51.2544, Table III.)

(1) *Shell pieces* means open in-shell nuts not containing a kernel, half shells or pieces of shell which are loose in the sample.

(2) *Blank* means a non-split shell not containing a kernel or containing a kernel that fills less than one-half the shell cavity.

(3) *Foreign material* means leaves, sticks, loose hulls or hull pieces, dirt, rocks, insects or insect fragments not attached to nuts, or any substance other than pistachio shells or kernels. Glass, metal or live insects shall not be permitted.

(4) *Particles and dust* means pieces of nut kernels which will pass through a 5/64 inch round opening.

(5) *Undersize* means pistachio nuts in the shell which fall through a 30/64 inch round hole screen.

10. Section 51.2548 is added to read as follows:

§ 51.2548 Average Moisture Content Determination.

(a) Determining average moisture content of the lot is not a requirement of the grades, except when nuts are specified as ''very well dried.'' It may be carried out upon request in connection with grade analysis or as a separate determination.

(b) Nuts shall be obtained from a randomly drawn composite sample. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and the owner of any equipment used.

11. Section 51.2549 is added to read as follows:

§ 51.2549 Metric Conversion Table.

Use the following table for metric conversion:

Inches	Millimeters
5/64	1.98
18/1000	0.46
¼	6.35
30/64	11.88
Ounces	**Grams**
1	28.35
2	56.70

Subpart—United States Standards for Grades of Shelled Pistachio Nuts

12. In § 51.2555, paragraph (b) is revised to read as follows:

§ 51.2555 General.

* * * * *

(b) These standards are applicable to raw, roasted, salted or salted/roasted pistachio kernels.

13. Section 51.2556 is revised to read as follows:

§ 51.2556 Grades.

(a) ''U.S. Fancy,'' ''U.S. Extra No. 1,'' and ''U.S. No. 1'' consists of pistachio kernels which meet the following requirements:

(1) Well dried, or very well dried when specified in connection with the grade.

(2) Free from:

(i) Foreign material, including in-shell nuts, shells, or shell fragments.

(3) Free from damage by:

(i) Immature kernels;

(ii) Kernel spotting; and

(iii) Other defects.

(4) Free from serious damage by:

(i) Mold;

(ii) Minor insect or vertebrate injury;

(iii) Insect damage;

(iv) Rancidity;

(v) Decay; and,

(vi) Other defects.

(5) Unless otherwise specified, kernels shall meet the size classification of Jumbo Whole Kernels (*See* § 51.2559).

(b) [Reserved]

14. In § 51.2557, Table I is revised to read as follows:

§ 51.2557 Tolerances.

* * * * *

TABLE I.—TOLERANCES

Factor (tolerances by weight)	U.S. fancy	U.S. extra No. 1	U.S. No. 1
	Percent	Percent	Percent
(a) Damage	2.0	2.5	3.0
(b) Serious Damage	1.5	2.0	2.5
(1) Insect Damage, mold, rancid, decay, included in (b)	.3	.4	.5
(c) Foreign Material	.03	.05	.1

15. Section 51.2559 is revised to read as follows:

§ 51.2559 Size Classifications.

(a) The size of pistachio kernels may be specified in connection with the grade in accordance with one of the following size classifications.

(1) Jumbo Whole Kernels: 80 percent or more by weight shall be whole kernels and not more than 5 percent of the total sample shall pass through a 24/64 inch round hole screen with not more than 1 percent passing through a 16/64 inch round hole screen.

(2) Large Whole Kernels: 80 percent or more, by weight, shall be whole kernels and not more than 2 percent of the total sample shall pass through a 16/64 inch round hole screen.

(3) Large Split Kernels: 75 percent or more, by weight, shall be half kernels split lengthwise and not more than 5 percent of the total sample shall pass through a 16/64 inch round hole screen.

(4) Whole and Broken Kernels: means a mixture of any combination of whole kernels or pieces. The percentage of whole kernels and/or pieces may be specified. Not more than 5 percent of the total sample shall pass through a 5/64 inch round hole screen.

(b) [Reserved]

16. Section 51.2560 is revised to read as follows:

§ 51.2560 Definitions.

(a) *Well dried* means the kernel is firm and crisp.

(b) *Very well dried* means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7 percent or is specified (See § 51.2561).

(c) *Foreign material* means leaves, sticks, in-shell nuts, shells or pieces of shells, dirt, or rocks, or any other substance other than pistachio kernels. No allowable tolerances for metal or glass.

(d) *Whole kernel* means 3/4 of a kernel or more.

(e) *Splits* means more than 3/4 of a half kernel split lengthwise.

(f) *Damage* means any specific defect described in paragraph (f) (1) through (2) of this section or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances, see § 51.2557, Table I.)

(1) *Immature kernels* are excessively thin kernels and can have black, brown or gray surface with a dark interior color and the immaturity has adversely affected the flavor of the kernel.

(2) *Kernel spotting* refers to dark brown or dark gray spots aggregating more than one-eighth of the surface of the kernel.

(g) *Serious damage* means any specific defect described in paragraphs (g) (1) through (5) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances see § 51.2557 Table I.)

(1) *Mold* which is readily visible on the kernel.

(2) *Minor insect or vertebrate injury* means the kernel shows conspicuous evidence of feeding.

(3) *Insect damage* is an insect, insect fragment, web or frass attached to the kernel. No live insects shall be permitted.

(4) *Rancidity* means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity.

(5) Decay means one-sixteenth or more of the kernel is decomposed.

17. Section 51.2562 is added to read as follows:

§ 51.2562 Metric Conversion Table.

Use the following table for metric conversion:

Inches	Millimeters
5/64	1.98
16/64	6.35
24/64	9.53
Ounces	**Grams**
1	28.35
2	56.7

Dated: May 16, 2003.

Kenneth C. Clayton,

Acting Administrator, Agricultural Marketing Service.

[FR Doc. 03–12805 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–02–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Parts 301 and 319

[Docket No. 00–067–1]

RIN 0579–AB55

Gypsy Moth; Regulated Articles

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: We are proposing to amend the gypsy moth regulations by removing restrictions on the interstate movement of wood chips, which do not pose a risk of containing gypsy moth egg masses, and by adding restrictions on the movement and importation of bark and bark products, which pose a risk of containing gypsy moth egg masses. In addition, we are proposing to extend by 2 months the period during which regulated articles originating outside of any generally infested area must be safeguarded from infestation in order to be eligible for interstate movement directly through any generally infested area without a certificate or permit. These proposed changes are necessary to update the provisions in these regulations to ensure consistent actions by the Animal and Plant Health Inspection Service, our cooperators, and industry in order to limit the artificial spread of gypsy moth.

DATES: We will consider all comments that we receive on or before July 22, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 00–067–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 00–067–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 00–067–1'' on the subject line.

You may read any comments that we receive on this docket in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Dr. Weyman Fussell, Program Manager, Invasive Species and Pest Management, PPQ, APHIS, 4700 River Road Unit 134, Riverdale, MD 20737–1236; (301) 734–5705.

SUPPLEMENTARY INFORMATION:

Background

The gypsy moth, *Lymantria dispar* (Linnaeus), is an introduced, highly destructive insect of trees that, during its caterpillar stage, poses a serious threat to hundreds of species of trees and shrubs. A female gypsy moth lays a cluster of eggs (called an egg mass) on and near trees. Up to a thousand caterpillars can hatch from a single egg mass. The caterpillars feed on nearby trees and shrubs, removing much, if not all, foliage. This defoliation, when combined with other forms of stress such as drought and soil compaction, may ultimately result in the death of the tree.

The first major outbreak of gypsy moth in the United States occurred in Massachusetts in 1889. Since then, the gypsy moth has infested 19 States and the District of Columbia and has defoliated thousands of acres of hardwood forests across the northeastern United States. The infestation continues to move south and west despite ongoing eradication and control efforts.

Regulated Articles

Because eradication efforts have been largely unsuccessful, Federal and State regulations focus on limiting the artificial spread of gypsy moth, which occurs when the insect, in any of its life stages, attaches to items such as nursery stock, vehicles, outdoor household articles, and forest products that are moved long distances. The regulations in ''Subpart—Gypsy Moth'' (7 CFR 301.45 through 301.45–12, referred to below as the regulations) restrict the interstate movement of regulated articles from generally infested areas of States quarantined for gypsy moth. In § 301.45–1, the term ''regulated articles'' is defined as: (1) Trees without roots (*e.g.*, Christmas trees), trees with roots, and shrubs with roots and persistent woody stems, unless they are greenhouse grown throughout the year; (2) logs, pulpwood, and wood chips; (3) mobile homes and associated equipment; and (4) any other products, articles, or means of conveyance, of any character whatsoever, when it is determined by an inspector that any life stage of gypsy moth is in proximity to such articles and the articles present a high risk of artificial spread of gypsy moth infestation and the person in possession thereof has been so notified.

The Animal and Plant Health Inspection Service (APHIS) Gypsy Moth Management Team (GMMT) and our State cooperators recently reviewed the regulations, focusing on the restrictions on the interstate movement of regulated articles. Based on the results of this review, we are proposing to amend the list of regulated articles found in § 301.45–1 by removing wood chips from that list and adding bark and bark products as regulated articles. The GMMT and State cooperators determined that wood chips do not play a role in the artificial spread of gypsy moth because the bark of the tree, where the female gypsy moth deposits her eggs, is removed prior to chipping the log. Therefore, wood chips are considered to be free of egg masses. Conversely, bark and bark products, including mulch, do pose a risk of spreading gypsy moth because egg masses may survive the debarking process. The regulations in § 301.45–4(c)(2) that set forth the requirements for the movement of logs, pulpwood, and wood chips would also be amended to replace restrictions on wood chips with restrictions on bark and bark products. These changes are necessary to update the current regulations and to relieve restrictions on wood chips, which are not necessary, and to impose restrictions on bark and bark products, which would ensure that bark and bark products do not contribute to the artificial spread of gypsy moth.

These proposed changes would also make it necessary to amend the regulations found in ''Subpart—Gypsy Moth Host Material from Canada'' (7 CFR 319.77–1 through 319.77–5), which are intended to limit the artificial spread of gypsy moth from infested areas of Canada into noninfested areas of the United States by restricting the importation of gypsy moth host material into the United States from Canada. Section 319.77–2 lists the following as regulated articles: (1) Trees without roots (*e.g.*, Christmas trees), unless they were greenhouse-grown throughout the year; (2) trees with roots, unless they were greenhouse-grown throughout the year; (3) shrubs with roots and persistent woody stems, unless they were greenhouse-grown throughout the year; (4) logs with bark attached; (5) pulpwood with bark attached; (6) outdoor household articles; and (7) mobile homes and their associated equipment. Based on the recommendations of the GMMT and State cooperators, we are proposing to add bark and bark products to this list of regulated articles because, as noted previously, gypsy moth egg masses can survive the debarking process used to produce the raw bark products.

We would also amend the regulations in § 319.77–4(b), which set forth the

conditions for the importation from Canada of logs and pulpwood with bark attached, so that those conditions would also apply to bark and bark products imported from Canada. With this proposed change, bark and bark products to be moved into or through a U.S. noninfested area could be imported into the United States from Canada only under the following conditions:

- If the bark or bark products originated in a Canadian infested area, they would have to be accompanied by an officially endorsed Canadian phytosanitary certificate that includes an additional declaration confirming that they have been inspected and found free of gypsy moth or treated for gypsy moth in accordance with the Plant Protection and Quarantine (PPQ) Treatment Manual, or they would have to be consigned to a specified U.S. processing plant or mill operating under a compliance agreement with APHIS for specified handling or processing.
- If the bark or bark products originated in a Canadian noninfested area, they would have to be accompanied by a certification of origin stating that they were produced in an area of Canada where gypsy moth is not known to occur.

These proposed changes are necessary to ensure that the importation of bark and bark products into noninfested areas of the United States from generally infested areas of Canada will not result in the artificial spread of gypsy moth from Canada into the United States.

With respect to regulated articles, there is some overlap between the regulations in ''Subpart—Gypsy Moth Host Material from Canada'' and the regulations in ''Subpart—Lumber, Logs, and Other Unmanufactured Wood Articles'' (7 CFR 319.40.1 through 319.40–11). Because of that overlap, the regulations in § 319.40–2(f) note that in addition to meeting the requirements of the unmanufactured wood regulations, logs and pulpwood with bark attached imported from Canada are subject to the inspection and certification requirements for gypsy moth in § 319.77–4. Similarly, § 319.77–4(b) of ''Subpart—Gypsy Moth Host Material from Canada'' includes a footnote stating that logs from Canada are also subject to restrictions under the unmanufactured wood regulations in §§ 319.40 though 319.40–11. Given that bark and bark products are already subject to restrictions under the unmanufactured wood regulations, and would also be subject to restrictions under the regulations regarding gypsy moth host material from Canada, we would update the cross references described above in each subpart to include bark and bark products.

Safeguarding

In ''Subpart—Gypsy Moth,'' § 301.45–4 sets forth the requirements for the interstate movement of regulated articles from generally infested areas. Paragraph (b) of § 301.45–4 provides that a regulated article that originates outside of any generally infested area may be moved interstate directly through any generally infested area without a certificate or permit if, among other things, the article has been safeguarded while in any generally infested area during the months of April through June. Based on the review of these regulations by the GMMT and State cooperators, we are proposing to extend the close of this safeguarding period from June until August. Because the female gypsy moth generally lays eggs in July and August, and because the flight period of the gypsy moth in northern States is later in the year, there is a risk that articles could become infested during transport through a generally infested area during these months. The proposed extension of the safeguarding period would help protect against this risk and would also make § 301.45–4(b) consistent with the provisions of § 301.45–5(a)(2), which require a regulated article to be inspected within 5 days of the date of movement during the months of April through August before an inspector can certify the article for movement.

Executive Order 12866 and Regulatory Flexibility Act

This proposed rule has been reviewed under Executive Order 12866. The rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

In this document, we are proposing to amend the gypsy moth regulations by removing restrictions on the interstate movement of wood chips, which do not pose a risk of containing gypsy moth egg masses, and by adding restrictions on the movement and importation of bark and bark products, which pose a risk of containing gypsy moth egg masses. In addition, we are proposing to extend by 2 months the period during which regulated articles originating outside of any generally infested area must be safeguarded from infestation in order to be eligible for interstate movement directly through any generally infested area without a certificate or permit. These proposed changes are necessary to update the provisions in these regulations to ensure consistent actions by APHIS, our cooperators, and industry in order to limit the artificial spread of gypsy moth.

The U.S. forest industry employs close to 1.4 million people and contributes approximately $200 billion annually to the national economy.[1] Although the United States is a net importer of wood and wood products, wood exports totaled $5.24 billion in 2001. The gypsy moth is a pest of concern for the U.S. forest industry. Defoliation of trees by gypsy moths often results in the death of the trees, which leads to economic loss, changes in ecosystems and wildlife habitat, and disturbed water flow and water quality. Economic costs to the U.S. forest industry, in addition to the costs of timber losses and pest control, can also arise from trade reductions as importers impose protective restrictions on access to their markets for wood products. Gypsy moths are already causing losses in quarantined areas in the United States. Annual losses attributable to gypsy moths are estimated to be about $22 million.[2] Thus, any spread of gypsy moth to nonregulated areas could have a negative economic and environmental impact. The changes in this proposed rule are necessary to limit the artificial spread of the gypsy moth.

Interstate Movement Restrictions

The proposed changes to the domestic gypsy moth regulations would affect sawmills, pulp mills, and nurseries and garden centers that are involved in the interstate movement of wood chips and bark and bark products from gypsy moth generally infested areas. Restrictions would no longer apply to the movement of wood chips, but entities involved in the interstate movement of bark and bark products would be required to have each shipment of bark or bark products inspected or treated under the direction of an inspector, or self-inspect and certify each shipment in accordance with the Gypsy Moth Program Manual, no more than 5 days prior to moving it from a generally infested area to an area that is not generally infested. While self-inspection minimizes regulatory costs and time delay costs, other costs associated with time, salary, and recordkeeping could be incurred.

The Small Business Administration (SBA) has established size standards

[1] Southeastern Lumber Manufacturing Association, Inc., U.S. Forest Industry Statistics (*http://www.slma.org/consumers*).

[2] David Pimentel, Lori Latch, Rodolfo Zuniga, and Doug Morrison, ''Environmental and Economic Costs Associated with Non-indigenous Species in the United States,'' College of Agriculture and Life Sciences, Cornell University, Ithaca, NY 14850–0901, June 12, 1999.

based on the North American Industry Classification System (NAICS) to determine and to classify which economic entities can be considered small entities. The SBA classifies sawmills as small if they employ 500 or fewer employees. Pulp mills are considered small if they employ 750 or fewer employees. Nursery and garden centers are considered small if their annual sales are less than $6 million. In 1997, the most recent year for which data are available, there were 1,678 sawmills (NAICS code 321113) in quarantined States,[3] 9 pulp mills (NAICS code 322110) in generally infested areas, and 3,446 nursery and garden centers (NAICS code 444220) in generally infested areas of the United States. Approximately 93 percent of those sawmills, 95 percent of those nursery and garden centers, and 93 percent of those pulp mills are considered to be small entities under the SBA's standards.[4]

In 1997, sawmills in quarantined States produced 2,896,170 tons of primary bark residue (see table 1), which was approximately 12 percent of the national total.[5] However, these data do not include the bark residue produced in urban areas and by land clearing operations. Additionally, most commercially available bark and mulch products are not produced at sawmills. Independent bark and mulch producers buy bark and wood residue from sawmills, reprocess the material, and then sell it in bulk or bagged. The number and size of these independent entities are not available. The impact upon these entities would depend upon what proportion of their business is bark mulch and what percentage of that is shipped to areas that are not generally infested. The higher the percentage shipped to areas that are not generally infested, the greater the negative effect would be.

TABLE 1.—POTENTIALLY AFFECTED ENTITIES AND BARK RESIDUE PRODUCTION

	Generally infested areas	U.S. total
Sawmills*	1,678	4,390
Pulp mills	9	36
Nursery and garden centers	3,446	16,432
Primary bark residue production (tons)	2,896,170	24,528,380

* Information about the number of sawmills is available at the State level only. County data is withheld to avoid disclosing data for individual establishments. This may result in an overestimate of the number of affected entities because not all counties within quarantined States are in generally infested areas.

Source: U.S. Census Bureau, 1997 Economic Census: Manufacturing and Retail Geographic Area Series, November 1999 (revised November 2002).

Note: Primary bark residue production data from USDA/FS, "Bark and wood residue production in gypsy moth quarantined States in 2000," Lew R. McCreery, Economic Action Program USDA/FS Northeastern Area.

The potential economic effects of these proposed changes would vary by State, depending on the number and size of entities to be regulated, the levels of infestation, the quantity of shipments to areas that are not generally infested, and whether delays occur and whether treatment is needed. Entities most likely to be affected by the proposed changes are those that produce bark products and wood chips and independent mulch and bark producers. There would be opposing results. Removal of wood chips from the list of regulated articles would result in savings, if there had been costs before the proposed changes, while the imposition of restrictions on the movement of bark and bark products may result in additional costs. Since entities located in generally infested areas produce a relatively smaller share of bark residue, as shown in table 1, most shipments of bark products are likely to be small in quantity and to be contained within generally infested areas with very few shipments to areas that are not generally infested.

If the inspection of a shipment intended for movement to an area that is not generally infested reveals the presence of gypsy moths, the infested articles would not be eligible for movement unless they were treated or consigned to a facility operating under a compliance agreement with APHIS for specified handling or processing. If treated, fumigation could cost between $100 and $150 per truck load, depending upon the size of the shipment. The need to treat infested bark or bark products may increase business for certified fumigant applicators located in generally infested areas. However, overall, the results of removing wood chips and adding bark and bark products to the list of regulated articles may cancel each other out, resulting in no increase of business for certified applicators. Regional variation is possible.

The proposed changes are expected to cause a slight increase in the costs of business for the affected entities. The negative economic impact that may result from the proposed changes is small compared to the potential for harm to related industries and to the U.S. economy as a whole that would result from an increase in the artificial spread of the gypsy moth, however. Benefits from the unrestricted movement of wood chips are expected to either cancel out or be greater than any negative effects of new restrictions on the movement of bark and bark products. Since the proposed changes would not prohibit their movement, regulated articles that meet the requirements of the regulations would continue to enter the market. The overall impact on price and competitiveness is expected to be relatively insignificant.

Import Restrictions

Under the unmanufactured wood regulations in § 319.40–3, regulated articles, which include bark and bark products, to be imported into the United States from Canada are subject to the inspection and other requirements in § 319.40–9 and must be accompanied by an importer document stating that the articles are derived from trees harvested in, and have never been moved outside, Canada. Under § 319.40–9, regulated articles must have been inspected and found free of plant pests or have been treated for pests as required by the inspector before the regulated article may be moved from the port of first arrival. Adding bark and bark products as a regulated articles under the regulations related to gypsy moth host material from Canada would mean that bark and bark products to be moved into or through a noninfested area of the United States from an infested area of Canada would have to be accompanied by an officially endorsed Canadian phytosanitary certificate confirming that they have been inspected and found free of gypsy moth or have been treated in accordance with the PPQ Treatment Manual prior to importation. Because the restrictions that would apply under the regulations for gypsy moth host material from Canada are only slightly more restrictive than the restrictions that already apply under the

[3] Information on the number of sawmills is available at the State level only. County information is withheld to avoid disclosing data for individual establishments. This may result in an overestimate of the number of affected entities because not all counties within quarantined States are in generally infested areas.

[4] U.S. Census Bureau, 1997 Economic Census: Manufacturing and Retail Geographic Area Series, November 1999 (revised November 2002).

[5] W.B. Smith, John S. Visage, David R. Darr, and Raymond M. Sheffield, Forest Resources of the United States, 1997.

unmanufactured wood regulations, requiring certification or treatment prior to importation rather than at the port of first arrival, we do not believe that they will have a significant economic impact. In addition, we could not find any data on the importation of bark or bark products into the United States from Canada, which indicates that there is not a high volume of trade in these articles.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12988

This proposed rule has been reviewed under Executive Order 12988, Civil Justice Reform. If this proposed rule is adopted: (1) State and local laws and regulations will not be preempted; (2) no retroactive effect will be given to this rule; and (3) administrative proceedings will not be required before parties may file suit in court challenging this rule.

Paperwork Reduction Act

This proposed rule contains no new information collection or recordkeeping requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects

7 CFR Part 301

Agricultural commodities, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements, Transportation.

List of Subjects

7 CFR Part 319

Bees, Coffee, Cotton, Fruits, Honey, Imports, Nursery Stock, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements, Rice, Vegetables.

Accordingly, 7 CFR parts 301 and 319 would be amended as follows:

PART 301—DOMESTIC QUARANTINE NOTICES

1. The authority citation for part 301 would continue to read as follows:

Authority: 7 U.S.C. 7701–7772; 7 CFR 2.22, 2.80, and 371.3.

Section 301.75–15 also issued under Sec. 204, Title II, Pub. L. 106–113, 113 Stat. 1501A–293; sections 301.75–15 and 301.75–16 also issued under Sec. 203, Title II, Pub. L. 106–224, 114 Stat. 400 (7 U.S.C. 1421 note).

§ 301.45–1 [Amended]

2. In § 301.45–1, in the definition of *regulated articles,* paragraph (2) would be amended by removing the words ''wood chips'' and adding in their place the words ''bark and bark products''.

§ 301.45–4 [Amended]

3. In § 301.45–4, paragraph (b) would be amended by removing the word ''June'' and adding in its place the word ''August'', and paragraph (c)(2) would be amended by removing the words ''wood chips'' and adding in their place the words ''bark and bark products''.

PART 319—FOREIGN QUARANTINE NOTICES

4. The authority citation for part 319 would continue to read as follows:

Authority: 7 U.S.C. 450, 7711–7714, 7718, 7731, 7732, 7751–7754, and 7760; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

§ 319.40–2 [Amended]

5. In § 319.40–2, paragraph (f) would be amended by adding the words ''bark and bark products and'' before the word ''logs''.

6. Section 319.77–2 would be amended by redesignating paragraphs (f) and (g) as paragraphs (g) and (h), respectively, and by adding a new paragraph (f) to read as follows:

§ 319.77–2 Regulated articles.

* * * * *

(f) Bark and bark products;

* * * * *

7. In § 319.77–4, the introductory text of paragraph (b), including footnote 2; paragraph (b)(1); the introductory text of paragraph (b)(2); the introductory text of paragraph (b)(2)(i); and paragraph (b)(2)(ii) would be revised to read as follows:

§ 319.77–4 Conditions for the importation of regulated articles.

* * * * *

(b) *Bark and bark products and logs and pulpwood with bark attached.*[2] (1) Bark and bark products or logs or pulpwood with bark attached that are destined for a U.S. infested area and that will not be moved through any U.S. noninfested area other than noninfested areas in the counties of Aroostock, Franklin, Oxford, Piscataquis, Penobscot, and Somerset, ME (*i.e.*, areas in those counties that are not listed in 7 CFR 301.45–3) may be imported from any area of Canada without restriction under this subpart.

(2) Bark and bark products or logs or pulpwood with bark attached that are destined for a U.S. noninfested area or will be moved through a U.S. noninfested area may be imported into the United States from Canada only under the following conditions:

(i) If the bark, bark products, logs, or pulpwood originated in a Canadian infested area, they must be either:

* * * * *

(ii) If the bark, bark products, logs, or pulpwood originated in a Canadian noninfested area, they must be accompanied by a certification of origin stating that they were produced in an area of Canada where gypsy moth is not known to occur.

* * * * *

Done in Washington, DC, this 16th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12985 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

[2] Bark, bark products, and logs from Canada are also subject to restrictions under ''Subpart—Logs, Lumber, and Other Unmanufactured Wood Articles'' (§§ 319.40 through 319.40–11 of this part).

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Part 319

[Docket No. 02–049–1]

Importation of Fragrant Pears From China

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: We are proposing to amend the fruits and vegetables regulations to allow the importation of fragrant pears from China under certain conditions. As a condition of entry, fragrant pears from China would have to be grown in the Korla region of Xinjiang Province in a production site that is registered with the national plant protection organization of China. The fragrant pears would be subject to inspection. In addition, the pears would have to be packed in insect-proof containers that are labeled in accordance with the regulations and safeguarded from pest infestation during transport to the United States. This action would allow fragrant pears to be imported from China while continuing to provide protection against the introduction of plant pests into the United States.

DATES: We will consider all comments that we receive on or before July 22, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 02–049–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 02–049–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 02–049–1'' on the subject line.

You may read any comments that we receive on this docket in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue, SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Dr. Inder P. Gadh, Import Specialist, PPQ, APHIS, 4700 River Road Unit 140, Riverdale, MD 20737–1231; (301) 734–6799.

SUPPLEMENTARY INFORMATION:

Background

The regulations in 7 CFR 319.56 through 319.56–8 (referred to below as the regulations) prohibit or restrict the importation of fruits and vegetables into the United States from certain parts of the world to prevent the introduction and dissemination of plant pests that are new to or not widely distributed within the United States.

Currently, the regulations do not allow the importation of fragrant pears from China. However, the national plant protection organization of China has requested that the Animal and Plant Health Inspection Service (APHIS) allow fragrant pears from the Korla region of Xinjiang Province in China to be imported into the United States.

Under section 412(a) of the Plant Protection Act, the Secretary of Agriculture may prohibit or restrict the importation and entry of any plant product if the Secretary determines that the prohibition or restriction is necessary to prevent the introduction into the United States or the dissemination within the United States of a plant pest or noxious weed.

The Secretary has determined that it is not necessary to prohibit the importation of fragrant pears from the Korla region of Xinjiang Province in China in order to prevent the introduction into the United States or the dissemination within the United States of a plant pest or noxious weed. This determination is based on the finding that the application of the remedial measures contained in this proposed rule will provide the protection necessary to prevent the introduction and dissemination of plant pests into the United States. The factors considered in arriving at this determination include the conclusions of a pest risk assessment,[1] program analysis, and site visits.

The pest risk assessment and supporting documents identified 13 pests of quarantine significance present in China that could be introduced in the United States via fragrant pears. However, the climatic conditions and production practices in the Korla region of Xinjiang Province do not favor the establishment of any of these pests. The production area is west of the Gobi Desert and just north of the Taklamakan Desert. The area experiences extremely hot summers, cold winters, and very little rainfall.

Furthermore, the production area is geographically as well as culturally isolated. Although agricultural commodities are exported from the region, there is little, if any, incoming trade. As a result, the potential for pests of quarantine significance being introduced into the area is extremely low. In the unlikely event a pest was introduced, climatic conditions and production practices would significantly reduce the likelihood of establishment.

Therefore, we are proposing to allow fragrant pears to be imported from the Korla region of Xinjiang Province in China under certain conditions. The provisions for the importation of fragrant pears from China would be set out in a new section, § 319.56–2kk.

We would require that the fragrant pears be grown in the Korla region of Xinjiang Province in a production site that is registered with the national plant protection organization of China. All propagative material introduced into a registered production site would have to be certified free of specified quarantine pests by the national plant protection organization of China.

The fragrant pears would be subject to both pre-harvest and post-harvest inspections. Each year, within 30 days prior to harvest, the national plant protection organization of China or officials authorized by the national plant protection organization of China would have to inspect the registered production site for signs of pest infestation and would have to allow APHIS to monitor the inspections. The national plant protection organization of China would have to provide APHIS with information on pest detections and pest detection practices, and APHIS would have to approve the pest detection practices. The national plant protection organization of China would be responsible for immediately notifying APHIS of any quarantine pests found during inspection of the registered production site or at any other time.

Upon detection of Oriental fruit fly (*Bactrocera dorsalis*) during the pre-harvest inspection or at any other time, APHIS could prohibit the importation into the United States of fragrant pears from China until an investigation is conducted and APHIS and the national plant protection organization of China agree that appropriate remedial action has been taken.

APHIS could prohibit the importation into the United States of fragrant pears from a production site for the season if any of the following pests are detected on that production site during the pre-harvest inspection or at any other time: Peach fruit borer (*Carposina sasaki*), yellow peach moth (*Conogethes punctiferalis*), apple fruit moth (*Cydia inopinata*), Hawthorn spider mite (*Tetranychus viennensis*), red plum maggot (*Cydia funebrana*), brown rot (*Munilinia fructigena*), Asian pear scab (*Venturia nashicola*), pear trellis rust (*Gymnosporangium fuscum*), and Asian pear black spot (*Alternaria* spp.). The exportation to the United States of fragrant pears from the production site could resume in the next growing season if an investigation is conducted and APHIS and the national plant protection organization of China agree that appropriate remedial action has been taken. Furthermore, if any of these pests is detected in more than one registered production site, APHIS could prohibit the importation into the United States of fragrant pears from China until an investigation is conducted and APHIS and the national plant protection organization of China agree that appropriate remedial action has been taken.

[1] The pest risk assessment and supporting documents may be obtained from the person listed under **FOR FURTHER INFORMATION CONTACT.**

After harvest, the national plant protection organization of China or officials authorized by the national plant protection organization of China would have to inspect the pears for signs of pest infestation and would have to allow APHIS to monitor the inspections. The national plant protection organization of China would be responsible for immediately notifying APHIS of any quarantine pests found during the post-harvest inspection or at any other time.

If any of the quarantine pests listed above are detected during the post-harvest inspection, APHIS could reject the lot or consignment and could prohibit the importation of fragrant pears into the United States, as described above.

In addition, APHIS could reject an individual lot or consignment upon detection of large pear borer *(Numonia pivivorella),* pear curculio *(Rhynchites fovepessin),* and Japanese apple curculio *(R. heros).* These pests are readily identifiable as they cause significant and characteristic damage to infested fruit. Therefore, post-harvest inspection is adequate mitigation for these pests.

The fragrant pears would have to be packed in insect-proof containers that are labeled in accordance with § 319.56–2(g), which requires that each box of fruit imported into the United States be clearly labeled with: (1) The name of the orchard or grove of origin, or the name of the grower; (2) the name of the municipality and State in which it was produced; and (3) the type and amount of fruit it contains. The fragrant pears would have to be held in a cold storage facility while awaiting export. In order to prevent fragrant pears intended for export to the United States from being commingled with any other fruit, we would require that if fruit from unregistered production sites are stored in the same facility, the fragrant pears would have to be isolated from that other fruit.

In addition, fragrant pears would have to be safeguarded to prevent pest infestation during transport to the United States. To facilitate compliance with the regulations, fragrant pears could only be imported under a permit issued by APHIS. In addition, each shipment of pears would have to be accompanied by a phytosanitary certificate issued by the national plant protection organization of China stating that the conditions of the regulations have been met and that the shipment has been inspected and found free of quarantine pests.

We believe that the proposed requirements described above are sufficient and necessary to prevent the introduction into the United States and the dissemination within the United States of a plant pest or noxious weed.

Executive Order 12866 and Regulatory Flexibility Act

This proposed rule has been reviewed under Executive Order 12866. The rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

We are proposing to amend the fruits and vegetables regulations to allow the importation of fragrant pears from China under certain conditions. This action would allow fragrant pears to be imported from China while continuing to provide protection against the introduction of plant pests into the United States.

This analysis examines whether the regulations might have a significant economic impact on a substantial number of small entities, as required by the Regulatory Flexibility Act. There are three reasons why we believe this will not be the case. First, the risk of quarantine pests being introduced into the United States via this pathway is extremely low. Second, fragrant pears are not produced in the United States and fragrant pear import levels are expected to be low relative to domestic availability. In addition, our analysis suggests that Ya pear *(Pyrus bretschneideri)* imports from China do not substitute for domestically produced pears; therefore, profit losses, if any, for domestic pear producers are expected to be extremely low, at least over the next several years. Third, allowing the importation of a pear variety that is not produced domestically will lead to gains for small importers and pear consumers in the United States.

Pear Production and Pest Risks

Fragrant pears are grown in an area surrounding Korla, a city in Xinjiang Province, which makes up the northwest corner of China, and are not grown anywhere else in the world. The production area, which is west of the Gobi Desert and just north of the Taklamakan Desert, experiences extremely hot summers, cold winters, and very little rainfall, and is geographically as well as culturally isolated. In addition, while agricultural commodities are exported from the region, there is little if any incoming trade. As a result, the potential for pests of quarantine significance being introduced into the area is extremely low. Furthermore, in the unlikely event a pest was introduced, climatic conditions and production practices would significantly reduce the likelihood of establishment.

Approximately 15,000 hectares are devoted to fragrant pear production in Xinjiang Province, yielding roughly 90,718 metric tons per year, of which 10 percent is exported. We expect that exports to the United States would come mainly from the farm units known as Regiments 28, 29, 30, 33, and Shayi Dong Farms, although additional quantities could come from Regiments 31 and 32. The land belongs to the government, and the proper maintenance of every orchard is under the direct supervision of China's Administration of Plant Quarantine (AQSIQ), which stations one supervisor to each regiment in the export area. The AQSIQ supervisor is in contact with the growers on a weekly basis and directs the work of several survey teams.[2] The survey teams are in the orchards every day and are responsible for maintaining traps, extension work, fruit cutting and inspection, checking to see that orchards are maintained properly, participating in annual pest surveys, and checking on other crops. If it is determined that an orchard is not being managed properly, AQSIQ assigns it to another grower.

Benefits and Costs

Because pest risks associated with this pathway are extremely low, we expect regulatory costs associated with quarantine pest introductions to be negligible. In addition, because fragrant pears are not produced in the United States and because quantities designated for export are expected to be low, at least during the next several years, we do not expect fragrant pears to compete with domestically produced pears over the short run. However, imports of fragrant pears from China may increase over time, as has been the case for U.S. Ya pear imports and Canadian Ya and fragrant pear imports from China (table 1).

[2] There are approximately 5,166 hectares of agricultural production, 3,000 growers, and 66 survey teams in Regiments 28, 29, 30, 33, and Shayi Dong Farms, for an average 1.72 hectares per grower and 79 hectares per survey team. Most of Regiment 30, however, is devoted to wheat and rice production. Each fragrant pear grower manages about 1 hectare.

TABLE 1.—YA PEARS FROM CHINA AND DOMESTICALLY PRODUCED FRESH PEARS, QUANTITIES, AND PRICES

Year	YA pear imports [1] (1,000 kg)	Import prices [1] ($/kg)	Domestic production fresh pears [2] (1,000 kg)	Domestic prices 2) [2] ($/kg)	Chinese pear exports to Canada [3] (1,000 kg)
1996	NA	NA	416,897	$0.62	321
1997	NA	NA	519,191	0.41	182
1998	329	$1.48	466,107	0.44	909
1999	2,058	1.26	486,410	0.43	1,899
2000	5,264	0.73	496,348	0.36	4,663
2001	6,654	0.54	494,588	0.43	NA

NA = not available.
[1] Data for 1998–2002 are from FAS (2002), and data for 2001 are from the World Trade Atlas, which obtains its data from the U.S. Bureau of the Census.
[2] The nominal price data during 1996–1998 are from NASS (1999), and data for 1999–2001 are from NASS (2002).
[3] China currently exports fragrant pears (and possibly Ya pears) to Canada. These data are from (FAS 2002).

We used time-series data on U.S. Ya pear imports from China, domestic fresh pear production and prices, and total domestic expenditures on fruit during 1996–2001 to estimate the rate of substitution between Ya pears and domestically produced pears in order to glean information about the potential rate of substitution between fragrant pear imports and domestic pears.[3] In particular, we estimated a linear relationship between fresh domestic pear prices and a constant, fresh domestic production, and Ya pear imports from China. Prices and expenditures were converted to 2001 dollars using a fresh fruit consumer price index. The constant, Ya pear imports, real expenditures on fruit, and total pear production were used as instruments in the instrumental variables estimation procedure. The constant and the coefficient estimate on utilized fresh pear production are statistically different from zero, at a 5 percent significant level, and the coefficient estimate on production has the appropriate sine (table 2). The coefficient estimate on Ya pear imports is negative but not statistically different from zero, indicating that Ya pears did not substitute for domestically produced pears during 1998–2001.

During 1998–2001, U.S. imports of Ya pears from China increased an average 236 percent per year, mainly due to a 526 percent increase between 1998 and 1999 (table 1). More recently, imports increased 26 percent between 2000 and 2001. Import restrictions on Ya and fragrant pear imports from China imposed by the Canadian Food Inspection Agency are somewhat similar to those APHIS would impose and, as a result, Canadian imports of Chinese Ya and fragrant pears provide additional information regarding potential future U.S. imports of these commodities. During 1996–2000, Canadian imports increased an average 153 percent per year, increasing 146 percent between 1999 and 2000. There are no data to indicate directly whether U.S. imports of fragrant pears from China may compete with domestically produced pears. However, if the relationship between Ya pears and domestic pears is similar to the relationship between fragrant pears and domestic pears, then the estimation results in table 2 indicate that U.S. imports of fragrant pears from China will not compete with domestically produced pears during the next several years. If U.S. imports of fragrant pears from China increase rapidly over time, however, fragrant pears may eventually compete with some varieties of domestic pears over the long run. Be that as it may, all of the available data indicate that Chinese fragrant pears will not compete with domestic pears in the short run and, therefore, that allowing the importation of fragrant pears from China would likely not adversely impact U.S. pear producers in the short run.

TABLE 2.—INSTRUMENTAL VARIABLES ESTIMATION RESULTS FOR INVERSE FRESH DOMESTIC PEAR DEMAND *

Variable	Coefficient estimate	Standard error	T-statistic	P-value
Constant	1.30–	0.36	3.62	0.000
Utilized fresh pear production	−1.75e–09	7.65e–10	−2.29	0.022
Ya pear imports	−6.63e–09	8.30e–09	−0.80	0.425

Dependent variable: Fresh pear prices.
Instruments: Constant, Ya pear imports, fruit expenditures, domestic pear production.
Observations: 6 [1996–2001].
Standard error of the regression: 0.05.
Coefficient of determination: 0.83.
F-Stat (over-identifying restrictions): 0.46 [0.55].
* Sources for the 1996–2001 data are reported in the text (See Benefits and Costs) and in table 1. Estimates were obtained using the TSP statistical analysis software package.

Allowing the importation of fragrant pears from China would, however, likely provide benefits to U.S. importers of Chinese fragrant pears, as well as domestic pear consumers. The U.S. Small Business Administration defines a small pear importer (NAICS 42248, Fresh Fruit and Vegetable Wholesalers) as one with annual sales receipts of $100 million or less. There are no data to indicate directly the level of benefits that may accrue to small pear importers

[3] Data on U.S. Ya pear imports from China begin in the year 1998. As a result, Ya pear imports are zero for 1996 and 1997. Quantity data are in kilograms, and expenditure data are in billions of dollars.

in the United States. Instead, we used data on Ya pears to estimate an inverse import demand curve for Ya pears and, under the assumption that U.S. import demand for Ya and fragrant pears would be similar, estimated benefits using the import demand curve for Ya pears. We used time-series data on Ya pear imports and prices and total domestic expenditures on fruit during 1998–2001 to estimate a linear relationship between import price, a constant, and import quantity. Prices and expenditures were converted to 2001 dollars using a fresh fruit consumer price index. The constant, real expenditures on fruit, and a time index were used as instruments. Both the constant and the coefficient estimate on U.S. Ya pear imports from China are statistically significant, and the coefficient estimate on imports has the appropriate sine (table 3). Assuming import demand for Ya and fragrant pears have a similar structure, and assuming Chinese export supply is perfectly inelastic at 256.88 metric tons for the first shipping season, then expected gross revenues less payments to Chinese exporters accruing to U.S. small pear importers for the first marketing season are $5,014 in 2001 dollars.[4] (This figure does not include additional costs associated with unloading, storing, and transporting fragrant pears to market.)

TABLE 3.—INSTRUMENTAL VARIABLES ESTIMATION RESULTS FOR INVERSE DOMESTIC YA PEAR IMPORT DEMAND *

Variable	Coefficient estimate	Standard error	T-statistic	P-value
Constant	1.55	0.02	69.17	0.000
Ya pear imports	−1.52e–07	5.12e–09	−29.65	0.000

Dependent variable: Ya pear import price.
Instruments: Constant, fruit expenditures, time index.
Observations: 4 [1998–2001].
Standard error of the regression: 0.03.
Coefficient of determination: 1.00.
F-Stat (over-identifying restrictions): 1.99 [0.29].
* Sources for the 1996–2001 data are reported in the text (See Benefits and Costs) and in table 1. Estimates were obtained using the TSP statistical analysis software package.

Conclusion

We expect that allowing the importation of fragrant pears from China would likely not have a significant negative economic impact on a substantial number of small entities in the short run. If imports of fragrant pears increase over time, as has been the case for U.S. Ya pear imports and Canadian Ya and fragrant pear imports, it is possible that fragrant pears could compete with some varieties of domestically produced pears, leading to profit losses for small pear producers in the United States. However, under these circumstances, profit losses for small pear producers would be offset by profit gains for small pear importers. That is, even if fragrant pear imports compete with domestic pears in the long run, the proposed rule may have positive net welfare impacts on small entities in the United States.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12988

This proposed rule would allow fragrant pears to be imported into the United States from the Korla region of Xinjiang Province in China. If this proposed rule is adopted, State and local laws and regulations regarding fragrant pears imported under this rule would be preempted while the fruit is in foreign commerce. Fresh fruits are generally imported for immediate distribution and sale to the consuming public and would remain in foreign commerce until sold to the ultimate consumer. The question of when foreign commerce ceases in other cases must be addressed on a case-by-case basis. If this proposed rule is adopted, no retroactive effect will be given to this rule, and this rule will not require administrative proceedings before parties may file suit in court challenging this rule.

Paperwork Reduction Act

In accordance with section 3507(d) of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the information collection or recordkeeping requirements included in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB). Please send written comments to the Office of Information and Regulatory Affairs, OMB, Attention: Desk Officer for APHIS, Washington, DC 20503. Please state that your comments refer to Docket No. 02–049–1. Please send a copy of your comments to: (1) Docket No. 02–049–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238, and (2) Clearance Officer, OCIO, USDA, room 404-W, 14th Street and Independence Avenue SW., Washington, DC 20250. A comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication of this proposed rule.

This proposed rule would allow the importation of fragrant pears from China under certain conditions. As a condition of entry, fragrant pears from China would have to be grown in the Korla region of Xinjiang Province in a production site that is registered with the national plant protection organization of China. The fragrant pears would be subject to inspection. In addition, the pears would have to be packed in insect-proof containers that are labeled in accordance with the regulations and safeguarded from pest infestation during transport to the United States. Finally, fragrant pears could only be imported under a permit issued by APHIS and each shipment of pears would have to be accompanied by a phytosanitary certificate issued by the national plant protection organization of China stating that the conditions of the regulations have been met and that the shipment has been inspected and found free of quarantine pests.

We are soliciting comments from the public (as well as affected agencies) concerning our proposed information collection and recordkeeping requirements. These comments will help us:

(1) Evaluate whether the proposed information collection is necessary for the proper performance of our agency's

[4] This figure is an estimate based on information provided by Chinese officials.

functions, including whether the information will have practical utility;

(2) Evaluate the accuracy of our estimate of the burden of the proposed information collection, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the information collection on those who are to respond (such as through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.*, permitting electronic submission of responses).

Estimate of burden: Public reporting burden for this collection of information is estimated to average 0.4294 hours per response.

Respondents: Exporters, Producers, State and Regulatory Officials.

Estimated annual number of respondents: 130.

Estimated annual number of responses per respondent: 1.3076.

Estimated annual number of responses: 170.

Estimated total annual burden on respondents: 73 hours. (Due to averaging, the total annual burden hours may not equal the product of the annual number of responses multiplied by the reporting burden per response.)

Copies of this information collection can be obtained from Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 734–7477.

Government Paperwork Elimination Act Compliance

The Animal and Plant Health Inspection Service is committed to compliance with the Government Paperwork Elimination Act (GPEA), which requires Government agencies in general to provide the public the option of submitting information or transacting business electronically to the maximum extent possible. For information pertinent to GPEA compliance related to this proposed rule, please contact Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 734–7477.

List of Subjects in 7 CFR Part 319

Bees, Coffee, Cotton, Fruits, Honey, Imports, Logs, Nursery stock, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements, Rice, Vegetables.

Accordingly, we propose to amend 7 CFR part 319 as follows:

PART 319—FOREIGN QUARANTINE NOTICES

1. The authority citation for part 319 would continue to read as follows:

Authority: 7 U.S.C. 450, 7711–7714, 7718, 7731, 7732, 7751–7754, and 7760; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

2. A new § 319.56–2kk would be added to read as follows:

§ 319.56–2kk Administrative instructions: Conditions governing the entry of fragrant pears from China.

Fragrant pears may be imported into the United States from China only under the following conditions:

(a) *Origin, growing, and harvest conditions.* (1) The pears must have been grown in the Korla region of Xinjiang Province in a production site that is registered with the national plant protection organization of China.

(2) All propagative material introduced into a registered production site must be certified free of the pests listed in this section by the national plant protection organization of China.

(3) Within 30 days prior to harvest, the national plant protection organization of China or officials authorized by the national plant protection organization of China must inspect the registered production site for signs of pest infestation and allow APHIS to monitor the inspections. The national plant protection organization of China must provide APHIS with information on pest detections and pest detection practices, and APHIS must approve the pest detection practices.

(4) If any of the quarantine pests listed in this section are found during the pre-harvest inspection or at any other time, the national plant protection organization of China must notify APHIS immediately.

(i) Upon detection of Oriental fruit fly (*Bactrocera dorsalis,*) APHIS may reject the lot or consignment and may prohibit the importation into the United States of fragrant pears from China until an investigation is conducted and APHIS and the national plant protection organization of China agree that appropriate remedial action has been taken.

(ii) Upon detection of peach fruit borer (*Carposina sasaki,*) yellow peach moth (*Conogethes punctiferalis,*) apple fruit moth (*Cydia inopinata*), Hawthorn spider mite (*Tetranychus viennensis*), red plum maggot *(Cydia funebrana),* brown rot (*Munilinia fructigena,*) Asian pear scab (*Venturia nashicola,*) pear trellis rust (*Gymnosporangium fuscum,*) or Asian pear black spot (*Alternaria* spp.), APHIS may reject the lot or consignment and may prohibit the importation into the United States of fragrant pears from the production site for the season. The exportation to the United States of fragrant pears from the production site may resume in the next growing season if an investigation is conducted and APHIS and the national plant protection organization of China agree that appropriate remedial action has been taken. If any of these pests is detected in more than one registered production site, APHIS may prohibit the importation into the United States of fragrant pears from China until an investigation is conducted and APHIS and the national plant protection organization of China agree that appropriate remedial action has been taken.

(5) After harvest, the national plant protection organization of China or officials authorized by the national plant protection organization of China must inspect the pears for signs of pest infestation and allow APHIS to monitor the inspections.

(6) Upon detection of large pear borer (*Numonia pivivorella,*) pear curculio (*Rhynchites fovepessin,*) or Japanese apple curculio (*R. heros,*) APHIS may reject the lot or consignment.

(b) *Packing requirements.* (1) The fragrant pears must be packed in insect-proof containers that are labeled in accordance with § 319.56–2(g).

(2) The fragrant pears must be held in a cold storage facility while awaiting export. If fruit from unregistered production sites are stored in the same facility, the fragrant pears must be isolated from that other fruit.

(c) *Shipping requirements.* (1) All pears must be safeguarded during transport to the United States in a manner that will prevent pest infestation.

(2) Fragrant pears may only be imported under a permit issued by APHIS in accordance with § 319.56–4.

(3) Each shipment of pears must be accompanied by a phytosanitary certificate issued by the national plant protection organization of China stating that the conditions of this section have been met and that the shipment has been inspected and found free of the pests listed in this section.

Done in Washington, DC, this 16th day of May 2003 .

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12987 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

9 CFR Part 71

[Docket No. 02–069–1]

Interstate Movement of Swine Within a Production System; Inspection of Swine

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: We are proposing to amend the regulations pertaining to the interstate movement of swine by limiting the requirement for mandatory veterinary inspections, at intervals of 30 days or less, to swine that are or will be in the process of moving interstate within a swine production system and to the premises on which such swine are housed. With this proposed change, swine that have arrived at a finishing house or other final destination within a single swine production system would no longer be required to undergo veterinary inspections at intervals of 30 days or less. In order to ensure that finishing house animals would still undergo regular health monitoring, swine that have completed their interstate movement within the swine production system, as well as the premises on which they are housed, would have to be inspected in accordance with State regulations. This proposed rule would reduce the frequency of veterinary inspections for swine that have completed their interstate movement within a single swine production system without diminishing the effectiveness of our swine-disease monitoring and surveillance activities.

DATES: We will consider all comments that we receive on or before July 22, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 02–069–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 02–069–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 02–069–1'' on the subject line.

You may read any comments that we receive on this docket in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Dr. Adam Grow, Senior Staff Veterinarian, National Center for Animal Health Programs, VS, APHIS, 4700 River Road Unit 43, Riverdale, MD 20737–1231; (301) 734–7708.

SUPPLEMENTARY INFORMATION:

Background

The regulations in subchapter C of chapter I, title 9, Code of Federal Regulations, govern the interstate movement of animals and animal products to prevent the dissemination of livestock and poultry diseases in the United States. Part 71 of subchapter C includes, among other things, requirements for the identification and inspection of swine being moved interstate.

On December 20, 2001, we published in the **Federal Register** (66 FR 65598–65604, Docket No. 98–023–2) a final rule that established an alternative to the requirements for moving swine interstate. Among other things, the rule allowed persons to move swine interstate without meeting individual swine identification requirements if the swine were being moved within a single swine production system, and provided that the swine production system agreed to monitor the health of animals moving within the system and to facilitate tracebacks. The rule was designed to further facilitate the interstate movement of swine while continuing to provide protection against the interstate spread of swine diseases.

Among other things, the final rule amended § 71.1 by adding a definition of *swine production health plan.* This definition featured a provision requiring that such plans ''must identify all premises that are part of the swine production system and that receive or send swine in interstate commerce and must provide for regular inspections of all identified premises and swine on the premises, at intervals no greater than 30 days, by the swine production system accredited veterinarians(s).'' By providing for regular inspections of ''all identified premises and swine on the premises,'' this provision has the effect of requiring such inspections even after the swine have completed their interstate movement within the swine production system and have arrived at a finishing house or other final receiving premises within the swine production system.

Some commenters on the proposal that preceded the final rule suggested that while veterinary inspections at intervals of 30 days or less are appropriate and necessary for swine that are still to be moved interstate, such regular inspections are not necessary once the animals have completed their interstate movement within the swine production system. Furthermore, it was suggested that retaining the 30-day veterinary inspection requirement for animals that had reached their final destination in the system could unintentionally increase the risk of swine disease transmission by requiring veterinarians who may have first inspected sick animals to inspect healthy ones as well, even in the absence of a compelling medical need to do so.

When we promulgated the final rule, we decided to retain the 30-day inspection provision. We were concerned that reducing the frequency could put accredited veterinarians in violation of our accreditation standards in 9 CFR 161.3(a). Under these standards, accredited veterinarians must complete certificates of inspection based on veterinary inspection. An accredited veterinarian may not issue any certificate or other document ''which reflects the results of any inspection, test, [etc.]'' unless he or she has personally inspected the animal not more than 10 days prior to issuing the certificate or other document. However, following the initial and subsequent inspections of a herd or flock that is in a regular health maintenance program, an accredited veterinarian may issue any certificate or other document if not more than 30 days have passed since he or she personally inspected the animal.

We have since concluded, however, that having a more flexible inspection requirement for swine that have reached their final destination in the swine production system would not conflict with our accreditation standards. A certification of inspection is necessary for the interstate movement of swine within a swine production system.

Swine that have reached a finishing house or other final destination in the system will be destined for the slaughterhouse. Nothing in the current proposal would preclude any inspection needed to issue a certification for the interstate movement of swine to slaughter. The proposal would merely eliminate routine 30-day inspections for animals that have arrived at a finishing house or other final destination and that may well spend months at that one location. It does not relieve accredited veterinarians of the responsibility of complying with the accreditation standards or other applicable requirements.

Therefore, we are proposing to amend our definition of *swine production health plan* in § 71.1 to allow for greater flexibility in health inspections of swine that have completed their movement within a swine production system. Under our proposed definition, the swine production health plan would have to provide for health monitoring, including inspection by the swine production system accredited veterinarian(s), of all swine within the system. The required frequency of inspections would vary according to the nature of the premises and the swine that populate them. Inspections of premises that contain swine that are or will be in the process of moving interstate within the swine production system and of all swine on those premises would still have to be conducted by the accredited veterinarian(s) at intervals of no greater than 30 days. Inspections of premises containing only swine that have completed their interstate movement within a single swine production system and of all swine on those premises would have to be conducted in accordance with State regulations.

This action would reduce the frequency of veterinary inspections for swine that have completed their interstate movement within a single swine production system without diminishing the effectiveness of our swine-disease monitoring and surveillance activities.

Executive Order 12866 and Regulatory Flexibility Act

This proposed rule has been reviewed under Executive Order 12866. The rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

This proposed rule would remove a requirement in § 71.1 for veterinary inspections, at intervals no greater than 30 days, of swine that have already completed their interstate movement within a swine production system.

The entities affected by this proposed action would be swine owners and swine finishing houses or other final receiving destinations in swine production systems. Data from the 1997 Census of Agriculture suggest that approximately 109,754 swine farms could be affected, and that 98 percent of these swine farms could be classified as small entities under the Small Business Administration criterion of $750,000 or less in revenue per year.[1]

The overall economic impact of this proposed rule should be positive but small. Swine operations would be able to forgo certain costs of inspections at the finishing houses or other final receiving premises in the swine production system. The annual savings that would be realized by each swine operation are difficult to estimate because many of the veterinarians who perform the inspections are held under a retainer and perform other services for the swine operation. However, the time and resources of the veterinarian could be redirected to other issues at the finishing houses or other receiving premises, like caring for sick animals, thereby benefitting swine owners.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12372

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 7 CFR part 3015, subpart V.)

Executive Order 12988

This proposed rule has been reviewed under Executive Order 12988, Civil Justice Reform. If this proposed rule is adopted: (1) All State and local laws and regulations that are in conflict with this rule will be preempted; (2) no retroactive effect will be given to this rule; and (3) administrative proceedings will not be required before parties may file suit in court challenging this rule.

Paperwork Reduction Act

This proposed rule contains no new information collection or recordkeeping requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

[1] 1997 Census of Agriculture, Hogs and Pigs Inventory (*http://www.nass.usda.gov*).

List of Subjects in 9 CFR 71

Animal diseases, Livestock, Poultry and poultry products, Quarantine, Reporting and recordkeeping requirements, Transportation.

Accordingly, we propose to amend 9 CFR part 71 as follows:

PART 71—GENERAL PROVISIONS

1. The authority citation for part 71 would continue to read as follows:

Authority: 7 U.S.C. 8301–8317; 7 CFR 2.22, 2.80, and 371.4.

2. In § 71.1, in the definition of *swine production health plan,* the second sentence would be removed and four new sentences would be added in its place to read as follows:

§ 71.1 Definitions.

* * * * *

Swine production health plan. * * * The plan must identify all premises that are part of the swine production system and that receive or send swine in interstate commerce and must provide for health monitoring of all swine within the system. Such health monitoring must include inspections by the swine production system accredited veterinarian(s). Inspections of all identified premises that contain swine that are or will be in the process of moving interstate within the swine production system and of all swine on those premises must be conducted by the accredited veterinarian(s) at intervals of no greater than 30 days. Inspections of all identified receiving premises that contain only swine that have completed their interstate movement within a single swine production system and of all swine on those premises must be conducted in accordance with State regulations. * * *

* * * * *

Done in Washington, DC, this 19th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12994 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

9 CFR Parts 82, 145, and 147

[Docket No. 03–017–1]

National Poultry Improvement Plan and Auxiliary Provisions

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: We are proposing to amend the National Poultry Improvement Plan (the Plan) and its auxiliary provisions by providing new or modified sampling and testing procedures for Plan participants and participating flocks. The proposed changes were voted on and approved by the voting delegates at the Plan's 2002 National Plan Conference. These changes would keep the provisions of the Plan current with changes in the poultry industry and provide for the use of new sampling and testing procedures.

DATES: We will consider all comments that we receive on or before July 22, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 03–017–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 03–017–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 03–017–1'' on the subject line.

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APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Mr. Andrew R. Rhorer, Senior Coordinator, Poultry Improvement Staff, National Poultry Improvement Plan, Veterinary Services, APHIS, USDA, 1498 Klondike Road, Suite 200, Conyers, GA 30094–5104; (770) 922–3496.

SUPPLEMENTARY INFORMATION:

Background

The National Poultry Improvement Plan (NPIP, also referred to below as ''the Plan'') is a cooperative Federal-State-industry mechanism for controlling certain poultry diseases. The Plan consists of a variety of programs intended to prevent and control egg-transmitted, hatchery-disseminated poultry diseases. Participation in all Plan programs is voluntary, but flocks, hatcheries, and dealers must first qualify as ''U.S. Pullorum-Typhoid Clean'' as a condition for participating in the other Plan programs. Also, the regulations in 9 CFR part 82, subpart C, which provide for certain testing, restrictions on movement, and other restrictions on certain chickens, eggs, and other articles due to the presence of *Salmonella enteritidis,* prohibit hatching eggs or newly hatched chicks from egg-type chicken breeding flocks from being moved interstate unless they are classified ''U.S. S. Enteritidis Monitored'' under the Plan or have met equivalent requirements for S. *enteritidis* control, in accordance with 9 CFR 145.23(d), under official Federal or State supervision. (The name of the ''U.S. S. Enteritidis Monitored'' classification has changed; as discussed below, we are proposing to amend part 82, subpart C, to reflect this change.)

The Plan identifies States, flocks, hatcheries, and dealers that meet certain disease control standards specified in the Plan's various programs. As a result, customers can buy poultry that has tested clean of certain diseases or that has been produced under disease-prevention conditions.

The regulations in 9 CFR parts 145 and 147 (referred to below as the regulations) contain the provisions of the Plan. The Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture (USDA or the Department) amends these provisions from time to time to incorporate new scientific information and technologies within the Plan.

The proposed amendments discussed in this document are consistent with the recommendations approved by the voting delegates to the National Plan Conference that was held from May 30 to June 1, 2002. Participants in the 2002 National Plan Conference represented flockowners, breeders, hatcherymen, and Official State Agencies from all cooperating States. The proposed amendments are discussed in greater detail below.

Update of S. enteritidis Regulations

On February 25, 2002, we published in the **Federal Register** (67 FR 8466–8475, Docket No. 00–075–2) a final rule that, among other things, amended § 145.23(d) by changing the name of the ''U.S. S. Enteritidis Monitored'' classification to ''U.S. S. Enteritidis Clean.'' We made this change because the monitoring and prevention elements of this program had been effective enough that the focus of the program had shifted towards maintaining the freedom of flocks from *Salmonella enteritidis.* At the time we made this change, we should have updated § 82.34 to reflect the classification's new name, but we failed to do so. Therefore, we are proposing to change the reference to ''U.S. S. Enteritidis Monitored'' in § 82.34 to read ''U.S. S. Enteritidis Clean'' to make the regulations consistent.

Blood Testing for Pullorum-Typhoid

We propose to reorganize § 145.14(a), which specifies the procedures for testing flocks for pullorum-typhoid, to improve that paragraph's clarity. The current paragraph does not clearly state the order in which the various tests for pullorum-typhoid should be administered. To save money and time, testing should begin with the rapid serum test, the enzyme-labeled immunosorbent assay, or the rapid whole blood plate test. These tests are considered screening tests and are highly sensitive, which may lead to false positives. To confirm positive results from these tests, the standard tube agglutination test or the microagglutination test must be used. If the standard tube agglutination test or microagglutination test confirms the earlier positive result, flock owners must submit all the reactors to an authorized laboratory for bacteriological examination. If there are four or more reactors in the flock, at least four reactors must be submitted.

Some owners of small flocks who suspect that the standard tube agglutination or microagglutination tests have produced false-positive results may be reluctant to submit reactors for bacteriological examination, because this process requires that the reactors be destroyed. In such a situation, the regulations provide that rather than immediately submitting reactors for bacteriological examination, the owner may isolate the reactors for 30 days, after which they must be retested. If the

reactors continue to test positive, it is mandatory that the reactors be submitted for bacteriological examination.

While these procedures are enumerated in the current regulations, their presentation is somewhat unclear, with the result that tests may be administered in improper order and reactors may be destroyed unnecessarily for the purposes of bacteriological examination. The proposed reorganization of § 145.14(a) is intended to eliminate that possibility by making the regulations easier to understand.

Additionally, in the current regulations, the procedures for testing for pullorum-typhoid (§ 145.14(a)(9)) are presented after the procedures in § 145.14(a)(7) by which a flock may be determined to be free of pullorum-typhoid once a flock has tested positive for this disease. We propose to reorder these paragraphs to reflect the order in which these procedures would be undertaken by flockowners.

Minimum Weight of Hatching Eggs

At one time, the Plan served as a certification program for breeders, determining the required characteristics for saleable hatching eggs of various types. Over the years, the Plan's focus shifted towards preventing the establishment and spread of poultry diseases. The poultry industry has developed its own standards for hatching eggs, and these standards are widely accepted among producers. Therefore, we believe that the NPIP requirements for the minimum weights of hatching eggs that are part of the participation criteria for certain Plan programs are no longer applicable or necessary and should be removed from the regulations.

In § 145.22, we propose to remove paragraphs (a) and (b), which require, respectively, that the minimum weight of hatching eggs sold from egg type chicken breeding flocks shall be 11/22 ounces, unless otherwise specified by the purchaser of the eggs, and that Mediterranean breed eggs shall be reasonably free from tints. In § 145.32, we propose to remove paragraph (a), which requires that the minimum weight of hatching eggs sold from meat type chicken breeding flocks shall be 1 10/12 ounces, except as otherwise specified by the purchaser of the eggs. In § 145.42, we propose to remove paragraph (b), which requires that the minimum weight of hatching eggs from turkey breeding flocks that are shipped interstate shall be 2 ounces for small varieties and 2½ ounces for large varieties, unless otherwise specified by the purchaser of the eggs.

Flock Sampling Levels for M. Gallisepticum and M. Synoviae Programs

For both the U.S. M. Gallisepticum Clean and U.S. M. Synoviae Clean programs, as provided in § 145.33(c) and (e), respectively, we propose to modify the current requirements for testing male breeding birds for the diseases before adding these birds to a participating multiplier breeding flock. Instead of requiring that 3 percent of the male breeding birds be tested, we would require that 30 of these birds be tested, or, if fewer than 30 birds are being introduced, that all of these birds be tested. We believe that the 3 percent standard, if used when fewer than 1,000 male breeding birds are being added to a participating flock, can result in sample sizes that are not large enough for the test results to be statistically significant. Requiring that 30 male breeding birds be tested (or that all of the male breeding birds be tested if fewer than 30 are being introduced) would provide greater assurance that the male breeding birds being introduced are free of these diseases.

We also propose to amend § 145.33(c) and (e) by inserting a reference to the diagnostic procedure in § 145.14(b) for *M. gallisepticum* and *M. synoviae* to clarify that if the male breeding birds are tested serologically, the test must be carried out as prescribed in § 145.14(b).

For both the U.S. M. Gallisepticum Monitored and U.S. M. Synoviae Monitored programs, as provided in § 145.33(j) and (k), respectively, we propose to increase the sampling level required to retain this classification from 20 birds, 10 from the front half of the house and 10 from the back half of the house, to 30 birds, 15 from the front of the house and 15 from the back of the house. We believe that 20 birds is an insufficient sample size for testing for these diseases, and that the proposed requirement that 30 birds be tested would provide more useful results.

Restrictions on Animal Protein in Mash and Pellet Feed

We propose to eliminate the restrictions on the use of animal protein in mash and pelletized feed that are currently found in the regulations governing the U.S. S. Enteriditis Clean program, in paragraphs § 145.33(h)(1)(ii)(A) and (h)(1)(ii)(B); the U.S. Salmonella Monitored program, in paragraph § 145.33(i)(1)(iii); and the U.S. Sanitation Monitored program for turkeys, in § 145.43(f)(3). Currently, animal protein used in either pelletized or mash feed under these programs must be produced under the Salmonella Education/Reduction program of the Animal Protein Products Industry (APPI) or, for the U.S. S. Enteriditis Clean and U.S. Sanitation Monitored programs, the Fishmeal Inspection Program of the National Marine Fisheries Service (NMFS). We are proposing to remove these restrictions and allow the use of any animal protein for feed under these programs.

We originally required animal protein used in pelletized or mash feed for poultry to be produced under the APPI or NMFS programs because we believed that such a requirement was an effective way to lower the risk that animal protein used in feed was contaminated with *Salmonella.* However, since that requirement was instituted, technological methods, such as thermal lethality treatments, and chemical products have been introduced to control the incidence of *Salmonella* in protein feed. These technological and chemical methods are generally more effective than the program controls in ensuring that *Salmonella* is not present in protein used in feed.

In fact, the control programs have often proven ineffective. For example, in 2000, Salmonella Education/Reduction Program test results showed that 20 percent of tested protein samples were positive for *Salmonella.* This level of positive results is not significantly different from the level of *Salmonella* positive results found among renderers and processors that did not operate under the APPI program. Removing the requirement that protein used in feed be produced under the APPI or NMFS programs, therefore, is not likely to reduce the quality of protein used in feed, and to the extent that it encourages the use of the more effective technological and chemical *Salmonella* control methods, is likely to increase that quality.

In addition, we propose to replace the current thermal lethality treatment for pelletized feed specified in the U.S. Sanitation Monitored program for turkeys by providing for the use of any of three specified thermal lethality treatments or any other equivalent thermal lethality treatment. Alternatively, we would require that a Food and Drug Administration-approved *Salmonella* control product be added to all finished pellets or conditioned mash feed. Turkey flocks are more likely than other poultry flocks to be fed animal protein; we have therefore determined that our regulations for treating animal protein feed for turkeys should be as specific as possible to ensure that the animal protein feed prepared for turkey flocks carries the lowest possible risk of

infecting turkeys with *Salmonella.* The proposed additional requirements would further reduce the chance that turkey feed is infected with *Salmonella* under this program.

Reinstatement Procedure for U.S. S. Enteriditis Clean Program

We propose to add a provision for reinstatement to the U.S. S. Enteriditis Clean program for meat type chicken breeding flocks and products in a new paragraph § 145.33(h)(6). This reinstatement provision would require breeders of meat type flocks to undertake corrective measures to ensure that a flock that has been removed from the U.S. S. Enteriditis Clean program due to infection is no longer affected by that bacterium, in addition to any other measures that may be specified by the Official State Agency. These measures would include testing and slaughtering infected birds based on the testing of every bird in the flock, vaccination, medication, cleaning and disinfection of houses, rodent control, and movement to premises that have been determined to be environmentally negative for *S. Enteriditis* as described in § 147.12(a). Once these measures have been performed, the flock would be tested and environmental drag swabs would be taken. If both tests do not indicate the presence of *S. Enteriditis*, the flock would be reinstated into the program.

Currently, there is no reinstatement provision for the U.S. S. Enteriditis Clean program, and as a result primary breeders who wish to participate in the program must destroy foundation level primary breeding birds if those birds are part of a flock affected with *S. enteritidis.* Such birds often have valuable, specific traits that cannot be duplicated, and their destruction can result in considerable losses to the primary breeder. Allowing for reinstatement of flocks into the U.S. S. Enteriditis Clean program under the proposed conditions would enable primary breeders to retain their foundation level primary breeding birds if they are not infected with *S. Enteriditis* while continuing to ensure that the flocks that participate in the U.S. S. Enteritidis Clean program are kept free of this disease.

New U.S. Avian Influenza Clean Programs

We propose to add new U.S. Avian Influenza Clean programs to the regulations governing turkey breeding flocks and products in § 145.43(g) and to the regulations governing waterfowl, exhibition poultry, and game breeding flocks and products in § 145.53(e). Both of these programs are modeled on the existing U.S. Avian Influenza Clean program for meat type chicken breeding flocks and products, set out at § 145.33(l). Like the U.S. Avian Influenza Clean program for meat type chicken breeding flocks and products, the programs for turkey breeding flocks and products and waterfowl, exhibition poultry, and game breeding flocks and products would require that a sample of at least 30 birds must test negative for antibodies to avian influenza, as indicated by the agar gel immunodiffusion test specified in § 147.9. For primary breeding flocks, the maximum interval between tests would be 90 days; for multiplier breeding flocks, the maximum interval between tests would be 180 days. The program for turkeys would additionally require that if a killed influenza vaccine from a subtype other than the H5 or H7 subtypes is used for turkeys, the hemagglutinin and the neruaminidase subtypes of the vaccine must be reported to the Official State Agency for laboratory and reporting purposes.

Both of these U.S. Avian Influenza Clean programs are intended to provide flockowners with an optional way to improve their flocks' marketability in foreign countries. A program requiring regular testing of turkeys for avian influenza with the agar gel immunodiffusion test would provide a useful certification to turkey flockowners seeking to expand their exports to countries that required such testing.

Since most countries require that waterfowl, exhibition poultry, and game breeding birds be tested for avian influenza before they can be imported, the avian influenza testing program for those birds would not only provide exporters with an additional useful certification but could also save time and expense at export.

Section 145.10 contains illustrative designs or emblems that correspond to the Plan's various classifications. The design for the U.S. Avian Influenza Clean program is found in § 145.10(r), which currently reads ''*U.S. Avian Influenza Clean.* (*See* §§ 145.23(h) and 145.33(l).)'' Because we are proposing to establish a U.S. Avian Influenza Clean program for waterfowl, exhibition poultry, and game breeding birds, we would amend § 145.10(r) so that it also refers to § 145.53(e), which is the section that would contain the requirements of the U.S. Avian Influenza Clean program for waterfowl, exhibition poultry, and game breeding birds.

We are proposing to refer to the similar program for turkeys as the U.S. H5/H7 Avian Influenza Clean program, because its intent is to determine the presence of the H5 and H7 subtypes of avian influenza in participating flocks. However, § 145.10 does not currently contain an illustrative design that bears this title. Therefore, we are proposing to add a new paragraph (t) to § 145.10 which would read ''*U.S. H5/H7 Avian Influenza Clean.* (*See* § 145.43(g).)'' This paragraph would contain an appropriate illustrative design for use with this program.

Isolation and Identification of Salmonella

We propose to modify the regulations governing the isolation and identification of *Salmonella* in § 147.12(b) by adding a rapid diagnostic method involving a rapid ruthenium-labeled *Salmonella* sandwich immunoassay to the list of approved diagnostic methods. The steps involved in using this method would be detailed in a new paragraph § 147.12(b)(3). The two other approved methods, tetrathionate enrichment with delayed secondary enrichment and pre-enrichment followed by selective enrichment (listed in paragraphs (b)(1) and (b)(2) of § 147.12, respectively), both require more time and resources to accomplish than the rapid ruthenium-labeled *Salmonella* sandwich immunoassay, while the latter method provides equally accurate results. Adding this method to the list of approved methods would provide greater flexibility to diagnostic laboratories while continuing to ensure accurate results in testing.

Executive Order 12866 and Regulatory Flexibility Act

This proposed rule has been reviewed under Executive Order 12866. The rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

The objective of the NPIP is to provide a cooperative Industry-State-Federal program through which new technology can be effectively applied to the improvement of poultry and poultry products throughout the country. The provisions of the Plan, developed jointly by industry members and State and Federal officials, establish standards for the evaluation of poultry breeding stock and hatchery products with respect to freedom from hatchery-disseminated diseases. Participation in the program is voluntary. Currently, the NPIP has active control programs for pullorum, fowl typhoid, avian mycoplasmas, *Salmonella enteritidis,* and avian influenza.

Periodically, provisions of the Plan are amended to keep current with the development of the poultry industry and the utilization of new information as it becomes available, based on the recommendations of representatives of member States, hatcheries, dealers, flockowners, and breeders who take part in the Plan's National Plan Conference meetings. Accordingly, this proposed rule would change some of the Plan's provisions to keep the provisions of the Plan current with changes in the poultry industry, establish new certification programs, modify current disease control practices, and provide for the use of new sampling and testing procedures. The proposed changes were voted on and approved by the voting delegates at the Plan's 2002 National Plan Conference. The proposed changes have been generated by industry representatives, Official State Agencies, or Federal representatives with the goal of reducing disease risk and increasing product marketability.

The United States is the world's largest producer and exporter of poultry meat and the second-largest egg producer. In 2001, U.S. producers held a total of 441.1 million chickens, excluding commercial broilers, whose estimated value was $1.068 billion. Broiler production, which primarily comes from chickens raised under contract with a broiler processor, totaled 8.262 billion broilers with a combined live weight of 41.5 billion pounds. The value of broiler production for that year was $13.9 billion. The United States is also the world's largest turkey producer. In 2001, turkey production totaled 269 million birds with a combined live weight of 6.98 billion pounds and value of $2.8 billion. Finally, in 2000, the United States produced approximately 84.4 million eggs worth an estimated $4.3 billion.[1]

The U.S. poultry industry plays a significant role in international trade. In fact, the United States is the world's largest exporter of both broilers and turkey products. In 2001, broiler exports totaled 5.5 billion pounds, valued at $1.8 billion. Turkey exports for the same year totaled 487 million pounds and were valued at $257 million. In addition, 191 million dozen eggs and egg products were exported in 2001.[2]

Participation in the Plan serves as a ''seal of approval'' for eggs and poultry producers in the sense that tests and procedures recommended by the Plan are considered optimal for the industry. As such, while participation in the Plan is voluntary, many foreign nations, such as Russia, do not accept poultry products unless they have originated from flocks participating in the Plan.[3] Consequently, participation in the Plan increases product marketability both domestically and internationally, which in turn increases the economic benefits received by the poultry industry from participation in the Plan.

The Regulatory Flexibility Act requires that agencies consider the economic impact of their regulations on small entities. Under the North American Industry Classification System (NAICS) used by the Small Business Administration, chicken egg operations are considered small entities if they have $10.5 million or less in annual receipts (NAICS code 112310). All other poultry products and meat operations are considered small entities if they have $750,000 or less in annual receipts (NAICS code 112320).[4] As this regulation only seeks to make minor changes in a continuing program in an effort to better safeguard poultry health, the economic effects on poultry producers are not expected to be significant.

The last agricultural census estimated there were 63,246 domestic poultry and poultry products farms.[5] Unfortunately, the size distribution of these farms is not known. However, because most poultry production is carried out by small farms working under contract with larger processors or marketing firms, we can assume a fair amount of poultry production is carried out by small operations.

However, only those producers that voluntarily participate in the Plan will be affected. As is the case in the majority of voluntary control programs, individuals are likely to remain in the program as long as the costs of implementing the program are lower than the added benefits they receive from the program. In any event, the proposed changes would not have a significant economic effect on Plan participants.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12372

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to Executive Order 12372, which requires intergovernmental consultation with State and local officials. (*See* 7 CFR part 3015, subpart V.)

Executive Order 12988

This proposed rule has been reviewed under Executive Order 12988, Civil Justice Reform. If this proposed rule is adopted: (1) All State and local laws and regulations that are in conflict with this rule will be preempted; (2) no retroactive effect will be given to this rule; and (3) administrative proceedings will not be required before parties may file suit in court challenging this rule.

Paperwork Reduction Act

This proposed rule contains no new information collection or recordkeeping requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects

9 CFR Part 82

Animal diseases, Poultry and poultry products, Quarantine, Reporting and recordkeeping requirements, Transportation.

9 CFR Parts 145 and 147

Animal diseases, Poultry and poultry products, Reporting and recordkeeping requirements.

Accordingly, we propose to amend 9 CFR parts 82, 145, and 147 as follows:

PART 82—EXOTIC NEWCASTLE DISEASE (END) AND CHLAMYDIOSIS; POULTRY DISEASE CAUSED BY SALMONELLA ENTERITIDIS SEROTYPE ENTERITIDIS

1. The authority citation for part 82 would continue to read as follows:

Authority: 7 U.S.C. 8301–8317; 7 CFR 2.22, 2.80, and 371.4.

§ 82.34 [Amended]

2. Section 82.34 would be amended by removing the word ''Monitored'' and adding the word ''Clean'' in its place.

PART 145—NATIONAL POULTRY IMPROVEMENT PLAN

3. The authority citation for part 145 would continue to read as follows:

Authority: 7 U.S.C. 8301–8317; 7 CFR 2.22, 2.80, and 371.4.

4. Section 145.10 would be amended as follows:

a. In paragraph (r), by removing the word ''and'' and adding a comma in its

[1] USDA, *Agricultural Statistics 2002.* Washington, DC: National Agricultural Statistics Service, 2002.

[2] USDA, *Poultry and Eggs: Trade.* Washington, DC: Economic Research Service, 2002.

[3] USDA, *Export Requirements for Russia.* Washington, DC: Food Safety and Inspection Service, 2003.

[4] Table of Size Standards based on NAICS 2002. Washington, DC: U.S. Small Business Administration, 2002.

[5] USDA, *1997 Census of Agriculture.* Washington, DC: National Agricultural Statistics Service.

place and by adding the words ‘‘, and 145.53(e)’’ after the citation ‘‘145.33(l)’’.

b. By adding a new paragraph (t) to read as set forth below.

§ 145.10 Terminology and classification; flocks, products, and States.

* * * * *

(t) *U.S. H5/H7 Avian Influenza Clean.* (*See* § 145.43(g).)

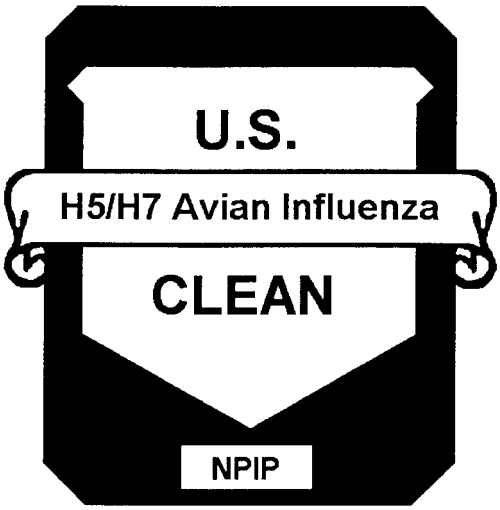

FIGURE 21

5. Section 145.14 would be amended as follows:

a. By removing paragraph (a)(9).

b. By redesignating paragraphs (a)(6) through (a)(8) as paragraphs (a)(7) through (a)(9), respectively.

c. In newly redesignated paragraph (a)(7), in the first sentence, by removing the words ‘‘reactors are found in serum or blood from any flock, or’’.

d. By adding a new paragraph (a)(6) to read as set forth below.

§ 145.14 Blood testing.

* * * * *

(a) * * *

(6) Poultry from flocks undergoing qualification testing for participation in the Plan that have a positive reaction to an official blood test named in paragraph (a)(1) of this section shall be evaluated for pullorum-typhoid as follows:

(i) Serum samples that react on rapid serum test or enzyme-labeled immunosorbent assay test (ELISA), or blood from birds that react on the stained antigen, rapid whole-blood test for all birds except turkeys, shall be tested with either the standard tube agglutination test or the microagglutination test.

(ii) Reactors to the standard tube agglutination test (in dilutions of 1:50 or greater) or the microagglutination test (in dilutions of 1:40 or greater) shall be submitted to an authorized laboratory for bacteriological examination. If there are more than four reactors in a flock, a minimum of four reactors shall be submitted to the authorized laboratory; if the flock has four or fewer reactors, all of the reactors must be submitted. The approved procedure for bacteriological examination is set forth in § 147.11 of this chapter. When reactors are submitted to the authorized laboratory within 10 days of the date of reading an official blood test named in paragraph (a)(6)(i) of this section, and the bacteriological examination fails to demonstrate pullorum-typhoid infection, the Official State Agency shall presume that the flock has no pullorum-typhoid reactors.

(iii) If a flock owner does not wish to submit reactors for bacteriological examination, then the reactors shall be isolated and retested within 30 days using an official blood test named in paragraph (a)(1) of this section. If this retest is positive, additional examination of the reactors and flock will be performed in accordance with paragraph (a)(6)(ii) of this section. During this 30-day period, the flock must be maintained under a security system, specified or approved by the Official State Agency, that will prevent physical contact with other birds and assure that personnel, equipment, and supplies that could be a source of pullorum-typhoid spread are sanitized.

* * * * *

§ 145.22 [Amended]

6. In § 145.22, paragraphs (a) and (b) would be removed and paragraphs (c) through (e) would be redesignated as paragraphs (a) through (c), respectively.

§ 145.32 [Amended]

7. In § 145.32, paragraph (a) would be removed and paragraphs (b) through (d) would be redesignated as paragraphs (a) through (c), respectively.

8. Section 145.33 would be amended as follows:

a. By revising paragraphs (c)(4), (e)(4), (h)(1)(ii)(A), (h)(1)(ii)(B), (i)(1)(iii), (j)(1), and (k)(1) to read as set forth below.

b. By adding a new paragraph (h)(6) to read as set forth below.

§ 145.33. Terminology and classification; flocks and products.

* * * * *

(c) * * *

(4) Before male breeding birds may be added to a participating multiplier breeding flock, a sample of at least 30 birds to be added, with a minimum of 10 birds per pen, shall be tested for *M. gallisepticum* as provided in § 145.14(b), or by a polymerase chain reaction (PCR)-based procedure approved by the Department. If fewer than 30 male breeding birds are being added, all the birds shall be tested as described above. The male birds shall be tested no more than 14 days prior to their intended introduction into the flock. If the serologic testing of the birds yields hemagglutination inhibition titers of 1:40 or higher as provided in § 145.14(b), or if the PCR testing is positive for *M. gallisepticum,* the male birds may not be added to the flock and must be either retested or destroyed.

* * * * *

(e) * * *

(4) Before male breeding birds may be added to a participating multiplier breeding flock, a sample of at least 30 birds to be added, with a minimum of 10 birds per pen, shall be tested for *M. synoviae* as provided in § 145.14(b) or by a polymerase chain reaction (PCR)-based procedure approved by the Department. If fewer than 30 male breeding birds are being added, all the birds shall be tested as described above. The male birds shall be tested no more than 14 days prior to their intended introduction into the flock. If the serologic testing of the birds yields hemagglutination inhibition titers of 1:40 or higher as provided in § 145.14(b), or if the PCR testing is positive for *M. synoviae,* the male birds may not be added to the flock and must be either retested or destroyed.

* * * * *

(h) * * *

(1) * * *

(ii) * * *

(A) Pelletized feed must have a minimum moisture content of 14.5 percent and must have been heated throughout to a minimum temperature of 190 °F, or to a minimum temperature of 165 °F for at least 20 minutes, or to a minimum temperature of 184 °F under 70 lb pressure during the manufacturing process;

(B) Mash feed may contain animal protein if the finished feed is treated with a salmonella control product approved by the Food and Drug Administration.

* * * * *

(6) A pedigree, experimental, or great-grand parent flock that is removed from the U.S. S. Enteritidis Clean program may be reinstated whenever the following conditions are met:

(i) The owner attests that corrective measures have been implemented, which may include one or more of the following:

(A) Test and slaughter infected birds based on blood tests of every bird in the flock, with either pullorum antigen or by a federally licensed *Salmonella enteritidis* enzyme-linked immunosorbent assay (ELISA) test when the flock is more than 4 months of age.

(B) Perform other corrective actions including, but not limited to, vaccination, medication, cleaning and disinfection of houses, rodent control, and movement of uninfected birds to premises that have been determined to be environmentally negative for *S. enteritidis* as described in § 147.12(a) of this chapter.

(C) One hundred percent of blood samples from the birds moved to the clean premises are tested negative for *Salmonella pullorum* and group D *Salmonella.* All birds with positive or inconclusive reactions, up to a maximum of 25 birds, shall be submitted to an authorized laboratory and examined for the presence of group D *Salmonella,* as described in § 147.11 of this chapter. Cultures from positive samples shall be serotyped.

(D) Two consecutive environmental drag swabs taken at the clean premises collected as specified in § 147.12(a) of this chapter 4 weeks apart are negative for *S. enteritidis.*

(E) Other corrective measures at the discretion of the Official State Agency.

(ii) Following reinstatement, a flock will remain eligible for this classification if the flock is tested in accordance with paragraph (h)(1)(v) of this section every 30 days and no positive samples are found and the flock meets the requirements set forth in § 145.33(h).

(i) * * *

(1) * * *

(iii) If feed contains animal protein, the protein products must have a minimum moisture content of 14.5 percent and must have been heated throughout to a minimum temperature of 190 °F or above, or to a minimum temperature of 165 °F for at least 20 minutes, or to a minimum temperature of 184 °F under 70 lb pressure during the manufacturing process;

* * * * *

(j) * * * (1) A multiplier breeding flock in which all birds or a sample of at least 30 birds per house has been tested for *M. gallisepticum* as provided in § 145.14(b) when more than 4 months of age: *Provided,* That to retain this classification, a minimum of 30 birds per house shall be tested again at 36 to 38 weeks and at 48 to 50 weeks at a minimum: *And provided further,* That each 30-bird sample should come from 2 locations within the house (15 from the front half of the house and 15 from the back half of the house). A representative sample of males and females should be sampled. The samples shall be marked ''male'' or ''female.''

* * * * *

(k) * * * (1) A multiplier breeding flock in which all birds or a sample of at least 30 birds per house has been tested for *M. synoviae* as provided in § 145.14(b) when more than 4 months of age: *Provided,* That to retain this classification, a minimum of 30 birds per house shall be tested again at 36 to 38 weeks and at 48 to 50 weeks at a minimum: *And provided further,* That each 30-bird sample should come from 2 locations within the house (15 from the front half of the house and 15 from the back half of the house). A representative sample of males and females should be sampled. The samples shall be marked ''male'' or ''female.''

* * * * *

§ 145.42 [Amended]

9. In § 145.42, paragraph (b) would be removed and paragraphs (c) and (d) would be redesignated as paragraphs (b) and (c), respectively.

10. Section 145.43 would be amended as follows:

a. By revising paragraph (f)(3) to read as set forth below.

b. By adding a new paragraph (g) to read as set forth below.

§ 145.43 Terminology and classification; flocks and products.

* * * * *

(f) * * *

(3) Feed for turkeys in the candidate and breeding flock should meet the following requirements:

(i) All feed manufactured in pellet form must have a maximum moisture content of 13.5 percent upon delivery to the farm. It should have been preconditioned to the minimum of one of the following parameters before pelleting:

(A) Feed is to reach a minimum temperature of 185 °F for a minimum of 6 minutes of retention in the conditioning chamber. The conditioned mash feed moisture must be a minimum of 16 percent during the conditioning process. This method utilizes time retention to allow permeation to the center core of each feed particle; or

(B) The feed is to be pressurized in order to expedite the transfer of the heat and moisture to the core of each feed particle. The feed should be conditioned to the parameters of a minimum of 16 percent moisture and 200 °F; or

(C) The feed should be submitted to pressurization to the extent that the initial feed temperature rises to 235 °F for 4 seconds; or

(D) The feed should be submitted to an equivalent thermal lethality treatment; or

(E) A Food and Drug Administration (FDA)-approved product for *Salmonella* control should be added to the finished pellets.

(ii) Mash feed should be treated with an FDA-approved *Salmonella* control product.

(iii) All feed is to be stored and transported in such a manner as to prevent possible contamination with pathogenic bacteria.

(iv) FDA-approved products for *Salmonella* control may be added to either unfinished or finished feed.

* * * * *

(g) *U.S. H5/H7 Avian Influenza Clean.* This program is intended to be the basis from which the turkey breeding industry may conduct a program for the prevention and control of the H5 and H7 subtypes of avian influenza. It is intended to determine the presence of the H5 and H7 subtypes of avian influenza in breeding turkeys through routine serological surveillance of each participating breeding flock. A flock, and the hatching eggs and poults produced from it, will qualify for this classification when the Official State Agency determines that it has met one of the following requirements:

(1) It is a primary breeding flock in which a minimum of 30 birds has been tested negative for antibodies to the H5 and H7 subtypes of avian influenza by the agar gel immunodiffusion test specified in § 147.9 of this chapter when more than 4 months of age. To retain this classification:

(i) A sample of at least 30 birds must be tested negative at intervals of 90 days; or

(ii) A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds are tested within each 90-day period.

(2) It is a multiplier breeding flock in which a minimum of 30 birds has been tested negative for antibodies to the H5 and H7 subtypes of avian influenza by the agar gel immunodiffusion test specified in § 147.9 when more than 4 months of age. To retain this classification:

(i) A sample of at least 30 birds must be tested negative at intervals of 180 days; or

(ii) A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds are tested within each 180-day period.

(3) For both primary and multiplier breeding flocks, if a killed influenza vaccine against avian influenza subtypes other than H5 and H7 is used, then the hemagglutinin and the neuraminidase subtypes of the vaccine must be reported to the Official State Agency for laboratory and reporting purposes.

* * * * *

11. In § 145.53, a new paragraph (e) would be added to read as follows:

§ 145.53 Terminology and classification; flocks and products.

* * * * *

(e) *U.S. Avian Influenza Clean.* This program is intended to be the basis from which the breeding-hatchery industry may conduct a program for the prevention and control of avian influenza. It is intended to determine the presence of avian influenza in waterfowl, exhibition poultry and game bird breeding flocks through routine serological surveillance of each participating breeding flock. A flock, and the hatching eggs and chicks produced from it, will qualify for this classification when the Official State Agency determines that it has met one of the following requirements:

(1) It is a primary breeding flock in which a minimum of 30 birds has been tested negative for antibodies to avian influenza by the agar gel immunodiffusion test specified in § 147.9 of this chapter when more than 4 months of age. To retain this classification:

(i) A sample of at least 30 birds must be tested negative at intervals of 90 days; or

(ii) A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds are tested within each 90-day period.

(2) It is a multiplier breeding flock in which a minimum of 30 birds has been tested negative for antibodies to avian influenza by the agar gel immunodiffusion test specified in § 147.9 of this chapter when more than 4 months of age. To retain this classification:

(i) A sample of at least 30 birds must be tested negative at intervals of 180 days; or

(ii) A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 unvaccinated sentinel birds are tested within each 180-day period.

PART 147—AUXILIARY PROVISIONS ON NATIONAL POULTRY IMPROVEMENT PLAN

12. The authority citation for part 147 would continue to read as follows:

Authority: 7 U.S.C. 8301–8317; 7 CFR 2.22, 2.80, and 371.4.

13. Section 147.12 would be amended as follows:

a. In paragraph (b), introductory text, the words ''or the rapid detection method'' would be added after the word ''procedures.''

b. A new paragraph (b)(3) would be added to read as set forth below.

§ 147.12 Procedures for collection, isolation, and identification of Salmonella from environmental samples, cloacal swabs, chick box papers, and meconium samples.

* * * * *

(b) * * *

(3) *Approved rapid detection method.* After selective enrichment, a rapid ruthenium-labeled *Salmonella* sandwich immunoassay may be used to determine the presence of *Salmonella.* Positive samples from the immunoassay are then inoculated to selective plates (such as BGN and XLT4). Incubate the plates at 37 °C for 20 to 24 hours. Inoculate three to five *Salmonella*-suspect colonies from the plates into triple sugar iron (TSI) and lysine iron agar (LIA) slants. Incubate the slants at 37 °C for 20 to 24 hours. Screen colonies by serological (*i.e.*, serogroup) and biochemical (*e.g.*, API) procedures as shown in illustration 2. As a supplement to screening three to five *Salmonella*-suspect colonies on TSI and LIA slants, a group D colony lift assay may be utilized to signal the presence of hard-to-detect group D *Salmonella* colonies on agar plates.

* * * * *

Done in Washington, DC, this 19th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12995 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002–NM–82–AD]

RIN 2120–AA64

Airworthiness Directives; McDonnell Douglas Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), and MD–88 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain McDonnell Douglas Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), and MD–88 airplanes. This proposal would require a one-time visual inspection to determine if discrepant circuit breakers are installed, and corrective action if

necessary. This action is necessary to prevent internal overheating and arcing of circuit breakers and airplane wiring due to long-term use and breakdown of internal components of the circuit breakers, which could result in smoke and fire in the flight compartment and main cabin. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by July 7, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–82–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-nprmcomment@faa.gov.* Comments sent via fax or the Internet must contain ''Docket No. 2002–NM–82–AD'' in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1–L5A (D800–0024). This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California.

FOR FURTHER INFORMATION CONTACT: Elvin K. Wheeler, Aerospace Engineer, Systems and Equipment Branch, ANM–130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712–4137; telephone (562) 627–5344; fax (562) 627–5210.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 2002–NM–82–AD.'' The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–82–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

As part of its practice of re-examining all aspects of the service experience of a particular aircraft whenever an accident occurs, the FAA has become aware of incidents of smoke and electrical odor in the flight compartment and cabin area of McDonnell Douglas Model DC–9–81, –82, and –83 airplanes. Investigation revealed that long-term use and breakdown of the internal components of circuit breakers manufactured by Wood Electric Corporation or Wood Electric Division of Potter Brumfield Corporation contributed to internal overheating and arcing of the circuit breakers. This condition, if not corrected, could result in smoke and fire in the flight compartment and main cabin.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin MD80–24A194, Revision 01, dated March 11, 2003, which describes procedures for a one-time visual inspection of the circuit breakers to determine if discrepant circuit breakers are installed (includes circuit breakers manufactured by Wood Electric and Wood Electric Division of Brumfield Potter Corporations, and incorrect circuit breakers installed per Boeing Alert Service Bulletin MD80–24A194, dated February 19, 2002, and replacement of any discrepant circuit breaker with a new, approved circuit breaker. Accomplishment of the actions specified in Revision 01 of the service bulletin is intended to adequately address the identified unsafe condition.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require accomplishment of the actions specified in Revision 01 of the service bulletin described previously.

Cost Impact

There are approximately 1,177 airplanes of the affected design in the worldwide fleet. The FAA estimates that 709 airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 80 work hours per airplane to accomplish the proposed inspection of the circuit breakers (over 700 installed on each airplane), and that the average labor rate is $60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be $3,403,200, or $4,800 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this proposed AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations proposed herein would not have a substantial direct effect on the States, on the relationship between the national government and

the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES.**

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

McDonnell Douglas: Docket 2002–NM–82–AD.

Applicability: Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), DC–9–87 (MD–87), and MD–88 airplanes; as listed in Boeing Alert Service Bulletin MD80–24A194, Revision 01, dated March 11, 2003; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent internal overheating and arcing of circuit breakers and airplane wiring due to long-term use and breakdown of internal components of the circuit breakers, which could result in smoke and fire in the flight compartment and main cabin, accomplish the following:

Inspection and Replacement, If Necessary

(a) Within 18 months after the effective date of this AD: Perform a one-time general visual inspection of the circuit breakers to determine if discrepant circuit breakers are installed (includes circuit breakers manufactured by Wood Electric and Wood Electric Division of Brumfield Potter Corporations, and incorrect circuit breakers installed per Boeing Alert Service Bulletin MD80–24A194, dated February 19, 2002), per Boeing Alert Service Bulletin MD80–24A194, Revision 01, dated March 11, 2003.

Note 2: For the purposes of this AD, a general visual inspection is defined as: ''A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.''

(1) If no discrepant circuit breaker is found: No further action is required by this paragraph.

(2) If any discrepant circuit breaker is found: Before further flight, replace the circuit breaker with a new, approved circuit breaker, per the service bulletin.

Part Installation

(b) As of the effective date of this AD, no person shall install, on any airplane, a circuit breaker having a part number listed in the ''Existing Part Number'' column in the table specified in paragraph 2.C.2. of Boeing Alert Service Bulletin MD80–24A194, Revision 01, dated March 11, 2003.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permit

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Issued in Renton, Washington, on May 19, 2003.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–12965 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001–NM–391–AD]

RIN 2120–AA64

Airworthiness Directives; Bombardier Model DHC–8–102, –103, –106, –201, –202, –301, –311, and –315 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Bombardier Model DHC–8–102, –103, –106, –201, –202, –301, –311, and –315 airplanes. This proposal would require modification of the No. 3 electrical equipment panel behind the avionics rack, and modification of the No. 2 propeller de-ice timer. This action is necessary to prevent incorrect altitude information transmitted by the Mode S transponder and simultaneous loss of the Traffic Alert and Collision Avoidance System (TCAS), and increasing the possibility of an air traffic conflict. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by June 23, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2001–NM–391–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-nprmcomment@faa.gov.* Comments sent

via fax or the Internet must contain ''Docket No. 2001–NM–391–AD'' in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York.

FOR FURTHER INFORMATION CONTACT:

Douglas G. Wagner, Aerospace Engineer, Systems and Flight Test Branch, ANE–172, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256–7506; fax (516) 568–2716.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 2001–NM–391–AD.'' The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2001–NM–391–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, notified the FAA that an unsafe condition may exist on certain Bombardier Model DHC–8–102, –103, –106, –201, –202, –301, –311, and –315 airplanes. TCCA advises of two reports of chafing of the wire bundle containing altitude encoding information on the No. 2 propeller de-ice timer. This condition, if not corrected, could result in incorrect altitude information transmitted by the Mode S transponder and simultaneous loss of the Traffic Alert and Collision Avoidance System (TCAS), and increasing the possibility of an air traffic conflict.

Explanation of Relevant Service Information

Bombardier has issued Service Bulletin 8–34–200, dated June 26, 2001, which describes procedures for modifying the No. 3 electrical equipment panel behind the avionics rack. The modification includes changing the spacer lengths for the installation of the propeller timer units and the main harness run, and securing the wiring and harness in close proximity by installing 5 tie wraps to avoid fouling conditions.

Bombardier also has issued Service Bulletin 8–30–36, dated July 13, 2000, which describes procedures for modification of the No. 2 propeller de-ice timer to ensure adequate clearance from adjacent wire runs. The modification involves replacing the existing spacers that support the No. 2 propeller de-ice timer with shorter spacers. This will increase the gap between the timer and the avionics cable and prevent fouling conditions.

Accomplishment of the actions specified in the service bulletins is intended to adequately address the identified unsafe condition. TCCA classified these service bulletins as mandatory and issued Canadian airworthiness directive CF–2001–38, dated October 11, 2001, to ensure the continued airworthiness of these airplanes in Canada.

FAA's Conclusions

This airplane model is manufactured in Canada and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, TCCA has kept the FAA informed of the situation described above. The FAA has examined the findings of TCCA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, the proposed AD would require accomplishment of the actions specified in the service bulletins described previously. The actions would be required to be accomplished in accordance with the service bulletins described previously.

Changes to 14 CFR Part 39/Effect on the Proposed AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. Because we have now included this material in part 39, we no longer need to include it in each individual AD.

Cost Impact

The FAA estimates that 197 Model DHC–8–102, –103, –106, –201, –202, –301, –311, and –315 airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 4 work hours per airplane to accomplish the proposed modification of the No. 3 electrical equipment panel behind the avionics rack, at an average labor rate of $60 per work hour. The cost for required parts would be minimal. Based on these figures, the cost impact of this proposed modification on U.S. operators is estimated to be $47,280, or $240 per airplane.

It would take approximately 2 work hours per airplane to accomplish the proposed modification of the No. 2 propeller de-ice timer, at an average labor rate of $60 per work hour. The cost for required parts would be minimal. Based on these figures, the cost impact of this proposed modification on U.S. operators is estimated to be $23,640, or $120 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations proposed herein would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES.**

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

Bombardier, Inc. (Formerly de Havilland, Inc.): Docket 2001–NM–391–AD.

Applicability: Model DHC–8–102, –103, –106, –201, –202, –301, –311, and –315 airplanes; certified in any category; having serial numbers 003 through 559 inclusive.

Compliance: Required as indicated, unless accomplished previously.

To prevent incorrect altitude information transmitted by the Mode S transponder and simultaneous loss of the Traffic Alert and Collision Avoidance System (TCAS), and increasing the possibility of an air traffic conflict, accomplish the following:

Modifications

(a) Within 6 months after the effective date of this AD, accomplish the actions specified in paragraphs (a)(1) and (a)(2) of this AD.

(1) Modify the No. 3 electrical equipment panel behind the avionics rack (including changing the spacer lengths for the installation of the propeller timer units and the main harness run, and securing the wiring and harness in close proximity by installing 5 tie wraps to avoid fouling conditions) per Bombardier Service Bulletin 8–34–200, dated June 26, 2001.

(2) Modify the No. 2 propeller de-ice timer (including replacing the existing spacers that support the timer with shorter spacers) per Bombardier Service Bulletin 8–30–36, dated July 13, 2000.

Alternative Methods of Compliance

(b) In accordance with 14 CFR 39.19, the Manager, New York Aircraft Certification Office (ACO), FAA, is authorized to approve alternative methods of compliance for this AD.

Note 1: The subject of this AD is addressed in Canadian airworthiness directive CF–2001–38, dated October 11, 2001.

Issued in Renton, Washington, on May 19, 2003.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–12964 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

RIN 2120–AA66

[Docket No. FAA 2003–15061; Airspace Docket No. ASD 03–ASW–1]

Proposed Revision of Federal Airways V–13 and V–407; Harlingen, TX

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This action proposes to revise Federal Airway 13 (V–13) northeast of the McAllen, TX, Very High Frequency Omni-directional Range/Distance Measuring Equipment (VOR/DME) by realigning the airway to intersect with V–163 south of the Corpus Christi, TX, Very High Frequency Omni-directional Range/Tactical Air Navigation (VORTAC) rather than proceeding to the Harlingen, TX, VOR/DME. Additionally, this action proposes to revise the point of origin of V–407 from the Harlingen VOR/DME to the Brownsville, TX, VORTAC. Also, this action proposes to revise V–407 north of the Harlingen VOR/DME to reflect a change of the radial of the airway. The FAA is proposing this action due to the relocation of the Harlingen VOR/DME and to enhance the management of aircraft operations over the Harlingen, TX, area.

DATES: Comments must be received on or before July 11, 2003.

ADDRESSES: Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify docket numbers FAA–2003–15061/Airspace Docket No. 03–ASW–1, at the beginning of your comments.

You may also submit comments on the Internet at *http://dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

An informal docket may also be examined during normal business hours at the office of the Regional Air Traffic Division, Federal Aviation Administration, 2601 Meacham Blvd; Fort Worth, TX 76193–0500.

FOR FURTHER INFORMATION CONTACT: Steve Rohring, Airspace and Rules Division, ATA–400, Office of Air Traffic Airspace Management, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone: (202) 267–8783.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA 2003–15061/Airspace Docket No. 03–ASW–1.'' The postcard will be date/time stamped and returned to the commenter. All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in light of comments received. All comments submitted will be available for examination in the public docket both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of NPRM's

An electronic copy of this document may be downloaded through the Internet at *http://dms.dot.gov.* Recently published rulemaking documents can also be accessed through the FAA's Web page at *http://www.faa.gov* or the Superintendent of Document's Web page at *http://www.access.gpo.gov/nara.*

Additionally, any person may obtain a copy of this notice by submitting a request to the Federal Aviation Administration, Office of Air Traffic Airspace Management, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267–8783. Communications must identify both docket numbers for this notice. Persons interested in being placed on a mailing list for future NPRM's should call the FAA's Office of Rulemaking, (202) 267–9677, for a copy of Advisory Circular No. 11–2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

Background

The FAA is relocating the Harlingen VOR/DME approximately 8 nautical miles to the southeast of its current location. As a part of that effort, the FAA plans to realign V–13 northeast of the McAllen VOR/DME to intersect with V–163 south of the Corpus Christi VORTAC. Additionally, the FAA plans to revise the point of origin of V–407 from the Harlingen VOR/DME to the Brownsville VORTAC and to revise a segment of V–407 north of the Harlingen VOR/DME from the current Harlingen VOR/DME 357° radial to the new Harlingen VOR/DME 351° radial. With this revision, the point at which V–407 intersects V–20 (JIMIE intersection) will remain the same.

The Proposal

The FAA is proposing to amend part 71 of the Federal Aviation Regulations (14 CFR part 71) to revise V–13 and V–407 in the Harlingen, TX, area. Specifically, this action proposes to realign V–13 northeast of the McAllen VOR/DME to intersect with V–163 south of the Corpus Christi VORTAC; to revise the point of origin of V–407 from the Harlingen VOR/DME to the Brownsville VORTAC; and to revise V–407 north of the Harlingen VOR/DME to reflect the change of radial due to the relocation of the Harlingen VOR/DME. This action is necessary due to the relocation of the Harlingen VOR/DME and to enhance the management of aircraft operations over the Harlingen, TX, area.

Federal airways are published in paragraph 6010(a) of FAA Order 7400.9K dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1. The Federal airways listed in this document would be published subsequently in the Order.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this proposed regulation: (1) Is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E, AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of FAA Order 7400.9K, Airspace Designations and Reporting Points, dated August 30, 2002, and effective September 16, 2002, is amended as follows:

Paragraph 6010(a) Domestic VOR Federal Airways

* * * * *

V–13 [Revised]

From McAllen, TX, via INT McAllen 060°T(051°M) radial and Corpus Christi, TX, 178°T(169°M) radials; Corpus Christi; INT Corpus Christi 039° and Palacios, TX, 241° radials; Palacios; Humble, TX; Lufkin, TX; Belcher, LA; Texarkana, AR; Rich Mountain, OK; Fort Smith, AR; INT Fort Smith 006° and Razorback, AR, 190° radials; Razorback; Neosho, MO; Butler, MO; Napoleon, MO; Lamoni, IA; Des Moines, IA; Mason City, IA; Farmington, MN; INT Farmington 017° and Siren, WI, 218° radials; Siren; Duluth, MN; to Thunder Bay, ON, Canada. The airspace outside the United States is excluded.

* * * * *

V–407 [Revised]

From Brownsville, TX; Harlingen, TX; via INT Harlingen 351°T(346°M) and Corpus Christi, TX, 193°T(184°M) radials; Corpus Christi; via INT Corpus Christi 039° and Palacios, TX, 241° radials; Palacios; via INT Palacios 017° and Humble, TX, 242° radials; Humble; Daisetta, TX; Lufkin, TX; Elm Grove, LA; to El Dorado, AR.

* * * * *

Issued in Washington, DC, on May 15, 2003.

Reginald C. Matthews,

Manager, Airspace and Rules Division.

[FR Doc. 03–13036 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 91

[Docket No. FAA–2003–15230]

Call for Information on Supersonic Aircraft Noise

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Request for information and notice of workshop.

SUMMARY: The FAA is soliciting technical information from other Federal agencies, industries, universities, and other interested parties on the mitigation of sonic boom from supersonic aircraft. The FAA is trying to determine whether there is sufficient new data supported by flight over land. This document solicits information on the latest research and development activities directed at mitigating sonic boom. The FAA may use this information of future rulemaking actions.

DATES: Send your comments on or before September 30, 2003.

ADDRESSES: Address your comments to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2003–15230 at the beginning of your comments, and you should submit two copies of your comments. If you wish to receive confirmation that FAA received your comments, include a self-addressed, stamped postcard.

You may also submit comments through the Internet to *http://dms.dot.gov*. You may review the public docket containing comments to this notice in person in the Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Dockets Office is on the plaza level of the NASSIF Building at the Department of Transportation at the above address. Also, you may review public dockets on the Internet at *http://dms.dot.gov*.

FOR FURTHER INFORMATION CONTACT: Laurette Fisher, Office of Environment and Energy (AEE–100), Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267–3561; facsimile (202) 267–5594.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to participate in this effort by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result if this effort resulted in amending FAA sonic boom regulations.

We will file in the docket all comments we receive, and the docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also review the docket using the Internet at the web address in the **ADDRESSES** section.

Background

The FAA uses the term sonic boom to refer to a high-pressure air disturbance directed toward the ground by an aircraft flying supersonically and creating noise unacceptable to the public. Supersonic flight over land by civil aircraft is prohibited in the United States.

Supersonic Aircraft Regulations

The current regulations applicable to supersonic aircraft are found in 14 CFR part 36, Subpart D, ''Noise Limits for Supersonic Transport Category Airplanes,'' and 14 CFR part 91, Subpart I, ''Operating Noise Limits.'' The noise certification levels for the Concorde airplane are in part 36. This regulation requires that the noise levels of the airplane must be reduced to the lowest levels that are economically reasonable, technologically practicable, and appropriate for a Concorde type design.

Part 91 prohibits civil aircraft operation at greater than Mach 1 over the United States. Part 91 also imposes flight limitations to ensure that civil supersonic flight entering or leaving the United States will not cause a sonic boom to reach the surface within the United States.

In 1990, the FAA proposed to amend the type certification noise standards and noise operating rules for future-generation civil supersonic airplanes. After analyzing the comments received on the Notice of Proposed Rulemaking (NPRM), the FAA determined that further investigation and research was necessary before a final rule could be developed. Accordingly, the FAA withdrew the proposed rule and instead issued a policy on noise issues involving the development of future generation civil supersonic transport airplanes.

With respect to future civil supersonic airplanes, specific noise standards have not yet been established. The FAA anticipates that any future proposed standards for civil supersonic airplanes would require that an airplane have no greater noise impact on a community than a civil subsonic airplane certified to Stage 3 noise levels.

U.S. Civil Programs

There have been two recent supersonic aircraft technology development programs sponsored by the U.S. government. They are the High Speed Civil Transport (HSCT) program sponsored by the National Aeronautics and Space Administration (NASA), and the Quiet Supersonic Platform (QSP) program sponsored by the Defense Advanced Research Project Agency (DARPA). These programs included both military and civil aircraft.

In the late 1980's, NASA initiated a partnership with Boeing and McDonnell Douglas to develop the technology for a commercial supersonic transport. This activity was called the High Speed Civil Transport (HSCT) program. In 1999, the HSCT program was terminated. Boeing cited the high cost of developing a supersonic airplane, along with anticipated more stringent federal regulations regarding noise and emissions as the reason for terminating the program. NASA's research and technology (R&T) effort on HSCT was also terminated. In 2000, NASA requested that the National Research Council (NRC) conduct a study to identify breakthrough technologies for overcoming key barriers to the development of an environmentally acceptable and economically viable commercial supersonic aircraft. The study, ''Commercial Supersonic Technology, The Way Ahead,'' concluded that no insurmountable obstacles exist to viable commercial supersonic aircraft. The study further concluded that while NASA should have its eye on supersonic commercial transport, it remains appropriate to conduct research on sonic boom even when related to smaller supersonic business jets.

The DARPA's QSP program, which began in 2000, was a congressionally mandated effort to develop technologies that could mitigate the impact of sonic boom to 0.3 pounds per square feet over-pressure propagated to the ground. This is significantly less then the 2.0 pounds per square feet created by the

Concorde that is restricted from flying at supersonic speeds over land. The QSP Program initially included both military and civil aircraft. In 2003, the QSP Program is scheduled to conduct a flight demonstration to investigate sonic boom signature shaping and propagation.

In 2001, the NASA Langley Research Center was directed by Congress to expand on the civil part of DARPA's QSP Program. This program is ongoing.

In addition, at least one U.S. manufacturer has an ongoing technology effort, the goal of which is the development of supersonic civil aircraft that are deemed environmentally acceptable for supersonic operations over land.

Request for Information

The FAA is requesting information regarding current commercial supersonic aircraft development and associated sonic boom reduction technology. The FAA may use the information received to initiate rulemaking that addresses new supersonic technologies and related noise effects.

The FAA is requesting information in the following general topics of technical information. Please submit any information or comments to the Docket Management System using the docket number given in the **"ADDRESSES"** paragraph above.

(1) A summary of advancements made since the 1999 High Speed Civil Transport (HSCT) program;

(2) Understanding the effects of sonic boom to aid in the establishment of sonic boom impact criteria;

(3) The technical challenges in making the noise created by sonic boom acceptable;

(4) The sonic boom prediction models available to support future noise impact studies; and

(5) Whether supersonic aircraft can function within the present commercial airport infrastructure and what airport accessibility issues need to be addressed.

The FAA encourages all interested parties to participate in this opportunity to offer the latest information on supersonic aircraft noise and technologies. The FAA will evaluate the information received to aid in the consideration of future rulemaking.

In addition, the FAA is planning to conduct a technical workshop in the next six months to allow subject matter experts to discuss their research data and findings. The FAA will publish a notice in the **Federal Register** announcing the date and place of the workshop.

Information on this project will be updated and made available on an FAA Web site located at *http://www.aee.faa.gov/noise/sst.html.*

All comments submitted in response to this notice and information presented at the workshop will be filed in the docket. The docket is available for public inspection at any time. Anyone submitting information is cautioned that it will not be considered proprietary unless properly marked and separately submitted. Information presented in a workshop setting is not considered proprietary.

Issued in Washington DC on May 13, 2003.

Carl Burleson,

Director of Environment and Energy.

[FR Doc. 03–13038 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 15

[ET Docket No. 03–104; FCC 03–100]

Broadband Power Line Systems

AGENCY: Federal Communications Commission.

ACTION: Proposed rule; notice of inquiry.

SUMMARY: This document requests comment from the public on the current state of Broadband Power Line (BPL) technology and to determine whether changes to the Commission's rules are necessary to facilitate the deployment of this technology. The Commission believes that BPL could play an important role in providing additional competition in the offering of broadband infrastructure to the American home and consumers because power lines reach virtually every community in the country.

DATES: Written comments are due on or before August 6, 2003, and reply comments are due on or before September 5, 2003.

ADDRESSES: Office of the Secretary, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554. See supplementary information for filing instructions.

FOR FURTHER INFORMATION CONTACT: Anh T. Wride, Office of Engineering and Technology, (202) 418–0577, TTY (202) 418–2989, e-mail: *anh.wride@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Notice of Inquiry,* ET Docket No. 03–104, FCC 03–100, adopted April 23, 2003, and released April 28, 2003. The full text of this document is available for inspection and copying during regular business hours in the FCC Reference Center (Room CY–A257), 445 12th Street, SW., Washington, DC 20554. The complete text of this document also may be purchased from the Commission's copy contractor, Qualex International, 445 12th Street, SW., Room, CY–B402, Washington, DC 20554. The full text may also be downloaded at: *http://www.fcc.gov.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to *fcc504@fcc.gov* or call the FCC Consumer & Governmental Affairs Bureau at (202) 418–0531 (voice), (202) 418–7365 (TTY).

This is an exempt notice and comment rule making proceeding. Ex parte presentations are permitted, except during any Sunshine Agenda period. *See generally* 47 CFR 1.1200(a), 1.1203, and 1.1204(b).

Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings,* 63 FR 24,121 (1998). Comments filed through the ECFS can be sent as an electronic file via the Internet at *http://www.fcc.gov/e-file/ecfs.html.* Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to *ecfs@fcc.gov,* and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply.

Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, The Portals, 445 Twelfth Street, SW., Washington, DC 20554.

Parties who choose to file by paper should also submit their comments on

diskette. These diskettes should be submitted to: Anh Wride, Office of Engineering and Technology, Federal Communications Commission, The Portals, 445 Twelfth Street, SW., Room 7–A125, Washington, DC 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Word for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in ''read only'' mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number, in this case ET Docket No. 03–104, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase ''Disk Copy—Not an Original.'' Each diskette should contain only one party's pleadings, preferably in a single electronic file.

Summary of the Notice of Inquiry

1. The Commission seeks to obtain information and technical data on a variety of issues related to Broadband over Power Line (BPL) systems. BPL systems are new types of carrier current system that operate on an unlicensed basis under part 15 of the Commission's rules. BPL systems use existing electrical power lines as a transmission medium to provide high-speed communications capabilities by coupling RF energy onto the power line. Because power lines reach virtually every community in the country, BPL could play an important role in providing additional competition in the offering of broadband infrastructure to the American home and consumers. In addition, BPL could bring the Internet and high-speed broadband access to rural and underserved areas, which often are difficult to serve due to the high costs associated with upgrading existing infrastructure and interconnecting communication nodes with new technologies.

2. The Commission seeks information and technical data so that we may evaluate the current state of BPL technology and determine whether changes to part 15 of the Commission's rules are necessary to facilitate the deployment of this technology. While BPL may be deployed under our existing part 15 rules, the rules do not specifically provide measurement procedures that apply to systems using the power line as a transmission medium. We therefore seek comment on what changes, if any, we should make to our part 15 rules to promote and encourage the new BPL technology and to our measurement procedures for all types of carrier current systems. We further encourage present deployment of BPL that complies with our existing rules, noting that if, or when, our rules are modified, those rules will address prospective compliance.

3. The Commission believes that the introduction of new high-speed BPL technologies warrants a systematic review of the part 15 rules in order to facilitate the deployment of this new technology, promote consistency in the rules and ensure the ongoing protection of the licensed radio services. We first seek to examine the new BPL technology and its various operating environments.

4. *Access BPL Systems.* Access BPL systems carry high-speed data and voice signals outdoors over the medium voltage line from a point where there is a connection to a telecommunications network. This point of connection may be at a power substation or at an intermediate point between substations, depending on the network topology. Near the distribution point to a residential neighborhood, a coupler or bridge circuit module is installed to enable the transfer of high-frequency digital signals across the low-voltage distribution transformer. Finally, the high-speed communication signals are brought to the home over the exterior service power cable from the bridge across the distribution transformer, either directly, or via an Access BPL adaptor module.

5. Several consortiums have been organized to promote Access BPL and its applications; however, the operating characteristics of Access BPL are not standardized. In order to assist us in understanding the current state of Access BPL, we seek comment and information in response to the following questions:

- What spectrum and bandwidth would Access BPL use? We have granted experimental licenses to some parties under 47 CFR 5 to evaluate Access BPL equipment that operates from 1.7 to 80 MHz. Would Access BPL devices operate in other portions of the spectrum and at what bandwidth?
- Is the spectrum used by Access BPL shared with In-house BPL? Are there any frequency sharing issues to be considered, *i.e.*, should we designate spectrum for Access BPL and In-House BPL? Is spectrum sharing between Access BPL and In-House BPL feasible?
- What data transmission speeds can Access BPL systems achieve? What speeds can be typically sustained under normal user environment conditions? What speeds are envisioned with deployed access shared among several users? Are the speeds symmetric in both the transmit and receive directions?
- What are the modulation techniques? What techniques are used for ensuring the security of data? What schemes are used for contention resolution between Access and various In-House BPL devices, if more than one device needs to take control of the electric wire at the same time to communicate?
- Would Access products work with In-House BPL products and services, without the need for additional equipment, such as converters and adaptors?
- What is the status of development and anticipated timeline for market deployment of Access BPL equipment?
- What standards work has been done domestically and internationally on Access BPL and what are the results of such activities? Are there ongoing international standards activities that would benefit U.S. industry and what steps should the Commission take to encourage this work? We are aware that the IEC CISPR Subcommittee I on *Interference Relating To Multimedia Equipment,* Working Group 3 on *Emission from Information Technology Equipment,* is developing conducted emission limits for new BPL technologies. Are there other standards bodies involved in similar activities?

6. *In-House BPL Systems.* A number of high-speed In-House BPL devices have reached the market within the last few months, operating under our existing part 15 rules for carrier current systems. In-House BPL systems carry data and voice signals between the wiring and electrical outlets inside of a building. In-House BPL systems are aimed at home networking and sharing of resources between devices, such as multiple computers, printers and smart appliances. Each device to be networked is connected to a BPL adaptor module through a Universal Serial Bus (USB) or Ethernet port. The BPL adaptor module plugs into a power outlet and communicates over the electrical wiring with other similar BPL adaptor modules in the home, thus forming a peer-to-peer local area network between these devices. In-House BPL operation may provide Internet sharing or other external service connections independently of Access BPL service.

7. There are several consortiums organized to promote In-House BPL technology and its applications. In-House BPL networking capabilities would encourage the growth of smart appliances and other consumer electronics equipment, facilitating the sharing of resources between various devices and increasing productivity. In

order to assist us in understanding the high speed In-House BPL technology, we seek comment in the following areas:

• In-House BPL systems built to the HomePlug standard specifications operate in the frequency range from 4.5 to 21 MHz. Are other In-House BPL devices being designed to operate in other portions of the spectrum, and at what bandwidth?

• What is the highest data transmission speed that In-House BPL systems can achieve? What speeds can be typically sustained under normal user environment conditions?

• What are the modulation techniques? What techniques are used for ensuring the security of data, especially when several residential units share the same common distribution transformer? What schemes are used for contention resolution between various In-House BPL devices, if more than one device needs to take control of the electric wire at the same time to communicate?

• Would products developed according to one standard work with products developed according to another standard, without the need for additional equipment, such as converters and adaptors?

• What standards work has been done domestically and internationally on In-House BPL technology and what are the results of such activities? Are there on-going international standards activities that would benefit U.S. industry and what steps should the Commission take to encourage this work?

8. *Interference from BPL Emissions.* In both Access and In-House high-speed BPL technologies multiple carriers spread signals over a broad range of frequencies that are used by other services that must be protected from interference. In the spectrum below 30 MHz, incumbent authorized operations include fixed, land mobile, aeronautical mobile, maritime mobile, radiolocation, broadcast radio, amateur radio terrestrial and satellite, and radioastronomy. In the spectrum from 30 to 300 MHz, incumbent authorized operations include fixed land mobile, aeronautical mobile, maritime mobile and mobile satellite, radioastronomy, amateur radio terrestrial and satellite, broadcasts TV and radio. This spectrum is also used for public safety and law enforcement, and Federal government aeronautical radionavigation, radionavigation satellite and radiolocation. Each of these authorized services in the spectrum must be protected from harmful interference.

9. Interference issues may also arise because existing statutes on pole attachment require the co-location of cable and telecommunications equipment from third party service providers on the same utility poles that carry power wires. The close proximity of Access BPL equipment on utility poles may affect (and be affected by) the operation of cable television service and high-speed digital transmission service, such as DSL.

10. We therefore ask for comment and information on the following questions:

• In order to transfer high frequency signals beyond the low-voltage distribution transformer, Access BPL systems use high-pass filter circuits to bypass the transformer and its inherent low-bandwidth characteristics. What is the effect of these high-pass filters with respect to high-frequency signals used inside the house, *e.g.*, from In-House BPL equipment or other in-premises technologies, that may rely on the low-voltage transformer as a natural barrier to avoid causing interference at higher frequencies?

• For Access BPL systems, several methods of RF signal injection onto the medium voltage lines can be envisioned:

• An RF voltage could be applied between a power line and ground;

• An RF voltage could be applied differentially between two phases of a power line; or

• A single power line wire could be driven as if it were a dipole antenna—*e.g.*, by inductively coupling RF energy to it.

11. Other approaches may also be possible. What methods are being considered for signal injection onto the medium voltage lines? What are the implications on radiated emissions of various methods for injecting signals onto the medium voltage lines (*e.g.*, differences in directional characteristics and magnitudes of the emitted fields)?

• Is there a need to define frequency bands that must be avoided in order to protect the licensed users on the same frequencies as those used by Access BPL systems? Are there mitigation techniques Access BPL systems can use to avoid possible interference with licensed users of the spectrum, such as mobile users or public safety and law enforcement users who may be traveling directly beneath the medium voltage lines?

• Since Access BPL equipment is installed on medium voltage lines that supply electricity to a residential neighborhood, should this equipment be treated as operating in a residential (Class B) or commercial (Class A) environment?

• How does the close proximity of Access BPL equipment to cable television and telecommunications equipment from third party service providers co-located on the same utility pole affect the operation of these services? On the other hand, what is the effect of this close proximity to Access BPL operations?

• High-speed In-House BPL systems are being deployed in residences with a telecommunications access connection from a DSL or cable modem service. What mitigation techniques are used by In-House BPL systems to avoid possible interference from DSL or cable modem within the same spectrum? On the other hand, what is the effect of DSL or cable modem on In-House BPL operations?

• What mitigation techniques are used by In-House BPL systems to avoid possible interference with licensed radio services, such as amateur radio, fixed, mobile and broadcast services? Is there a need to define frequency bands that must be avoided in order to protect the licensed services that use the same frequencies as In-House BPL systems?

• What are the probable interference environments and propagation patterns of Access BPL and In-House BPL systems? Are there specific issues of interference that we should address, *e.g.*, an increase in the level of the noise floor? What models are available for predicting radiated emissions from access BPL systems?

• Are there test results from field trials of Access BPL that may assist in the analysis of harmful interference? Inasmuch as In-House BPL equipment is already on the market, are there any reports that may assist in the further analysis of harmful interference?

• Are the existing part 15 rules for low speed carrier current systems adequate to protect authorized users of the spectrum who may be affected by the new high speed BPL technology? What changes to these rules, if any, are necessary to protect authorized radio services?

• How should the part 15 rules be tailored both to ensure protection against harmful interference to radio services and to avoid adversely impacting the development and deployment of this nascent technology?

• Given their different operating environment, is it necessary to tailor the rules to differentiate equipment used specifically in Access BPL and In-House BPL applications, or should one set of general limits be applied to both? What should such limits be and what is the technical basis for them?

• Is there need to specify different limits for Access and In-House systems? For example, would it be appropriate to allow higher emissions for In-House systems where the user would be the principal party affected by interference,

and could take steps to mitigate the interference, than for Access systems where the interference would affect a wider area and therefore be more problematic to mitigate? Would higher emissions for In-House systems result in any interference effects in other houses or apartments sharing the same local low voltage distribution by the RF signal being distributed on the low voltage side of the transformer? What limits should be specified, given the above considerations?

• Should the part 15 rules specify both radiated emission limits and conducted emission limits for BPL systems, or would one type of limits be sufficient to control interference from both low speed and high speed BPL? Since all carrier current systems inject RF signals into the power line for communication purposes, would conducted emission limits be more appropriate to protect authorized radio services?

12. *Measurement methods.* We seek comment on measurement methods for all types of carrier current systems, including new high-speed Access and In-House BPL devices. Because existing carrier current systems use the power line wiring inside a building to transfer information and data, the radiated emissions from RF energy conducted onto the power lines tend to vary from location to location, based on the installation's AC wiring and the loading placed on that wiring. In effect, since the installation's wiring functions as an antenna, that wiring becomes part of the system to be evaluated. As such, measurements to demonstrate compliance with the rules are not normally made at a standard open area test site, because the measurement of each system is unique to its location.

13. Currently, there are no specific test methods in our rules for carrier current systems, rather, measurement procedures have been left to the discretion of the party performing the tests, and thus measurements can be subjective and inconsistent. Furthermore, Access BPL equipment presents unique measurement challenges because it is typically installed on utility poles and operated over medium voltage lines. We therefore request comment and input on the following questions:

• How should the measurement procedures for testing existing low-speed carrier current systems be developed in order to avoid the burden of selecting representative installations and to promote consistency and repeatability of test results? Is it possible to develop a standardized measurement method for testing in a laboratory or at an open area test site using some characterized wiring assembly or artificial impedance network? If so, how?

• How should measurement procedures for testing new BPL systems, both Access and In-House, be developed in order to promote consistency with measurements of existing carrier current systems and repeatability of test results?

• Conducted emissions testing is usually performed using a line impedance stabilization network (LISN), which is an artificial power line network that provides a specified load impedance in a given frequency range. This device is also used to isolate the equipment from the AC supply and to facilitate measurements. If conducted emission limits alone are sufficient to control harmful interference from BPL systems, how should the measurement procedure be specified? How should the characteristics of a line impedance stabilization network be specified for testing both In-House and Access BPL systems?

• Existing literature is inconclusive on the degree of difference in radiated emissions from houses and buildings when In-House PLC signals are injected in common mode (phase/neutral to an RF ground) versus differential mode (phase to neutral). Is there data available that shows radiated emission levels from houses and other buildings, located in the United States, for both types of signal injection? Is the difference sufficiently large as to justify separate conducted limits for common mode and differential mode signals? Alternatively, should a LISN be defined to simultaneously measure the total effect of the common-mode and differential-mode contributions in proportion to their expected respective contributions to radiated emissions? What should be the characteristics of that LISN?

• How should In-House BPL systems be tested for compliance, given that they use the building's wiring as an antenna? The impedance characteristics of in-house wiring changes each time an appliance is turned on or off, which makes modeling this varying impedance a challenging task. Is it possible to develop a standardized measurement method for testing In-House BPL in a laboratory or at an open area test site using a specialized LISN or some characterized wiring assembly? If so, how? Would the same method of measurement be sufficient to test both traditional carrier current system and new high speed In-House BPL?

• How should Access BPL systems be tested for compliance, given that they generally operate in an environment where signals travel on overhead medium voltage lines? Could a standardized measurement method be developed for testing Access BPL in a laboratory or at an open area test site, using a specialized LISN or some characterized pole and wiring assembly? If so, how?

• Are there any international standards that should be investigated for possible adoption in order to facilitate the development of BPL products for a global marketplace?

14. Currently, equipment operating as carrier current systems, such as power line intercom systems, lamp remote controls, low speed power line telephone adaptors, etc. are subject to the *Verification* procedure under our equipment authorization program. The low speed systems have not been a source of harmful interference to radio communications. In addition, it appears that use of the *Verification* procedure has been adequate to ensure that such systems comply with the rules. However, the multiple-carrier transmission nature of the new high speed BPL technology could pose increased risk of harmful interference, and thus new BPL devices may need a higher degree of oversight to ensure that authorized users are not subject to interference. Accordingly, we seek comment on the following questions:

• Would the new high speed Access and In-House BPL equipment pose a higher risk of interference to licensed radio services than the traditional carrier current systems?

• Unlike In-House BPL equipment, which usually involves multiple units of a standard module working together, Access BPL may involve two or more different types of components to form the complete system (*e.g.*, Access BPL medium voltage coupler, Access BPL adaptor module, etc.). What components of an Access BPL system should be subject to equipment authorization?

• Should the new Access and In-House BPL equipment be required to comply with either the *Certification* procedure or the *Declaration of Conformity* under our equipment authorization program, which warrants additional oversight, or should they be covered under our *Verification* procedure like the traditional carrier current systems?

15. The Commission believe that the new high speed BPL technology could be used to assist the utilities by adding intelligent networking capabilities to the electric grid, allowing various interconnected and network-addressable BPL components to work together in improving efficiency in activities such as energy management, power outage

notification and automated meter reading. In order to help us in evaluating the applicability of BPL technology to power line carrier systems, we seek input on the following questions:

- Will the power line carrier systems currently deployed by the utility companies to control and monitor the electrical system be replaced in the future with the new high speed BPL equipment?
- How would the utility companies deploy these new control systems and how would these new systems coexist with the older control systems?
- Should power line carrier systems using BPL technology be subject to the coordination process in the current database maintained by UTC?
- Are any changes needed in the regulations governing power line carrier systems? Should power line carrier systems using BPL technology be subject to the general requirements for Access BPL systems, since the same system may now be carrying broadband signals as well as monitoring and control signals? How could, or should, these functions be separated?
- What interference issues, if any, besides the issues raised under the general BPL interference section, supra, must be addressed with the deployment of high-speed power line carrier systems?

16. *Other Matters.* The questions raised in this Notice of Inquiry are intended to solicit information to assist the Commission in deciding whether to propose rule changes as a result of the developing BPL technology. We realize that these questions do not necessarily encompass all of the possible issues raised by this technology. Parties therefore may wish to comment on the following additional topics:

- What standardized transport and data link protocols are typically used between a user's personal computer, for example, and the Internet point of presence, over Access BPL systems? For example, is Point-to-Point Protocol (PPP), PPP over Ethernet (PPPoE), Asynchronous Transfer Mode (ATM), or other such lower layer protocols involved?

17. We seek information on the subject of communications over electric power lines from all interested parties to obtain a wide representation of viewpoints. Accordingly, we request comments on any other matters or issues, in addition to those discussed previously, that may be pertinent to BPL technology.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 03–12914 Filed 5–22–03; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[DA 03–1225; MB Docket No. MB 03–105; RM–10671]

Radio Broadcasting Services; Glens Falls, Indian Lake, Malta & Queensbury, NY

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: This document requests comments on a petition for rule making filed jointly by Vox New York, LLC, licensee of Station WNYQ, Channel 289B1, Queensbury, NY, and Entertronics, Inc., licensee of Station WCQL, Channel 240A, Glens Falls, NY (''Petitioners''). Petitioners request the substitution of Channel 289A for Channel 289B1 at Queensbury, reallotment of the channel to Malta, NY, and modification of the license for Station WNYQ accordingly; reallotment of Channel 204A from Glens Falls, NY to Queensbury, NY and modification of the license for Station WNYQ to specify operation on Channel 240A at Queensbury; and, allotment of Channel 290A at Indian Lake, NY, as a first local service. The coordinates for Channel 289A at Malta are 42–58–58 and 73–48–00. The coordinates for Channel 240A at Queensbury are 43–24–12 and 73–40–25. The coordinates for Channel 290A at Indian Lake are 43–46–57 and 74–16–20. The proposal complies with the provisions of Section 1.420(i) of the Commission's Rules, and therefore, the Commission will not accept competing expressions of interest in the use of Channels 289A at Malta and Channel 240A at Queensbury.

DATES: Comments must be filed on or before June 23, 2003, and reply comments on or before July 8, 2003.

ADDRESSES: Secretary, Federal Communications Commission, 445 12th Street, SW., Room TW–A325, Washington, DC 20554. In addition to filing comments with the FCC, Interested parties should serve the petitioners' counsel, as follows: David G. O'Neil, Manatt, Phelps and Phillips, LLP, 1501 M Street, NW., Suite 700, Washington, DC 20005 (Vox New York, LLC) and Joseph E. Dunne, Law offices of Joseph E. Dunne III, P.O. Box 9203, Durango, Colorado 81301 (Entertronics, Inc.).

FOR FURTHER INFORMATION CONTACT: Kathleen Scheuerle, Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MB Docket No. 03–105, adopted April 28, 2003, and released April 30, 2003. The full text of this Commission decision is available for inspection and copying during regular business hours in the FCC's Reference Information Center at Portals II, 445 12th Street, SW., CY–A257, Washington, DC 20554. This document may also be purchased from the Commission's duplicating contractors, Qualex International, Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone 202–863–2893, facsimile 202–863–2898, or via e-mail *qualexint@aol.com.*

The provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. *See* 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, *see* 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73

Radio, Radio broadcasting.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, and 336.

§ 73.202 [Amended]

2. Section 73.202(b), the Table of FM Allotments under New York, is amended by removing Channel 289B1 and adding Channel 240A at Queensbury, by removing Channel 240A and Glens Falls, by adding Channel 289A, Malta and by adding Indian Lake, Channel 290A.

Federal Communications Commission.

John A. Karousos,

Assistant Chief, Audio Division, Media Bureau.

[FR Doc. 03–12919 Filed 5–22–03; 8:45 am]

BILLING CODE 6712–01–M

DEPARTMENT OF DEFENSE

48 CFR Parts 239 and 252

[DFARS Case 2002–D020]

Defense Federal Acquisition Regulation Supplement; Information Assurance

AGENCY: Department of Defense (DoD).

ACTION: Proposed rule with request for comments.

SUMMARY: DoD is proposing to amend the Defense Federal Acquisition Regulation Supplement (DFARS) to address requirements for information assurance in the acquisition of information technology. The rule implements policy issued by the National Security Telecommunications and Information Systems Security Committee.

DATES: DoD will consider all comments received by July 22, 2003.

ADDRESSES: Respondents may submit comments directly on the World Wide Web at *http://emissary.acq.osd.mil/dar/dfars.nsf/pubcomm.* As an alternative, respondents may e-mail comments to: *dfars@acq.osd.mil.* Please cite DFARS Case 2002-D020 in the subject line of e-mailed comments.

Respondents that cannot submit comments using either of the above methods may submit comments to: Defense Acquisition Regulations Council, Attn: Ms. Angelena Moy, OUSD(AT&L)DPAP(DAR), IMD 3C132, 3062 Defense Pentagon, Washington, DC 20301–3062; facsimile (703) 602–0350. Please cite DFARS Case 2002–D020.

At the end of the comment period, interested parties may view public comments on the World Wide Web at *http://emissary.acq.osd.mil/dar/dfars.nsf.*

FOR FURTHER INFORMATION CONTACT: Ms. Angelena Moy, (703) 602–1302.

SUPPLEMENTARY INFORMATION:

A. Background

In July 1990, the National Security Telecommunications and Information Systems Security Committee (NSTISSC) was established for the purpose of developing and promulgating national policies applicable to the security of national security telecommunications and information systems. In January 2000, NSTISSC issued Policy No. 11, which addresses the national policy governing the acquisition of information assurance and information assurance-enabled information technology products. Policy No. 11 states that information assurance shall be considered as a requirement for all systems used to enter, process, store, display, or transmit national security information. DoD has issued DoD Directive 8500.1, Information Assurance, and DoD Instruction 8500.2, Information Assurance Implementation, to implement Policy No. 11. This proposed rule makes corresponding changes to DFARS subpart 239.71 and the clause at DFARS 252.239–7000.

This rule was not subject to Office of Management and Budget review under Executive Order 12866, dated September 30, 1993.

B. Regulatory Flexibility Act

DoD does not expect this rule to have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.*, because the DFARS changes in this rule reflect existing Government policy pertaining to requirements for information assurance in the acquisition of information technology. Therefore, DoD has not performed an initial regulatory flexibility analysis. DoD invites comments from small businesses and other interested parties. DoD also will consider comments from small entities concerning the affected DFARS subparts in accordance with 5 U.S.C. 610. Such comments should be submitted separately and should cite DFARS Case 2002–D020.

C. Paperwork Reduction Act

The information collection requirements in the clause at DFARS 252.239–7000 have been approved by the Office of Management and Budget, under Clearance Number 0704–0341, for use through October 31, 2004.

List of Subjects in 48 CFR Parts 239 and 252

Government procurement.

Michele P. Peterson,

Executive Editor, Defense Acquisition Regulations Council.

Therefore, DoD proposes to amend 48 CFR parts 239 and 252 as follows:

1. The authority citation for 48 CFR parts 239 and 252 continues to read as follows:

Authority: 41 U.S.C. 421 and 48 CFR chapter 1.

PART 239—ACQUISITION OF INFORMATION TECHNOLOGY

2. Subpart 239.71 is revised to read as follows:

Subpart 239.71—Security and Privacy for Computer Systems

Sec.
239.7100 Scope of subpart.
239.7101 General.
239.7102 Definition.
239.7103 Policy and responsibilities.
239.7103–1 General.
239.7103–2 Compromising emanations—TEMPEST or other standard.
239.7104 Contract clause.

239.7100 Scope of subpart.

This subpart applies to all acquisitions for information technology. It includes information assurance and Privacy Act considerations.

239.7101 General.

Information assurance includes the protection of information that is entered, processed, transmitted, stored, retrieved, displayed, or destroyed. Information assurance requirements are in addition to provisions concerning protection of privacy of individuals (*see* FAR subpart 24.1).

239.7102 Definition.

Information assurance, as used in this subpart, means measures that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. This includes providing for the restoration of information systems by incorporating protection, detection, and reaction capabilities.

239.7103 Policy and responsibilities.

239.7103–1 General.

(a) Agencies shall ensure that information assurance is provided for information technology in accordance with current policies, procedures, and statutes, to include—

(1) The National Security Act;

(2) The Clinger-Cohen Act;

(3) National Security Telecommunications and Information Systems Security Policy No. 11;

(4) Federal Information Processing Standards;

(5) DoD Directive 8500.1, Information Assurance; and

(6) DoD Instruction 8500.2, Information Assurance Implementation.

(b) For all acquisitions, the requiring activity is responsible for providing to the contracting officer—

(1) Statements of work, specifications, or statements of objectives that meet information assurance requirements as

specified in paragraph (a) of this subsection;

(2) Inspection and acceptance contract requirements; and

(3) A determination as to whether the information technology requires protection against compromising emanations.

239.7103–2 Compromising emanations—TEMPEST or other standard.

For acquisitions requiring information assurance against compromising emanations, the requiring activity is responsible for providing to the contracting officer—

(a) The required protections, *i.e.*, an established National TEMPEST standard (*e.g.*, NACSEM 5100, NACSIM 5100A) or a standard used by other authority;

(b) The required identification markings to include markings for TEMPEST or other standard, certified equipment (especially if to be reused); and

(c) Inspection and acceptance requirements addressing the validation of compliance with TEMPEST or other standards.

239.7104 Contract clause.

Use the clause at 252.239–7000, Protection Against Compromising Emanations, in solicitations and contracts involving information technology that requires protection against compromising emanations.

PART 252—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

3. Section 252.239–7000 is revised to read as follows:

252.239–7000 Protection Against Compromising Emanations.

As prescribed in 239.7104, use the following clause:

PROTECTION AGAINST COMPROMISING EMANATIONS (XXX 2003)

(a) The Contractor shall provide or use only information technology, as specified by the Government, that has been accredited to meet the appropriate information assurance requirements of—

(1) The National Security Agency National TEMPEST Standards (NACSEM No. 5100 or NACSEM No. 5100A, Compromising Emanations Laboratory Test Standard, Electromagnetics (U)); or

(2) Other standards specified by this contract.

(b) Upon request of the Contracting Officer, the Contractor shall provide documentation supporting the accreditation.

(c) The Government may, as part of its inspection and acceptance, conduct additional tests to ensure that information technology delivered under this contract satisfies the information assurance standards specified. The Government may conduct additional tests—

(1) At the installation site or contractor's facility; and

(2) Notwithstanding the existence of valid accreditations of information technology prior to the award of this contract.

(d) Unless otherwise provided in this contract under the Warranty of Supplies or Warranty of Systems and Equipment clause, the Contractor shall correct or replace accepted information technology found to be deficient within one year after proper installations.

(1) The correction or replacement shall be at no cost to the Government.

(2) Should a modification to the delivered information technology be made by the Contractor, the one-year period applies to the modification upon its proper installation.

(3) This paragraph (d) applies regardless of f.o.b. point or the point of acceptance of the deficient information technology.

(End of clause)

[FR Doc. 03–13000 Filed 5–22–03; 8:45 am]

BILLING CODE 5001–08–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

[Docket No. 030409081–3081–01; I.D. 032103B]

Fisheries of the Northeastern United States; Northeast (NE) Multispecies Fishery; Extension of Comment Period

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed emergency rule; partial extension of comment period.

SUMMARY: NMFS is extending the public comment period on the measures associated with the proposed NE Multispecies DAS Leasing Program of the NE multispecies proposed emergency rule that was published in the **Federal Register** on April 24, 2003, through June 10, 2003. The emergency rule proposes to continue management measures implemented on August 1, 2002, consistent with the Settlement Agreement Among Certain Parties (Settlement Agreement) and to implement a DAS Leasing Program to mitigate impacts of the Settlement Agreement measures and to provide flexibility to some segments of the fishing industry. The intent of this notification is to inform the public that the comment period on the proposed DAS Leasing Program will be extended until June 10, 2003. In addition, NMFS informs the public that the docket number for the proposed rule published April 24, 2003, was inadvertently omitted. This document reflects the docket number related to the April 24, 2003, proposed rule.

DATES: The comment period on the proposed regulatory text for the DAS Leasing Program contained in §§ 648.2, 648.4(a)(1)(i)(G), 648.14, 648.82, and § 648.92 of the April 24, 2003 (68 FR 20096) proposed emergency rule is extended from May 27, 2003, through June 10, 2003. The comment period on the continuation of the Settlement Agreement measures and amendments to § 648.4(a)(1)(i)(I)(2) and (c)(2)(iii) and § 648.81(h)(1) will end on May 27, 2003. All comments must be received no later than 5 p.m., local time, on the last day of the respective comment periods.

ADDRESSES: Written comments on the proposed emergency rule should be sent to Patricia A. Kurkul, Regional Administrator, National Marine Fisheries Service, One Blackburn Drive, Gloucester, MA 01930. Mark the outside of the envelope, ''Comments on the Proposed Emergency Rule for Groundfish.'' Comments also may be sent via facsimile (fax) to (978) 281–9135. Comments will not be accepted if submitted via e-mail or Internet.

FOR FURTHER INFORMATION CONTACT: Thomas Warren, Fishery Policy Analyst, phone 978–281–9347, fax: 978–281–9135; email: *thomas.warren@noaa.gov*.

SUPPLEMENTARY INFORMATION: A proposed emergency rule was published in the **Federal Register** on April 24, 2003 (68 FR 20096) and subsequently corrected on May 9, 2003 (68 FR 24914), that would continue measures implemented on August 1, 2002, consistent with the Settlement Agreement, which was adopted by the U.S. District Court (Court) for the District of Columbia in a Remedial Order (Order) issued on May 23, 2002, as a result of *Conservation Law Foundation, et al.* v. *Evans, et al.* In addition, the emergency rule would implement a DAS Leasing Program under the emergency authority of section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act in order to mitigate the impacts resulting from the continuation of the August 1, 2002, interim final rule measures (67 FR 50292). The DAS Leasing Program would allow limited access NE multispecies vessels to lease their NE multispecies DAS during the current fishing year. Additional information on the background and proposed measures appear in the preamble of the April 24, 2003, proposed emergency rule and are not repeated here.

Due to the newness and potential controversiality of the DAS Leasing Program and its implications, NMFS is extending the comment period through June 10, 2003, on the DAS leasing aspect of the proposed emergency rule only (the comment period on the Settlement Agreement measures remains unchanged and, thus, ends on May 27, 2003). Extension of the comment period on the DAS Leasing Program will allow additional time for the public to comment on this important component of the proposed emergency rule. In order to be compliant with the requirements of the Administrative Procedure Act and to allow for a full 30–day delay in effectiveness of the proposed rule measures, should they be approved, extension of the comment period will require that there be two decisions made by the Assistant Administrator for Fisheries on measures in the proposed rule: One for the continuation of the Settlement Agreement measures, and one for the DAS Leasing Program. This will require two implementing final rules, with different implementation dates, for each of these aspects of the proposed rule.

A Draft Environmental Assessment (EA) was prepared and noticed for the April 24, 2003, proposed rulemaking. That EA addressed the impacts of both the emergency extension of the Settlement Agreement measures and the added DAS Leasing Program. For the first rulemaking, should it be approved, this EA and the associated Finding of No Significant Impact (FONSI) will be revised to reflect a preferred alternative that includes only the proposed extension of the Settlement Agreement measures, with a later determination that would be made on the DAS Leasing Program suboption. The second rulemaking, should it be approved, would be based on the EA and a second FONSI that would include the DAS Leasing Program suboption and address any comments received on the DAS Leasing Program within the extended comment period. Depending on the nature of the comments, the EA and FONSI could be further revised or amended.

The Settlement Agreement measures currently in place through an interim rule extension (68 FR 2919, January 22, 2003) will expire on July 27, 2003. To avoid a gap in the continuation of the Settlement Agreement measures ordered by the Court, the proposed emergency rule must be effective no later than July 28, 2003.

Also, NMFS inadvertently omitted the docket number in the proposed rule published on April 24, 2003 (68 FR 20096). However, the correction document to the proposed rule published on May 9, 2003 (68 FR 24914) and this extension notification reflect the docket number assigned to this action by the Department of Commerce.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: May 19, 2003.

Rebecca Lent,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 03–13013 Filed 5–20–03; 2:30 pm]

BILLING CODE 3510–22–S

Notices

Federal Register

Vol. 68, No. 100

Friday, May 23, 2003

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. 03–053–1]

Hydrilla; Availability of an Environmental Assessment

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice of availability and request for comments.

SUMMARY: We are advising the public that an environmental assessment has been prepared by the Animal and Plant Health Inspection Service relative to the control of the aquatic weed hydrilla (*Hydrilla verticillata*). The environmental assessment considers the effects of, and alternatives to, the release of the nonindigenous leaf-mining flies *Hydrellia pakistanae* Deonier and *H. balciunasi* Bock (Diptera: Ephydridae) as biological control agents to reduce the severity of infestations of hydrilla in the continental United States. We are making this environmental assessment available to the public for review and comment.

DATES: We will consider all comments that we receive on or before June 23, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 03–053–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 03–053–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 03–053–1'' on the subject line.

You may read any comments that we receive on the environmental assessment in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Dr. Tracy A. Horner, Ecologist, Environmental Services, PPD, APHIS, 4700 River Road Unit 149, Riverdale, MD 20737–1236; (301) 734–5213.

SUPPLEMENTARY INFORMATION:

Background

The Animal and Plant Health Inspection Service (APHIS) is considering an application by a researcher at the U.S. Army Engineer Research and Development Center in Vicksburg, MS, for a permit for the continued release of the nonindigenous leaf-mining flies *Hydrellia pakistanae* Deonier and *H. balciunasi* Bock (Diptera: Ephydridae) in the continental United States. These agents, which have previously been released in the United States, would be used by the applicant for the biological control of the aquatic weed hydrilla (*Hydrilla verticillata* (L.F.) Royle) (Hydrocharitaceae) in new areas infested with hydrilla.

Hydrilla, which is native to the warmer areas of Asia, was first discovered in the United States in 1960. A submersed aquatic plant, it has the ability to multiply profusely, producing long, thick stands. It has become a major nuisance in many aquatic systems, displacing native aquatic plants such as pondweeds and eel grass, causing navigational interference, hindering waterflow, and detracting from recreational use of water bodies.

Four types of controls are currently being used to limit the spread of hydrilla: Chemical, mechanical, cultural/physical, and biological. Chemical controls include various herbicides. Mechanical controls include hand cutting/pulling, cutting, harvesting, and grinding. Cultural/physical controls include dredging/sediment removal, drawdown, benthic barriers (covering plants with a growth-inhibiting substance), and shading/light attenuation. Biological controls include, in addition to the two species of flies under consideration in the present environmental assessment, two weevil species.

The efficacy of these methods varies, and environmental and economic impacts may also limit the utility of some of them. The herbicides employed as chemical controls are safe when used according to their labels but are broad spectrum in their plant-species response and may affect non-target submersed vegetation. Hand cutting/pulling, although labor intensive, can be very effective in localized areas, while cutting, harvesting, and grinding are all considered cosmetic, nonselective, and short-term solutions. Due to its high cost, environmental impacts, and the problem of sediment disposal, dredging is considered a multipurpose lake remediation technique and should not be done solely for aquatic plant management. Drawdown, which involves removing the water of a lake to a given depth and holding it at that level for at least a month to provide complete drying, is only effective for 1 to 2 years when applied to hydrilla. Benthic barriers are too expensive for widespread use and also heavily affect benthic communities. Shading or light attenuation (controlling plants by light reduction) has only limited applicability.

The biological control agents *H. pakistanae* and *H. balciunasi,* which have been released previously in several States, have the potential to reduce the severity of infestations of hydrilla in other areas of the continental United States. *H. pakistanae* and *H. balciunasi* are flies in the family Ephydridae. Female *Hydrellia* spp. lay their eggs on hydrilla, and after several days, the eggs hatch into larvae. The larvae of both species damage hydrilla plants by mining leaves. APHIS has completed an environmental assessment that considers the effects of, and alternatives to, the release of *H. pakistanae* and *H.*

balciunasi into the environment as biological control agents for hydrilla.

APHIS' review and analysis of the potential environmental impacts associated with releasing *H. pakistanae* and *H. Balciunasi* into the environment are documented in detail in an environmental assessment entitled ''Field Release of the Nonindigenous Leaf-mining Flies *Hydrellia pakistanae* Deonier and *H. balciunasi* Bock (Diptera: Ephydridae), for Biological Control of *Hydrilla verticillata* (L.F.) Royle (Hydrocharitaceae)'' (April 2003). We are making this environmental assessment available to the public for review and comment. We will consider all comments that we receive on or before the date listed under the heading **DATES** at the beginning of this notice.

The environmental assessment may be viewed on the Internet at *http://www.aphis.usda.gov/ppq/* by following the link for ''Document/Forms Retrieval System,'' then clicking on the triangle beside ''6-Permits-Environmental Assessments'' and selecting document number 0035. You may request paper copies of the environmental assessment by calling or writing to the person listed under **FOR FURTHER INFORMATION CONTACT**. Please refer to the title of the environmental assessment when requesting copies. The environmental assessment is also available for review in our reading room (information on the location and hours of the reading room is listed under the heading **ADDRESSES** at the beginning of this notice).

The environmental assessment has been prepared in accordance with: (1) The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*), (2) regulations of the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500–1508), (3) USDA regulations implementing NEPA (7 CFR part 1), and (4) APHIS' NEPA Implementing Procedures (7 CFR part 372).

Done in Washington, DC, this 16th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12993 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. 03–046–1]

Pigeonpea Pod Fly; Availability of an Environmental Assessment

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice of availability and request for comments.

SUMMARY: We are advising the public that the Animal and Plant Health Inspection Service has prepared an environmental assessment relative to the control of pigeonpea pod fly, *Melanagromyza obtusa* (Malloch) (Diptera: Agromyzidae). The environmental assessment documents our review and analysis of environmental impacts associated with alternatives for control of pigeonpea pod fly, as well as a recommendation for the use of biological control agents to suppress pigeonpea pod fly in the United States. We are making this environmental assessment available to the public for review and comment.

DATES: We will consider all comments that we receive on or before June 23, 2003.

ADDRESSES: You may submit comments by postal mail/commercial delivery or by e-mail. If you use postal mail/commercial delivery, please send four copies of your comment (an original and three copies) to: Docket No. 03–046–1, Regulatory Analysis and Development, PPD, APHIS, Station 3C71, 4700 River Road Unit 118, Riverdale, MD 20737–1238. Please state that your comment refers to Docket No. 03–046–1. If you use e-mail, address your comment to *regulations@aphis.usda.gov.* Your comment must be contained in the body of your message; do not send attached files. Please include your name and address in your message and ''Docket No. 03–046–1'' on the subject line.

You may read any comments that we receive on the environmental assessment in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

APHIS documents published in the **Federal Register**, and related information, including the names of organizations and individuals who have commented on APHIS dockets, are available on the Internet at *http://www.aphis.usda.gov/ppd/rad/webrepor.html.*

FOR FURTHER INFORMATION CONTACT: Dr. Dale Meyerdirk, Agriculturalist, National Biological Control Institute, PPQ, APHIS, 4700 River Road Unit 135, Riverdale, MD 20737–1236; (301) 734–5220.

SUPPLEMENTARY INFORMATION:

Background

Pigeonpea pod fly, *Melanagromyza obtusa* (Malloch) (Diptera: Agromyzidae), is a foreign plant pest that attacks numerous species of plants. The potential host range appears to be primarily restricted to legumes such as peas and beans, with some questionable exceptions such as okra and sesame. This pest can easily spread without detection. When the female pigeonpea pod fly punctures the legume pod and lays its eggs within, the only external evidence is varying degrees of damage caused by the punctures.

The pest is found throughout the world, including India, Ceylon, Indonesia, the Philippines, Taiwan, Thailand, Vietnam, and as far north as Japan. It also occurs in the U.S. territory of Puerto Rico. Pigeonpea pod fly is acclimated to cooler, northern climates and can tolerate dry conditions for part of the year. Therefore, suitable habitat exists throughout the United States, and the potential geographical distribution of the pigeonpea pod fly in the contiguous United States is extensive. Pigeonpea pod fly could enter the contiguous United States, Hawaii, or other U.S. territories from Puerto Rico, the Dominican Republic, or countries in the Pacific and become a serious agricultural threat to the United States.

The Animal and Plant Health Inspection Service (APHIS) has completed an environmental assessment that considers various methods of suppression of the pigeonpea pod fly that could be used in the United States. Based on our findings, we believe that the most effective alternative available is the use of biological control agents. Specifically, the parasitic Chalcid wasps of the genera *Euderus, Eurytoma,* and *Ormyrus* would be released in the United States to suppress pigeonpea pod fly. In preparation for their release into the environment, these imported biological control agents would be reared on pigeonpea pod fly in U.S. Department of Agriculture-certified insect quarantine facilities.

It is expected that the biological control agents would be introduced into areas where pigeonpea pod fly occurs

and reproduce naturally without further human intervention, and that these stingless, parasitic wasps would become established throughout the eventual geographical distribution of pigeonpea pod fly in the United States. The biological characteristics of the organisms under consideration preclude any possibility of harmful effects on human health.

APHIS' review and analysis of the potential environmental impacts associated with each of the possible alternatives are documented in detail in an environmental assessment entitled ''Control of Pigeonpea Pod Fly, Melanagromyza obtusa (Diptera: Agromyzidae)'' (April 14, 2003). We are making this environmental assessment available to the public for review and comment. We will consider all comments that we receive on or before the date listed under the heading **DATES** at the beginning of this notice.

You may request copies of the environmental assessment by calling or writing to the person listed under **FOR FURTHER INFORMATION CONTACT**. Please refer to the title of the environmental assessment when requesting copies. The environmental assessment is also available for review in our reading room (information on the location and hours of the reading room is listed under the heading **ADDRESSES** at the beginning of this notice).

The environmental assessment has been prepared in accordance with: (1) The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*), (2) regulations of the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500–1508), (3) USDA regulations implementing NEPA (7 CFR part 1), and (4) APHIS' NEPA Implementing Procedures (7 CFR part 372).

Done in Washington, DC, this 16th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12991 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. 03–021–2]

Tropical Soda Apple; Availability of an Environmental Assessment and Finding of No Significant Impact

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice.

SUMMARY: We are advising the public that an environmental assessment and finding of no significant impact have been prepared by the Animal and Plant Health Inspection Service relative to the control of tropical soda apple, *Solanum viarum* Dunal (Solanaceae). The environmental assessment considers the effects of, and alternatives to, the release of a nonindigenous beetle, *Gratiana boliviana* Spaeth (Coleoptera: Chrysomelidae), into the environment as a biological control agent to reduce the severity of infestations of tropical soda apple in Florida and other infested States in the continental United States. Based on its finding of no significant impact, the Animal and Plant Health Inspection Service has determined that an environmental impact statement need not be prepared.

ADDRESSES: Copies of the environmental assessment and finding of no significant impact are available for public inspection in our reading room. The reading room is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue, SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690–2817 before coming.

FOR FURTHER INFORMATION CONTACT: Dr. Tracy A. Horner, Ecologist, Environmental Services, PPD, APHIS, 4700 River Road Unit 149, Riverdale, MD 20737–1236; (301) 734–5213.

SUPPLEMENTARY INFORMATION:

Background

The Animal and Plant Health Inspection Service (APHIS) is considering an application from a researcher at the University of Florida for a permit to release a nonindigenous beetle, *Gratiana boliviana* Spaeth (Coleoptera: Chrysomelidae), into the environment to reduce the severity of infestations of tropical soda apple, *Solanum viarum* Dunal (Solanaceae), in Florida and other infested States in the continental United States.

Tropical soda apple is a perennial shrub that belongs to the plant family Solanaceae, section Acanthophora, genus *Solanum,* and subgenus *Leptostemonum.* A plant with foliage unpalatable to livestock, tropical soda apple can infest a pasture or rangeland in 1 to 2 years, resulting in lower stocking rates. It is native to Brazil and Argentina but has become a weed in other areas of South America and in Africa, India, Nepal, the West Indies, Honduras, Mexico, and the United States. Tropical soda apple was originally detected in the United States in Florida in 1988. The pastureland infested in 1992 was estimated to be approximately 150,000 acres; 10 years later, the infested area had increased to more than 1 million acres of improved pastures, citrus groves, sugarcane fields, ditches, vegetable crops, sod farms, forestlands, and natural areas. Tropical soda apple was listed as a Federal noxious weed in 1995, and it is listed as one of the most invasive species in Florida by the Florida Exotic Pest Plant Council. In addition to Florida, the plant has been reported in Alabama, Georgia, Mississippi, Louisiana, Texas, North Carolina, South Carolina, Tennessee, and Pennsylvania. Researchers believe that it has the potential to expand its range even further in the United States.

On March 5, 2003, we published in the **Federal Register** (68 FR 10435–10436, Docket No. 03–021–1) a notice in which we announced the availability, for public review and comment, of an environmental assessment (EA) that examined the potential effects of the release of the biological control agent *G. boliviana,* a nonindigenous tortoise beetle in the insect family Chrysomelidae, to reduce the severity of infestations of tropical soda apple in Florida and other infested States in the continental United States. Adults and larvae feed on tropical soda apple leaves, restricting the vigor and growth rate of the plants and potentially reducing the competitive advantage this invasive weed has over native vegetation.

We solicited comments on the EA for 30 days ending on April 4, 2003. We received two comments by that date. Both commenters supported the proposed action.

In this document, we are advising the public of APHIS' finding of no significant impact (FONSI) regarding the proposed field release of *G. boliviana* to reduce the severity of infestations of tropical soda apple in Florida and other infested States in the continental United States. The decision, which is based on the analysis found in the EA, reflects our determination that release of the beetle will not have a significant impact on the quality of the human environment.

The EA and FONSI may be viewed on the Internet at *http://www.aphis.usda.gov/ppq* by following the link for ''Documents/Forms Retrieval System,'' then clicking on the triangle beside ''6—Permits—Environmental Assessments,'' and selecting document number 0033. You

may request paper copies of the EA and FONSI by calling or writing to the person listed under **FOR FURTHER INFORMATION CONTACT**. Please refer to the title of the EA when requesting copies. The EA and FONSI are also available for review in our reading room (information on the location and hours of the reading room is listed under the heading **ADDRESSES** at the beginning of this notice).

The EA and FONSI have been prepared in accordance with: (1) The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*), (2) regulations of the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500–1508), (3) USDA regulations implementing NEPA (7 CFR part 1), and (4) APHIS' NEPA Implementing Procedures (7 CFR part 372).

Done in Washington, DC, this 16th day of May 2003.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12989 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. 03–051–1]

Genetically Engineered Forest and Fruit Trees; Public Meeting

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice of public meeting.

SUMMARY: This is to notify parties involved in those fields associated with the environmental release of genetically engineered trees, as well as other interested persons, that a public meeting will be held to provide a forum for discussion on the environmental safety, potential benefits, and risks of genetically engineered trees relative to traditional varieties. The meeting is being organized by the Animal and Plant Health Inspection Service.

DATES: The meeting will be held on Tuesday, July 8, 2003, from 8 a.m. to 4 p.m., and Wednesday, July 9, 2003, from 8:30 a.m. to 4 p.m.

ADDRESSES: The public meeting will be held at the USDA Center at Riverside, 4700 River Road, Riverdale, MD.

FOR FURTHER INFORMATION CONTACT: For information about the meeting or to register, contact Mr. John Cordts, Biotechnologist, BRS, APHIS, 4700 River Road Unit 147, Riverdale, MD 20737–1236; (301) 734–5531, fax: (301) 734–8669, or e-mail: *John.M.Cordts@aphis.usda.gov*.

In addition, information regarding the meeting and registration is available on the Internet at *http://www.aphis.usda.gov/ppq/biotech/*.

SUPPLEMENTARY INFORMATION: The regulations in 7 CFR part 340, ''Introduction of Organisms and Products Altered or Produced Through Genetic Engineering Which Are Plant Pests or Which There Is Reason to Believe Are Plant Pests,'' (referred to below as the regulations) regulate, among other things, the introduction (importation, interstate movement, or release into the environment) of organisms and products altered or produced through genetic engineering that are plant pests or that there is reason to believe are plant pests. Such genetically engineered organisms and products are considered ''regulated articles.''

Field tests of genetically engineered forest and fruit trees are currently being conducted under the regulations. In order to provide a forum for the discussion of regulatory and scientific issues related to the environmental safety, potential benefits, and risks associated with genetically engineered forest and fruit trees, the Animal and Plant Health Inspection Service (APHIS) is organizing a public meeting. This public meeting is scheduled for July 8–9, 2003, and will provide an opportunity for the exchange of information between APHIS representatives, scientists with recognized expertise in fields associated with the environmental release of genetically engineered trees, and other interested persons on subjects including forest ecology, plant genetics, and weed science. Preregistration is required for all those who wish to attend the meeting. The deadline for all preregistration is Monday, June 30, 2003. Information regarding the meeting and registration instructions may be obtained from the person listed under **FOR FURTHER INFORMATION CONTACT** or on the Internet at *http://www.aphis.usda.gov/ppq/biotech/*.

Persons interested in making an oral presentation at the meeting should submit a brief written statement of the general views they wish to present, the name and address of each person who will participate in the presentation, and an estimate of the approximate length of time needed to make the presentation. This information should be submitted to the person listed under **FOR FURTHER INFORMATION CONTACT** or through the Internet address provided in that section no later than July 1, 2003. The number of oral presentations and the time allocated for each may be limited, depending upon the number of requests. Oral presentations will be recorded in the proceedings of the meeting. Persons interested in submitting written comments for inclusion in the proceedings may do so by e-mail, postal mail/commercial delivery, or fax by August 1, 2003. Send all comments to the person listed under **FOR FURTHER INFORMATION CONTACT**. Please state that your comment refers to Docket No. 03–051–1. If you use e-mail, your comment must be contained in the body of your message or sent as an attachment in WordPerfect or Microsoft Word format. Please include your name and address in your message and ''Docket No. 03–051–1'' on the subject line.

Parking and Security Procedures

Please note that a fee of $2.25 is required to enter the parking lot at the USDA Center at Riverside. The machine accepts $1 bills or quarters.

Upon entering the building, visitors should inform security personnel that they are attending the Tree Biotechnology meeting. Identification is required. Security personnel will direct visitors to the sign-in tables located outside of the Conference Center. All participants must sign in upon arrival. Conference badges must be worn throughout the day.

Done in Washington, DC, this 16th day of May 2003 .

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 03–12992 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Commodity Credit Corporation

Information Collection; Farm Storage Facility Loan Program

AGENCY: Commodity Credit Corporation, USDA.

ACTION: Notice; request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, the Commodity Credit Corporation (CCC) is seeking comments from all interested individuals and organizations on the extension with revision of a currently approved information collection in support of the Farm Storage Facility Loan Program.

DATES: Comments must be received in writing on or before July 22, 2003 to be

assured of consideration. Comments received after that date will be considered to the extent practicable.

ADDRESSES: Comments concerning this notice should be addressed to Chris Kyer, Price Support Division, Farm Service Agency, United States Department of Agriculture, 1400 Independence Avenue, SW., STOP 0512, Washington, DC 20250–0512, or to the Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. Comments may be also submitted by email to *chris_kyer@wdc.fsa.usda.gov.* Copies of the information collection may be requested by writing to Chris Kyer at the above address.

FOR FURTHER INFORMATION CONTACT: Chris Kyer, Price Support Division, Farm Service Agency, USDA, at (202) 720–7935.

SUPPLEMENTARY INFORMATION:

Description of Information Collection

Title: Farm Storage Facility Loan Program.

OMB Control Number: 0560–0204.

Expiration Date: 1/31/04.

Type of Request: Extension with revision of a currently approved information collection.

Abstract: This information is needed to administer the CCC's Farm Storage Facility Loan Program, which is covered under the regulation of 7 CFR Part 1436. The information will be gathered from producers needing additional on farm-grain storage and handling capacity to determine whether they are eligible for loans.

Estimate of Burden: Average 15 minutes per respondent.

Respondents: Eligible Producers.

Estimated Number of Respondents: 2,000.

Estimated Total Annual Burden on Respondents: 15,700 hours.

Comment is invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical or other technological collection techniques or other forms of information technology.

All responses to this notice will be summarized and included in the request for OMB approval. All comments will also become a matter of public record.

Signed at Washington, DC, on May 16, 2003.

James R. Little,

Executive Vice President, Commodity Credit Corporation.

[FR Doc. 03–12924 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–05–P

DEPARTMENT OF AGRICULTURE

Public Meetings of the Black Hills National Forest Advisory Board

AGENCY: Forest Service, USDA.

ACTION: Notice of meeting location change related to FEMA regulations.

SUMMARY: The Black Hills National Forest Advisory Board (NFAB) will hold meetings to become informed about Black Hills National Forest issues and to reach consensus on those issues, and then to make management recommendations to the forest supervisor about the issues. The meetings are open, and the public may attend any part of the meetings. The May 28 agenda includes a presentation on the Phase II Amendment to the Black Hills National Forest 1997 Land and Resource Management Plan.

DATES: The meetings will be held on the following dates:

Wednesday, May 28, 2003 from 1 to 6 p.m.

Friday, July 11, 2003 from 1 to 6 p.m.

Wednesday, August 20, 2003 from 1 to 6 p.m.

Wednesday, September 17, 2003 from 1 to 6 p.m.

Wednesday, October 15, 2003 from 1 to 6 p.m.

Wednesday, November 19, 2003 from 1 to 6 p.m.

ADDRESSES: *Location Change:* Due to Federal Emergency Management Agency regulations regarding meeting venues, the meetings will take place at the SDSU West River Ag Center located at 1905 Plaza Boulevard, Rapid City, SD. Please note the location change.

FOR FURTHER INFORMATION CONTACT: Frank Carroll, Black Hills National Forest, 25041 North Highway 16, Custer, SD, 57730, (605) 673–9200.

Dated: May 16, 2003.

David M. Thom,

Acting Black Hills National Forest Supervisor.

[FR Doc. 03–12955 Filed 5–22–03; 8:45 am]

BILLING CODE 3410–11–M

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List; Addition

AGENCY: Committee for Purchase from People Who Are Blind or Severely Disabled.

ACTION: Addition to Procurement List.

SUMMARY: This action adds to the Procurement List a service to be furnished by a nonprofit agency employing persons who are blind or have other severe disabilities.

EFFECTIVE DATE: June 22, 2003.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, Jefferson Plaza 2, Suite 10800, 1421 Jefferson Davis Highway, Arlington, Virginia 22202–3259.

FOR FURTHER INFORMATION CONTACT: Sheryl D. Kennerly, (703) 603–7740.

SUPPLEMENTARY INFORMATION: On February 28, 2003, the Committee for Purchase From People Who Are Blind or Severely Disabled published notice (68 FR 9634) of a proposed addition to the Procurement List.

Comments were received from three Native American organizations. All of them questioned the appropriateness of the Committee's program taking a service which is currently in the Small Business Administration's 8(a) Program for small disadvantaged businesses, asserting that the Committee's action affected all 8(a) contractors, particularly Tribal 8(a) contractors which have difficulty acquiring Government contracts. The commenters claimed that the Committee's program is targeting 8(a) and other small business set-aside programs, rather than going after the many other Government contracting opportunities said to exist.

The Committee's program does not target 8(a) or other small business set-aside programs when deciding what to add to the Committee's Procurement List. In fact, the Committee has long had a policy of waiting until 8(a) contractors are no longer eligible for subsequent contracts, as in the instant case, before adding supplies or services to the Procurement List. The Committee does not believe that its authority to add supplies and services to the Procurement List is subordinate to small business set-aside authorities, a conclusion which is supported by a General Accounting Office protest decision as well as the Committee's own legal analysis, so the fact that one of these set-asides was in place is not a bar to an addition to the Procurement List of suitable supplies or services. One of

the commenters, a Tribal 8(a) firm, claimed that it had made a substantial investment in preparing to perform this service after being told by the contracting Government agency's small business office that it was in line for the next 8(a) contract for the service. In addition to losing its investment, this commenter objected to the loss of revenue and employment opportunity for its tribe and reservation, which has low income and high unemployment.

The contracting officer for this service informed the Committee that he had told this commenter after a briefing by the commenter on its plans to provide the service that he intended to place the service with the Committee's program rather than awarding it to the commenter under the 8(a) Program if he found the approach by the nonprofit agency designated by the Committee to be favorable, which he did. Under these circumstances, the Committee does not agree that the commenter was led to make the investment it now stands to lose by a clear representation by the Government contracting agency. This commenter is essentially objecting to the loss of an opportunity to perform a service on which it had not become dependent as a contractor. No existing employment will be lost by this commenter as a result of the Committee's action. The Committee does not normally consider loss of such an opportunity to constitute severe adverse impact on a firm. The people with severe disabilities whom the Committee's program serves also have low incomes and high unemployment, which this addition to the Procurement List will serve in a small way to mitigate.

Regulatory Flexibility Act Certification

After consideration of the material presented to it concerning capability of a qualified nonprofit agency to provide the service and impact of the addition on the current or most recent contractors, the Committee has determined that the service listed below is suitable for procurement by the Federal Government under 41 U.S.C. 46–48c and 41 CFR 51–2.4. I certify that the following action will not have a significant impact on a substantial number of small entities. The major factors considered for this certification were:

1. The action will not result in any additional reporting, recordkeeping or other compliance requirements for small entities other than the small organizations that will furnish the service to the Government.

2. The action will result in authorizing small entities to furnish the service to the Government.

3. There are no known regulatory alternatives which would accomplish the objectives of the Javits-Wagner-O'Day Act (41 U.S.C. 46–48c) in connection with the service proposed for addition to the Procurement List.

(End of Certification)

Accordingly, the following service is added to the Procurement List:

Service

Service Type/Location: National Lead Information Center (Call Center)/EPA, Supporting Office of Pesticide Programs/ (National Program Chemical Division), Washington, DC.

NPA: Association for the Blind & Visually Impaired & Goodwill Industries of Greater Rochester, Rochester, NY.

Contract Activity: Environmental Protection Agency.

This action does not affect current contracts awarded prior to the effective date of this addition or options that may be exercised under those contracts.

Sheryl D. Kennerly,

Director, Information Management.

[FR Doc. 03–13034 Filed 5–22–03; 8:45 am]

BILLING CODE 6353–01–P

DEPARTMENT OF COMMERCE

Economics and Statistics Administration

Request for Nominations of Member Organizations To Serve on the Decennial Census Advisory Committee

AGENCY: Economics and Statistics Administration, Department of Commerce.

ACTION: Notice of request for nominations.

SUMMARY: Pursuant to the Federal Advisory Committee Act (Title 5, United States Code (U.S.C.), Appendix 2, Section10(a)(b)), the Bureau of the Census (Census Bureau) invites and requests nominations of organizations for appointment by the Secretary of Commerce to the Decennial Census Advisory Committee. Nominations received in response to this notice will be considered in addition to nominations already received. The **SUPPLEMENTARY INFORMATION** section for this notice provides information about the objectives and duties of the Advisory Committee and membership criteria.

DATES: Please submit nominations on or before June 23, 2003.

ADDRESSES: Please submit nominations to Jeri Green, Chief, Census Advisory Committee Office, Bureau of the Census, Room 3631, Federal Building 3, Washington, DC 20233, telephone 301–763–6590. Nominations also may be submitted via fax (301–457–2642) or e-mail to *jeri.green@census.gov.*

FOR FURTHER INFORMATION CONTACT: Jeri Green, Chief, Census Advisory Committee Office, at the above address or via e-mail.

SUPPLEMENTARY INFORMATION: The Decennial Census Advisory Committee was established in accordance with the Federal Advisory Committee Act (Title 5, U.S.C., Appendix 2) in 1991. The following provides information about the Committee, membership, and nomination process:

Objectives and Duties

1. The Committee considers the goals of the decennial census and users' needs for information provided by the census. It provides the Census Bureau a perspective from the external data user community about how research and design plans for the 2010 decennial census (including the American Community Survey) can be effectively and efficiently implemented. The Committee presents an opportunity for an open, balanced discussion that informs and welcomes public comment on all aspects of the decennial census.

2. The Committee functions solely as an advisory body under the Federal Advisory Committee Act and reports to the Secretary of Commerce through the Under Secretary for Economic Affairs.

Membership

1. The Secretary of Commerce appoints the member organizations and designates the Chair and Vice-Chair of the Committee. Member organizations, the Chair, and Vice-Chair serve at the pleasure of the Secretary.

2. The Committee consists of a Chair, Vice-Chair, and a designated representative from each member organization. It is composed of up to forty (40) member organizations. Representatives include heads of member organizations with a substantial interest in the census. The Committee is representative of private sector users; minority groups; professional associations; state, local, and tribal governments; and other organizations. In addition, sixteen (16) ex-officio members serve in a nonvoting capacity. Ex-officio members are representatives of the Postmaster General, the Chairperson and Ranking Member of the Census Oversight and Appropriations Committees and Subcommittees, and a

representative from the Census Advisory Committees on Race and Ethnic Populations.

3. Committee members are selected on a clear, standardized basis, in accordance with applicable Department of Commerce guidelines. The Committee's representation reflects a balanced viewpoint and perspective, considering such factors as geography, minority representation, business, academia, and the public-at-large. The size and the scope of the member organization with respect to diverse community representation also are considered.

4. Committee membership has relevant background/experience to significantly assist and/or contribute to the overall functions, issues, and tasks associated with the Committee. The membership should bring diverse perspectives and be able to provide advice on policy and technical issues affecting the goals of ongoing census programs, surveys, and initiatives.

5. The Committee has the fewest number of members necessary to accomplish the objectives of the Charter. Committee membership will not duplicate other organizations or communities already represented on the Committee.

6. Committee membership will encompass a distinct national constituency that ensures relevant, two-way feedback and input reflective of a given community group or constituency.

7. Committee members are appointed by the Secretary of Commerce and serve at the discretion of the Secretary.

Miscellaneous

1. Members of the Committee shall serve without compensation, but the Census Bureau will, upon request, reimburse travel expenses, as authorized by 5 U.S.C. 5701, et. seq., dealing with travel and subsistence expenses.

2. The Committee shall meet from one to two times per year. Meetings are one to two days in duration.

3. Committee meetings are open to the public.

Nomination Information

1. The Department of Commerce is seeking nominations to increase the diversity of the membership of the Decennial Census Advisory Committee to include an organization that is knowledgeable about the issues surrounding Americans overseas and would provide advice to the Census Bureau on conducting an overseas enumeration of Americans living abroad. More specifically, such an organization may either (a) represent Americans living overseas, (b) send Americans to live overseas, (c) serve as a support network for Americans overseas, or incorporate all of these characteristics in its mission or scope.

2. Nominations of organizations may come from individuals or organizations. A summary of the organization's qualifications and the experience that qualifies the organization for membership should be included in the nomination letter. Nominated organizations should be able to actively participate in the tasks of the Committee. Besides meeting attendance and participation, active participation may include review of materials, and participation in conference calls, working groups, and special committee activities that may be planned in conjunction with Committee members.

3. The Department of Commerce is committed to equal opportunity in the workplace and seeks diverse Committee membership.

Dated: April 4, 2003.

Kathleen B. Cooper,

Under Secretary for Economic Affairs, Economics and Statistics Administration.

[FR Doc. 03–13029 Filed 5–22–03; 8:45 am]

BILLING CODE 3510–07–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-337–803]

Notice of Initiation of Antidumping Duty Changed Circumstances Review: Fresh Atlantic Salmon from Chile

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: In accordance with section 751(b) of the Tariff Act of 1930, as amended (the Act), and 19 CFR 351.216(b)(2003) of the Department of Commerce's (the Department's) regulations, L.R. Enterprises, Inc. (L.R. Enterprises), Heritage Salmon Inc., Maine Nordic Salmon, Stolt Sea Farms Inc., Cypress Island Inc., Atlantic Salmon of Maine, and Trumpet Island Salmon Farm Inc., U.S. producers of fresh Atlantic salmon, each filed a request for a changed circumstances review of the antidumping duty (AD) order on fresh Atlantic salmon from Chile. Specifically, the parties request that the Department grant revocation of the AD order retroactive to July 1, 2001, the first day of the period of review covered by the on-going fourth administrative review. The domestic industry has affirmatively expressed a lack of interest in the continuation of the order. In response to the request, the Department is initiating a changed circumstances review with respect to the AD order on fresh Atlantic salmon from Chile.

EFFECTIVE DATE: May 23, 2003.

FOR FURTHER INFORMATION CONTACT: Keith Nickerson or Constance Handley, at (202) 482–3813 or (202) 482–0631, respectively; AD/CVD Enforcement Office V, Group II, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street & Constitution Avenue, NW, Washington, D.C. 20230.

SUPPLEMENTARY INFORMATION:

Background

On July 30, 1998, the Department issued an AD order on fresh Atlantic salmon from Chile. *See Notice of Amended Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order: Fresh Atlantic Salmon from Chile*, 63 FR 40699 (July 30, 1998). On July 1, 2002, the Department issued a notice of opportunity to request the fourth administrative review of this order. *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review*, 67 FR 44172 (July 1, 2002).

On July 31, 2002, in accordance with 19 CFR 351.213(b), L.R. Enterprises requested a review of 90 producers/exporters of fresh Atlantic salmon. On August 27, 2002, the Department published the notice of initiation of this AD administrative review, covering the period July 1, 2001, through June 30, 2002. *See Initiation of Antidumping and Countervailing Duty Administrative Reviews and Requests for Revocation in Part*, 67 FR 55000 (August 27, 2002). L.R. Enterprises subsequently withdrew its request for review of all but 13 of these companies. For a detailed discussion of L.R. Enterprises' withdrawals, as well as a listing of which respondents requested reviews, *see Notice of Partial Rescission of Antidumping Duty Administrative Review: Fresh Atlantic Salmon from Chile*, 67 FR 76378 (December 12, 2002) (*Partial Rescission Notice*).

On April 29, 2003, L.R. Enterprises withdrew all requests for administrative reviews of the producers/exporters of fresh Atlantic salmon from Chile. Furthermore, L.R. Enterprises stated that it had no interest in maintaining the AD order. Subsequently, by letters dated April 29, 2003, five U.S. producers of fresh Atlantic salmon including Heritage Salmon Inc., Maine Nordic Salmon, Stolt Sea Farms Inc., Cypress Island Inc., and Atlantic Salmon of

Maine, requested that the Department initiate a changed circumstances review for the purposes of revoking the AD order on the subject merchandise. On May 2 and 7, 2003, L. R. Enterprises and Trumpet Island Salmon Farm Inc., respectively, submitted their requests to the Department for the initiation of a changed circumstances review for the purpose of revoking the AD order. All parties request that the Department grant revocation of the AD order retroactive to July 1, 2001, the first day of the period of review covered by the on-going fourth administrative review.

In accordance with 19 CFR 351.222(g), due to the lack of the domestic industry's interest, the Department finds that changed circumstances sufficient to warrant revocation may exist. Therefore, the Department is initiating a changed circumstances review under 19 CFR 351.216. This initiation will enable the Department to solicit comments from all interested parties to determine whether substantially all of the domestic producers support revocation of the order with respect to the subject merchandise. *See Certain Tin Mill Products from Japan: Final Results of Changed Circumstances Review, 66 FR 52109 (October 12, 2001).*

Scope of the Order

The product covered by this order is fresh, farmed Atlantic salmon, whether imported ''dressed'' or cut. Atlantic salmon is the species *Salmo salar*, in the genus *Salmo* of the family *salmoninae*. ''Dressed'' Atlantic salmon refers to salmon that has been bled, gutted, and cleaned. Dressed Atlantic salmon may be imported with the head on or off; with the tail on or off; and with the gills in or out. All cuts of fresh Atlantic salmon are included in the scope of the order. Examples of cuts include, but are not limited to: crosswise cuts (steaks), lengthwise cuts (fillets), lengthwise cuts attached by skin (butterfly cuts), combinations of crosswise and lengthwise cuts (combination packages), and Atlantic salmon that is minced, shredded, or ground. Cuts may be subjected to various degrees of trimming, and imported with the skin on or off and with the ''pin bones'' in or out.

Excluded from the scope are (1) fresh Atlantic salmon that is ''not farmed'' (*i.e.*, wild Atlantic salmon); (2) live Atlantic salmon; and (3) Atlantic salmon that has been subject to further processing, such as frozen, canned, dried, and smoked Atlantic salmon, or processed into forms such as sausages, hot dogs, and burgers.

The merchandise subject to this order is classifiable as item numbers 0302.12.0003 and 0304.10.4093 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS statistical reporting numbers are provided for convenience and customs purposes, the written description of the merchandise is dispositive.

Initiation of Changed Circumstances Antidumping Duty Administrative Review

Pursuant to sections 751(d)(1) and 782(h)(2) of the Act, the Department may revoke an antidumping or countervailing duty order, in whole or in part, based on a review under section 751(b) of the Act (i.e., a changed circumstances review). Section 751(b)(1) of the Act requires a changed circumstances review to be conducted upon receipt of a request which shows changed circumstances sufficient to warrant review of a final affirmative antidumping determination. Section 351.222(g)(2) of the Department's regulations provides that the Department will conduct a changed circumstances review under 19 CFR 351.216 if the Secretary concludes from the available information that changed circumstances sufficient to warrant revocation or termination may exist. The Department may revoke an order (in whole or in part), if the Secretary determines that: (i) producers accounting for substantially all of the production of the domestic like product to which the order (or the part of the order to be revoked) pertains have expressed a lack of interest in the relief provided by the order, in whole or in part, or (ii) if other changed circumstances sufficient to warrant revocation exist. In this context, the Department has interpreted ''substantially all'' production normally to mean at least 85 percent of domestic production of the like product. *See Certain Tin Mill Products From Japan: Final Results of Changed Circumstances Review, 66 FR 52109 (October 12, 2001); see also,* 19 CFR 351.208(c). According to the record of this case the following are U.S. producers of fresh Atlantic salmon: L.R. Enterprises, Heritage Salmon Inc., Maine Nordic Salmon, Stolt Sea Farms Inc., Cypress Island Inc., Atlantic Salmon of Maine, and Trumpet Island Salmon Farm Inc. Based upon the statement of no interest by the U.S. producers referenced above, the Department determines that changed circumstances sufficient to warrant revocation may exist. Therefore, the Department is initiating this changed circumstances review.

We will publish in the **Federal Register** a notice of preliminary results of the AD changed circumstances review, in accordance with 19 CFR 351.221(b)(4) and 351.221(c)(3)(i), which will set forth the factual and legal conclusions upon which our preliminary results are based and a description of any action proposed based on those results. As per 19 CFR 351.221(b)(4), interested parties will have an opportunity to comment. Interested parties may submit comments for consideration in the Department's preliminary results not later than 20 days after publication of this notice. Rebuttals to those comments may be submitted not later than 10 days following submission of the comments. All written comments must be submitted to the Department and served on all interested parties on the Department's service list in accordance with 19 CFR 351.303. The Department will issue its final results of review no later than 270 days after publication of this notice of initiation. During the course of this changed circumstances review, the current requirement for a cash deposit of estimated antidumping duties on all subject merchandise, including the merchandise subject to this changed circumstances review, will continue unless and until it is modified pursuant to the final results of this changed circumstances review or other administrative review.

This notice is in accordance with sections 751(b)(1) and 777(I)(1) of the Act and 19 CFR 351.216, 351.221(b), and 351.222(g)(3)(I).

Dated: May 16, 2003.

Jeffrey May,

Acting Assistant Secretary for Import Administration.

[FR Doc. 03–13027 Filed 5–22–03; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

International Trade Administration

North Carolina State University; Notice of Decision on Application for Duty-Free Entry of Scientific Instrument

This decision is made pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89–651, 80 Stat. 897; 15 CFR part 301). Related records can be viewed between 8:30 a.m. and 5 p.m. in Suite 4100W, U.S. Department of Commerce, Franklin Court Building, 1099 14th Street, NW., Washington, DC.

Docket Number: 03–015. *Applicant:* North Carolina State University,

Raleigh, NC 27695–7212. *Instrument:* Electron Beam Melting Machine, Model EBM S12. *Manufacturer:* Arcam AB, Sweden. *Intended Use:* See notice at 68 FR 16472, April 4, 2003.

Comments: None received. *Decision:* Approved. No instrument of equivalent scientific value to the foreign instrument, for such purposes as it is intended to be used, is being manufactured in the United States. *Reasons:* The foreign instrument provides: (1) Melting or sintering of powdered materials with an electromagnetically controlled energy source, (2) maintaining the heat of a part during construction sufficiently to avoid thermally induced stress concentrations in the part and (3) fabrication in a vacuum to minimize porosities and impurities. Sandia National Laboratories advised May 13, 2003 that (1) these capabilities are pertinent to the applicant's intended purpose and (2) it knows of no domestic instrument or apparatus of equivalent scientific value to the foreign instrument for the applicant's intended use.

We know of no other instrument or apparatus of equivalent scientific value to the foreign instrument which is being manufactured in the United States.

Gerald A. Zerdy,

Program Manager, Statutory Import Programs Staff.

[FR Doc. 03–13026 Filed 5–22–03; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Visiting Committee on Advanced Technology

AGENCY: National Institute of Standards and Technology; Department of Commerce.

ACTION: Notice of partially closed meeting.

SUMMARY: Pursuant to the Federal Advisory Committee Act, 5 U.S.C. app. 2, notice is hereby given that the Visiting Committee on Advanced Technology, National Institute of Standards and Technology (NIST), will meet Tuesday, June 10, 2003, from 8:25 a.m. to 5 p.m. and Wednesday, June 11, 2003, from 9 a.m. to Noon. The Visiting Committee on Advanced Technology is composed of fourteen members appointed by the Director of NIST; who are eminent in such fields as business, research, new product development, engineering, labor, education, management consulting, environment, and international relations. The purpose of this meeting is to review and make recommendations regarding general policy for the Institute, its organization, its budget, and its programs within the framework of applicable national policies as set forth by the President and the Congress. The agenda will include a NIST Update, Reaffirming NIST's Role as the Leader of the Nation's Measurement System, Working with NIH, NIST Role in Biometrology, Trustworthy Computing, Enterprise Integration, Intelligent Data Infrastructure and laboratory tours of Tissue Engineering and Single Molecule Measurement and Manipulation. Discussions scheduled to begin at 4:15 p.m. and to end at 5 p.m. on June 10, 2003, and to begin at 9 a.m. and to end at noon on June 11, 2003, on the NIST budget, planning information and feedback sessions will be closed. Agenda may change to accommodate Committee business. Final agenda will be posted on Web site. All visitors to the National Institute of Standards and Technology site will have to pre-register to be admitted. Please submit your name, time of arrival, e-mail address and phone number to Carolyn Peters no later than Thursday, June 5, 2003, and she will provide you with instructions for admittance. Mrs. Peter's e-mail address is *carolyn.peters@nist.gov* and her phone number is (301) 975–5607.

DATES: The meeting will convene June 10, 2003 at 8:25 a.m. and will adjourn at Noon on June 11, 2003.

ADDRESSES: The meeting will be held in the Employees Lounge, Administration Building, at NIST, Gaithersburg, Maryland. Please note admittance instructions under **SUMMARY** paragraph.

FOR FURTHER INFORMATION CONTACT: Carolyn J. Peters, Visiting Committee on Advanced Technology, National Institute of Standards and Technology, Gaithersburg, Maryland 20899–1004, telephone number (301) 975–5607.

SUPPLEMENTARY INFORMATION: The Assistant Secretary for Administration, with the concurrence of the General Counsel, formally determined on February 25, 2003, that portions of the meeting of the Visiting Committee on Advanced Technology which deal with discussion of sensitive budget and planning information that would cause harm to third parties if publicly shared be closed in accordance with section 10(d) of the Federal Advisory Committee Act, 5 U.S.C. app. 2.

Dated: May 16, 2003.

Arden L. Bement, Jr.,

Director.

[FR Doc. 03–12911 Filed 5–22–03; 8:45 am]

BILLING CODE 3510–13–P

CONSUMER PRODUCT SAFETY COMMISSION

Proposed Collection; Comment Request; Clothing Textiles, Vinyl Plastic Film

AGENCY: Consumer Product Safety Commission.

ACTION: Notice.

SUMMARY: As required by the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the Consumer Product Safety Commission requests comments on a proposed extension of approval of a collection of information from manufacturers and importers of clothing, and textiles and related materials intended for use in clothing. This collection of information is required in regulations implementing the Standard for the Flammability of Clothing Textiles (16 CFR part 1610) and the Standard for the Flammability of Vinyl Plastic Film (16 CFR part 1611). These regulations establish requirements for testing and recordkeeping for manufacturers and importers who furnish guaranties for products subject to the flammability standards for clothing textiles and vinyl plastic film. The Commission will consider all comments received in response to this notice before requesting an extension of approval of this collection of information from the Office of Management and Budget.

DATES: Written comments must be received by the Office of the Secretary not later than July 22, 2003.

ADDRESSES: Written comments should be captioned ''Clothing Textiles and Film, Collection of Information'' and mailed to the Office of the Secretary, Consumer Product Safety Commission, Washington, DC 20207, or delivered to that office, room 502, 4330 East-West Highway, Bethesda, Maryland, 20814. Written comments may also be sent to the Office of the Secretary by facsimile at (301) 504–0127 or by e-mail at *cpsc-os@cpsc.gov.*

FOR FURTHER INFORMATION CONTACT: For information about the proposed extension of the collection of information, or to obtain a copy of 16 CFR parts 1610 and 1611, call or write Linda L. Glatz, Office of Planning and Evaluation, Consumer Product Safety Commission, Washington, DC 20207;

telephone (301) 504–7671; e-mail *lglatz@cpsc.gov.*

SUPPLEMENTARY INFORMATION:

A. Background

Clothing and fabrics intended for use in clothing (except children's sleepwear in sizes 0 through 14) are subject to the Standard for the Flammability of Clothing Textiles (16 CFR part 1610). Clothing made from vinyl plastic film and vinyl plastic film intended for use in clothing (except children's sleepwear in sizes 0 through 14) are subject to the Standard for the Flammability of Vinyl Plastic Film (16 CFR part 1611). These standards prescribe a test to assure that articles of wearing apparel, and fabrics and film intended for use in wearing apparel, are not dangerously flammable because of rapid and intense burning. (Children's sleepwear and fabrics and related materials intended for use in children's sleepwear in sizes 0 through 14 are subject to other, more stringent flammability standards, codified at 16 CFR parts 1615 and 1616.) The flammability standards for clothing textiles and vinyl plastic film were made mandatory by the Flammable Fabrics Act of 1953 (FFA) (Pub. L. 83–88, 67 Stat. 111; June 30, 1953).

Section 8 of the FFA (15 U.S.C. 1197) provides that a person who receives a guaranty in good faith that a product complies with an applicable flammability standard is not subject to criminal prosecution for a violation of the FFA resulting from the sale of any product covered by the guaranty. Section 8 of the FFA requires that a guaranty must be based on ''reasonable and representative tests.'' The Commission estimates that about 1,000 manufacturers and importers of clothing, and of textiles and vinyl film intended for use in clothing, issue guaranties that the products they produce or import comply with the applicable standard.

B. Testing and Recordkeeping

Regulations implementing the flammability standards for clothing textiles and vinyl plastic film prescribe requirements for testing and recordkeeping by firms that issue guaranties. *See* 16 CFR part 1610, subpart B, and 16 CFR part 1611, subpart B.

The Commission uses the information compiled and maintained by firms that issue these guaranties to help protect the public from risks of injury or death associated with clothing and fabrics and vinyl film intended for use in clothing. More specifically, the information helps the Commission arrange corrective actions if any products covered by a guaranty fail to comply with the applicable standard in a manner that creates a substantial risk of injury or death to the public. The Commission also uses this information to determine whether the requisite testing was performed to support the guaranties.

The Office of Management and Budget (OMB) approved the collection of information in the enforcement regulations implementing the standards for clothing textiles and vinyl plastic film under control number 3041–0024. OMB's most recent extension of approval will expire on August 31, 2003. The Commission proposes to request an extension of approval without change for the collection of information in those regulations.

C. Estimated Burden

The Commission staff estimates that about 1,000 firms that manufacture or import products subject to the flammability standards for clothing textiles and vinyl plastic film issue guaranties that the products they produce or import comply with the applicable standard. The Commission staff estimates that these standards and implementing regulations will impose an average annual burden of about 101.6 hours on each of those firms. That burden will result from conducting the testing and maintaining records required by the implementing regulations. The total annual burden imposed by the standards and regulations on all manufacturers and importers of clothing textiles and vinyl plastic film will be about 101,600 hours.

The hourly wage for the testing and recordkeeping required by the standards and regulations is about $26.46, for an estimated annual cost to the industry of $2,688,336.

D. Request for Comments

The Commission solicits written comments from all interested persons about the proposed collection of information. The Commission specifically solicits information relevant to the following topics:

—Whether the collection of information described above is necessary for the proper performance of the Commission's functions, including whether the information would have practical utility;

—Whether the estimated burden of the proposed collection of information is accurate;

—Whether the quality, utility, and clarity of the information to be collected could be enhanced; and

—Whether the burden imposed by the collection of information could be minimized by use of automated, electronic or other technological collection techniques, or other forms of information technology.

Dated: May 16, 2003.

Todd A. Stevenson,

Secretary, Consumer Product Safety Commission.

[FR Doc. 03–12900 Filed 5–22–03; 8:45 am]

BILLING CODE 6355–01–P

CORPORATION FOR NATIONAL AND COMMUNITY SERVICE

Advisory Board Meeting

The Corporation for National and Community Service gives notice under Public Law 92–463 (Federal Advisory Committee Act), that it will hold a meeting of the Civilian Community Corps (CCC) Advisory Board. The Board advises the Director of the Civilian Community Corps (CCC) concerning the administration of the program and assists in the development and administration of the Corps.

Time and Date: Thursday, June 5, 2003, 9 a.m. to 4 p.m.

Place: The meeting will be held at the Corporation for National and Community Service, 1201 New York Avenue, NW., Lobby Level Conference Room, Washington, DC 20525.

Status: Open.

Matters to be Considered: At this meeting, the Board will discuss issues related to diversity recruitment, resource development, the 10th year anniversary of the NCCC, and overall program operations.

For Further Information Contact: Ms. Merlene Mazyck, 1201 New York Avenue NW., 9th Floor, Washington, DC 20525. Telephone (202) 606–5000, ext. 137 (T.D.D. (202) 565–2799).

Accommodations: Upon request, meeting notices will be made available in alternative formats to accommodate visual and hearing impairments. Anyone who needs an interpreter or other accommodation should notify the Corporation's contact person by 5 p.m. Monday, June 1, 2003.

Dated: May 19, 2003.

Thomas L. Bryant,

Associate General Counsel.

[FR Doc. 03–12899 Filed 5–22–03; 8:45 am]

BILLING CODE 6050–$$–P

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Intent To Prepare a Draft Environmental Impact Statement Titled: Mississippi River and Tributaries-Morganza, Louisiana to the Gulf of Mexico Hurricane Protection—Houma Navigation Canal Deepening General Re-Evaluation

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DoD.

ACTION: Notice of intent.

SUMMARY: The U.S. Army Corps of Engineers, New Orleans District, is initiating this study under the Energy and Water Development Appropriation Act of 1995 (Pub. L. 103–316) authorized the Morganza, Louisiana to the Gulf of Mexico feasibility study to determine the feasibility of deepening the navigation channel of the Houma Navigation Canal, LA from 15 feet to a maximum of 25 feet.

FOR FURTHER INFORMATION CONTACT: Questions concerning the Environmental Impact Statement (EIS) should be addressed to Mr. Nathan Dayan at U.S. Army Corps of Engineers, PM-RS, PO Box 60267, New Orleans, LA 70160–0267, by e-mail at *Nathan.S.Dayan@usace.army.mil*, phone (504) 862–2530, or fax number (504) 862–2572.

SUPPLEMENTARY INFORMATION: Deepening the channel in the Houma Navigation Canal will allow for growth in marine activity that the present depth does not allow. The trend in the offshore oil and gas industry is for exploration and production in very deep water. This has two important implications for the Houma Navigation Canal. Deepwater activity requires larger service vessels, as well as, a greater financial commitment for any given project. Therefore, firms that can build, service and maintain larger vessels at the lowest cost will win contracts that would otherwise go to overseas competitors. Deepening the channel will allow the deeper draft service boats to use the Houma Navigation Canal, not only as a base of operations, but also take advantage of the nearby construction and repair facilities located along the canal. Also, the strategic location of the canal allows for less costly trips to the deepwater tracts of the Gulf of Mexico.

1. *Proposed Action.* The proposed action would include the deepening of the existing Houma Navigation Canal, Louisiana project to depths up to 25 feet. The material dredged for the construction and maintenance of the channels would be used for wetlands restoration and construction, to the extent practicable. Economic and environmental analysis would be used to determine the most practical plan, which would provide for the greatest overall public benefit.

2. *Alternatives.* Alternatives recommended for consideration presently include the construction of a deeper channel in the Houma Navigation Canal. Various project depths for navigation channels would also be investigated.

3. *Scoping.* Scoping is the process for determining the scope of alternatives and significant issues to be addressed in the EIS. For this analysis, a letter will be sent to all parties believed to have an interest in the analysis, requesting their input on alternatives and issues to be evaluated. The letter will also notify interested parties of public scoping meetings that will be held in the local area. Notices will also be sent to local news media. All interested parties are invited to comment at this time, and anyone interested in this study should request to be included in the study mailing list.

A public scoping meeting will be held in the middle part of 2003. The meeting will be held in the vicinity of Houma, LA. Additional meetings could be held, depending upon interest and if it is determined that further public coordination is warranted.

4. *Significant Issues.* The tentative list of resources and issues to be evaluated in the EIS includes tidal wetlands (marshes and swamps), aquatic resources, commercial and recreational fisheries, wildlife resources, essential fish habitat, water quality, air quality, threatened and endangered species, recreation resources, and cultural resources. Socioeconomic items to be evaluated in the EIS include navigation, flood protection, business and industrial activity, employment, land use, property values, public/community facilities and services, tax revenues, population, community and regional growth, transportation, housing, community cohesion, and noise.

5. *Environmental Consultation and Review.* The U.S. Fish and Wildlife Service (USFWS) will be assisting in the documentation of existing conditions and assessment of effects of project alternatives through Fish and Wildlife Coordination Act consultation procedures. The USFWS will provide a Fish and Wildlife Coordination Act report. Consultation will be accomplished with the USFWS and the National Marine Fisheries Service (NMFS) concerning threatened and endangered species and their critical habitat. The NMFS will be consulted on the effects of this proposed action on Essential Fish Habitat. The draft EIS (DEIS) or a notice of its availability will be distributed to all interested agencies, organizations, and individuals.

6. *Estimated Date of Availability.* Funding levels will dictate the date when the DEIS is available. The earliest that the DEIS is expected to be available in the fall of 2004.

Dated: May 9, 2003.

Peter J. Rowan,

Colonel, U.S. Army, District Engineer.

[FR Doc. 03–13010 Filed 5–22–03; 8:45 am]

BILLING CODE 3710–84–P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Availability of Government-Owned Invention; Available for Licensing

AGENCY: Department of the Navy, DOD.

ACTION: Notice.

SUMMARY: The invention listed below is assigned to the United States Government as represented by the Secretary of the Navy and is available for licensing by the Department of the Navy.

U.S Patent Application Serial No.10/390,404 entitled ''A Port Security Barrier System''. Navy Case No.83,881. As well as Navy Case No. 84,694 entitled ''In Port Barrier System (IPBS).''

ADDRESSES: Requests for copies of the patent application cited should be directed to the Naval Research Laboratory, Code 3008.2, 4555 Overlook Ave, SW., Washington, DC 20375–5320, and must include the Navy Case number.

FOR FURTHER INFORMATION CONTACT: Dr. Richard H. Rein, Head, Technology Transfer Office, NRL, Code 1004, 4555 Overlook Ave, SW., Washington, DC 20375–5320, telephone (202) 767–7230.

(Authority: 35 U.S.C. 207, 37 CFR part 404.)

Dated: May 19, 2003.

E.F. McDonnell,

Major, U.S. Marine Corps, Federal Register Liaison Officer.

[FR Doc. 03–12956 Filed 5–22–03; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Intent To Grant Exclusive Patent License; Harbor Offshore, Inc.

AGENCY: Department of the Navy, DOD.

ACTION: Notice.

SUMMARY: The Department of the Navy hereby gives notice of its intent to grant to Harbor Offshore, Inc. a revocable, nonassignable, exclusive license in the United States, to Application Serial No. 10/390404 entitled ''A Port Security Barrier System''. As well as Navy Case No. 84694 entitled ''In Port Barrier System (IPBS).''

DATES: Anyone wishing to object to the granting of this license has (15) days from the date of this notice to file written objections along with supporting evidence, if any.

ADDRESSES: Written objections are to be filed with the Office of Naval Research, ONR 00CC, Ballston Tower One, 800 North Quincy St., Arlington, VA 22217–5660.

FOR FURTHER INFORMATION CONTACT: Mr. A. David Spevack, Supervisory Associate Counsel, Intellectual Property, Office of Naval Research, ONR 00CC, Ballston Tower One, 800 North Quincy St., Arlington, VA 22217–5660, telephone (703) 696–4007, E-Mail: *spevacd@onr.navy.mil* or fax (703) 696–6909.

(Authority: 35 U.S.C. 207, 37 CFR Part 404.)

Dated: May 19, 2003.

E.F. McDonnell,

Major, U.S. Marine Corps, Federal Register Liaison Officer.

[FR Doc. 03–12957 Filed 5–22–03; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF EDUCATION

[CFDA No. 84.304A]

Office of Safe and Drug-Free Schools—Cooperative Civic Education and Economic Education Exchange Program; Notice Inviting Applications for New Awards for Fiscal Year (FY) 2003

Purpose of Program: The Cooperative Civic Education and Economic Education Exchange Program provides grants to improve the quality of civic education through cooperative civic education exchange programs with emerging democracies.

For FY 2003 the competition for new awards focuses on statutory requirements we describe in the Statutory Requirements section of this notice.

Eligible Applicants: Organizations in the United States experienced in the development of curricula and programs in civics and government education and economic education for students in elementary schools and secondary schools in countries other than the United States, to carry out civic education activities.

Applications Available: May 23, 2003.

Deadline for Transmittal of Applications: July 7, 2003.

Deadline for Intergovernmental Review: 60 days from transmittal deadline.

Estimated Available Funds: $2,007,618.

Estimated Range of Awards: $2,007,618

Estimated Average Size of Awards: $2,007,618.

Maximum Award: We will reject any application that proposes a budget exceeding $2,007,618 for a single budget period of up to 24 months.

Estimated Number of Awards: 1.

Note: The Department is not bound by any estimates in this notice.

Project Period: Up to 24 months.

Applicable Regulations and Statute: (a) The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 75, 77, 79, 80, 81, 82, 85, 86 (only as it applies to institutions of higher education), 97, 98, and 99. (b) *Education for Democracy Act,* sections 2341–2346 of the Elementary and Secondary Education Act as amended, 20 U.S.C. 6711–6716.

Statutory Requirements: We will award grants to eligible applicants to—

(1) Provide to the participants from eligible countries—

(A) Seminars on the basic principles of United States constitutional democracy, including seminars on the major governmental institutions and systems in the United States, and visits to such institutions;

(B) Visits to school systems, institutions of higher education, and nonprofit organizations conducting exemplary programs in civics and government education in the United States;

(C) Translations and adaptations with respect to United States civics and government education curricular programs for students and teachers, and in the case of training programs for teachers, translations and adaptations into forms useful in school in eligible countries, and joint research projects in such areas; and

(D) Independent research and evaluation assistance to determine the effects of the cooperative education exchange programs on students' development of the knowledge, skills, and traits of character essential for the preservation and improvement of constitutional democracy.

(2) Provide to the participants from the United States—

(A) Seminars on the histories and systems of government of eligible countries;

(B) Visits to school systems, institutions of higher education, and organizations conducting exemplary programs in civics and government education located in eligible countries;

(C) Assistance from educators and scholars in eligible countries in the development of curricular materials on the histories and governments of such countries that are useful in United States classrooms;

(D) Opportunities to provide onsite demonstrations of United States curricula and pedagogy for educational leaders in eligible countries; and

(E) Independent research and evaluation assistance to determine the effects of the Cooperative Education Exchange Program assisted under this section on students' development of the knowledge, skills, and traits of character essential for the preservation and improvement of constitutional democracy.

(3) Assist participants from eligible countries and the United States to participate in international conferences on civics and government education for educational leaders, teacher trainers, scholars in related disciplines, and educational policymakers.

Primary Participants

The primary participants in the Cooperative Education Exchange Program assisted under this section shall be leaders in the areas of civics and government education, including teachers, curriculum and teacher training specialists, scholars in relevant disciplines, educational policymakers, and government and private sector leaders from the United States and eligible countries.

Definition: For the purpose of this competition, the term *eligible country* means a Central European country, an Eastern European country, Lithuania, Latvia, Estonia, the independent states of the former Soviet Union as defined in section 3 of the FREEDOM Support Act (22 U.S.C. 5801), the Republic of Ireland, the province of Northern Ireland in the United Kingdom, and any developing country (as such term is defined in section 209(d) of the Education for the Deaf Act) if the Secretary, with concurrence of the Secretary of State, determines that such developing country has a democratic form of government. A list of countries is included in the application package.

Election Criteria

We use the following criteria to evaluate applications for new grant

awards under this competition. The maximum score for all of these criteria is 100 points. The maximum score of each criterion or factor under the criterion is indicated in parentheses.

(1) *Significance.* (15 points)

In determining the significance of the proposed project, the following factors are considered:

(a) The national significance of the proposed project.

(b) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues or effective strategies.

(c) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

(d) The importance or magnitude of the results or outcomes likely to be attained by the proposed project especially improvements in teaching and student achievement.

(2) *Quality of the project design.* (25 points)

In determining the quality of the design of the proposed project, the following factors are considered:

(a) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

(b) The extent to which the design of the proposed project includes a thorough, high-quality review of the relevant literature, a high-quality plan for project implementation, and the use of appropriate methodological tools to ensure successful achievement of project activities.

(c) The extent to which the proposed project represents an exceptional approach for meeting statutory purposes and requirements.

(3) *Quality of project services.* (30 points)

In determining the quality of the services to be provided by the proposed project, the quality and sufficiency of strategies for ensuring equal access and treated for eligible project participants who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability is considered. In addition, the following factors are considered:

(a) The extent to which the services to be provided by the proposed project are appropriate to the needs of the intended recipients or beneficiaries of those services.

(b) The extent to which the services to be provided by the proposed project reflect up-to-date knowledge from research and effective practice.

(c) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.

(d) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.

(4) *Quality of project personnel.* (15 points)

In determining the quality of project personnel, the following factors are considered:

(a) The extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability.

(b) The qualifications, including relevant training and experience, of the project director or principal investigator.

(c) The qualifications, including relevant training and experience, of key project personnel.

(d) The qualifications, including relevant training and experience, of project consultants or subcontractors.

(5) *Adequacy of resources.* (5 points)

In determining the adequacy of resources for the proposed project, the following factors are considered:

(a) The adequacy of support, including facilities, equipment, supplies, and other resources, from the applicant organization.

(b) The extent to which the budget is adequate to support the proposed project.

(6) *Quality of the project evaluation.* (10 points)

In determining the quality of the evaluation, the following factors are considered:

(a) The extent to which the methods of evaluation, are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

(b) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

For Applications and Further Information Contact: Rita Foy Moss, U.S. Department of Education, 555 New Jersey Avenue, NW., Room 513c, Washington, DC 20208–5573.Telephone: (202) 219–2027 or via Inernet *rita.foy@ed.gov.*

If you use a telecommunications device for the deaf (TTD), you may call 1–877–576–7734.

Individuals with disabilities may obtain this document or an application package in an alternative format (*e.g.,* Braille, large print, audiotape, or computer diskette) on request to the program contact person listed at the beginning of this section. However, the Department is not able to reproduce in an alternative format the standard forms included in the application package.

Pilot Project for Electronic Submission of Applications

In FY 2003, the U.S. Department of Education is continuing to expand its pilot project of electronic submission of applications to include additional formula grant programs, as well as discretionary grant competitions. The Cooperative Civic Education and Economic Education Exchange Program is one of the programs included in the pilot project. If you are an applicant under this grant competition, you may submit your application to us in either electronic or paper format.

The pilot project involves the use of the Electronic Grant Application System (e-APPLICATION, formerly e-GAPS) portion of the Grant Administration and Payment System (GAPS). We invite your participation in this pilot project. We will continue to evaluate its success and solicit suggestions for improvement.

If you participate in this e-APPLICATION pilot, please note the following:

- Your participation is voluntary.
- You will not receive any additional point value or penalty because you submit a grant application in electronic or paper format.
- You can submit all documents electronically, including the Application for Federal Assistance (ED Form 424), Budget Information—Non-Construction Programs, (ED Form 524), and all necessary assurances and certifications.
- Within three working days of submitting your electronic application, fax a signed copy of the Application for Federal Assistance (ED Form 424) to the Application Control Center following these steps:

1. Printed ED Form 424 from the e-APPLICATION system.

2. Make sure that the applicant's Authorizing Representative signs this form.

3. Before faxing this form, submit your electronic application via the e-APPLICATION system. You will receive automatic acknowledgement, which will include a PR/Award number an identifying number unique to your application).

4. Place the PR/Award number in the upper right corner of ED Form 424.

5. Fax ED Form 424 to the Application Control Center within three business days of submitting your electronic application at (202) 260–1349.

6. We may request that you give us original signatures on all other forms at a later date.

7. *Closing Date Extension in the Case of System Unavailability:* If you elect to participate in the e-Application pilot for the Cooperative Civic Education and Economic Education Exchange Program and you are prevented from submitting your application on the closing date because the e-Application system is unavailable, we will grant you an extension of one business day in order to transmit your application via e-Application, by mail, or by hand delivery. For use to grant this extension:

(1) You must be a registered user of e-Applications, and have initiated an e-Application for this competition; and

(2)(a) The e-Application system must be unavailable for 60 minutes or more between the hours of 8:30 a.m. and 3:30 p.m. (ET), on the deadline date; or

(b) The e-Application system must be unavailable for any period of time during the last hour of operation (that is, for any period of time between 3:30 p.m. and 4:30 p.m. (ET)) on the deadline date. The Department must acknowledge and confirm the period of unavailability before granting you an extension. To request this extension you must contact Rita Foy Moss by e-mail at *Rita.Foy@ed.gov* or by telephone at (202) 219–2077 or the e-Grants help desk at (888) 336–8930.

You may access the electronic grant application for the Cooperative Civic Education and Economic Education Exchange Program at: *http:/e-grants.ed.gov.*

We have included additional information on the e-Application pilot project (see Parity Guidelines between Paper and Electronic Applications) in the application package.

If you want to apply for a grant and be considered for funding, you must meet the deadline requirements included in this notice.

Electronic Access to This Document

You may view this document, as well as all other Department of Education documents published in the **Federal Register**, in text or Adobe Portable Document Format (PDF) on the Internet at the following site: *http://www.ed.gov/legislation/FedRegister.*

To use PDF, you must have Adobe Acrobat Reader, which is available free at this site. If you have questions about using PDF, call the U.S. Government Printing Office (GPO), toll free, at 1–888–293–6498; or in the Washington, DC, area at (202) 512–1530.

Note: The official version of this document is the document published in the **Federal Register**. Free Internet access to the official edition of the **Federal Register** and the Code of Federal Regulations is available on GPO Access at: *http://www.access.gpo.gov/nara/index.html.*

Program Authority: 20 U.S.C. 6711–6716.

Dated: May 19, 2003.

Judge Eric Andell,

Deputy Under Secretary, Office of Safe and Drug-Free Schools.

[FR Doc. 03–13035 Filed 5–22–03; 8:45 am]

BILLING CODE 4000–01–M

DEPARTMENT OF ENERGY

Floodplain/Wetlands Statement of Findings for Interim Action at the Moab Project Site

AGENCY: Department of Energy.

ACTION: Notice of statement of findings.

SUMMARY: The U.S. Department of Energy (DOE) hereby provides this Statement of Findings as required by 10 CFR part 1022 of the effects of interim action on the 100-year and 500-year floodplain of the Colorado River at the Moab Project Site near Moab, Utah. The purposes of the interim action described in this statement are to protect human health, address environmental concerns and regulatory issues, while long-term solutions to site contamination are being evaluated. An Environmental Impact Statement (EIS) is being prepared to evaluate alternatives for site remediation.

The interim action involving the floodplain at the Moab site, scheduled for 2003, involves the installation of extraction and monitor wells and a pipeline to pump contaminated ground water from the alluvial aquifer to an evaporation pond. Contaminant concentrations in the ground water underlying the floodplain exceed maximum concentration limits established in 40 CFR 192, ''Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.''

A floodplain/wetlands assessment has been prepared to analyze the potential environmental effects of these actions and to evaluate alternatives. The floodplain/wetlands assessment is available to the public on the project web page at *http://www.gjo.doe.gov/moab/project-docs.html.* DOE will allow 15 days of public review after publication of this Statement of Findings before implementing the proposed action.

FOR FURTHER INFORMATION CONTACT: Joel D. Berwick, Moab Project Manager, U.S. Department of Energy Grand Junction Office, 2597 B 3/4 Road, Grand Junction, Colorado, 81503, (970) 248–6020, e-mail *Joel.Berwick@gjo.doe.gov;* fax (970) 248–6040.

For further information on general DOE floodplain/wetlands environmental review requirements, contact: Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance (EH–42), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586–4600 or (800) 472–2756.

SUPPLEMENTARY INFORMATION: A Notice of Intent to conduct an EIS that included a Floodplain and Wetlands Notice was published in the **Federal Register** on December 20, 2002, in accordance with 10 CFR part 1022.

The interim remedial action includes intercepting contaminated ground water before it reaches the Colorado River. Ground water extraction wells would be installed adjacent to the Colorado River near existing access roads to optimize the interception of contaminated ground water discharging into the river near critical fish habitat. Ground water would be pumped at the rate of approximately 3 to 5 gallons per minute per well and conveyed via pipeline to a lined evaporation pond. The evaporation pond will cover up to 8 acres and will be located outside of the 100-year floodplain, on top of the tailings pile. There is a potential for up to 2 acres of surface disturbance in the 100-year floodplain, including some clearing of tamarisk, for the installation of the extraction wells and pipeline. In accordance with 10 CFR part 1022.14, a map of the proposed interim remedial action can be found in the floodplain/wetlands assessment at *http://www.gjo.doe.gov/moab/project-docs.html.*

The ground water extraction system would operate continuously until a final decision is made for remedial action at the Moab Project Site. This interim action is not intended as a long-term activity. Ground water sampling will be conducted throughout the process to assess effectiveness of the system.

Alternatives evaluated for the evaporation system included up to 13 alternatives including different pond locations with sizes ranging from 3 to 10 acres, and evaporation systems including solar evaporation, spray evaporation, and apron evaporation. There is no practical alternative to locating the extraction wells and pipeline within the floodplain.

All activities will be coordinated with the appropriate federal and state

agencies, including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the Utah Division of Water Resources. Additionally, activities will conform to local floodplain requirements.

Findings: The Floodplain and Wetlands Assessment concluded that these activities would have no significant effects on the 100-year or 500-year floodplains and associated wetlands of the Colorado River and Moab Wash. Risks to human health, property, and the environment will not be increased as a result of these actions. DOE will allow 15 days after publication of this Statement of Findings before implementing these proposed actions.

Signed in Grand Junction, Colorado, this 14th day of May, 2003.

Donna Bergman-Tabbert,

Manager, DOE—Grand Junction Office.

[FR Doc. 03–13007 Filed 5–22–03; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

International Energy Agency Meeting

AGENCY: Department of Energy.

ACTION: Notice of meeting.

SUMMARY: The Industry Advisory Board to the International Energy Agency (IEA) will meet on June 2, 2003, at the headquarters of the IEA in Paris, France.

FOR FURTHER INFORMATION CONTACT: Samuel M. Bradley, Assistant General Counsel for International and National Security Programs, Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, 202–586–6738.

SUPPLEMENTARY INFORMATION: In accordance with section 252(c)(1)(A)(i) of the Energy Policy and Conservation Act (42 U.S.C. 6272(c)(1)(A)(i)) (EPCA), the following notice of meeting is provided:

A meeting of the Industry Advisory Board (IAB) to the International Energy Agency (IEA) will be held at the headquarters of the IEA, 9, rue de la Fédération, Paris, France, on June 2, 2003, beginning at 2:30 p.m. The purpose of this notice is to permit attendance by representatives of U.S. company members of the IAB at the meeting.

The agenda for the meeting is a discussion of the results of the IEA's study on minimum operating stocks. The meeting is intended to allow for industry input to be incorporated into the IEA's study before its distribution and discussion in the June 17, 2003, meeting of the IEA's Standing Group on Emergency Questions (SEQ). The agenda of the SEQ meeting is under the control of the IEA.

As provided in section 252(c)(1)(A)(ii) of the Energy Policy and Conservation Act (42 U.S.C. 6272(c)(1)(A)(ii)), this meeting is open only to representatives of members of the IAB and their counsel; representatives of members of the SEQ; representatives of the Departments of Energy, Justice, and State, the Federal Trade Commission, the General Accounting Office, Committees of Congress, the IEA, and the European Commission; and invitees of the IAB, the SEQ, or the IEA.

Issued in Washington, DC, May 19, 2003.

Robert Newton,

Acting Assistant General Counsel for International and National Security Programs.

[FR Doc. 03–13008 Filed 5–22–03; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Energy Information Administration

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: Energy Information Administration (EIA), Department of Energy (DOE).

ACTION: Agency information collection activities: proposed collection; comment request.

SUMMARY: The EIA is soliciting comments on the proposed revisions and three-year extension to the following Petroleum Supply Forms:

EIA–800, ''Weekly Refinery Report,''
EIA–801, ''Weekly Bulk Terminal Report,''
EIA–802, ''Weekly Product Pipeline Report,''
EIA–803, ''Weekly Crude Oil Stocks Report,''
EIA–804, ''Weekly Imports Report,''
EIA–810, ''Monthly Refinery Report,''
EIA–811, ''Monthly Bulk Terminal Report,''
EIA–812, ''Monthly Product Pipeline Report,''
EIA–813, ''Monthly Crude Oil Report,''
EIA–814, ''Monthly Imports Report,''
EIA–816, ''Monthly Natural Gas Liquids Report,''
EIA–817, ''Monthly Tanker and Barge Movement Report,''
EIA–819M, ''Monthly Oxygenate Telephone Report,'' and
EIA–820, ''Annual Refinery Report.''

DATES: Comments must be filed by July 22, 2003. If you anticipate difficulty in submitting comments within that period, contact the person listed below as soon as possible.

ADDRESSES: Send comments to Stefanie Palumbo, Petroleum Division. To ensure receipt of the comments by the due date, submission by FAX (202–586–5846) or e-mail (*stefanie.palumbo@eia.doe.gov*) is recommended. The mailing address is Petroleum Division, EI–42, Forrestal Building, U.S. Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585. Alternatively, Stefanie Palumbo may be contacted by telephone at (202) 586–6866.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of any forms and instructions should be directed to Stefanie Palumbo at the address listed above. The proposed forms and changes in definitions and instructions are also available on the Internet at *http://www.eia.doe.gov/oil_gas/petroleum/survey_forms/pet_proposed_forms.html.*

SUPPLEMENTARY INFORMATION:

I. Background
II. Current Actions
III. Request for Comments

I. Background

The Federal Energy Administration Act of 1974 (Pub. L. 93–275, 15 U.S.C. 761 *et seq.*) and the DOE Organization Act (Pub. L. 95–91, 42 U.S.C. 7101 *et seq.*) require the EIA to carry out a centralized, comprehensive, and unified energy information program. This program collects, evaluates, assembles, analyzes, and disseminates information on energy resource reserves, production, demand, technology, and related economic and statistical information. This information is used to assess the adequacy of energy resources to meet near and longer term domestic demands.

The EIA, as part of its effort to comply with the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. chapter 35), provides the general public and other Federal agencies with opportunities to comment on collections of energy information conducted by or in conjunction with the EIA. Any comments received help the EIA to prepare data requests that maximize the utility of the information collected, and to assess the impact of collection requirements on the public. Also, the EIA will later seek approval by the Office of Management and Budget (OMB) under Section 3507(a) of the Paperwork Reduction Act of 1995.

The weekly petroleum supply surveys (Forms EIA–800, EIA–801, EIA–802, EIA–803, and EIA–804) are designed to highlight information on petroleum refinery operations, inventory levels,

and imports of selected petroleum products in a more timely manner. The information appears in the publications listed below and is also available electronically through the Internet at *http://www.eia.doe.gov/.*

Publications: Internet only publications are the *Weekly Petroleum Status Report, Petroleum Supply Monthly, Short-Term Energy Outlook,* and *This Week in Petroleum.* Hardcopy and internet publications are the *Monthly Energy Review* (DOE/EIA–0035) and the *Annual Energy Outlook* (DOE/EIA–0383).

The monthly petroleum supply surveys (Forms EIA–810, EIA–811, EIA–812, EIA–813, EIA–814, EIA–816, EIA–817 and EIA–819M) are designed to provide statistically reliable and comprehensive information not available from other sources to EIA, other Federal agencies, and the private sector for use in forecasting, policy making, planning, and analysis activities. The information appears in the publications listed below and is also available electronically through the Internet at *http://www.eia.doe.gov/.*

Publications: Internet only publications are the *Weekly Petroleum Status Report, Petroleum Supply Monthly,* and *Short-Term Energy Outlook.* Hardcopy and internet publications are the *Petroleum Supply Annual* (DOE/EIA–0340), the *Monthly Energy Review* (DOE/EIA–0035), the *Annual Energy Review* (DOE/EIA–0384), and the *Annual Energy Outlook* (DOE/EIA–0383).

The annual petroleum supply survey (Form EIA–820) provides data on the operations of all operating and idle petroleum refineries (including new refineries under construction), blending plants, refineries shutdown with useable storage capacity, and refineries shutdown during the previous year. The information appears in the *Petroleum Supply Annual* (DOE/EIA–0340) and is also available electronically through the Internet at *http://www.eia.doe.gov/.*

II. Current Actions

The EIA will request a 3-year extension of the collection approval for each of the above-referenced surveys. The Form EIA–807, ''Propane Telephone Report,'' will be eliminated. Additionally, as a means of improving its petroleum supply surveys to reflect the changing regulations and industry, the EIA proposes the following changes for the 2004 collection period.

Items Eliminated on All Surveys

• Naphtha jet fuel (will be reported in the miscellaneous products category).

• Oxygenated gasoline category.

Modifications to the Form EIA–819, ''Monthly Oxygenate Report''

• Change the number of the Form EIA–819M to Form EIA–819.

• Change filing and publication dates for monthly oxygenate data to match petroleum supply surveys.

—Change filing date from 7 working days after the end of each report month to 20 calendar days after the end of each report month.

—Change the publication date from 15 working days after the end of each report month to approximately 52 days after the end of each report month.

• Eliminate reporting by bulk terminals and pipeline operators (will be collected on EIA–811 and EIA–812).

• Eliminate reporting of stocks by captive Methyl Tertiary Butyl Ether (MTBE) plants (will be collected on Form EIA–810).

• Collect motor gasoline blending component production as follows:

—Alkylate
—Isooctane
—Isobutylene
—Other

• Collect MTBE merchant and captive plant production. ''All other oxygenates'' production and stocks will now include tertiary amyl methyl ether (TAME) and tertiary butyl alcohol (TBA). TAME and TBA will be eliminated as separate categories.

• Eliminate methanol.

Modifications to the Form EIA–820, ''Annual Refinery Report''

• Change ''other finished'' to ''conventional'' storage capacity.

• Add storage capacity for ''other oxygenates.''

• Add new categories for catalytic hydrocracking capacity by type of feed:

—Distillate
—Gas Oil
—Residual

• Change capacity name from ''Catalytic Hydrotreating'' to ''Desulfurization'' and add categories:

—Gasoline
—Kerosene and Jet
—Diesel Fuel
—Other Distillate
—Residual
—Other

• Modify product detail for distillate storage capacity:

—15 parts per million (ppm) and under
—Greater than 15 ppm to 500 ppm, inclusive
—Greater than 500 ppm

Unfinished Oils

• Open up the ''inputs'' and ''production'' columns on the EIA–810, ''Monthly Refinery Report'' for the four splits of unfinished oils.

Propane/Propylene

• Eliminate the Form EIA–807, ''Propane Telephone Survey.''

• Add propane/propylene to the weekly surveys (EIA–800, 801, 802, and 804).

• Add non-fuel propylene to the weekly bulk terminal survey (EIA–801).

• Add non-fuel propylene, ethylene, and refinery grade butane as sub-elements on the EIA–811.

Motor Gasoline

• Add new surveys EIA–805, ''Weekly Terminal Blenders Report'' and EIA–815, ''Monthly Terminal Blenders Report,'' to collect motor gasoline and motor gasoline blending components inputs and production for weekly and monthly terminal blending.

—Collect total of oxygenates, natural gas plant liquids, and liquefied refinery gases inputs on the EIA–805

—Collect other hydrocarbon, hydrogen, and oxygenate inputs on the EIA–815 as follows:

1. Other hydrocarbons and hydrogen
2. Fuel Ethanol (FE),
3. Ethyl Tertiary Butyl Ether (ETBE),
4. Methyl Tertiary Butyl Ether (MTBE), and
5. All other oxygenates.

—Collect products of natural gas processing (inputs) on the EIA–815 as follows:

1. Normal butane,
2. Isobutane, and
3. Pentanes plus.

• Add the following new categories for motor gasoline on Forms EIA–800, 801, 802, 804, 805, 810, 811, 812, 814, 815, and 817:

—Finished Motor Gasoline

1. Reformulated (blended with ether)
2. Reformulated (blended with alcohol)
3. Reformulated (non-oxygenated)
4. Conventional (blended with alcohol)
5. Conventional (other).

—Motor Gasoline Blending Components:

1. Reformulated Blendstock for Oxygenate Blending (RBOB) for blending with ether
2. Reformulated Blendstock for Oxygenate Blending (RBOB) for blending with alcohol
3. Conventional Blendstock for Oxygenate Blending (CBOB)
4. Gasoline Treated as Blendstock (GTAB)

i. Reformulated
ii. Conventional
iii. All other motor gasoline blending

components.

Distillate Fuel Oil

• Add the following new categories for distillate fuel oil on Forms EIA–800, 801, 802, 810, 811, 812, 817, and 820:

—Distillate Fuel Oil—Total
1. 15 ppm sulfur and under
2. Greater than 15 ppm to 500 ppm sulfur, inclusive
3. Greater than 500 ppm sulfur.

• Collect imports (EIA–814) by specific sulfur level.

• For the weekly imports (EIA–804), collect the following categories:

—15 ppm sulfur and under
—Greater than 15 ppm to 500 ppm sulfur, inclusive
—Greater than 500 to 2000 ppm, inclusive
—Greater than 2000 ppm.

• Collect volumes of ultra-low sulfur distillate fuel oil (15 ppm and under) downgraded at bulk terminals and pipelines on Forms EIA–801, 802, 811, and 812.

There are no proposed changes to the Form EIA–803 (Weekly Crude Oil Stocks Report) or the Form EIA–813 (Monthly Crude Oil Report).

III. Request for Comments

Prospective respondents and other interested parties should comment on the actions discussed in item II. The following guidelines are provided to assist in the preparation of comments. Please indicate to which form(s) your comments apply.

General Issues

A. Is the proposed collection of information necessary for the proper performance of the functions of the agency and does the information have practical utility? Practical utility is defined as the actual usefulness of information to or for an agency, taking into account its accuracy, adequacy, reliability, timeliness, and the agency's ability to process the information it collects.

B. What enhancements can be made to the quality, utility, and clarity of the information to be collected?

As a Potential Respondent to the Request for Information

A. What actions could be taken to help ensure and maximize the quality, objectivity, utility, and integrity of the information to be collected?

B. Are the instructions and definitions clear and sufficient? If not, which instructions need clarification?

C. Can the information be submitted by the due date?

D. Public reporting burdens for the forms are estimated to average:

Estimated Hours Per Response in 2004 With Changes (Current 2003 Hours Per Response)

EIA–800, ''Weekly Refinery and Fractionator Report,''—1.58 hours (1.12 hours)
EIA–801, ''Weekly Bulk Terminal Report,''—0.95 hours (0.72 hours)
EIA–802, ''Weekly Product Pipeline Report,''—0.95 hours (0.69 hours)
EIA–803, ''Weekly Crude Oil Stocks Report,''—0.50 hours (0.45 hours)
EIA–804, ''Weekly Imports Report,''—1.58 hours (1.22 hours)
EIA–805, ''Weekly Terminal Blenders Report,''—0.58 hours (new form)
EIA–810, ''Monthly Refinery Report,''—4.74 hours (3.31 hours)
EIA–811, ''Monthly Bulk Terminal Report,''—2.21 hours (1.70 hours)
EIA–812, ''Monthly Product Pipeline Report,''—2.85 hours (2.09 hours)
EIA–813, ''Monthly Crude Oil Report,''—1.50 hours (1.37 hours)
EIA–814, ''Monthly Imports Report,''—2.53 hours (1.93 hours)
EIA–815, ''Monthly Terminal Blenders Report,''—1.15 hours (new form)
EIA–816, ''Monthly Natural Gas Liquids Report,''—0.95 hours (0.78 hours)
EIA–817, ''Monthly Tanker and Barge Movement Report,''—2.21 hours (1.62 hours)
EIA–819, ''Monthly Oxygenate Telephone Report,''—0.63 hours (0.50 hours)
EIA–820, ''Annual Refinery Report''—2.30 hours (2.00 hours)

The estimated burdens include the total time necessary to provide the requested information. In your opinion, how accurate are the estimates?

The agency estimates that the only cost to a respondent is for the time it will take to complete the collection. Will a respondent incur any start-up costs for reporting, or any recurring annual costs for operation, maintenance, and purchase of services associated with the information collection?

E. What additional actions could be taken to minimize the burden of this collection of information? Such actions may involve the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

F. Does any other Federal, State, or local agency collect similar information? If so, specify the agency, the data element(s), and the methods of collection.

As a Potential User of the Information To Be Collected

A. What actions could be taken to help ensure and maximize the quality, objectivity, utility, and integrity of the information disseminated?

B. Is the information useful at the levels of detail to be collected?

C. For what purpose(s) would the information be used? Be specific.

D. Are there alternate sources for the information and are they useful? If so, what are their weaknesses and/or strengths?

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of the form. They also will become a matter of public record.

Statutory Authority: Section 3507(h)(1) of the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. chapter 35).

Issued in Washington, DC, May 16, 2003.

Jay H. Casselberry,

Agency Clearance Officer, Statistics and Methods Group, Energy Information Administration.

[FR Doc. 03–12871 Filed 5–22–03; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP03–476–000]

Alliance Pipeline L.P.; Notice of Proposed Change in FERC Gas Tariff

May 19, 2003.

Take notice that on May 13, 2003, Alliance Pipeline L.P. (Alliance) tendered for filing, as part of Alliance's FERC Gas Tariff, Original Volume No. 1, First Revised Sheet No. 308; and First Revised Sheet No. 309, proposed to be effective June 1, 2003.

Alliance states that the listed tariff sheets make certain minor, ministerial changes in the form of Assignment and Novation Agreement set forth in Alliance's tariff.

Alliance states that copies of its filing have been mailed to all customers, state commissions, and other interested parties.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with sections 385.214 or 385.211 of the Commission's Rules and Regulations. All such motions or protests must be filed in accordance with section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. This

filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Comment Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12952 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EL03–123–000]

Richard Blumenthal, Attorney General of the State of Connecticut and The Connecticut Department of Public Utility Control v. NRG Power Marketing, Inc.; Order Requiring Compliance With Contract

Issued May 16, 2003.

Before Commissioners: Pat Wood, III, Chairman; William L. Massey, and Nora Mead Brownell.

1. This order addresses the Complaint and Emergency Request for Order Staying Contested Termination of Wholesale Power Contract filed by Richard Blumenthal, Attorney General for the State of Connecticut (CTAG) and the Connecticut Department of Public Utility Control (CDPUC). The Federal Energy Regulatory Commission (Commission) directs the seller under this contract to continue to provide service to Connecticut Light and Power Company (CL&P) pursuant to the rates, terms and conditions under the contract until the Commission has an adequate opportunity to evaluate its proposed termination of the contract and the opposition to such action.

Background

2. Under Connecticut retail choice law and CDPUC rules, CL&P was required to divest its generation and competitively procure wholesale power supply to serve the Standard Offer Service [1] (SOS) load. On October 29, 1999, CL&P and NRG Power Marketing, Inc. (NRG–PMI) entered into a Standard Offer Service Wholesale Sales Agreement (SOS Agreement). The SOS Agreement requires NRG–PMI to provide power supply for a specified percentage of CL&P's SOS load during the term of the contract.[2] The SOS Agreement is for a four-year term that ends on December 31, 2003. The price set forth in the SOS Agreement is the same price that NRG–PMI voluntarily bid in the competitive procurement process. CL&P states that because NRG–PMI did not own generation assets, then-applicable Commission rules did not require NRG–PMI to make a section 205 filing for the SOS Agreement.[3] NRG–PMI was instead required to reflect its wholesale sales to CL&P in its quarterly marketing reports to the Commission.

3. CL&P asserts that NRG–PMI paid CL&P the congestion costs imposed by New England Power Pool for the first two months of the SOS Agreement but subsequently claimed that it was not responsible for such charges under the contract. CL&P filed a breach of contract complaint against NRG–PMI in Connecticut Superior Court seeking recovery for unpaid congestion charges from NRG–PMI as well as a declaration that NRG–PMI would be responsible for future congestion charges. The case was removed to and is pending before the U.S. District Court for the District of Connecticut, Civil Action No. 01–CV2373. In August 2002, CL&P, pursuant to Section 5.4 of the SOS Agreement, began to withhold the contested amounts until the dispute was resolved.

4. On August 13, 2002, NRG–PMI informed CL&P that its failure to pay constituted a default under the SOS Agreement. On May 1, 2003, the CDPUC issued an order stating that it believed that strong arguments existed that NRG–PMI and other SOS sellers were responsible for all congestion costs and losses under the Standard Market Design market rules.[4]

5. On May 14, 2003, NRG–PMI notified CL&P that it considered CL&P in default of the SOS Agreement because (1) CL&P continued to withhold payments due for congestion costs beginning in August 2002; and (2) CL&P decided to withhold congestion costs and losses after the implementation of Standard Market Design. NRG–PMI stated that, pursuant to section 5.5 of the SOS Agreement, it intended to terminate service at midnight five days after the receipt of the letter unless CL&P cured the defaults. On the same date, NRG–PMI filed for bankruptcy court protection under Chapter 11 of the U.S. Bankruptcy Code.

Instant Pleading

6. On May 15, 2003, CTAG and CDPUC submitted a filing asking the Commission to issue an order staying the termination of the contract entered into by CL&P and NRG–PMI. CL&P claims that NRG–PMI is obligated to provide the power supply for 45 percent of CL&P's retail electrical load at the fixed prices under the SOS Agreement. CL&P argues that NRG–PMI may not terminate the SOS Agreement before the end of the contract term absent the CL&P's consent without first filing a notice with the Commission, pursuant to 18 CFR § 35.15 (2003). CL&P also argues that NRG–PMI is responsible for the congestion costs and losses and that NRG–PMI has failed to comply with the dispute resolution provision under section 16 of the SOS Agreement. CL&P further argues the Commission should exercise its jurisdiction under FPA section 205 to protect the public from exorbitant wholesale power rates and from contracts and practices that are unjust and unreasonable. CL&P contends that the Commission has jurisdiction over this matter notwithstanding NRG–PMI's filing for bankruptcy protection.

7. CTAG and CDPUC ask the Commission to issue an order prior to May 20, 2003 taking jurisdiction over NRG–PMI's termination of service under the SOS Agreement. They request that the Commission state that NRG–PMI may not unilaterally terminate its wholesale contract before December 31, 2003 without prior Commission review. CTAG and CDPUC also ask the Commission to initiate a proceeding under FPA sections 205 and 206 to determine: (a) Whether NRG–PMI has the contractual right to terminate service in these circumstances, and (b) if it does, whether termination of service under the SOS Agreement is consistent with the public interest.

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[1] According to Connecticut's electric industry restructuring law, Standard Offer Service refers to the electric service provided to retail customers who do not actively choose an alternate electric generation services supplier or are unable to choose one.

[2] *See* Section 3.5 of the SOS Agreement: 35% in 2000, 40% in 2001 and 2002, and 45% in 2003.

[3] Federal Power Act, 16 U.S.C. § 824d (2000).

[4] Interim Decision in Application of the Connecticut Light and Power Company Concerning Recovery of SMD-Related Costs for March 1, 2003 through December 31, 2003—Petition of the Attorney General for a Declaratory Ruling Regarding the Legality and Prudency of CL&P's Application, Docket No. 03–04–017 (May 1, 2003).

Discussion

8. NRG–PMI proposes to terminate its contract on May 19, 2003, a deadline which leaves the Commission with insufficient time to evaluate its proposed action. Accordingly, the Commission directs NRG–PMI, until further notice, to continue to provide service to CL&P pursuant to the rates, terms and conditions of the SOS Agreement. NRG–PMI shall file its answer to the complaint, and interested persons may file interventions and protests, within ten (10) days from the date of this order. The Commission intends to act as expeditiously as possible in this proceeding.

9. Any person desiring to be heard or to protest this filing should file with the Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. The answer to the complaint and all comments, interventions or protests must be filed on or before ten (10) days from the date of this order. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or for TTY, contact (202) 502–8659. The answer to the complaint, comments, protests and interventions may be filed electronically via the Internet in lieu of paper; see 18 CFR § 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link. The Commission strongly encourages electronic filings.

The Commission orders:

(A) Until further notice, NRG–PMI is directed to continue to provide service to CL&P pursuant to the rates, terms and conditions of the SOS Agreement.

(B) NRG–PMI shall file its answer to the complaint, and interested persons may file interventions and protests, within ten (10) days from the date of this order.

(C) The Secretary is directed to publish this order in the **Federal Register**.

By the Commission.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12998 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP03–412–001]

Central New York Oil and Gas Company, LLC; Notice of Compliance Filing

May 19, 2003.

Take notice that on May 12, 2003, Central New York Oil and Gas Company, LLC (CNYOG) tendered for filing as part of its FERC Gas Tariff, Original Volume No. 1, Fourth Revised Sheet No. 103, effective July 1, 2003.

CNYOG states that the purpose of its filing is to correct the pagination of one tariff sheet submitted in this docket as part of its May 1, 2003 filing to comply with Order No. 587-R.

CNYOG further states that the changes to its tariff to comply with Order No. 587-R proposed on the repaginated tariff sheet are the same as those proposed on the version of that tariff sheet included with its May 1, 2003 submission.

CNYOG further states that it has served copies of this filing upon the company's jurisdictional customers and interested state commissions.

Any person desiring to protest said filing should file a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with section 385.211 of the Commission's Rules and Regulations. All such protests must be filed in accordance with section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Protest Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12951 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP03–477–000]

Central New York Oil And Gas Company, LLC; Notice of Tariff Filing

May 19, 2003.

Take notice that on May 14, 2003, Central New York Oil And Gas Company, LLC (CNYOG) tendered for filing as part of its FERC Gas Tariff, Original Volume No. 1, Second Revised Sheet No. 0, to be effective June 13, 2003.

CNYOG states that the purpose of its filing is to revise the contact information for communications concerning its FERC Gas Tariff.

CNYOG further states that it has served copies of this filing upon the company's jurisdictional customers and interested state commissions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Sections 385.214 or 385.211 of the Commission's Rules and Regulations. All such motions or protests must be filed in accordance with Section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Comment Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12953 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP02–417–002]

Colorado Interstate Gas Company; Notice of Compliance Filing

May 19, 2003.

Take notice that on May 12, 2003, Colorado Interstate Gas Company (CIG) tendered for filing as part of its FERC Gas Tariff, First Revised Volume No. 1, the following tariff sheets, with an effective date of March 1, 2003:

Second Revised Sheet No. 182
Ninth Revised Sheet No. 279
Second Revised Sheet No. 334
Fourth Revised Sheet No. 359

CIG states that these tariff sheets are being filed in compliance with the Commission's April 25, 2003, order to remove several gathering references found throughout its tariff.

Any person desiring to protest said filing should file a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Section 385.211 of the Commission's rules and regulations. All such protests must be filed in accordance with section 154.210 of the Commission's regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Protest Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12946 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP96–383–051]

Dominion Transmission, Inc.; Notice of Filing

May 19, 2003.

Take notice that on May 12, 2003, Dominion Transmission, Inc. (DTI) tendered for filing as part of its FERC Gas Tariff, the following tariff sheets, with an effective date of June 1, 2003:

Fourth Revised Sheet No. 1404
Second Revised Sheet No. 1414

DTI states that copies of its letter of transmittal and enclosures have been served upon DTI's customers and interested state commissions.

Any person desiring to protest said filing should file a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Section 385.211 of the Commission's Rules and Regulations. All such protests must be filed in accordance with Section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Protest Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12954 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP03–314–001]

Northern Natural Gas Company; Notice of Compliance Filing

May 19, 2003.

Take notice that on May 12, 2003, Northern Natural Gas Company (Northern), tendered for filing in its FERC Gas Tariff, Fifth Revised Volume No. 1, Substitute Fifth Revised Sheet No. 291; Original Sheet No. 291A; and Fifth Revised Sheet No. 292, with an effective date of April 28, 2003.

Northern states that the filing is being made in compliance with the Commission's order issued on April 25, 2003 in Docket No. RP03–314–000 related to Northern's proposal to post a Critical Day notice no later than 2½ hours before any of the four NAESB nomination cycles.

Northern further states that copies of the filing have been mailed to each of its customers and interested State Commissions.

Any person desiring to protest said filing should file a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with section 385.211 of the Commission's Rules and Regulations. All such protests must be filed in accordance with section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Protest Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12950 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. PR03–14–000

Tractebel Energy Marketing, Inc., Complainant, v. Hill-Lake Gas Storage, L.P., Respondents; Notice of Complaint

May 19, 2003.

Take notice that on May 16, 2003, Tractebel Energy Marketing, Inc.(Tractebel) tendered for filing with the Federal Energy Regulatory Commission (Commission) a Complaint and Motion for Emergency Relief against respondents, Hill Lake Gas Storage, L.P. pursuant to Rule 206 of the Commission's Rules of Practice and Procedure.

Tractebel asks the Commission for an emergency order requiring Hill-Lake Gas Storage, L.P. to: restore Tractebel's natural gas storage service immediately; to cease and desist from threatening to confiscate Tractebel's gas; and to comply with the Commission's decisions on reasonable credit assurances.

Any person desiring to be heard or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. The answer to the complaint and all comments, interventions or protests must be filed on or before the comment date. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866)208–3676, or for TTY, contact (202)502–8659. The answer to the complaint, comments, protests and interventions may be filed electronically via the Internet in lieu of paper; *see* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link. The Commission strongly encourages electronic filings.

Comment Date: May 27, 2003.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12948 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EC03–84–000, *et al.*]

Electric Rate and Corporate Regulation Filings

May 16, 2003.

The following filings have been made with the Commission. The filings are listed in ascending order within each docket classification.

1. Tri-State Power, LLC

[Docket No. EC03–84–000]

Take notice that on May 1, 2003, Tri-State Power, LLC (TSP) tendered for filing with the Federal Energy Regulatory Commission (Commission) an application requesting all necessary authorizations under section 203 of the Federal Power Act for the transfer by TSP to Tri-State Generation and Transmission Association, Inc. (Tri-State), in connection with a merger of the two parties, of Tri-State's interests in the jurisdictional assets associated with two approximate 154-megawatt generation plants located near Limon, Colorado, and Brighton, Colorado, respectively (Facilities). The application includes a request for privileged treatment by the Commission.

Comment Date: June 5, 2003.

2. Cleco Power LLC

[Docket No. ER03–685–000]

Take notice that on May 9, 2003, Cleco Power LLC tendered for filing with the Federal Energy Regulatory Commission (Commission), a letter explaining Cleco Power's request in its previous filing made April 1, 2003, in the above captioned docket, for a January 24, 2003, effective date for its Service Agreement No. 66, under FERC Electric Tariff Original Volume No. 1.

Comment Date: May 30, 2003.

3. Pinpoint Power, LLC

[Docket No. ER03–845–000]

Take notice that on May 13, 2003, Pinpoint Power, LLC (Pinpoint Power), an electric power developer organized under the laws of the Commonwealth of Massachusetts, petitioned the Federal Energy Regulatory Commission (Commission) for acceptance of its market-based rate schedule, waiver of certain requirements under subparts B and C of part 35 of the Commission's regulations, and preapproval of transactions under part 34 of the Commission's regulations. Pinpoint Power seeks expedited treatment of this petition to facilitate its response to southwest Connecticut's need for emergency power during the 2003 summer period, and requests that the Commission accept Pinpoint Power's schedule with an effective date of May 30, 2003.

Comment Date: June 3, 2003.

4. FPL Energy Wisconsin Wind, LLC

[Docket No. ER03–846–000]

Take notice that on May 14, 2003, FPL Energy Wisconsin Wind, LLC tendered for filing a Notice of Cancellation pursuant to 18 CFR 35.15, in order to reflect the cancellation of its market-based rate tariff, designated as Rate Schedule FERC No. 1, and a service agreement designated as Rate Schedule FERC No. 2, which were originally accepted for filing in Docket No. ER00–56–000.

Comment Date: June 4, 2003.

5. Consumers Energy Company

[Docket No. ES03–37–000]

Take notice that on May 7, 2003, Consumers Energy Company submitted an application pursuant to section 204 of the Federal Power Act seeking authorization for short-term mortgage bonds in an amount not to exceed $1.1 billion to be used solely as security for other short-term securities.

Comment Date: June 6, 2003.

6. Old Dominion Electric Cooperative

[Docket No. ES03–38–000]

Take notice that on May 12, 2003, Old Dominion Electric Cooperative (Old Dominion) submitted an application pursuant to section 204 of the Federal Power Act seeking authorization to guarantee obligations in an amount not to exceed $100 million at any one time.

Old Dominion also requests a waiver from the Commission's competitive bidding and negotiated placement requirements at 18 CFR 34.2.

Comment Date: June 6, 2003.

7. Rock Springs Generation, LLC

[Docket No. OA03–7–000]

Take notice that on May 12, 2003, Rock Springs Generation, LLC (RSG) tendered for filing with the Federal Energy Regulatory Commission (Commission), written procedures implementing Standards of Conduct and a request for order confirming compliance with Standards of Conduct requirements of Order No. 889.

Comment Date: June 11, 2003.

Standard Paragraph

Any person desiring to intervene or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with rules 211 and 214 of the Commission's rules of practice and procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. All such motions or protests should be filed on or before the comment date, and, to the extent applicable, must be served on the applicant and on any other person designated on the official service list. This filing is available for review at the Commission or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the ''RIMS'' link, select ''Docket #'' and follow the instructions (call 202–208–2222 for assistance). Protests and interventions may be filed electronically via the Internet in lieu of paper; *see* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12947 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No RM93–11–000]

Revisions to Oil Pipeline Regulations Pursuant to the Energy Policy Act of 1992; Notice of Annual Change in the Producer Price Index for Finished Goods

May 19, 2003.

The Commission's regulations include a methodology for oil pipelines to change their rates through use of an index system that establishes ceiling levels for such rates. The index system as set forth at 18 CFR 342.3 is based on the annual change in the Producer Price Index for Finished Goods (PPI–FG). 19 CFR 342.3(d)(2) provides that the oil pricing index to be used is PPI–FG minus 1 percent. However, on February 24, 2003, the Commission issued an Order on Remand of its Five-Year Review of Oil Pricing Index in Docket Nos. RM00–11–000 and -001 which determined that the appropriate oil pricing index should be PPI without the minus 1 per cent adjustment.[1] The regulations provide that each year the Commission will publish an index reflecting the final change in the PPI–FG, after the final PPI–FG is made available by the Bureau of Labor Statistics in May of each calendar year.

The annual average PPI–FG index figure for 2001 was 140.7 and the annual average PPI–FG index figure for 2002 was 138.9.[2] Thus, the percent change (expressed as a decimal) in the annual average PPI-FG from 2001 to 2002 is negative 0.012793.[3] Oil pipelines must multiply their July 1, 2002—June 30, 2003, index ceiling levels by negative 0.987207[4] to compute their index ceiling levels for the period July 1, 2003, through June 30, 2004, in accordance with 18 CFR 342.3(d). For guidance in calculating the ceiling levels for each period beginning January 1, l995,[5] *see* Explorer Pipeline Company, 71 FERC 61,416 at n.6 (1995).

Document Availability

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view or print the contents of this document via the Internet through FERC's home page (*http://www.ferc.gov*) and in FERC's Public Reference Room during normal business hours (8:30 a.m. to 5 p.m. eastern time) at 888 First Street, NE., Room 2A, Washington, DC 20426.

From FERC's home page on the Internet, this information is available in the Federal Energy Regulatory Records Information System (FERRIS). The full text of this document is available on FERRIS in PDF and WordPerfect format for viewing, printing, or downloading. To access this document in FERRIS, type the docket number excluding the last three digits of this document in the docket number field.

This document is available for review at the Commission or may be viewed on the Commission's Web site at *http://www.ferc.gov*, using the ''FERRIS'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866)208–3676, or for TTY, contact (202)502–8659.

Magalie R. Salas,

Secretary.

[FR Doc. 03–12949 Filed 5–22–03; 8:45 am]

BILLING CODE 6717–01–P

[1] 102 FERC ¶ 61,195 at P 1 (2003).

[2] The final figure for the annual average PPI–FG is published by the Bureau of Labor Statistics (BLS) in mid-May of each year. This figure is publicly available from the Division of Industrial Prices and Price Indexes of the BLS, at (202) 691–7705, and in print in August in Table 1 of the annual data supplement to the BLS publication Producer Price Indexes via the Internet at *http://www.bls.gov/ppi*. To obtain the BLS data, click on Get Detailed Statistics, then click on Commodity Data under the Most Requested Statistics heading. At the next screen, Producer Price Index—Commodity, select the first box, Finished goods—WPUSOP3000, then scroll all the way to the bottom of this screen and click on Retrieve data.

[3] [138.9—140.7] / 140.7 =—0.012793

[4] 1 + (-0.012793) =—0.987207

[5] For a listing of all prior multipliers issued by the Commission, *see* the Commission's website,*http://www.ferc.gov*. The table of multipliers can be found under the headings ''Oil'' and ''Index''.

ENVIRONMENTAL PROTECTION AGENCY

[ND–001–0009; FRL–7498–5]

Notice of Availability of Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of availability.

SUMMARY: The EPA announces the availability of a dispersion modeling analysis of Prevention of Significant Deterioration (PSD) increment consumption in North Dakota and eastern Montana. EPA's air quality modeling analysis is contained in a report titled *Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana* (May 2003 Version). The results of this analysis show numerous violations of the Class I PSD increments for sulfur dioxide (SO_2) in four Class I areas. These Class I areas are the Theodore Roosevelt National Park and the Lostwood Wilderness Area in North Dakota and the Medicine Lakes Wilderness Area and Fort Peck Indian Reservation in Montana. The EPA is soliciting additional public comments on this analysis before taking any further actions.

DATES: Comments on the May 2003 version of the Report will be accepted for 30 days. Comments must be received in writing on or before June 23, 2003.

ADDRESSES: Written comments may be mailed to Richard R. Long, Director, Air and Radiation Program, Mailcode 8P–AR, Environmental Protection Agency (EPA), Region VIII, 999 18th Street, Suite 300, Denver, Colorado 80202. The Report and supporting documentation

are available on EPA's Web site at *http://www.epa.gov/region8/air/ndair.html*. Copies of the Report and supporting documentation and data are also available for public inspection during normal business hours at the Air and Radiation Program, Environmental Protection Agency, Region VIII, 999 18th Street, Suite 300, Denver, Colorado 80202. Interested persons should contact the person listed below to arrange a time to view the Report.

FOR FURTHER INFORMATION CONTACT: Carl Daly, EPA, Region VIII, (303) 312–6416.

SUPPLEMENTARY INFORMATION:

I. What Are the PSD Increments?

The purpose of the Prevention of Significant Deterioration (PSD) program of the Clean Air Act (Act), 42 U.S.C. 7470–7479, is to ensure that the air quality in clean air areas remains clean and does not deteriorate to the level of the national ambient air quality standards (NAAQS). The mechanism created by Congress to meet this goal is the establishment of ''PSD increments.'' These increments define the maximum allowable increases over baseline concentrations that are allowed in a clean air area for a particular pollutant. Any increase above this level indicates that significant deterioration of air quality has occurred. Because only emissions increases above the baseline concentration are considered in determining how much increment has been consumed, the amount of increment consumed can only be determined through air quality dispersion modeling, not through direct monitoring of ambient concentrations.

The Act provides for three different classes of air quality protection, to reflect varying levels of protection from significant deterioration in air quality. In the 1977 Clean Air Act Amendments, Congress designated all international parks, national wilderness areas and national memorial parks which exceed 5000 acres in size, and all national parks which exceed 6000 acres in size as mandatory Class I areas. Congress also allowed States or Tribes to request redesignation of any area to Class I air quality protection status. Class I areas are to receive special protection from degradation of air quality, and the most stringent PSD increments apply in these areas. The Class I increments for SO_2 are defined in section 163(b)(1) of the Act, 42 U.S.C. 7473(b)(1), as follows:

Annual arithmetic mean—2 μg/m^3
Twenty-four hour maximum—5 μg/m^3
Three-hour maximum—25 μg/m^3

These increments are also promulgated in EPA's PSD regulations at 40 CFR 52.21(c). North Dakota has adopted these increments as state regulation in section 33–15–15–01.2.b. of the North Dakota Administrative Code, which EPA approved as part of the State Implementation Plan (SIP) on November 2, 1979 (44 FR 63102).

For any averaging period other than an annual averaging period, section 163(a) of the Act allows the increment to be exceeded during one such period per year. Otherwise, section 163 of the Act provides that the increments are not to be exceeded and that the SIP must contain measures assuring that the increments will not be exceeded. Section 110(a)(2)(D)(i)(II) of the Act, 42 U.S.C. 7410(a)(2)(D)(i)(II), further requires the SIP to include provisions prohibiting any source or other emitting activity within the State from emitting air pollution in amounts that will interfere with measures to be included in any other State's implementation plan to prevent significant deterioration of air quality. EPA's PSD regulations also provide that the SIP must be revised whenever EPA or the State determines that an applicable PSD increment is being violated. (See 40 CFR 51.166(a)(3).)

II. What Is the Basis for EPA's Modeling Study and What Are the Next Steps?

The North Dakota Department of Health (NDDH) conducted a modeling analysis in 1999 and prepared a draft report that showed violations of the Class I PSD increments for SO_2 in four Class I areas. In a March 13, 2001 letter to EPA, the NDDH committed to refine this modeling analysis and to subsequently adopt revisions to the State Implementation Plan (SIP) as may be necessary to address the increment violations that may be shown by the revised analysis (see EPA's May 29, 2001 Information Notice for more details, 66 FR 29127). However, in developing a modeling approach to finalize the study, EPA and North Dakota could not fully agree on the appropriate data, or the emissions inputs that should be used in the final modeling. Therefore, EPA prepared a dispersion modeling analysis of PSD increment consumption in North Dakota and eastern Montana. On March 5, 2002 EPA released a draft analysis report (January 2002 Version) to interested stakeholders for review and comment. The draft modeling results showed numerous violations of the PSD increment for SO_2, both for the three-hour and twenty-four hour increments, in four Class I areas. Comments received on the January 2002 draft Report have been considered by EPA and incorporated as appropriate into this May 2003 version of the *Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana* Report. These public comments and the January 2002 draft Report are available for review on the Web site noted below.

As outlined in the May 2003 version Report, EPA's methodology follows EPA regulatory requirements and guidance as applied over the last 20 plus years. We believe this approach also best meets the intent of the increment modeling—to characterize the potential for increment violations under realistic emissions and meteorology conditions.

The results of this study are similar to those from the air quality modeling analysis completed by the State of North Dakota in 1999 and from EPA's January 2002 draft Report. EPA will consider all comments received before taking any further actions.

III. How Can I Obtain a Copy of and/or Provide Input on This Report?

The May 2003 version of the Report and supporting documentation are available on EPA's Web site at *http://www.epa.gov/region8/air/ndair.html*. Copies of the Report can also be obtained from the contact person listed above. Written comments may be mailed to Richard R. Long, Director, Air and Radiation Program, Mailcode 8P–AR, Environmental Protection Agency (EPA), Region VIII, 999 18th Street, Suite 300, Denver, Colorado 80202.

This notice today informs the public and identifies the appropriate EPA regional office from which the public may gain further information and view the *Dispersion Modeling Analysis of PSD Class I Increment Consumption in North Dakota and Eastern Montana* Report (May 2003 Version). This notice and the May 2003 version of the Report do not constitute final agency action. Such action may be taken at some point in the future, after notice and comment, as may be necessary to address any PSD increment violations.

Dated: May 2, 2003.

Robert E. Roberts,

Regional Administrator, Region VIII.

[FR Doc. 03–12181 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–6640–4]

Notice of Availability

RESPONSIBLE AGENCY: Office of Federal Activities, General Information (202) 564–7167 or *http://www.epa.gov/compliance/nepa/*.

Weekly receipt of Environmental Impact Statements
Filed May 12, 2003, through May 16, 2003,
Pursuant to 40 CFR 1506.9.

EIS No. 030207, DRAFT SUPPLEMENT, AFS, CA, WA, OR, Northern Spotted Owl Management Plans, To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines, in the Final SEIS (1994) and Final SEIS (2000) for Amendments, Northwest Forest Plan, WA, CA and OR, Comment Period Ends: August 8, 2003, Contact: Jerry Hubbard (503) 326–2354. The U.S. Department of Agriculture, Forest Service and the U.S. Department of the Interior, Bureau of Land Management are Joint Lead Agencies on the above project. This document is available on the Internet at: *http://web.ead.anl.gov/surveyandmanage*.

EIS No. 030225, DRAFT EIS, AFS, ID, Big Bend Ridge Vegetation Management Project and Timber Sale, To Provide Forest Products on a Sustained Yield Basis, Caribou-Targhee National Forest, Ashton/Island Park Ranger District, Fremont County, ID, Comment Period Ends: July 7, 2003, Contact: Melissa Jenkins (208) 624–3251.

EIS No. 030226, FINAL EIS, NPS, AZ, UT, Glen Canyon National Area, Personal Watercraft Rule-Making, Implementation, Lake Powell, Coconino County, AZ and Garfield, Kane, San Juan and Wayne Counties, UT, Wait Period Ends: June 23, 2003, Contact: Kitty L. Roberts (928) 608–6272.

EIS No. 030227, DRAFT EIS, DOA, HI, Lahaina Watershed Flood Control Project, To Reduce Flooding and Erosion Problems, U.S. Army COE Section 404 and NPDES Permits, County of Maui, HI, Comment Period Ends: July 7, 2003, Contact: Lawrence Yamamoto (808) 541–2600 Ext 100.

EIS No. 030228, FINAL EIS, AFS, MO, Pineknot Woodland Restoration Project, Open Shortleaf Pine Woodland Restoration, Implementation, Doniphan/Eleven Point Ranger District, Mark Twain National Forest, Carter County, MO, Wait Period Ends: June 23, 2003, Contact: Jerry Bird (573) 996–2153.

EIS No. 030229, DRAFT EIS, AFS, WI, Sunken Moose Project, Proposal to Restore and/or Maintain the Red and White Pine Communities, Washurn Ranger District, Chequamegon-Nicolet Forest, Bayfield County, WI, Comment Period Ends: July 7, 2003, Contact: Ray Kiewit, (715) 373–2667 Ext. 235.

EIS No. 030230, FINAL EIS, FHW, IL, Milan Beltway Extension (FAU 5822), Airport Road to Blackhawk Road/John Deere Expressway, Funding and Permits Issuance, Rock River, Rock Island County, IL, Wait Period Ends: June 23, 2003, Contact: Norman R. Stoner (217) 492–4640.

EIS No. 030231, FINAL EIS, BLM, NV, Nevada Test and Training Range Resource Management Plan, (formerly known as the Nellis Air Force Range (NAFR)), Implementation, Clark, Nye and Lincoln Counties, NV, Wait Period Ends: June 23, 2003, Contact: Jeffery G. Steinments (702) 515–5097.

EIS No. 030232, FINAL EIS, AFS, MN, Holmes/Chipmunk Timber Sale Project, Implementation, Superior National Forest, LaCroix Ranger District, Saint Louis County, MN, Wait Period Ends: June 23, 2003, Contact: John Galazer (218) 666–0039.

EIS No. 030233, DRAFT EIS, FHW, PA, Woodhaven Road Project, To Relieve Congestion on Byberry Road between the Roosevelt Boulevard and Huntingdon Pike, Philadelphia, Bucks and Montgomery Counties, PA, Comment Period Ends: July 11, 2003, Contact: James A Cheatham (717) 221–3461.

EIS No. 030234, FINAL EIS, FHW, UT, Reference Post (RP) 13 Interchange and City Road Project, Construction of New Interchange at RP 13 between I–15 and City Road in Washington City, Funding, Washington County, UT, Wait Period Ends: June 23, 2003, Contact: Sandra Garcia (801) 963–0182.

EIS No. 030235, DRAFT EIS, NIH, MT, Rocky Mountain Laboratories (RML) Integrated Research Facility, Construction and Operation, To Improve the Nation's Ability to Study and Combat Emerging Infectious Disease and to Protect Public Health, Hamilton, Ravalli County, MT, Comment Period Ends: July 21, 2003, Contact: Valerie Nottingham (301) 496–3537.

EIS No. 030236, FINAL EIS, AFS, CA, Stream Fire Restoration Project, Implementation, Plumas National Forest, Mt. Hough Ranger District, Plumas County, CA, Wait Period Ends: June 23, 2003, Contact: Rich Bednarke (530) 283–7641.

EIS No. 030237, FINAL EIS, FHW, WA, Vancouver Rail Project, Rail Improvements at the Burlington Northern and Santa Fe Rail Yard and Possible Elimination of the West 39th Street At-Grade Crossing, Funding, NPDES Permit Issuance, Clark County, WA, Wait Period Ends: June 23, 2003, Contact: Daniel Mathis (360) 753–9413. This document is available on the Internet at: *http://www.wsdot.wa.gov/projects/vancouver eis*.

EIS No. 030238, DRAFT EIS, DOA, OR, Northeast Oregon Hatchery Program, Grande Ronde—Imnaha Spring Chinook Hatchery Project, To Modify and Modernize two Existing Hatchery Facilities and Construct three Auxiliary Hatchery Facilities, Wallowa County, OR, Comment Period Ends: July 7, 2003, Contact: Mickey Carter (503) 230–5885. This document is available on the Internet at: *http://www.bpa.gov*.

EIS No. 030239, DRAFT EIS, DOA, TN, Cane Creek Watershed Remedial Plan, Widening and Degradation of the Cane Creek Channel, Lauderdale County, TN, Comment Period Ends: July 7, 2003, Contact: James W. Ford (615) 277–2531.

EIS No. 030240, FINAL EIS, NOA, Northeast Skate Complex Fishery Management Plan, Implementation of Management Measures, Magnuson-Stevens Fishery Conservation and Management Act, New England Fishery Management Council, Wait Period Ends: June 23, 2003, Contact: Michael Pentony (978) 281–9283.

Amended Notices

EIS No. 030054, DRAFT SUPPLEMENT, BLM, WY, Jack Morrow Hills Coordinated Activity Plan/Draft Green River Resource Management Plan Amendment, Updated Information, Rock Springs, Portions of Sweetwater, Fremont and Subelette Counties, WY, Comment Period Ends: May 23, 2003, Contact: Joe Patti (307) 775–6101.

Revision of **Federal Register** notice published on 2/21/2003: CEQ Comment Period Ending on 5/15/2003 has been corrected to 5/23/2003.

Dated: May 20, 2003.

Joseph C. Montgomery,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 03–13011 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–6640–5]

Environmental Impact Statements and Regulations; Availability of EPA Comments

Availability of EPA comments prepared pursuant to the Environmental Review Process (ERP), under section 309 of the Clean Air Act and section 102(2)(c) of the National Environmental Policy Act as amended. Requests for

copies of EPA comments can be directed to the Office of Federal activities at (202) 564–7167. An explanation of the ratings assigned to draft environmental impact statements (EISs) was published in FR dated April 01, 2003 (68 FR 16511).

Draft EISs

ERP No. D–AFS–K65252–CA Rating LO, Combined Array for Research in Millimeter-wave Astronomy (CARMA) Project, Construction, Reconstruction and Operation of 23 Antennas at the Juniper Flat Site, Special-Use-Permit Issuance, Inyo Mountain, Inyo National Forest, Inyo County, CA.

Summary: EPA expressed a lack of objections to this project.

ERP No. D–FHW–J40160–ND Rating LO, Liberty Memorial Bridge Replacement Project, Poor and Deteriorating Structural Rehabilitation or Reconstruction, U.S. Coast Guard and U.S. Army COE Section 10 and 404 Permits Issuance, Missouri River, Bismarck and Mandan, ND.

Summary: EPA has no environmental concerns or objections to the proposed project.

ERP No. D–NPS–L61226–AK Rating LO, Glacier Bay National Park and Preserve Vessel Quotas and Operating Requirements for Cruise Ships and Tour, Charter, and Private Vessels, Implementation, AK.

Summary: EPA requested additional information on Environmental Justice and Tribal Consultation be included in the final EIS.

ERP No. DS–NPS–E61074–00 Rating LO, Big South Fork National River and Recreation Area, General Management Plan, Implementation, Additional Information concerning Resources, Roads and Trails, McCreary, KY and Fentress, Morgan, Pickett and Scott Counties, TN.

Summary: EPA did not identify any potential environmental impacts requiring substantive changes to the proposal.

Final EISs

ERP No. F–AFS–K65248–CA North Fork Fire Salvage Project, Harvest Salvage, Merchantable Timber Volume Sale and Sierra National Forest Land and Resource Management Plan, Implementation, Bass Lake Ranger District, Madera County, CA.

Summary: No formal comment letter was sent to the preparing agency.

ERP No. F–BLM–K60033–NV, Toquop Energy Project, Toquop Land Disposal Amendment to the Caliente Management Framework Plan (MFP), Construction of a 1,100-megawatt (MW) Natural Gas-Fired Water-Cooled Electric Power Generating Plant and Associated Features on Public Lands, Right-of-Way Grant, Lincoln, Clark and Washoe Counties, NV.

Summary: No formal comment letter was sent to the preparing agency.

ERP No. F–BLM–L65399–OR, Kelsey Whisky Landscape Management Planning Area, Implementation, Associated Medford District Resource Management Plan Amendments, Josephine and Jackson Counties, OR.

Summary: EPA continues to have environmental concerns with several aspects of the plan including needs for: a reduction in the number of miles of roads to be decommissioned or closed; and protection of a botanical transition zone and late succession reserves and important habitat for two endangered bird species.

ERP No. F–FTA–E59002–NC, South Corridor Light Rail Project to Provide Light Rail Service between the Town of Pineville and Downtown Charlotte, City of Charlotte, Charlotte-Mecklenburg County, NC.

Summary: EPA has no objections to the project as proposed.

Dated: May 20, 2003.

Joseph C. Montgomery,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 03–13012 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[OPP–2003–0185; FRL–7309–6]

The Association of American Pesticide Control Officials/State FIFRA Issues Research and Evaluation Group

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Association of American Pesticide Control Officials (AAPCO)/ State FIFRA Issues Research and Evaluation Group (SFIREG) will hold a 2–day meeting, beginning on June 23, 2003 and ending June 24, 2003. This notice announces the location and times for the meeting and sets forth the tentative agenda topics.

DATES: The meeting will be held on Monday, June 23, 2003, from 8:30 a.m. to 5 p.m., and Tuesday, June 24, 2003, from 8:30 a.m. until noon.

ADDRESSES: This meeting will be held at the Doubletree Hotel, 300 Army-Navy Drive, Arlington, VA.

FOR FURTHER INFORMATION CONTACT: Georgia A. McDuffie, Field and External Affairs Division (7506C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: (703) 605–0195; fax number: (703) 308–1850; e-mail address: mcduffie.georgia@epa.gov.

Philip H. Gray, SFIREG Executive Secretary, P.O. Box 1249, Hardwick, VT 05843–1249; telephone number: (802) 472–6956; fax (802) 472–6957; e-mail address: aapco@vtlink.net.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

This action is directed to the public in general. This action may, however, be of interest to all parties interested in SFIREG's information exchange relationship with EPA regarding important issues related to human health, environmental exposure to pesticides, and insight into EPA's decision-making process. Interested parties are invited and encouraged to attend the meetings and participate as appropriate. Since other entities may also be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. How Can I Get Additional Information, Including Copies of this Document and Other Related Documents?

1. *Docket*. EPA has established an official public docket for this action under docket identification (ID) number OPP–2003–0185. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Public Information and Records Integrity Branch (PIRIB), Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA. This docket facility is open from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The docket telephone number is (703) 305–5805.

2. *Electronic access*. You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at http://www.epa.gov/fedrgstr/.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA dockets at http://www.epa.gov/edocket/ to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in Unit I.B.1. Once in the system, select ''search,'' then key in the appropriate docket ID number.

II. Tentative Agenda

This unit provides tentative agenda topics for the 2–day meeting.

1. Certification issues/Americans with Disabilities Act (ADA), written tests, and language challenges.

2. CCA-treated wood/status of cancellation/risk assessments and disposal issues.

3. Anti-microbials efficacy/compliance issues.

4. Post-application liability/enforcement issues.

5. Certification Training Assessment Group (CTAG) activities/initiatives.

6. AAPCO/SFIREG State Survey/Grants and State Funding/update.

7. Worker Protection Standard (WPS) Program Element Review Report.

8. Endangered Species Program/FR Notice comments update.

9. Label restrictions for applications of pesticides in greenhouses.

10. Check sample program/status of States participation/current issues.

11. Reports from SFIREG Regional Representatives and Working Committee Chairs.

12. Issues papers/action items.

13. Update on current Office of Pesticide Programs activities.

14. Update on current Office of Enforcement and Compliance Assurance activities.

15. Other topics, as appropriate.

List of Subjects

Environmental protection, Pesticide pests.

Dated: May 15, 2003.

Jay S. Ellenberger,

Associate Director, Field and External Affairs Division, Office of Pesticide Programs.

[FR Doc. 03–13004 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

[FRL–7502–8]

Science Advisory Board; Notification of Public Advisory Committee Meeting; Executive Committee Teleconference

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA), Science Advisory Board (SAB) Executive Committee (EC), a Federal Advisory Committee, will hold a public teleconference meeting on the date and time given below to consider potential self-initiated projects for FY2004.

DATES: The conference call meeting will take place June 10, 2003 from 11 a.m. to 2 p.m. (EST). Requests for oral comments, as well as submission of written comments must be received by June 4, 2003. Please see further details below.

ADDRESSES: The conference call will take place via telephone only.

FOR FURTHER INFORMATION CONTACT: Any member of the public wishing further information concerning this meeting or wishing to submit comments must contact Mr. A. Robert Flaak, Acting Deputy Director and Designated Federal Officer, EPA Science Advisory Board; Telephone (202) 564–4546; Fax (202) 501–0582; or via e-mail at *flaak.robert@epa.gov.*

To pre-register for the teleconference and obtain the phone number and access code, please contact Ms. Betty Fortune, EPA Science Advisory Board; Telephone (202) 564–4533, Fax (202) 501–0323; or via e-mail at: *fortune.betty@epa.gov.*

General information about the EPA Science Advisory Board, may be found on the SAB Web site (*http://www.epa.gov/sab*).

SUPPLEMENTARY INFORMATION:

1. *Summary:* Pursuant to the Federal Advisory Committee Act, Public Law 92–463, notice is hereby given that the Executive Committee (EC) of the U.S. EPA Science Advisory Board (SAB) will hold a public teleconference meeting to conduct an initial screening of proposed self-initiated projects for FY2004. These projects, along with projects submitted by the Agency, will be considered further by the Executive Committee at a meeting scheduled for July 16–17, 2003, and will be used to establish the SAB's Operating Plan for FY2004.

Self-initiated projects are scientific and technical projects developed by committees of the Board for review or consideration, with any advice developed subsequently forwarded to the Agency. Self-initiated projects are proposed outside of the normal mechanism of Agency requested consultations, advisories, and peer reviews, and typically address critical needs for anticipatory or cross-cutting scientific/technical advice. In an average year, the Board conducts a small number of self-initiated projects.

The interested public may attend this teleconference meeting through a telephonic link, to the extent that lines are available. Pre-registration is necessary. Additional instructions about how to participate in the conference are given above.

2. *Requests for Comment:* Requests for oral comments must be *in writing* (e-mail, fax or mail) and received by Mr. Flaak no later than noon Eastern Standard Time on June 4, 2003. Written comments should also be sent to Mr. Flaak prior to the meeting. Submission of written comments by e-mail to Mr. Flaak will maximize the time available for review by the EC.

3. *Availability of Review Materials:* Descriptions of these self-initiated projects will be available on the SAB Web site no later than June 2, 2003, at: (*http://www.epa.gov/sab/whatsnew.htm*).

4. *General Guidance on Providing Oral or Written Comments at SAB Meetings:* It is the policy of the EPA Science Advisory Board to accept written public comments of any length, and to accommodate oral public comments whenever possible. The EPA Science Advisory Board expects that public statements presented at its meetings will not be repetitive of previously submitted oral or written statements. *Oral Comments:* In general, each individual or group requesting an oral presentation at a face-to-face meeting will be limited to a total time of ten minutes (unless otherwise indicated above). For teleconference meetings, opportunities for oral comment will usually be limited to no more than three minutes per speaker and no more than fifteen minutes total. Deadlines for getting on the public speaker list for a meeting are given above. Speakers should bring at least 35 copies of their comments and presentation slides for distribution to the reviewers and public at the face-to-face meetings. *Written Comments:* Although the SAB accepts written comments until the date of the meeting (unless otherwise stated), written comments should be received in the SAB Staff Office at least one week prior to the meeting date so that the comments may be made available to the

committee for their consideration. Comments should be supplied to the appropriate DFO at the address/contact information noted above in the following formats: One hard copy with original signature, and one electronic copy via e-mail (acceptable file format: WordPerfect, Word, or Rich Text files (in IBM–PC/Windows 95/98 format). Those providing written comments and who attend face-to-face meeting are also asked to bring 35 copies of their comments for public distribution.

Dated: May 16, 2003.

Vanessa T. Vu,

Director, EPA Science Advisory Board Staff Office.

[FR Doc. 03–13001 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[OPP–2003–0123; FRL–7307–4]

MGK® Repellent 326 Risk Assessments; Notice of Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces the availability of documents that were developed as part of EPA's process for making pesticide reregistration eligibility decisions and tolerance reassessments consistent with the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act (FQPA) of 1996. These documents are the human health, and environmental fate and effects risk assessments, and related documents for MGK® Repellent 326. Additionally, this notice starts a 60–day public comment period, during which the public is encouraged to provide information to help refine the risk assessments and submit risk management proposals for MGK® Repellent 326. Comments are to be limited to issues directly associated with MGK® Repellent 326 and raised by the risk assessment or other documents placed in the docket. By allowing access and opportunity for comment on the risk assessments, EPA is seeking to strengthen stakeholder involvement, and help ensure that decisions under FQPA are transparent and based on the best available information.

DATES: Comments, identified by the docket ID number OPP–2003–0123 for MGK® Repellent 326, must be received on or before July 22, 2003.

ADDRESSES: Comments may be submitted electronically, by mail, or through hand delivery/courier. Follow the detailed instructions as provided in Unit I. of the **SUPPLEMENTARY INFORMATION.**

FOR FURTHER INFORMATION CONTACT: Tawanda Spears, Special Review and Reregistration Division (7508C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: (703) 308–8050; fax number: (703) 308–8005; e-mail address: *spears.tawanda@epa.gov*.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

This action is directed to the public in general. This action may, however, be of interest to persons who are or may be required to conduct testing of chemical substances under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) or the FFDCA; environmental, human health, and agricultural advocates; pesticide users; and the public interested in the use of pesticides. Since other entities may also be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT.**

B. How Can I Get Copies of this Document and Other Related Information?

1. *Docket.* EPA has established an official public docket for this action under docket identification (ID) number OPP–2003–123. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Public Information and Records Integrity Branch (PIRIB), Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA. This docket facility is open from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The docket telephone number is (703) 305–5805.

2. *Electronic access.* You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/*.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the appropriate docket ID number.

Certain types of information will not be placed in the EPA Dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket, but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EPA Dockets, the system will identify whether the document is available for viewing in EPA's electronic public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in Unit I.B. EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the docket will be scanned and placed in EPA's electronic public docket. Where practical, physical

objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

C. How and to Whom Do I Submit Comments?

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket ID number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked ''late.'' EPA is not required to consider these late comments. If you wish to submit CBI or information that is otherwise protected by statute, please follow the instructions in Unit I.D. Do not use EPA Dockets or e-mail to submit CBI or information protected by statute.

1. *Electronically*. If you submit an electronic comment as prescribed in this unit, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

i. *EPA Dockets*. Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at *http://www.epa.gov/edocket*, and follow the online instructions for submitting comments. Once in the system, select ''search,'' and then key in docket ID number OPP–2003–0123. The system is an ''anonymous access'' system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

ii. *E-mail*. Comments may be sent by e-mail to *opp-docket@epa.gov*, Attention: Docket ID Number OPP–2003–0123. In contrast to EPA's electronic public docket, EPA's e-mail system is not an ''anonymous access'' system. If you send an e-mail comment directly to the docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

iii. *Disk or CD ROM*. You may submit comments on a disk or CD ROM that you mail to the mailing address identified in Unit I.C.2. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

2. *By mail*. Send your comments to: Public Information and Records Integrity Branch (PIRIB) (7502C), Office of Pesticide Programs (OPP), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001, Attention: Docket ID Number OPP–2003–0123.

3. *By hand delivery or courier*. Deliver your comments to: Public Information and Records Integrity Branch (PIRIB), Office of Pesticide Programs (OPP), Environmental Protection Agency, Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, Attention: Docket ID Number OPP–2003–0123. Such deliveries are only accepted during the docket's normal hours of operation as identified in Unit I.B.1.

D. How Should I Submit CBI to the Agency?

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

E. What Should I Consider as I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.
2. Describe any assumptions that you used.
3. Provide any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at your estimate.
5. Provide specific examples to illustrate your concerns.
6. Offer alternatives.
7. Make sure to submit your comments by the comment period deadline identified.
8. To ensure proper receipt by EPA, identify the appropriate docket ID number in the subject line on the first page of your response. It would also be helpful if you provided the name, date, and **Federal Register** citation related to your comments.

II. What Action is the Agency Taking?

EPA is making available risk assessments that have been developed as part of the Agency's public participation process for making reregistration eligibility and tolerance reassessment decisions for pesticides consistent with FFDCA, as amended by FQPA. The Agency's human health, and environmental fate and effects risk assessments, and other related documents for MGK® Repellent 326 are available in the individual pesticide docket, OPP–2003–0123. As additional comments, reviews, and risk assessment modifications become available, these will also be docketed for MGK® Repellent 326.

The Agency cautions that refinements to the MGK® Repellent 326 risk assessments may be appropriate pending comments received. Risk assessment documents reflect only the work and analysis conducted as of the time they were produced and it is appropriate that, as new information becomes available and/or additional analyses are performed, the conclusion they contain may change.

EPA is providing an opportunity, through this notice, for interested parties to provide written comments and input to the Agency on the risk assessments or risk mitigation proposals for the pesticide specified in this notice. Such comments and proposals could address ideas on how to manage potential residential cancer risks from the use of MGK® Repellent 326 as an insect repellent, for example, the feasibility of using a lower percent active ingredient in final products containing MGK® Repellent 326. Comments could also address the availability of additional data to further refine the risk assessments, such as information on the extent and duration of use of products containing MGK® Repellent 326. Last, comments could address the Agency's risk assessment methodologies and assumptions applied to this specific chemical. Comments should be limited to issues raised within the risk assessment and associated documents. All comments should be submitted by [*insert date 60 days after date of publication in the* **Federal Register**] using the methods in Unit I. of the **SUPPLEMENTARY INFORMATION**. Comments will become part of the Agency record for MGK® Repellent 326.

List of Subjects

Environmental protection, Chemicals, MGK® Repellent 326, Pesticides and pest.

Dated: May 14, 2003.

Lois Rossi,

Director, Special Review and Reregistration Division, Office of Pesticide Programs.

[FR Doc. 03–13006 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

[OPP–2003–0172; FRL–7307–5]

Flonicamid; Notice of Filing a Pesticide Petition to Establish a Tolerance for a Certain Pesticide Chemical in or on Food

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces the initial filing of a pesticide petition proposing the establishment of regulations for residues of a certain pesticide chemical in or on various food commodities.

DATES: Comments, identified by docket ID number OPP–2003–0172, must be received on or before June 23, 2003.

ADDRESSES: Comments may be submitted electronically, by mail, or through hand delivery/courier. Follow the detailed instructions as provided in Unit I. of the **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: Ann Sibold, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: (703) 305–6502]; e-mail address: *sibold.ann@epa.gov*.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

You may be potentially affected by this action if you are a commercial grower of food or feed crops. Potentially affected entities may include, but are not limited to:

- Crop production (NAICS 111)
- Animal production (NAICS 112)
- Food manufacturing (NAICS 311)
- Pesticide manufacturing (NAICS 32532)

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this unit could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether this action might apply to certain entities. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. How Can I Get Copies of this Document and Other Related Information?

1. *EPA Docket*. EPA has established an official public docket for this action under docket ID number OPP–2003–0172. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although, a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Public Information and Records Integrity Branch (PIRIB), Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA. This docket facility is open from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The docket telephone number is (703) 305—5805.

2. *Electronic access*. You may access this **Federal Register** document electronically through the EPA internet under the ''**Federal Register**'' listings at *http://www.epa.gov/fedrgstr/*.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although, not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in Unit I.B.1. Once in the system, select ''search,'' then key in the appropriate docket ID number.

Certain types of information will not be placed in the EPA dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket, but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EPA dockets, the system will identify whether the document is available for viewing in EPA's electronic public docket. Although, not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in Unit I.B. EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or on paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The

entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

C. How and to Whom Do I Submit Comments?

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket ID number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked ''late.'' EPA is not required to consider these late comments. If you wish to submit CBI or information that is otherwise protected by statute, please follow the instructions in Unit I.D. Do not use EPA dockets or e-mail to submit CBI or information protected by statute.

1. *Electronically*. If you submit an electronic comment as prescribed in this unit, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also, include this contact information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties, or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment, will be included, as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

i. *EPA Dockets*. Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at *http://www.epa.gov/edocket*, and follow the online instructions for submitting comments. Once in the system, select''search,'' and then key in docket ID number OPP–2003–0172. The system is an ''anonymous access'' system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

ii. *E-mail*. Comments may be sent by e-mail to *opp-docket@epa.gov*, Attention: Docket ID number OPP–2003–0172. In contrast to EPA's electronic public docket, EPA's e-mail system is not an ''anonymous access'' system. If you send an e-mail comment directly to the docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

iii. *Disk or CD ROM*. You may submit comments on a disk or CD ROM that you mail to the mailing address identified in Unit I.C.2. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

2. *By mail*. Send your comments to: Public Information and Records Integrity Branch (PIRIB) (7502C), Office of Pesticide Programs (OPP), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001, Attention: Docket ID number OPP–2003–0172.

3. *By hand delivery or courier*. Deliver your comments to: Public Information and Records Integrity Branch (PIRIB), Office of Pesticide Programs (OPP), Environmental Protection Agency, Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, Attention: Docket ID number OPP–2003–0172. Such deliveries are only accepted during the docket's normal hours of operation as identified in Unit I.B.1.

D. How Should I Submit CBI to the Agency?

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed, except in accordance with procedures set forth in 40 CFR part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

E. What Should I Consider as I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.

2. Describe any assumptions that you used.

3. Provide copies of any technical information and/or data you used that support your views.

4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.

5. Provide specific examples to illustrate your concerns.

6. Make sure to submit your comments by the deadline in this notice.

7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and **Federal Register** citation.

II. What Action is the Agency Taking?

EPA has received a pesticide petition as follows proposing the establishment and/or amendment of regulations for residues of a certain pesticide chemical in or on various food commodities under section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a. EPA has determined that this petition contains data or information regarding the elements set forth in FFDCA section 408(d)(2); however, EPA has not fully evaluated the sufficiency of the submitted data at this time or whether the data support granting of the petition. Additional data may be needed before EPA rules on the petition.

List of Subjects

Environmental protection, Agricultural commodities, Feed additives, Food additives, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: May 13, 2003.

Debra Edwards,

Director, Registration Division, Office of Pesticide Programs.

Summary of Petition

The petitioner's summary of the pesticide petition is printed below as required by FFDCA section 408(d)(3). The summary of the petition was prepared by ISK Bioscience Corporation, and represents the view of the petitioner. The petition summary announces the availability of a description of the analytical methods available to EPA for the detection and measurement of the pesticide chemical residues or an explanation of why no such method is needed.

ISK Biosciences Corporation

PP 3F6552

EPA has received a pesticide petition [3F6552] from ISK Biosciences Corporation, 7470 Auburn Road, Suite A, Concord, Ohio, 44077, proposing, pursuant to section 408(d) of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a(d), to amend 40 CFR part 180 by establishing tolerances for the combined residues of the insecticide flonicamid, (N-cyanomethyl-4-trifluoromethylnicotinamide) and its metabolites, TFNA, (4-trifluoromethylnicotinic acid), TFNA-AM, (4-trifluoromethylnicotinamide) and TFNG, (N-(4-trifluoromethylnicotinoyl)-glycine) in or on the raw agricultural commodities: Celery, at 1.2 parts per million (ppm); cotton, at 0.5 ppm; cotton, gin trash, at 6.0 ppm; cotton, hulls, at 1.0 ppm; cotton, meal, at 1.0 ppm; fruit, pome, group 11, at 0.2 ppm; fruit, stone, group 12, except plum and fresh prune plum, at 0.7 ppm; lettuce, head, at 1.0 ppm; lettuce, leaf, at 4.0 ppm; plum, at 0.1 ppm; potato, at 0.2 ppm; potato, flakes, at 0.4 ppm; prune, fresh, at 0.1; spinach, at 9.0 ppm; tomato, paste, at 2.0 ppm; tomato, puree, at 0.5 ppm; vegetable, cucurbit, group 9, at 0.4 ppm; vegetable, fruiting, group 8, at 0.4 ppm; by establishing tolerances for the combined residues of the insecticide flonicamid, (N-cyanomethyl-4-trifluoromethylnicotinamide) and its metabolite TFNA-AM, (4-trifluoromethylnicotinamide) in animal tissues and poultry meat byproducts: Cattle, fat, at 0.01 ppm; cattle, meat, at 0.04 ppm; eggs, at 0.02 ppm; goat, fat, at 0.01 ppm; goat, meat, at 0.04 ppm; hog, fat, at 0.01; hog, meat, at 0.01 ppm; horse, fat, at 0.01 ppm; horse, meat, at 0.04 ppm; milk, at 0.02 ppm; poultry, fat, at 0.01 ppm; poultry, meat, at 0.01 ppm; poultry, meat byproducts, at 0.01 ppm; sheep, fat, at 0.01 ppm; sheep, meat, at 0.04 ppm; by establishing tolerances for the combined residues of the insecticide flonicamid, (N-cyanomethyl-4-trifluoromethylnicotinamide) and its metabolites TFNA, (4-trifluoromethylnicotinic acid) and TFNA-AM, (4-trifluoromethylnicotinamide) in the animal meat byproducts: cattle, meat byproducts, at 0.06 ppm; goat, meat byproducts, at 0.06 ppm; hog, meat byproducts, at 0.01 ppm; horse, meat byproducts, at 0.06 ppm; and sheep, meat byproducts, at 0.06 ppm.

A. Residue Chemistry

1. *Plant metabolism.* Wheat, potato and peach metabolism studies were conducted using [14_C]-pyridyl-flonicamid. The metabolic profile was similar for all three matrices. The major metabolites for the various crops were: TFNA in peach, TFNA and TFNG in potato, and TFNG in wheat. The metabolism of flonicamid in plants shows, the main pathway of metabolism involves hydrolysis of -CN and $CONH_2$ functional groups in the molecule. The metabolism of flonicamid in plants is well understood.

2. *Analytical method.* Analytical methodology has been developed to determine the residues of flonicamid and its three major plant metabolites, TFNA, TFNG, and TFNA-AM in various crops. The residue analytical method for the majority of crops includes an initial extraction with acetonitrile (ACN)/deionized (DI) water, followed by a liquid-liquid partition with ethyl acetate. The residue method for wheat straw is similar, except that a C_{18} solid phase extraction (SPE) is added prior to the liquid-liquid partition. The final sample solution is quantitated using a liquid chromatograph (LC) equipped with a reverse phase column and a triple quadruple mass spectrometer (MS/MS).

3. *Magnitude of residues.* Residue data were collected on various crops and crop groups during field trials. Maximum total residues for cucurbits (total of 17 field trials) ranged from 0.164 (summer squash) to 0.333 ppm (cucumber). Maximum total residues for stone fruits (total of 21 field trials) ranged from 0.092 (plum) to 0.520 ppm (cherry). Maximum total residues for pome fruits (total of 18 field trials) ranged from 0.054 (pears) to 0.169 ppm (apples). Maximum total residues for fruiting vegetables (total of 21 field trials) ranged from 0.195 (bell pepper) to 0.290 ppm (non-bell pepper). Maximum total residues for leafy vegetables (total of 24 field trials) ranged from 0.049 (head lettuce without wrappers) to 7.978 ppm (spinach). Maximum total residues for cottonseed with linters (12 field trials) were 0.343 and for gin trash were 5.001 ppm. Maximum total residues for potatoes (total of 17 field trials) were 0.119 ppm.

B. Toxicological Profile

1. *Acute toxicity.* A battery of acute toxicity studies was conducted which placed flonicamid technical in Toxicity Category III for oral lethal dose $(LD)_{50}$, Category IV for dermal LD_{50}, inhalation LC_{50}, dermal irritation, and eye irritation. Flonicamid technical is not a dermal sensitizer. In an acute neurotoxicity study, the no observed adverse effect levels (NOAELs) for neurotoxicity were 600 milligrams/kilogram (mg/kg) in males and 1,000 mg/kg in female (highest doses tested). The systemic NOAELs were 600 mg/kg in males and 300 mg/kg in females.

2. *Genotoxicty.* Flonicamid technical did not cause mutations in the bacterial reverse mutation or mouse lymphoma tests with or without metabolic activation, chromosome damage in the mouse micronucleus or cytogenetics tests with and without metabolic activation, an increase in DNA damage in the comet assay or in an *in vivo* rat unscheduled DNA synthesis (UDS) study. Based on the weight of evidence, it is concluded that, flonicamid technical is not genotoxic.

3. *Reproductive and developmental toxicity.* A developmental toxicity study in rats resulted in the maternal and developmental no observed adverse effect levels (NOAELs) of 100 mg/kg/day. The maternal lowest observed adverse effect level (LOAEL) was 500 mg/kg/day based on the treatment-related effects observed on the liver and kidney of the dams in the highest dose group. The developmental LOAEL was 500 mg/kg/day based on the increases in placental weights and incidences of fetal skeletal variations seen only at maternally toxic doses of 500 mg/kg/day.

In the rabbit developmental toxicity study, the maternal and developmental NOAELs were 7.5 mg/kg/day and 25 mg/kg/day highest dose tested (HDT), respectively. The maternal LOAEL was 25 mg/kg/day based on decreased body weights and food consumption. No adverse effects on the fetuses were observed at the highest dose.

In the multi-generation rat reproduction study, the NOAEL was 300 ppm for both parental animals (13.5–32.8 and 16.3–67.0 mg/kg/day, respectively, for males and females) and their offspring. The effects at the highest dose of 1,800 ppm included the following: increased kidney weights and gross and histopathological alterations in the kidney. Findings noted in the top dose females included delayed vaginal opening and increased liver, kidney and spleen weights in the F1 generation and reduced ovary and adrenal weights in the parental generation and decreased uterine weights in the F1 female weanlings. There was an increase in the FSH and LH levels in F1 females tested for these endpoints. These findings did not affect the reproductive performance or survival of offspring in the study.

4. *Subchronic toxicity.* The NOAEL for flonicamid technical in the rat 28–day dermal toxicity study was 1,000 mg/kg/day, which was the highest dose tested.

In a 90–day rat feeding study the NOAEL was established at 200 ppm (12.11 mg/kg/day) for males and 1,000 ppm (72.3 mg/kg/day) for females. The NOAELs were based on effects on hematology, triglycerides, and pathology in the liver and kidney.

In a 13–week mouse study, the NOAEL was 100 ppm (15.25 mg/kg/day in males and 20.1 mg/kg/day in females). The LOAEL is 1,000 ppm (153.9 mg/kg/day in males and 191.5 mg/kg/day in females) based on hematology effects and changes in glucose, creatinine, bilirubin, sodium, chloride and potassium levels, increased liver and spleen weights and histopathology findings in the bone marrow, spleen and kidney.

In a subchronic toxicity study in dogs with capsule administration, the NOAEL was 20 mg/kg/day based on findings of severe toxicity at a dose exceeding the maximum tolerated dose; symptoms included collapse, prostration and convulsions leading to early sacrifice at the LOAEL of 50 mg/kg/day.

In a subchronic neurotoxicity study in rats, the NOAEL for dietary administration was 1,000 ppm (67 mg/kg/day in males and 81 mg/kg/day in females) for systemic toxicity based on body weight and food consumption effects. The NOAEL for neurotoxicity was 10,000 ppm (625 and 722 mg/kg/day in males and females, respectively (highest dose tested).

5. *Chronic toxicity.* In the chronic dog study with administration via using capsules, the NOAEL was 8 mg/kg/day. The LOAEL was 20 mg/kg/day based on reduced body weights in females and effects on the circulating red blood cells.

In a rat 24–month combined chronic and oncogenicity study, flonicamid technical was not carcinogenic in rats. The NOAEL was 200 ppm (7.32 mg/kg/day) for males and 1,000 ppm (44.1 mg/kg/day) for females. The LOAEL was 1,000 ppm for males and 5,000 ppm for females based on histopathology in the kidney, hematology effects, hepatic effects including changes in biochemical parameters, increased organ weights, and histopathological changes. Atrophy of striated muscle fibers, cataract and retinal atrophy observed in the high dose females were considered to be due to acceleration of spontaneous age-related lesions.

In the 18–month mouse study, effects were observed in the lung, liver, spleen and bone marrow at 250 ppm or higher. Findings included, centrilobular hepatocellular hypertrophy, extramedullary hematopoiesis and pigment deposition in the spleen and decreased cellularity (hypocellularity) in the bone marrow. There were statistically significant increases in the incidence of alveolar/bronchiolar adenomas in both sexes of treated groups with hyperplasia/hypertrophy of epithelial cells in terminal bronchioles. There was a statistically significant increase in the incidence of alveolar/bronchiolar carcinomas in males at 750 ppm and 2,250 ppm and in females at 2,250 ppm only. These effects in the lungs of mice were not life threatening as most of effects were observed at the terminal sacrifice and there was no effect of treatment on mortality in the study. A NOAEL could not be determined from the dose levels administered. Mechanism-of-action studies have indicated that the lung effects are unique to the mouse and are not likely to translate to other species including the rat. Flonicamid technical was not carcinogenic in the rat.

6. *Animal metabolism.* Rat, goat and poultry metabolism studies were conducted using [14_C]-pyridyl-flonicamid. The majority of the dose was rapidly excreted. Flonicamid was a major component of rat urine 48 hours after dosing. TFNA-AM was the major metabolite found in rats (urine), goats (milk and tissues), and in laying hens (tissues and eggs). TFNG was found between 8–24% of the total radioactive residue (TRR) in the livers of rats sacrificed at intervals between 0.5–6 hours after dosing. The liver samples at these time intervals had 14_C-residues of 2.3%–4.6% of the dose. TFNA was not a major component in animal tissues. The metabolism of flonicamid in animals shows the main pathway of metabolism involves hydrolysis of -CN and -$CONH_2$ functional groups in the molecule, identical to plant metabolism. The main metabolic reactions were hydrolysis of cyano to the amide function and ring hydroxylation. In rats, flonicamid was further metabolized by several routes, including nitrile hydrolysis, amide hydrolysis, N-oxidation, and hydroxylation of the pyridine ring, leading to multiple metabolites. The metabolism of flonicamid in animals is well understood.

7. *Metabolite toxicology.* The main metabolites of flonicamid were examined in acute oral toxicity studies in rats and bacterial reverse mutation tests. All the metabolites were less toxic than flonicamid and not mutagenic.

8. *Endocrine disruption.* No special studies investigating potential estrogenic or other endocrine effects of flonicamid have been conducted. Some suggestions of possible endocrine effects were reported at the highest dose tested (1,800 ppm) in the multi-generation reproduction study which showed increased FSH and LH levels, a delay in the time to vaginal opening in the F1 generation, and reduced ovary and adrenal weights in the parental generation. However, there were no effects on reproductive performance or survival of the offspring in the study. At levels that are expected to be found in the environment, flonicamid will not cause any endocrine-related effects.

C. Aggregate Exposure

1. *Dietary exposure.* Potential dietary exposures from food were estimated using the proposed tolerances for all crops using the Dietary Exposure Evaluation Model (DEEM) for acute and chronic exposure based on U.S. Department of Agriculture's (USDA) Continuing Surveys of Food Intake by Individuals (CSFII) conducted in 1994–1998, and percent crop treated of 100%. The following raw agricultural commodities were included: Leaf lettuce, head lettuce, celery, spinach, cotton, potatoes, fruiting vegetables, cucurbits, stone fruits, pome fruits and resulting secondary residues in meat, milk, poultry and eggs.

i. *Food.* Acute dietary exposure was compared to the acute population adjusted dose (aPAD) of 3.0 mg/kg/day based on the NOAEL of 300 mg/kg from the acute neurotoxicity study in rats and a 100–fold uncertainty factor. The U.S. population exposure is 0.26% of the aPAD and the most highly exposed subpopulation is children 1–2 with 0.56% of the aPAD (95th percentile).

Based on the available data, an appropriate cPAD is 0.073 mg/kg/day

based on the NOEL of 7.32 mg/kg/day from the chronic toxicity study in rats and a 100-fold uncertainty factor. The U.S. population exposure is 3.2% of the cPAD and the most highly exposed subpopulation exposure is children 1–6 with 7.4% of the cPAD.

ii. *Drinking water.* A drinking water level of comparison (DWLOC) was calculated by subtracting the chronic/acute food exposures calculated using DEEM™ from the cPAD/aPAD to obtain the acceptable chronic/acute exposure to flonicamid in drinking water. The estimated average and maximum concentration of flonicamid in surface water is 1.20 ppb and 1.64 ppb, respectively. These are both well below the lowest chronic (676 ppb) and acute (29,831 ppb) DWLOC values for flonicamid. Therefore, taking into account all proposed uses, it can be concluded with reasonable certainty that residues of flonicamid in food and drinking water will not result in unacceptable levels of human health risk.

2. *Non-dietary exposure.* There are currently no residential uses of flonicamid registered or pending action that need to be added to the total risk from exposure.

D. Cumulative Effects

In consideration of potential cumulative effects of flonicamid and other substances that may have a common mechanism of toxicity, to our knowledge there are currently no available data or other reliable information indicating that any toxic effects produced by flonicamid would be cumulative with those of other chemical compounds; thus only the potential risks of flonicamid have been considered in this assessment of its aggregate exposure. If ISK Biosciences Corporation learns of any other compound with the same mechanism of toxicity they will submit information for EPA to consider concerning potential cumulative effects of flonicamid consistent with the schedule established by EPA in the **Federal Register** of August 4, 1997 (62 FR 42020) (FRL–5734–6), and other EPA publications pursuant to the Food Quality Protection Act (FQPA).

E. Safety Determination

1. *U.S. population.* Using conservative exposure assessment analyses, the acute dietary exposure estimates are well below the aPAD of 3 milligrams/kilogram body weight/day (mg/kg bwt/day) for all population subgroups. In addition, the chronic dietary exposure estimates for the various population groups are well below the cPAD of 0.073 mg/kg bwt/day. Based on this information, ISK Biosciences Corporation concludes that there is reasonable certainty that no harm will result from acute or chronic exposure to flonicamid.

2. *Infants and children.* Based on the available developmental and reproductive data on flonicamid, ISK Biosciences Corporation, concludes that, reliable data support use of the standard 100–fold uncertainty factor, and that an additional uncertainty factor is not needed to protect the safety of infants and children under the FQPA. Although, the reproduction study indicated signs of toxicity to some reproductive organs/systems at the high dose of 1,800 ppm in the diet, other signs of toxicity such as effects on the kidney accompanied these; there were no effects observed at a dose level of 300 ppm. There were no effects on reproduction or survival at any dose level. Since acute and chronic aggregate exposure assessments are well below the aPAD and cPAD respectively, there is reasonable certainty that no harm will result to infants and children from aggregate exposure to flonicamid residues.

F. International Tolerances

There are no Canadian or Mexican residue limits or codex MRLs for the insecticide flonicamid and its metabolites TFNA, TFNA-AM, and TFNG.

[FR Doc. 03–13005 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

[FRL–7502–9]

Proposed Administrative Settlement Under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Regarding the Central Steel Drum Superfund Site, Newark, NJ

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed administrative settlement and opportunity for public comment.

SUMMARY: The United States Environmental Protection Agency (''EPA'') is proposing to enter into an administrative settlement to resolve claims under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (''CERCLA''), 42 U.S.C. 9601 *et seq.* In accordance with EPA guidance, notice is hereby given of a proposed administrative settlement pursuant to section 122(h)(1) of CERCLA concerning the Central Steel Drum Superfund Site, located in Newark, New Jersey. This notice is being published to inform the public of the proposed settlement and to provide the public with an opportunity to comment on the proposed settlement. This settlement is intended to resolve the civil liability of certain responsible parties for response costs incurred by EPA at the Central Steel Drum Superfund Site. CERCLA provides EPA the authority to settle certain claims for response costs incurred by the United States with the approval of the Attorney General of the United States.

The proposed settlement provides that the potentially responsible parties, Marian Abrams and Jane Mattson, will pay $18,000.00 in reimbursement of response costs incurred by EPA in performing a removal action to remove the contaminants and hazardous substances from the Central Steel Drum Superfund Site in return for a covenant not to sue under sections 106 and 107 of CERCLA from the United States.

DATES: Comments must be provided on or before June 23, 2003.

ADDRESSES: Comments should be addressed to the U.S. Environmental Protection Agency, Office of Regional Counsel, 290 Broadway—17th Floor, New York, New York 10007–1866 and should refer to: In the Matter of Central Steel Drum Superfund Site, Marian Abrams and Jane Mattson, Settling Parties, U.S. EPA Region II Docket No. CERCLA–02–2003–2001.

FOR FURTHER INFORMATION CONTACT: U.S. Environmental Protection Agency, Office of Regional Counsel, 290 Broadway—17th Floor, New York, New York 10007–1866, Attention: Muthu S. Sundram, Esq. (212) 637–3148.

SUPPLEMENTARY INFORMATION: A copy of the proposed administrative settlement agreement, as well as background information relating to the settlement, may be obtained in person or by mail from EPA's Region II Office of Regional Counsel, 290 Broadway—17th Floor, New York, New York 10007–1866.

Dated: May 14, 2003.

George Pavlou,

Director, Emergency & Remedial Response Division.

[FR Doc. 03–13002 Filed 5–22–03; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission

May 12, 2003.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act of 1995, Public Law 104–13. An agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Comments are requested concerning (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

DATES: Written comments should be submitted on or before July 22, 2003. If you anticipate that you will be submitting PRA comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all Paperwork Reduction Act (PRA) comments to Judith B. Herman, Federal Communications Commission, Room 1–C804, 445 12th Street, SW., Washington, DC 20554 or via the Internet to *Judith-B.Herman@fcc.gov*.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection(s), contact Judith B. Herman at 202–418–0214 or via the Internet at *Judith-B.Herman@fcc.gov*.

SUPPLEMENTARY INFORMATION:

OMB Control No.: 3060–0710.

Title: Policy and Rules Concerning the Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96–98.

Form No.: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit.

Number of Respondents: 12,250 respondents; 1,070,250 responses.

Estimated Time Per Response: 425 hours (average).

Frequency of Response: On occasion reporting requirement, third party disclosure requirement and recordkeeping requirement.

Total Annual Burden: 1,504,620 hours.

Total Annual Cost: $937,000.

Needs and Uses: In June 2000, the Commission adopted rules and regulations to implement parts of sections 251 and 252 that affect local competition. Incumbent Local Exchange Carriers (ILECs) are required to offer interconnection, unbundled network elements, transport and termination, and wholesale rates for certain services to new entrants. ILECs must price such services at rates that are cost-based and just and reasonable and provide access to right-of-way as well as establish reciprocal compensation arrangements for the transport and termination of telecommunications traffic. The Commission is seeking a three year extension of the current OMB approval for this collection of information.

OMB Control No.: 3060–0972.

Title: Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers.

Form Nos.: FCC Forms 507, 508, and 509.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for-profit, not-for-profit institutions, and state, local or tribal government.

Number of Respondents: 1,300 respondents; 6,455 responses.

Estimated Time Per Response: 1–93 hours.

Frequency of Response: On occasion, annual, quarterly, and one time reporting requirements, and third party disclosure requirement.

Total Annual Burden: 32,918 hours.

Total Annual Cost: $45,000.

Needs and Uses: The Commission modified, based on petitions for reconsideration of the MAG Order, the data collection and filing procedures and filing deadlines for implementation of the Interstate Common Line Support (ICLS) mechanism. The Commission modified this collection of information for projected cost and revenue data to: (1) Change an existing optional filing to correct previously filed data from April 10th to June 30th of every year; and (2) allow new opportunities each year to update data for the prior year. For actual cost and revenue data, the Commission modified the mandatory filing date of July 31st to December 31st; and eliminated a quarterly voluntary filing to update actual cost and revenue data. The FCC Forms 507, 508 and 509 remain unchanged.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 03–12967 Filed 5–22–03; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission

May 15, 2003.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act of 1995, Public Law 104–13. An agency may not conduct or sponsor a collection of information unless it displays a current valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Comments are requested concerning whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; and ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

DATES: Written comments should be submitted on or before July 22, 2003. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all comments to Les Smith, Federal Communications Commission, Room 1–A804, 445 12th

Street, SW., Washington, DC 20554, or via the Internet to *Leslie.Smith@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection(s) contact Les Smith at 202–418–0217 or via the Internet at *Leslie.Smith@fcc.gov.*

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0581.

Title: Section 76.503, National Subscriber Limits.

Form Number: N/A.

Type of Review: Extension of currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents: 10.

Estimated Time per Response: 1 hour.

Frequency of Response: On occasion reporting requirements.

Total annual burden: 20 hours.

Total Annual Costs: $1,000.

Needs and Uses: 47 CFR 76.503 requires certain filings and certifications. The FCC uses the certification filings to ensure that cable operators do not violate the 30 percent share rule in their acquisitions of additional multi-channel programming providers. Section 76.503, Note 1, certification filings are used by the Commission to verify that limited partners who so certify are not involved in management or operations of the media-related activities of the partnership.

OMB Control Number: 3060–0569.

Title: Section 76.975, Commercial Leased Access Dispute Resolution.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents: 60.

Estimated Time per Response: 2 to 10 hours.

Frequency of Response: On occasion filing requirement.

Total Annual Burden: 1,320 hours.

Total Annual Costs: $69,000.

Needs and Uses: The information will be used by leased access programmers and will be reviewed by the Commission to resolve leased access disputes.

OMB Control Number: 3060–0611.

Title: Section 74.783, Station Identification.

Form Number: N/A.

Type of Review: Extension of currently approved collection.

Respondents: Business or other for-profit entities; State, Local or Tribal Government.

Number of Respondents: 400.

Estimated Time per Response: 0.166 hours.

Total Annual Burden: 66 hours.

Total Annual Costs: $0.

Needs and Uses: 47 CFR 74.783(e) permits any low power television (LPTV) station to request a four-letter call sign after receiving its construction permit. All initial LPTV construction permits will continue to be issued with a five-character LPTV call sign. LPTV respondents are required to use the on-line electronic system. To enable these respondents to use this on-line system, the Commission eliminated the requirement that holders of LPTV construction permits submit with their call sign requests a certification that the station has been constructed, that physical construction is underway at the transmitter site, or that a firm equipment order has been placed. (All burden associated with call sign requests for the on-line reservation and authorization system are included in information collection 3060–0188.) 47 CFR 74.783(b) requires licensees of television translators whose station identification is made by the television station whose signals are being rebroadcast by the translator, must secure agreement with this television licensee to keep in its file, and available to FCC personnel, the translator's call letters and location, giving the name, address and telephone number of the licensee or service representative to be contacted in the event of malfunction of the translator.

OMB Control Number: 3060–0945

Title: Section 79.2, Accessibility of Programming Providing Emergency Information.

Form Number: N/A.

Type of Review: Extension of currently approved collection.

Respondents: Business or other for-profit entities; Individuals or households; Not-for-profit institutions; and State, local or tribal government.

Number of Respondents: 100.

Estimated Time per Response: 1 to 2 hours.

Frequency of Response: On occasion reporting requirements.

Total Annual Burden: 275 hours.

Total Annual Cost: $5,000.

Needs and Uses: 47 CFR 79.2 requires any broadcast station or multiple video programming distributor (MVPD) that provides local emergency information as part of a regularly scheduled newscast, or as part of a newscast that interrupts regularly scheduled programming, to make the critical details of the information accessible to persons with visual disabilities in the affected local area. In addition, any broadcast station or MVPD that provides emergency information through a crawl or scroll must accompany that information with an aural tone to alert persons with visual disabilities that the station or MVPD is providing this information. Under 47 CFR 79.2(c), a complaint alleging a violation of this section may be transmitted to the FCC by any reasonable means that would best accommodate the complainant's disability. The complaint should include the name of the video programming distributor against whom the complaint is alleged, the date and time of the omission of emergency information, and the type of emergency. The Commission will notify the video programming distributor of the complaint, and the distributor will reply to the complaint within 30 days.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 03–12968 Filed 5–22–03; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL RESERVE SYSTEM

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: Board of Governors of the Federal Reserve System

SUMMARY: Background. On June 15, 1984, the Office of Management and Budget (OMB) delegated to the Board of Governors of the Federal Reserve System (Board) its approval authority under the Paperwork Reduction Act, as per 5 CFR 1320.16, to approve of and assign OMB control numbers to collection of information requests and requirements conducted or sponsored by the Board under conditions set forth in 5 CFR 1320 Appendix A.1. Board–approved collections of information are incorporated into the official OMB inventory of currently approved collections of information. Copies of the OMB 83–Is and supporting statements and approved collection of information instruments are placed into OMB's public docket files. The Federal Reserve may not conduct or sponsor, and the respondent is not required to respond to, an information collection that has been extended, revised, or implemented on or after October 1, 1995, unless it displays a currently valid OMB control number.

Request for comment on information collection proposals.

The following information collections, which are being handled under this delegated authority, have received initial Board approval and are hereby published for comment. At the

end of the comment period, the proposed information collections, along with an analysis of comments and recommendations received, will be submitted to the Board for final approval under OMB delegated authority. Comments are invited on the following:

a. whether the proposed collection of information is necessary for the proper performance of the Federal Reserve's functions; including whether the information has practical utility;

b. the accuracy of the Federal Reserve's estimate of the burden of the proposed information collection, including the validity of the methodology and assumptions used;

c. ways to enhance the quality, utility, and clarity of the information to be collected; and

d. ways to minimize the burden of information collection on respondents, including through the use of automated collection techniques or other forms of information technology.

DATES: Comments must be submitted on or before July 22, 2003.

ADDRESSES: Comments may be mailed to Ms. Jennifer J. Johnson, Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, N.W., Washington, DC 20551. However, because paper mail in the Washington area and at the Board of Governors is subject to delay, please consider submitting your comments by e– mail to regs.comments@federalreserve.gov, or faxing them to the Office of the Secretary at 202–452–3819 or 202–452–3102. Members of the public may inspect comments in Room MP–500 between 9:00 a.m. and 5:00 p.m. on weekdays pursuant to 261.12, except as provided in 261.14, of the Board's Rules Regarding Availability of Information, 12 CFR 261.12 and 261.14.

A copy of the comments may also be submitted to the OMB desk officer for the Board: Joseph Lackey, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Room 3208, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: A copy of the proposed form and instructions, the Paperwork Reduction Act Submission (OMB 83–I), supporting statement, and other documents that will be placed into OMB's public docket files once approved may be requested from the agency clearance officer, whose name appears below. Cindy Ayouch, Federal Reserve Board Clearance Officer (202–452–3829), Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, DC 20551. Telecommunications Device for the Deaf (TDD) users may contact (202–263–4869), Board of Governors of the Federal Reserve System,Washington, DC 20551.

Proposals to Approve Under OMB Delegated Authority the Extension for Three Years, Without Revision, of the Following Reports:

1. Report title: Recordkeeping Requirements Associated with Changes in Foreign Investments (Made Pursuant to Regulation K)

Agency form number: FR 2064

OMB control number: 7100–0109

Frequency: On–occasion

Reporters: State member banks (SMBs), Edge and agreement corporations, and bank holding companies (BHCs).

Annual reporting hours: 320 hours

Estimated average hours per response: 2 hours

Number of respondents: 40

Small businesses are not affected.

General description of report: The recordkeeping requirements of this information collection are mandatory (Section 5(c) of the BHC Act (12 U.S.C. 1844(c)); Sections 7 and 13(a) of the International Banking Act of 1978 (12 U.S.C. 3106 and 3108(a)); Section 25 of the Federal Reserve Act (FRA) (12 U.S.C. 601–604a); Section 25A of the FRA (12 U.S.C. 611__631); and Regulation K (12 CFR 211.8(c))). Since the Federal Reserve does not collect this information no issue of confidentiality under the Freedom of Information Act (FOIA) arises. FOIA will only be implicated if the Board's examiners retain a copy of the records in their examination or supervision of the institution, and would be exempt from disclosure pursuant to FOIA (5 U.S.C. §552(b)(4), (b)(6), and (b)(8)).

Abstract: Internationally active U.S. banking organizations are expected to maintain adequate internal records to allow examiners to review for compliance with the investment provisions of Regulation K. For each investment made under Subpart A of Regulation K, records should be maintained regarding the type of investment, for example, equity (voting shares, nonvoting shares, partnerships, interests conferring ownership rights, participating loans), binding commitments, capital contributions, and subordinated debt; the amount of the investment; the percentage ownership; activities conducted by the company and the legal authority for such activities; and whether the investment was made under general consent, prior notice, or specific consent authority. With respect to investments made under general consent authority, information also must be maintained that demonstrates compliance with the various limits set out in Section 211.9 of Regulation K.

2. Report title: Recordkeeping Requirements Associated with Real Estate Appraisal Standards for Federally Related Transactions Pursuant to Regulations H and Y

Agency form number: FR H–4

OMB control number: 7100–0250

Frequency: Event–generated

Reporters: SMBs and subsidiaries of BHCs

Annual reporting hours: SMBs, 27,775; subsidiaries of BHCs, 39,813

Estimated average hours per response: 0.25 hours

Number of respondents: 1,785

Small businesses are not affected.

General description of report: This information collection is mandatory (12 U.S.C. 3331–3351). Since the Federal Reserve does not collect this information, no issue of confidentiality under FOIA arises.

Abstract: For federally related transactions, Title XI of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) requires SMBs and BHCs with credit extending subsidiaries to use appraisals prepared in accordance with the Uniform Standards of Professional Appraisal Practice promulgated by the Appraisal Standards Board of the Appraisal Foundation. Generally, these standards include the methods and techniques used to analyze a property as well as the requirements for reporting such analysis and a value conclusion in the appraisal. There is no formal reporting form and the information is not submitted to the Federal Reserve.

3. Report title: Request for Proposal (RFP) and Request for Price Quotations (RFPQ)

Agency form number: RFP/RFPQ

OMB control number: 7100–0180

Frequency: On–occasion

Reporters: Vendors and suppliers

Annual reporting hours: 7,858 hours

Estimated average hours per response: RFP, 50 hours; RFPQ, 2 hours.

Number of respondents: RFP, 120; RFPQ, 929.

Small businesses are affected.

General description of report: This information collection is required to obtain a benefit (12 U.S.C. 243, 244, and 248). This information collection is not given confidential treatment unless a respondent requests that portions of the information be kept confidential and the Board's staff grants the request pursuant to the applicable exemptions provided by FOIA (5 U.S.C. 552).

Abstract: The Federal Reserve uses the RFP and the RFPQ as needed to

obtain competitive bids and contracts submitted by vendors (offerors). Depending upon the goods and services for which the Federal Reserve Board is seeking bids, the offeror is requested to provide either prices for providing the goods or services (RFPQ) or a document covering not only prices, but the means of performing a particular service and a description of the qualification of the staff of the offeror who will perform the service (RFP). The Board staff uses this information to analyze the proposals and select the offer providing the best value.

Board of Governors of the Federal Reserve System, May 20, 2003.

Jennifer J. Johnson,

Secretary of the Board.

[FR Doc. 03–13031 Filed 5–22–03; 8:45 am]

BILLING CODE 6210–01–S

FEDERAL RESERVE SYSTEM

Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR Part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The application also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States. Additional information on all bank holding companies may be obtained from the National Information Center Web site at *www.ffiec.gov/nic/*.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than June 16, 2003.

A. Federal Reserve Bank of Atlanta (Sue Costello, Vice President) 1000 Peachtree Street, N.E., Atlanta, Georgia 30303:

1. Liberty Financial Services, Inc., New Orleans, Louisiana; to acquire 100 percent of the voting shares of First American Bank, Jackson, Mississippi.

B. Federal Reserve Bank of Minneapolis (Richard M. Todd, Vice President and Community Affairs Officer) 90 Hennepin Avenue, Minneapolis, Minnesota 55480-0291:

1. Maple Financial Holding Company, Minneapolis, Minnesota; to become a bank holding company by acquiring 100 percent of the voting shares of Maple Bank, Champlin, Minnesota, a *de novo* bank.

Board of Governors of the Federal Reserve System, May 19, 2003.

Robert deV. Frierson,

Deputy Secretary of the Board.

[FR Doc. 03–12933 Filed 5–22–03; 8:45 am]

BILLING CODE 6210–01–S

FEDERAL RESERVE SYSTEM

Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR Part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The application also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States. Additional information on all bank holding companies may be obtained from the National Information Center Web site at *www.ffiec.gov/nic/*.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than June 20, 2003.

A. Federal Reserve Bank of Richmond (A. Linwood Gill, III, Vice President) 701 East Byrd Street, Richmond, Virginia 23261-4528:

1. Union Financial Bancshares, Inc., Union, South Carolina; to become a bank holding company by acquiring 100 percent of the voting shares of Provident Community Bank, National Association, Union, South Carolina. Provident Community Bank, National Association, currently operates as Provident Community Bank, a savings association.

Board of Governors of the Federal Reserve System, May 20, 2003.

Robert deV. Frierson,

Deputy Secretary of the Board.

[FR Doc. 03–13033 Filed 5–22–03; 8:45 am]

BILLING CODE 6210–01–S

FEDERAL RESERVE SYSTEM

Notice of Proposals to Engage in Permissible Nonbanking Activities or to Acquire Companies that are Engaged in Permissible Nonbanking Activities

The companies listed in this notice have given notice under section 4 of the Bank Holding Company Act (12 U.S.C. 1843) (BHC Act) and Regulation Y (12 CFR Part 225) to engage *de novo*, or to acquire or control voting securities or assets of a company, including the companies listed below, that engages either directly or through a subsidiary or other company, in a nonbanking activity that is listed in § 225.28 of Regulation Y (12 CFR 225.28) or that the Board has determined by Order to be closely related to banking and permissible for bank holding companies. Unless otherwise noted, these activities will be conducted throughout the United States.

Each notice is available for inspection at the Federal Reserve Bank indicated. The notice also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether the proposal complies with the standards of section 4 of the BHC Act. Additional information on all bank holding companies may be obtained from the National Information Center website at www.ffiec.gov/nic/.

Unless otherwise noted, comments regarding the applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than June 16, 2003.

A. Federal Reserve Bank of Richmond (A. Linwood Gill, III, Vice President) 701 East Byrd Street, Richmond, Virginia 23261-4528:

1. FNB Corporation, Christiansburg, Virginia; to merge with Bedford Bancshares, Inc., Bedford, Virginia, and thereby indirectly acquire Bedford Savings Bank, Bedford, Virginia, and thereby engage in operating a savings association, pursuant to section 225.28(b)(4)(ii) of Regulation Y.

Board of Governors of the Federal Reserve System, May 19, 2003.

Robert deV. Frierson,

Deputy Secretary of the Board.

[FR Doc.03–12932 Filed 5–22–03; 8:45 am]

BILLING CODE 6210–01–S

FEDERAL RESERVE SYSTEM

Notice of Proposals to Engage in Permissible Nonbanking Activities or to Acquire Companies that are Engaged in Permissible Nonbanking Activities

The companies listed in this notice have given notice under section 4 of the Bank Holding Company Act (12 U.S.C. 1843) (BHC Act) and Regulation Y (12 CFR Part 225) to engage *de novo*, or to acquire or control voting securities or assets of a company, including the companies listed below, that engages either directly or through a subsidiary or other company, in a nonbanking activity that is listed in § 225.28 of Regulation Y (12 CFR 225.28) or that the Board has determined by Order to be closely related to banking and permissible for bank holding companies. Unless otherwise noted, these activities will be conducted throughout the United States.

Each notice is available for inspection at the Federal Reserve Bank indicated. The notice also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether the proposal complies with the standards of section 4 of the BHC Act. Additional information on all bank holding companies may be obtained from the National Information Center Web site at *www.ffiec.gov/nic/*.

Unless otherwise noted, comments regarding the applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than June 10, 2003.

A. Federal Reserve Bank of Cleveland (Stephen J. Ong, Vice President) 1455 East Sixth Street, Cleveland, Ohio 44101-2566:

1. RFC Banking Company, Findlay, Ohio, and Rurban Financial Corp., Defiance, Ohio; to engage *de novo* in lending and loan servicing activities , pursuant to section 225.28(b)(1) of Regulation Y.

Board of Governors of the Federal Reserve System, May 20, 2003.

Robert deV. Frierson,

Deputy Secretary of the Board.

[FR Doc.03–13032 Filed 5–22–03; 8:45 am]

BILLING CODE 6210–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

[Document Identifier: PSC–0937–0025/OS–0990–0221]

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: Office of the Secretary, HHS.

In compliance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995, the Office of the Secretary (OS), Department of Health and Human Services, is publishing the following summary of proposed collections for public comment. Interested persons are invited to send comments regarding this burden estimate or any other aspect of this collection of information, including any of the following subjects: (1) The necessity and utility of the proposed information collection for the proper performance of the agency's functions; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

1. *Type of Information Collection Request:* Revision of currently approved collection.

Title of Information Collection: Application for Appointment as a Commissioned Officer in the U.S. Public Health Service Commissioned Corps and Supporting Regulations 42 CFR 21.22 through 42 CFR 21.34.

Form/OMB No.: OS–0937–0025.

Use: The PHS–50, Application for Appointment as a Commissioned Officer in the United States Public Health Service, is used to determine if an applicant is qualified for appointment in the Commissioned Corps of the Public Health Service (PHS). In addition, the information contained in PHS–50 establishes the basis for future assignments and benefits as a commissioned officer. The PHS–1813, Reference Request for Applicants to the U.S. Public Health Service Commissioned Corps, is used to obtain reference information concerning applicants for appointment in the Commissioned Corps of the PHS. Each applicant is required to provide four references.

Frequency: On occasion.

Affected Public: Individuals or households.

Annual Number of Respondents: 10,000 (PHS–50 2,000), (PHS–1813 8,000).

Total Annual Responses: 10,000.

Average Burden Per Response: 1 hour (PHS–50 1 hour), (PHS–1813 25 minutes).

Total Annual Hours: 4,000.

2. *Type of Information Collection Request:* Revision of Currently Approved collection.

Title of Information Collection: Family Planning Annual Report: Forms and Instructions and Supporting Regulations 42 CFR Part 50 and 59.

Form/OMB No.: OS–0990–0221.

Use: This annual reporting requirement is for family planning service delivery projects authorized and funded under the Population Research and Voluntary Family Planning Programs (Section 1001 Title X of the Public Health Service Act, 42 U.S.C. 300). The Family Planning Annual Report (FPAR) is the only source of annual, uniform reporting by all Title X family planning service grantees. Office of Population Affairs uses FPAR data to monitor compliance with statutory requirements, to comply with accountability and performance requirements of Government Performance and Results Act and HHS plans, and to guide program planning and evaluation.

Frequency: Annually.

Affected Public: State, local, or tribal government.

Annual Number of Respondents: 89.

Total Annual Responses: 89.

Average Burden Per Response: 30 hours.

Total Annual Hours: 2,670.

To obtain copies of the supporting statement and any related forms for the proposed paperwork collections referenced above, access the HHS Web site address at *http://www.hhs.gov/oirm/infocollect/pending/* or e-mail your request, including your address, phone number, OMB number, and OS document identifier, to *John.Burke@hhs.gov,* or call the Reports Clearance Office on (202) 690–8356. Written comments and recommendations for the proposed information collections must be mailed within 60 days of this notice directly to the OS Paperwork Clearance Officer

designated at the following address: Department of Health and Human Services, Office of the Secretary, Assistant Secretary for Budget, Technology, and Finance, Office of Information and Resource Management, Attention: John Burke (0937–0025/0990–0221), Room 531–H, 200 Independence Avenue, SW., Washington, DC 20201.

Dated: May 16, 2003.

John P. Burke III,

Office of the Secretary, Paperwork Reduction Act Reports Clearance Officer.

[FR Doc. 03–12929 Filed 5–22–03; 8:45 am]

BILLING CODE 4168–17–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Announcement of Availability of Funds for Family Planning Male Reproductive Health Research Grants

AGENCY: Department of Health and Human Services, Office of the Secretary, Office of Public Health and Science, Office of Population Affairs.

ACTION: Notice; correction.

SUMMARY: The Office of Population Affairs published a notice in the **Federal Register** of April 14, 2003 announcing the availability of funds for family planning male reproductive health research grants. It has been determined that further clarification of the range of grant awards is needed.

FOR FURTHER INFORMATION CONTACT: Susan B. Moskosky, 301–594–4008.

Correction

In the **Federal Register** of April 14, 2003, in FR Doc. 03–9050, on page 18043, in the third column, last paragraph correct the second sentence which reads ''Awards will range from $100,000 to $250,000 per year'' to read:

''Awards will range from $100,000 to $250,000 per year, inclusive of direct costs.''

Dated: May 19, 2003.

Alma L. Golden,

Deputy Assistant Secretary for Population Affairs.

[FR Doc. 03–12983 Filed 5–22–03; 8:45 am]

BILLING CODE 4150–34–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Toxic Substances and Disease Registry

[ATSDR–193]

Public Health Assessments Completed

AGENCY: Agency for Toxic Substances and Disease Registry (ATSDR), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: This notice announces additional sites for which ATSDR has completed public health assessments during the period from October 2002 through December 2002. This list includes sites that are on or proposed for inclusion on the National Priorities List (NPL), and includes sites for which assessments were prepared in response to requests from the public.

FOR FURTHER INFORMATION CONTACT: Robert C. Williams, P.E., DEE, Assistant Surgeon General, Director, Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry, 1600 Clifton Road, NE., Mailstop E–32, Atlanta, Georgia 30333, telephone (404) 498–0007.

SUPPLEMENTARY INFORMATION: The most recent list of completed public health assessments was published in the **Federal Register** on February 20, 2003 (67 FR 72216). This announcement is the responsibility of ATSDR under the regulation, Public Health Assessments and Health Effects Studies of Hazardous Substances Releases and Facilities (42 CFR part 90). This rule sets forth ATSDR's procedures for the conduct of public health assessments under section 104(i) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) (42 U.S.C. 9604(i)).

Availability

The completed public health assessments and addenda are available for public inspection at the Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry, Building 1825, Century Blvd, Atlanta, Georgia (not a mailing address), between 8 a.m. and 4:30 p.m., Monday through Friday except legal holidays. The completed public health assessments are also available by mail through the U.S. Department of Commerce, National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, or by telephone at (703) 605–6000. NTIS charges for copies of public health assessments and addenda. The NTIS order numbers are listed in parentheses following the site names.

Public Health Assessments Completed or Issued

Between October 1, 2002 and December 31, 2002, public health assessments were issued for the sites listed below.

NPL Sites

Arizona

Asarco Hayden Smelter Site (a/k/a Asarco Incorporated Hayden Plant (PB2003–101342).

Florida

Queen's 41st Auto Salvage (a/k/a Queens 41 Auto) (PB2003–101341).

Kansas

Tri-County Public Airport (PB2003–101566).

Louisiana

Marion Pressure Treating Company (PB2003–102178).

Non NPL Petitioned Sites

Georgia

Newtown Community (PB2003–101565).

Dated: May 19, 2003.

Georgi Jones,

Director, Office of Policy and External Affairs, Agency for Toxic Substances and Disease Registry.

[FR Doc. 03–12958 Filed 5–22–03; 8:45 am]

BILLING CODE 4163–70–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–03–70]

Proposed Data Collections Submitted for Public Comment and Recommendations

In compliance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 for opportunity for public comment on proposed data collection projects, the Centers for Disease Control and Prevention (CDC) will publish periodic summaries of proposed projects. To request more information on the proposed projects or to obtain a copy of the data collection plans and instruments, call the CDC Reports Clearance Officer on (404) 498–1210.

CDC is requesting an emergency clearance for this data collection with a two week public comment period. CDC is requesting OMB approval of this package 7 days after the end of the public comment period.

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Send comments to Seleda Perryman, CDC Assistant Reports Clearance Officer, 1600 Clifton Road, MS–D24, Atlanta, GA 30333. Written comments should be received within 14 days of this notice.

Proposed Project: US-Mexico Border Diabetes Prevention and Control Project—Phase II Community Intervention Pilot Project—New—National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC). The Pan American Health Organization (PAHO), El Paso field office, in collaboration with the CDC-funded United States/Mexico Border Diabetes Prevention and Control Programs, and the Mexico Secretariat of Health will conduct Phase II of the US-Mexico Diabetes Prevention and Control Project. This phase II is the natural follow-up to the household survey to determine the burden of diabetes on the border (Phase I).

The purpose of the project is to diminish the impact of diabetes on the border population by conducting activities in two related and chronological phases (prevalence study and intervention program). Phase I, which will assess the prevalence of diabetes, related behavioral risk factors, and assess the health services for the border population, was completed in October 2002. Phase II will be implemented in eleven pilot communities, where persons living with diabetes will be randomized to either intervention group participant (IGP) or delayed intervention control group participant (DICGP). The DICGP will receive usual diabetes self management education by the health care provider in a community health center setting, and the IGP will be assigned to receive diabetes self management education reinforcement and coaching social support at the community/home level, by a Community Health Worker/Promotor de Salud (CHW/PdS). These programs will be culturally and linguistically appropriate and will include the participation of community health workers (*promotores*) and primary healthcare providers working as a team approach.

Activities for Phase II will include implementation of community interventions that will provide weekly site visits to the person living with diabetes and provide follow-up and support for the participant and their family. Two family members, found with the highest risk factor rating will also be intervened by the CHW/PdS. The CHW will reinforce educational messages on balanced nutrition and physical activity and provide social support and coaching to the person living with diabetes and their family members. An equal number of participants will be in the delayed intervention control group. This group and their high risk family members will complete an initial household survey and a final household survey at the end of 18 months. The CHWs will be trained in diabetes and community mobilization skills. The household survey will be repeated in the fifth year of the project for evaluation purposes.

There is no cost to the respondents.

Respondents	Number of respondents	Number of responses per respondent	Average burden per response (in hours)	Total burden (in hours)
Intervention Group Participants	330	2	1	660
IGP Family Members	660	2	1	1320
Delayed Intervention Control Group Participants	330	2	1	660
DICGP Family Members	660	2	1	1320
Total				3960

Dated: May 19, 2003.

Thomas A. Bartenfeld,

Acting Associate Director for Policy, Planning and Evaluation, Centers for Disease Control and Prevention.

[FR Doc. 03–12960 Filed 5–22–03; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–03–69]

Proposed Data Collections Submitted for Public Comment and Recommendations

In compliance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 for opportunity for public comment on proposed data collection projects, the Centers for Disease Control and Prevention (CDC) will publish periodic summaries of proposed projects. To request more information on the proposed projects or to obtain a copy of the data collection plans and instruments, call the CDC Reports Clearance Officer on (404) 498–1210. CDC is requesting an emergency clearance for this data collection with a two week public comment period. CDC is requesting OMB approval of this package 7 days after the end of the public comment period.

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information

on respondents, including through the use of automated collection techniques or other forms of information technology. Send comments to Seleda Perryman, CDC Assistant Reports Clearance Officer, 1600 Clifton Road, MS–D24, Atlanta, GA 30333. Written comments should be received within 14 days of this notice.

Proposed Project: Evaluation Questions for State Nutrition and Physical Activity Programs to Prevent Obesity and Other Chronic Diseases—New—National Center for Chronic Disease Prevention and Health Promotion (NCCDHP), Centers for Disease Control and Prevention (CDC)

Background and Description: CDC's State Nutrition and Physical Activity Programs to Prevent Obesity and Other Chronic Diseases were established to prevent and control obesity and other chronic diseases by supporting States in the development and implementation of nutrition and physical activity interventions, particularly through population-based strategies such as policy-level changes, environmental supports and the social marketing process. The goal of the program is to attain population-based behavior change in increased physical activity and better dietary habits; this leads to a reduction in the prevalence of obesity, and ultimately in a reduction in the prevalence of obesity-related chronic diseases.

The evaluation of CDC's State Nutrition and Physical Activity Programs to Prevent Obesity and Other Chronic Diseases has been designed to focus on three primary areas: CDC training and technical assistance; State Plan development; and State interventions. Within each of these primary evaluation areas, the plan identifies specific evaluation questions that have been chosen for study. The evaluation questions will be asked of the funded states via a web-based data collection system supported by an electronic database. This evaluation will take place every 6 months during the funding cycle.

Cost to the respondents: There is no cost to the respondents.

Respondents	Number of respondents	Number responses per respondent	Average burden per response (in hrs.)	Total burden (in hrs.)
Funded State Programs	20	2	5	200
Total				200

Dated: May 19, 2003.

Thomas A. Bartenfeld,

Acting Associate Director for Policy, Planning and Evaluation, Centers for Disease Control and Prevention.

[FR Doc. 03–12961 Filed 5–22–03; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Advisory Committee on Immunization Practices: Meeting

In accordance with section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463), the Centers for Disease Control and Prevention (CDC) announces the following Federal Committee meeting.

Name: Advisory Committee on Immunization Practices (ACIP).

Times and Dates: 8:30 a.m.–6:30 p.m., June 18, 2003. 8 a.m.–3:45 p.m., June 19, 2003.

Place: Atlanta Marriott Century Center, 2000 Century Boulevard, NE., Atlanta, Georgia 30345–3377.

Status: Open to the public, limited only by the space available.

Purpose: The Committee is charged with advising the Director, CDC, on the appropriate uses of immunizing agents. In addition, under 42 U.S.C. 1396s, the Committee is mandated to establish and periodically review and, as appropriate, revise the list of vaccines for administration to vaccine-eligible children through the Vaccines for Children (VFC) program, along with schedules regarding the appropriate periodicity, dosage, and contraindications applicable to the vaccines.

Matters to be Discussed: The Agenda will include a discussion on the smallpox vaccine update; adverse events following smallpox vaccine in the civilian vaccination program; update investigation of cardiac adverse events following smallpox vaccine; women with smallpox vaccine exposure; report from the smallpox vaccine safety working group; consideration for the timing of revaccination; update on smallpox vaccine 10day/21day survey of recipients; vaccinating cochlear implant recipients against vaccine-preventable causes of bacterial meningitis; impact of ACIP Recommendations on the use of PCV7 by pediatricians during the shortage; influenza update and live attenuated influenza vaccine recommendation; recommending the meningococcal vaccine for adolescents; progress on safe, disposable cartridge jet injectors for mass immunization campaigns; update on a project to increase public engagement in decision-making about vaccines; evaluation of thimersol containing vaccines in non-human primates; and Federal Advisory Stakeholder Engagement Survey Results.

Agenda items are subject to change as priorities dictate.

Contact Person for More Information: Demetria Gardner, Epidemiology and Surveillance Division, National Immunization Program, CDC, 1600 Clifton Road, NE., Mailstop E–61, Atlanta, Georgia 30333, telephone 404/639–8096, fax 404/639–8616.

The Director, Management Analysis and Services Office, has been delegated the authority to sign **Federal Register** notices pertaining to announcements of meetings and other committee management activities for both CDC and the Agency for Toxic Substances and Disease Registry.

Dated: May 16, 2003.

Alvin Hall,

Director, Management Analysis and Services Office, Centers for Disease Control and Prevention (CDC).

[FR Doc. 03–12959 Filed 5–22–03; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Proposed Information Collection Activity; Comment Request

Proposed Projects

Title: Low Income Home Energy Assistance Program (LIHEAP) Household Report.

OMB No.: 0970–0060.

Description: This statistical report is an annual activity which is required by statute (42 U.S.C. 8629) and federal regulations (45 CFR 96.92) for the Low Income Home Energy Assistance Program (LIHEAP). Submission of the completed report is one requirement for LIHEAP grantees applying for federal LIHEAP block grant funds. States, the District of Columbia, and the Commonwealth of Puerto are required to report statistics for the previous federal fiscal year on the number and income levels of LIHEAP applicant and assisted households, and the number of

LIHEAP assisted households with at least one member who is elderly, disabled or a young child. Insular areas receiving less then $200,000 annually in LIHEAP funds and Indian Tribal Grantees are required to submit data only on the number of households receiving heating, cooling, energy crisis, or weatherization benefits. The information is being collected for the Department's annual LIHEAP report to Congress. The data also provide information about the need for LIHEAP funds. Finally, the data are beginning to be used in the calculation of LIHEAP performance measures under the Government Performance and Results Act of 1993.

Respondents: State Governments, Tribal Governments, and Territories.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Assisted Hhd. Report—LF	52	1	25	1300
Assisted Hhd. Report—SF	132	1	1	132
Applic. Hhd. Report	52	1	13	675

Estimated Total Annual Burden Hours: 2108.

In compliance with the requirements of Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995, the Administration for Children and Families is soliciting public comment on the specific aspects of the information collection described above. Copies of the proposed collection of information can be obtained and comments may be forwarded by writing to the Administration for Children and Families, Office of Administration, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. E-mail address: *rsargis@acf.hhs.gov.* All requests should be identified by the title of the information collection.

The Department specifically requests comments on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate on the burden of the proposed collection of information; (c) the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted within 60 days of this publication.

Dated: May 16, 2003.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 03–12904 Filed 5–22–03; 8:45 am]

BILLING CODE 4184–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: 45 CFR 1303 Appeal Procedures for Head Start Grantees and Current or Prospective Delegate Agencies.

OMB No.: 0980–0242.

Description: Section 646 of the Head Start Act requires the Secretary of the Department of Health and Human Services to prescribe a timeline for conducting administrative hearings when adverse actions are taken or proposed against Head Start or Early Head Start grantees and delegate agencies. The Head Start Bureau is proposing to renew this rule, which implements the requirements that prescribe when a grantee must submit information and what that information should include to support a contention that adverse action should not be taken.

Respondents: Head Start and Early Head Start grantees and delegate agencies.

ANNUAL BURDEN ESTIMATES

	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Instrument	10	1	26	260

Estimated Total Annual Burden Hours: 260.

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Administration, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, 725 17th Street, NW., Washington, DC 20503, Attn: Desk Officer for ACF.

Dated: May 16, 2003.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 03–12905 Filed 5–22–03; 8:45 am]

BILLING CODE 4184–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: 45 CFR 1303 Appeal Procedures for Head Start Grantees and Current or Prospective Delegate Agencies.

OMB No.: 0980–0242.

Description: Section 646 of the Head Start Act requires the Secretary of the Department of Health and Human Services to prescribe a timeline for conducting administrative hearings when adverse actions are taken or proposed against Head Start or Early Head Start grantees and delegate agencies. The Head Start Bureau is proposing to renew this rule, which implements the requirements that prescribe when a grantee must submit information and what that information should include to support a contention that adverse action should not be taken.

Respondents: Head Start and Early Head Start grantees and delegate agencies.

ANNUAL BURDEN ESTIMATES

	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Instrument	10	1	26	260

Estimated Total Annual Burden Hours: 260.

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Administration, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register.** Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, 725 17th Street, NW., Washington, DC 20503. Attn: Desk Officer for ACF.

Dated: May 16, 2003.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 03–12906 Filed 5–22–03; 8:45 am]

BILLING CODE 4184–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: DHHS/ACF/ASPE/DOL Enhanced Services for the Hard-to-Employ Demonstration and Evaluation Project Baseline Survey.

OMB No.: New collection.

Description: The Enhanced Services for the Hard-to-Employ Demonstration and Evaluation Project (HtE) is the most ambitious, comprehensive effort to learn what works in this area to date and is explicitly designed to build on previous and ongoing research by rigorously testing a wide variety of approaches to promote employment and improve family functioning and child well-being. The HtE project will ''conduct a multi-site evaluation that studies the implementation issues, program design, net impact and benefit-costs of selected programs'' [1] designed to help Temporary Assistance for Needy Families (TANF) recipients, former TANF recipients, or low-income parents who are hard-to-employ. The project is sponsored by the Office of Planning, Research and Evaluation (OPRE) of the Administration for Children and Families (ACF), the Office of the Assistant Secretary for Planning and Evaluation (ASPE) in the U.S. Department of Health and Human Services (HHS), and the U.S. Department of Labor (DOL). The evaluation involves an experimental, random assignment design in six sites, testing a diverse set of strategies to promote employment for low-income parents who face serious obstacles to employment, including physical and mental health problems, substance abuse, human capital deficiencies, and situational barriers. At least two of the sites included in the evaluation will feature ''two generation'' models, serving both parents and their children. Over the next several years, the HtE project will generate a wealth of rigorous data on implementation, effects, and costs of these alternative approaches. The data collected will be used for the following purposes:

- To study the extent to which different HtE approaches impact employment, earnings, income, welfare dependence, and the presence or persistence of employment barriers;
- To collect data on a wider range of outcome measures than is available through Welfare, Medicaid, Food Stamps, Social Security, the Criminal Justice System or Unemployment Insurance records in order to understand the family circumstances and attributes and situations that contribute to the difficulties in finding employment; job retention and job quality; educational attainment; interactions with and knowledge of the HtE program; household composition; childcare; transportation; health care; income; physical and mental health problems; substance abuse; domestic violence; and criminal history;
- To conduct non-experimental analyses to explain participation decisions and provide a descriptive picture of the circumstances of individuals who are hard-to-employ;
- To obtain participation information important to the evaluation's benefit-cost component; and,
- To obtain contact information for possible future follow-up, information that will be important to achieving high response rates for additional surveys.

Respondents: The respondents to the baseline survey are Temporary Assistance for Needy Families (TANF) recipients, former TANF recipients, or low-income individuals who are hard-to-employ from six states likely to be participating in the HtE Project: California, Georgia, Kansas, New York, Pennsylvania, and Rhode Island. Survey respondents can be grouped according to four target populations: Ex-offenders with children; low-income mothers with mental health barriers; populations connected to the TANF system; and

[1] From the Department of Health and Human Services RFP No.: 233–01–0012.

programs working with two generations (parents and their children). Prior to random assignment, basic demographic information for all survey respondents will be obtained wherever possible from the program's automated system. In addition, all survey respondents will receive a core set of questions that will be administered by Audio-Computer Assisted Self Interview (ACASI-Core). In the site operating a program aimed specifically at ex-offenders, an additional supplementary module will be administered by Audio-CASI. Similarly, an additional supplementary module will be administered by Audio-CASI in the site operating a program aimed at survey respondents with mental health problems. Finally, in the two-generation sites (two of the six sites), survey respondents will complete a two-generation survey administered by a Computer Assisted Personal Interview (CAPI). Approximately 12,000 respondents will complete the core survey, 2,000 will complete the criminal justice module, 2,000 will complete the mental health module, and 4,000 will complete the two-generation CAPI survey.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Audio-CASI Core	12,000	1	10 minutes or .17 hrs	2,000
Criminal Justice Module	2,000	1	12 minutes or .20 hrs	400.00
Mental Health Module	2,000	1	11 minutes or .18 hrs	366.67
Two-Generation CAPI	4,000	1	24 minutes or .4 hrs	1,600

Estimated Total Annual Burden Hours: 4,366.67.

Additionally Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, 725 17th Street, NW., Washington, DC 20503. Attn: Desk Officer for ACF.

Dated: May 16, 2003.

Bob Sargis,

Reports Clearance Officer.

[FR Doc. 03–12907 Filed 5–22–03; 8:45 am]

BILLING CODE 4184–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: HHS/ACF Employment Retention and Advancement (ERA) Evaluation Implementation Data Collection Activities: Staff Time Study and Implementation Field Research Guide.

OMB No.: New collection.

Description: The Employment Retention and Advancement (ERA) Evaluation is the most ambitious, comprehensive effort to learn what works in this area to date and is explicitly designed to build on past research by rigorously testing a wide variety of approaches to promoting employment retention and advancement for a range of populations. The project, conceived and sponsored by the Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services (HHS),[1] seeks to ''conduct a multi-site evaluation that studies the net impact and cost-benefits of programs designed to help Temporary Assistance for Needy Families (TANF) recipients, former TANF recipients, or families at-risk of needing TANF benefits retain and advance in employment.'' [2] The ERA Evaluation involves up to 15 random assignment experiments in eight states, testing a diverse set of strategies designed to promote stable employment and/or career advancement for current and former welfare recipients and other low-income parents. Over the next several years, the ERA project will generate a wealth of rigorous data on the implementation, effects, and costs of these alternative approaches.

The time study and field guide are part of the ERA evaluation's implementation and process analysis. This analysis is intended to inform the impact analysis and assess the feasibility and replicability of different approaches by examining the implementation of various ERA approaches, individuals' patterns of participation in ERA and other available services, and the relationship between participation and individuals' baseline characteristics and the site contexts. In particular, the time study and field guides supply information for the implementation and process analysis that are not available through other means.

Specifically, the staff time study, for which OMB authorization is requested, will be used for the following purposes in the ERA evaluation:

- To create descriptive measures of case management;
- To set up measures of program-control implementation differences within a few sites, as appropriate;
- To compare case management practices across regions or counties within sites that have varying levels of impacts;
- To compare case management practices across sites;
- To compare ERA case management practices to those delivered in the Post Employment Service Demonstration programs, which were found to be largely ineffective, and to those in the soon-to-begin United Kingdom ERA programs; and
- To identify the components of cost in preparation for a full benefit-cost analysis of the ERA programs.

In addition, the implementation field research guide, for which OMB authorization is also requested, will be used for the following purposes in the ERA evaluation:

- To describe what ERA programs set out to do and how services are delivered;
- To help explain, once impact data are available, why certain ERA programs produce or do not produce impacts;

[1] The U.S. Department of Labor has also provided funding to support the ERA project.

[2] From the Department of Health and Human Services RFP No.: 105–99–8100.

• To identify the strengths (best practices) and weaknesses of ERA programs; and

• To formulate questions/issues for further study.

Respondents: The respondents in the ERA Staff Time Study and Field Research Guide discussions are staff from state and local agencies, non-profit program provider organizations, and for-profit program provider organizations in up to 15 ERA sites from the eight states participating in the ERA Evaluation: California, Oregon, New York, Ohio, Minnesota, Illinois, South Carolina and Texas. The field research data collection effort may also involve selected sample members, and possibly some of the supervisors of employed sample members, again in up to 15 ERA sites. Survey respondents can be grouped according to three program clusters: Advancement projects; placement and retention (hard-to-employ) projects; and mixed goal projects. All three program clusters will be administered the time study and participate in field research activities. Time study participants will have the choice of completing an electronic or paper version of the time study instrument. Approximately 519 participants will complete the time study. Approximately 450 participants will take part in the field research discussions and will not be asked to fill out any paperwork or instruments.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Staff Time Study	519	1	150 minutes or 2.5 hrs	1,297.5
Field Research Discussions	450	1	30 minutes or .5 hrs	225.0

Estimated Total Annual Burden hours: 1,522.5.

Additional Information: Copies of the proposed collection may be obtained by writing to The Administration for Children and Families, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, 725 17th Street, NW., Washington, DC 20503. Attn: Desk Officer for ACF.

Dated: May 16, 2003.

Bob Sargis,

Reports Clearance Officer.

[FR Doc. 03–12908 Filed 5–22–03; 8:45 am]

BILLING CODE 4184–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: Final Tribal TANF Data Report.

OMB No.: 0970–0215.

Description: 42 U.S.C. 612 (section 412 of the Social Security Act as amended by Pub. L. 104–193, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996) mandates that Federally recognized Indian Tribes with an approved Tribal Temporary Assistance for Needy Families (TTANF) program, collect and submit to the Secretary of the Department of Health and Human Services, data on the recipients served by their programs. Instructions and requirements for submitting that data are the subject of this request for comments.

Respondents: Federally recognized Indian Tribes with an approved TTANF program.

ANNUAL BURDEN ESTIMATES

Instruction or requirement	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Final Tribal TANF Data Report—§ 286.30(b)	56	4	451	101,024
Tribal TANF Annual Report—§ 286.55	56	1	40	2,240
Tribal TANF Reasonable Cause/Corrective Action Documentation Process—§ 286.200	56	1	60	3,360
Total Burden				106,624

Additional Information: copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Administration, Office of Information Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register.** Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, 725 17th Street, NW., Washington, DC 20503, Attn: Desk Officer for ACF.

Dated: May 16, 2003.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 03–12909 Filed 5–22–03; 8:45 am]

BILLING CODE 4184–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 02N–0418]

Agency Information Collection Activities; Announcement of OMB Approval; Adverse Experience Reporting for Licensed Biological Products; and General Records

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a collection of information entitled ''Adverse Experience Reporting for Licensed Biological Products; and General Records'' has been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995.

FOR FURTHER INFORMATION CONTACT: JonnaLynn Capezzuto, Office of Information Resources Management (HFA–250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–827–4659.

SUPPLEMENTARY INFORMATION: In the **Federal Register** of January 23, 2003 (68 FR 3262), the agency announced that the proposed information collection had been submitted to OMB for review and clearance under 44 U.S.C. 3507. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. OMB has now approved the information collection and has assigned OMB control number 0910–0308. The approval expires on May 31, 2005. A copy of the supporting statement for this information collection is available on the Internet at *http://www.fda.gov/ohrms/dockets*.

Dated: May 16, 2003.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 03–12920 Filed 5–22–03; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 03N–0199]

Agency Information Collection Activities; Proposed Collection; Comment Request;Importer's Entry Notice; Extension

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act of 1995 (the PRA), Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including renewal of an existing collection of information, and to allow 60 days for public comment in response to the notice. This notice solicits comments on information collection provisions for the importer's entry notice.

DATES: Submit written or electronic comments on the collection of information by July 22, 2003.

ADDRESSES: Submit electronic comments on the collection of information via the Internet at: *http://www.accessdata.fda.gov/scripts/oc/dockets/edockethome.cfm*. Submit written comments on the collection of information to the Dockets Management Branch (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Denver Presley, Office of Information Resources Management (HFA–250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–827–1472.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. Collection of information is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection, before submitting the collection to OMB for approval. To comply with this requirement, FDA is publishing notice of the proposed collection of information listed below.

With respect to the following collection of information, FDA invites comments on: (1) Whether the proposed collection of information is necessary for the proper performance of FDA s functions, including whether the information will have practical utility; (2) the accuracy of FDA s estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

Importer's Entry Notice—OMB Control Number 0910–0046—Extension

Section 801 of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 381) charges FDA with the following responsibilities: (1) Ensuring that foreign-origin FDA-regulated foods, drugs, cosmetics, medical devices, and radiological health products offered for import into the United States meet the same requirements of the act as do domestic products. and (2) preventing shipments from entering the country if they are not in compliance.

The information collected by FDA consists of the following: (1) Product code, an alpha-numeric series of characters that identifies each product FDA regulates; (2) FDA country of origin, the country where the FDA-registered or FDA-responsible firm is located; (3) FDA manufacturer, the party who manufactured, grew, assembled, or otherwise processed the goods (if more than one, the last party who substantially transformed the product); (4) shipper, the party responsible for packing, consolidating, or arranging the shipment of goods to their final destinations; (5) quantity and value of the shipment; and (6) if appropriate, affirmation of compliance, a code that conveys specific FDA information, such as registration number, foreign government certification, etc. This information is collected electronically by the entry filer via the U.S. Customs Service's Automated Commercial System at he same time he/she files an entry for import with the U.S. Custom Service. FDA uses this information to make admissibility decisions about FDA-regulated products offered for import into the United States.

The annual reporting burden is derived from the basic processes and procedures used in fiscal year (FY) 1995. The total number of entries submitted to the automated system in FY 2002 was 5,496,954. The total number of entries less the disclaimer entries will represent the total FDA products entered into the automated system. A total of 53 percent of all

entries entered into the automated system were entries dealing with FDA-regulated products. The number of respondents is a count of filers who submit entry data for foreign-origin FDA-regulated products. The estimated reporting burden is based on information obtained by FDA contacting some potential respondents. Disclaimer entries are not FDA commodities.

FDA estimates the burden for this collection of information as follows:

TABLE 1. ESTIMATED ANNUAL REPORTING BURDEN[1]

Section of the Act	No of Respondents	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
Section 801 for FY 2002 Updated	3,406	652	2,955,595	.14	413,833

[1]There are no capital cost or operating and maintenance cost associated with this collection of information.

Dated: May 16, 2003.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 03–12921 Filed 5–22–03; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 03N–0198]

Agency Information Collection Activities; Proposed Collection; Comment Request; Medicated Feed Mill License

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing an opportunity for public comment on the proposed collection of certain information by the agency. Under the Paperwork Reduction Act of 1995 (the PRA), Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension for an existing collection of information, and to allow 60 days for public comment in response to the notice. This notice solicits comments on the collection of information for medicated feed mill licensing requirements.

DATES: Submit written or electronic comments on the collection of information by July 22, 2003.

ADDRESSES: Submit electronic comments on the collection of information via the Internet at: *http://www.accessdata.fda.gov/scripts/oc/dockets/edockethome.cfm*. Submit written comments on the collection of information to the Dockets Management Branch (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Denver Presley, Office of Information Resources Management (HFA–250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–827–1472.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. A collection of information is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, FDA is publishing notice of the proposed collection of information listed below.

With respect to the following collection of information, FDA invites comments on: (1) Whether the proposed collection of information is necessary for the proper performance of FDA's functions, including whether the information will have practical utility; (2) the accuracy of FDA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

Medicated Feed Mill License Application—21 CFR Part 515 (OMB Control Number 0910–0337)—Extension

In the **Federal Register** of November 19, 1999 (64 FR 63195), FDA published a final rule implementing the feed mill licensing provisions of the Animal Drug Availability Act (the ADAA) of 1966 (Public Law 104–250). The rule added a new part 515 to title 21 CFR to provide the requirements for medicated feed mill licensing.

The rule set forth the information to be included in medicated feed mill license applications and supplemental applications. Also, it set forth criteria for, among other things, the approval and refusal to approve a medicated feed mill license application, as well as the criteria for the revocation and/or suspension of a license.

Respondents to this collection of information are individuals or firms that manufacture medicated animal feed.

FDA estimates the burden of this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN[1]

21 CFR Section	No. of Recordkeepers	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
515.10(b)	7	1	7	0.25	1.75
515.11(b)	100	1	100	0.25	25.00

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN[1]—Continued

21 CFR Section	No. of Recordkeepers	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
515.23	25	1	25	0.25	6.25
515.30(c)	0.15	1	0.15	24	3.60
Total Burden Hours					36.6

[1] There are no capital cost or operating and maintenance costs associated with this collection of information.

TABLE 2.—ESTIMATED ANNUAL RECORDKEEPING BURDEN [1]

21 CFR Section	No. of Recordkeepers	Annual Frequency per Recordkeeping	Total Annual Records	Hours per Recordkeeper	Total Hours
510.305	1,160	1	1,160	0.03	34.80

[1]There are no capital costs or operating and maintenance costs associated with this collection of information.

The estimated number of respondents is derived from agency data on the number of medicated feed manufacturers entering the market each year, changing ownership or address, requesting voluntary revocation of a medicated feed mill license, and those involved in revocation and/or suspension of a license. The estimate of the time required for this reporting requirement is based on the agency communication with industry.

Dated: May 16, 2003.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 03–12922 Filed 5–22–03; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 03D–0180]

Guidance for Industry and FDA; Establishing and Maintaining a List of U.S. Dairy Product Manufacturers/Processors With Interest in Exporting to Chile; Availability and a Request for Information From Such Manufacturers/Processors

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the availability of a document entitled ''Guidance for Industry and FDA; Establishing and Maintaining a List of U.S. Dairy Product Manufacturers/Processors With Interest in Exporting to Chile.'' This guidance explains that FDA intends to establish and maintain a list, which will be sent to Chile and posted on FDA's Internet site, identifying the names and addresses of U.S. manufacturers that have expressed interest to FDA in exporting dairy products to Chile, are subject to FDA jurisdiction, and are not the subject of a pending judicial enforcement action (i.e., injunction or seizure) or an unresolved warning letter.

DATES: This guidance is final upon the date of publication. However, you may submit written or electronic comments at any time.

ADDRESSES: Submit electronic or written information for inclusion on the Chilean dairy list to Esther Z. Lazar, Center for Food Safety and Applied Nutrition (HFS–306) (*see* **FOR FURTHER INFORMATION CONTACT**). Send one self-addressed adhesive label to assist that office in processing your request or include a fax number to which the guidance may be sent. Submit written comments on the guidance document or the collection of information to the Dockets Management Branch (HFA–305), Food and Drug Administration, 5630 Fishers Lane., rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document. Submit electronic comments on the guidance document or the collection of information to *http://www.accessdata.fda.gov/scripts/oc/dockets/edockethome.cfm. See* the **SUPPLEMENTARY INFORMATION** section for electronic access to this guidance document.

Submit written requests for single copies of this guidance to the Office of Plant and Dairy Foods and Beverages, Division of Dairy and Egg Safety, Center for Food Safety and Applied Nutrition, 5100 Paint Branch Pkwy., College Park, MD 20740.

FOR FURTHER INFORMATION CONTACT: Esther Z. Lazar, Center for Food Safety and Applied Nutrition (HFS–306), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 301–436–1485, or e-mail: *elazar@cfsan.fda.gov*.

SUPPLEMENTARY INFORMATION:

I. Background

As a direct result of trade discussions that have been adjunct to the United States-Chile Free Trade Agreement, Chile has recognized FDA as the competent U.S. food safety authority and has accepted the U.S. regulatory system for dairy inspections. Chile has concluded that it will not require individual inspections of U.S. firms by Chile as a prerequisite for trade, but will accept firms identified by FDA as eligible to export to Chile. Therefore, FDA intends to establish and maintain a list, which will be sent to Chile and posted on FDA's Internet site, identifying the names and addresses of U.S. dairy product manufacturers/processors that have expressed to FDA their interest in exporting dairy products to Chile, are subject to FDA jurisdiction, and are not the subject of a pending judicial enforcement action (i.e., an injunction or seizure) or an unresolved warning letter. The term ''dairy products,'' for purposes of this list, is not intended to cover the raw agricultural commodity raw milk.

II. Discussion

The guidance document states that FDA intends to establish and maintain a list identifying U.S. manufacturers/processors that have expressed interest to FDA in exporting dairy products to Chile, are subject to FDA jurisdiction, and are not the subject of a pending judicial enforcement action (i.e. an

injunction or seizure) or an unresolved warning letter. Inclusion of U.S. dairy product manufacturers/processors on this list is voluntary. However, dairy products from firms not on this list could be refused entry at the Chilean port of entry. The guidance explains what information firms should submit to FDA in order to be considered for inclusion on the list and what criteria FDA intends to use to determine eligibility for placement on the list. The document also explains how FDA intends to update the list and how FDA intends to communicate any new information to Chile. Finally, the guidance notes that FDA will consider the information on this list, which will be posted on FDA's Internet site and communicated to Chile, to be information that is not protected from disclosure under 5 U.S.C. 552(b)(4).

This guidance represents the agency's current thinking on the procedures for assisting Chile in determining which U.S. manufacturers or processors are eligible to export dairy products to Chile. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statutes and regulations.

This guidance document is being issued as a level 1 guidance consistent with FDA's good guidance practices (GGPs) regulation (§ 10.115 (21 CFR 10.115)). Consistent with GGPs, the agency will accept comment, but is implementing the guidance document immediately in accordance with § 10.115(g)(2), because the agency has determined that prior public participation is not feasible or appropriate. The guidance document presents a less burdensome policy that is consistent with the public health.

III. Comments

Interested persons may submit to the Dockets Management Branch (*see* **ADDRESSES**) written or electronic comments regarding this guidance at any time. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. The guidance and received comments may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

IV. Paperwork Reduction Act of 1995

The Office of Management and Budget (OMB) has approved this collection of information under the emergency processing provision of the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(j) and 5 CFR 1320.13) and has assigned OMB control number 0910–0509. As discussed in the **Federal Register** of April 10, 2003 (68 FR 17655), public reporting burden for this collection of information is estimated to be 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing each collection of information.

V. Electronic Access

Interested persons also may access the guidance document at *http://www.cfsan.fda.gov/guidance.html*.

Dated: May 15, 2003.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 03–12975 Filed 5–22–03; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HOMELAND SECURITY

Bureau of Customs and Border Protection

List of Foreign Entities Violating Textile Transshipment and Country of Origin Rules

AGENCY: Bureau of Customs and Border Protection, Homeland Security.

ACTION: General notice.

SUMMARY: This document notifies the public of foreign entities which have been issued a penalty claim under section 592 of the Tariff Act of 1930, for certain violations of the customs laws. This list is authorized to be published by section 333 of the Uruguay Round Agreements Act.

DATES: This document notifies the public of the semiannual list for the 6-month period starting March 31, 2003, and ending September 30, 2003.

FOR FURTHER INFORMATION CONTACT: For information regarding any of the operational aspects, contact Gregory Olavsky, Fines, Penalties and Forfeitures Branch, Office of Field Operations, (202) 927–3119. For information regarding any of the legal aspects, contact Willem A. Daman, Office of Chief Counsel, (202) 927–6900.

SUPPLEMENTARY INFORMATION:

Background

Section 333 of the Uruguay Round Agreements Act (URAA) (Pub. L. 103–465, 108 Stat. 4809)(signed December 8, 1994), entitled Textile Transshipments, amended Part V of title IV of the Tariff Act of 1930 by creating a section 592A (19 U.S.C. 1592a), which authorizes the Secretary of the Treasury (and this authority has been delegated to the Secretary of Homeland Security and to the Commissioner of the Bureau of Customs and Border Protection) to publish in the **Federal Register**, on a semiannual basis, a list of the names of any producers, manufacturers, suppliers, sellers, exporters, or other persons located outside the Customs territory of the United States, when these entities and/or persons have been issued a penalty claim under section 592 of the Tariff Act, for certain violations of the customs laws, provided that certain conditions are satisfied.

The violations of the customs laws referred to above are the following: (1) Using documentation, or providing documentation subsequently used by the importer of record, which indicates a false or fraudulent country of origin or source of textile or apparel products; (2) Using counterfeit visas, licenses, permits, bills of lading, or similar documentation, or providing counterfeit visas, licenses, permits, bills of lading, or similar documentation that is subsequently used by the importer of record, with respect to the entry into the Customs territory of the United States of textile or apparel products; (3) Manufacturing, producing, supplying, or selling textile or apparel products which are falsely or fraudulently labeled as to country of origin or source and (4) Engaging in practices which aid or abet the transshipment, through a country other than the country of origin, of textile or apparel products in a manner which conceals the true origin of the textile or apparel products or permits the evasion of quotas on, or voluntary restraint agreements with respect to imports of textile or apparel products.

If a penalty claim has been issued with respect to any of the above violations, and no petition in response to the claim has been filed, the name of the party to whom the penalty claim was issued will appear on the list. If a petition or supplemental petition for relief from the penalty claim is submitted under 19 U.S.C. 1618, in accord with the time periods established by sections 171.2 and 171.61, Customs Regulations (19 CFR 171.2, 171.61) and the petition is subsequently denied or the penalty is mitigated, and no further petition, if allowed, is received within 60 days of the denial or allowance of mitigation, then the administrative action shall be deemed to be final and administrative remedies will be deemed to be exhausted. Consequently, the

name of the party to whom the penalty claim was issued will appear on the list. However, provision is made for an appeal to the Secretary of the Treasury (now delegated to the Secretary of Homeland Security) by the person named on the list, for the removal of its name from the list. If the Secretary finds that such person or entity has not committed any of the enumerated violations for a period of not less than 3 years after the date on which the person or entity's name was published, the name will be removed from the list as of the next publication of the list.

Reasonable Care Required

Section 592A also requires any importer of record entering, introducing, or attempting to introduce into the commerce of the United States textile or apparel products that were either directly or indirectly produced, manufactured, supplied, sold, exported, or transported by such named person to show, to the satisfaction of the Secretary, that such importer has exercised reasonable care to ensure that the textile or apparel products are accompanied by documentation, packaging, and labeling that are accurate as to its origin. Reliance solely upon information regarding the imported product from a person named on the list is clearly not the exercise of reasonable care. Thus, the textile and apparel importers who have some commercial relationship with one or more of the listed parties must exercise a degree of reasonable care in ensuring that the documentation covering the imported merchandise, as well as its packaging and labeling, is accurate as to the country of origin of the merchandise. This degree of reasonable care must involve reliance on more than information supplied by the named party.

In meeting the reasonable care standard when importing textile or apparel products and when dealing with a party named on the list published pursuant to section 592A of the Tariff Act of 1930, an importer should consider the following questions in attempting to ensure that the documentation, packaging, and labeling is accurate as to the country of origin of the imported merchandise. The list of questions is not exhaustive but is illustrative.

(1) Has the importer had a prior relationship with the named party?

(2) Has the importer had any detentions and/or seizures of textile or apparel products that were directly or indirectly produced, supplied, or transported by the named party?

(3) Has the importer visited the company's premises and ascertained that the company has the capacity to produce the merchandise?

(4) Where a claim of an origin conferring process is made in accordance with 19 CFR 102.21, has the importer ascertained that the named party actually performed the required process?

(5) Is the named party operating from the same country as is represented by that party on the documentation, packaging or labeling?

(6) Have quotas for the imported merchandise closed or are they nearing closing from the main producer countries for this commodity?

(7) What is the history of this country regarding this commodity?

(8) Have you asked questions of your supplier regarding the origin of the product?

(9) Where the importation is accompanied by a visa, permit, or license, has the importer verified with the supplier or manufacturer that the visa, permit, and/or license is both valid and accurate as to its origin? Has the importer scrutinized the visa, permit or license as to any irregularities that would call its authenticity into question?

The law authorizes a semiannual publication of the names of the foreign entities and/or persons. On October 15, 2002, Customs published a notice in the **Federal Register** (67 FR 63729) which identified 3 (three) entities which fell within the purview of section 592A of the Tariff Act of 1930

592A List

For the period ending March 30, 2003, Customs has identified 3 (three) foreign entities that fall within the purview of section 592A of the Tariff Act of 1930. This list reflects no new entities and no removals to the 3 entities named on the list published on October 15, 2002. The parties on the current list were assessed a penalty claim under 19 U.S.C. 1592, for one or more of the four above-described violations. The administrative penalty action was concluded against the parties by one of the actions noted above as having terminated the administrative process.

The names and addresses of the 3 foreign parties which have been assessed penalties by Customs for violations of section 592 are listed below pursuant to section 592A. This list supersedes any previously published list. The names and addresses of the 3 foreign parties are as follows (the parenthesis following the listing sets forth the month and year in which the name of the company was first published in the **Federal Register**):

Everlite Manufacturing Company, P.O. Box 90936, Tsimshatsui, Kowloon, Hong Kong (3/01).

Fairfield Line (HK) Co. Ltd., 60–66 Wing Tai Commer., Bldg. 1/F, Sheung Wan, Hong Kong (3/01).

G.P. Wedding Service Centre, Lee Hing Industrial Building, 10 Cheung Yue Street 11th Floor, Cheung Sha Wan, Kowloon, Hong Kong (10/00).

Any of the above parties may petition to have its name removed from the list. Such petitions, to include any documentation that the petitioner deems pertinent to the petition, should be forwarded to the Assistant Commissioner, Office of Field Operations, Bureau of Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Washington, DC 20229.

Dated: May 14, 2003.

Jayson P. Ahern,

Assistant Commissioner, Office of Field Operations.

[FR Doc. 03–12931 Filed 5–22–03; 8:45 am]

BILLING CODE 4820–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1466–DR]

Alabama; Amendment No. 2 to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster declaration for the State of Alabama, (FEMA–1466–DR), dated May 12, 2003, and related determinations.

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: The notice of a major disaster declaration for the State of Alabama is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of May 12, 2003:

Chambers, Clay, Cleburne, Lauderdale, Randolph and Russell Counties for Public Assistance (already declared for Individual Assistance).

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560 Individual and Household Program-Other Needs, 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12981 Filed 5–22–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1462–DR]

Kansas; Amendment No. 2 to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster declaration for the State of Kansas, (FEMA–1462–DR), dated May 6, 2003, and related determinations.

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: The notice of a major disaster declaration for the State of Kansas is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of May 6, 2003: Anderson, Douglas, Osage, and Woodson for Individual Assistance.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560 Individual and Household Program-Other Needs, 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12977 Filed 5–22–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1468–DR]

Maine; Major Disaster and Related Determinations

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of a major disaster for the State of Maine (FEMA–1468–DR), dated May 14, 2003, and related determinations.

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated May 14, 2003, the President declared a major disaster under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121–5206 (the Stafford Act), as follows:

I have determined that the damage in certain areas of the State of Maine, resulting from severe winter cold and frost on December 17, 2002, and continuing, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121–5206 (the Stafford Act). I, therefore, declare that such a major disaster exists in the State of Maine.

In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes, such amounts as you find necessary for Federal disaster assistance and administrative expenses.

You are authorized to provide Public Assistance in the designated areas, Hazard Mitigation throughout the State, and any other forms of assistance under the Stafford Act you may deem appropriate. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance and Hazard Mitigation will be limited to 75 percent of the total eligible costs. If Other Needs Assistance under Section 408 of the Stafford Act is later requested and warranted, Federal funding under that program will also be limited to 75 percent of the total eligible costs.

Further, you are authorized to make changes to this declaration to the extent allowable under the Stafford Act.

The Federal Emergency Management Agency (FEMA) hereby gives notice that pursuant to the authority vested in the Under Secretary for Emergency Preparedness and Response, Department of Homeland Security, under Executive Order 12148, as amended, James N. Russo, of FEMA is appointed to act as the Federal Coordinating Officer for this declared disaster.

I do hereby determine the following areas of the State of Maine to have been affected adversely by this declared major disaster:

Androscoggin, Aroostook, Cumberland, Franklin, Hancock, Lincoln, Oxford, Penobscot, Piscataquis, and Washington Counties for Public Assistance.

All counties within the State of Maine are eligible to apply for assistance under the Hazard Mitigation Grant Program.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560 Individual and Household Program-Other Needs, 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12982 Filed 5–22–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1459–DR]

Mississippi; Amendment No. 1 to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Mississippi (FEMA–1459–DR), dated April 24, 2003, and related determinations.

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: Notice is hereby given that the incident period for this disaster is reopened. The incident period for this declared disaster is now April 6–25, 2003.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560 Individual and Household Program-Other Needs, 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12976 Filed 5–22–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1463–DR]

Missouri; Amendment No. 2 to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster declaration for the State of Missouri, (FEMA–1463–DR), dated May 6, 2003, and related determinations.

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: The notice of a major disaster declaration for the State of Missouri is hereby amended to include Categories C through G under the Public Assistance program for the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of May 6, 2003:

Barton, Camden, Cape Girardeau, Cedar, Dallas, Jasper, Jefferson, Lawrence, and Polk Counties for Categories C though G under the Public Assistance Program (already designated for Individual Assistance, debris removal (Category A) and emergency protective measures (Category B) under the Public Assistance program.)

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560 Individual and Household Program-Other Needs; 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12978 Filed 5–22–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1465–DR]

Oklahoma; Amendment No. 1 to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster declaration for the State of Oklahoma, (FEMA–1465–DR), dated May 10, 2003, and related determinations.

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: The notice of a major disaster declaration for the State of Oklahoma is hereby amended to include Categories C through G under the Public Assistance for the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of May 10, 2003:

Lincoln and Osage Counties for Public Assistance.

Cleveland and Oklahoma Counties for Categories C through G under the Public Assistance program (already designated for Categories A and B).

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560 Individual and Household Program-Other Needs, 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12980 Filed 5–22–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[FEMA–1464–DR]

Tennessee; Amendment No. 1 to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency, Emergency Preparedness and Response Directorate, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster declaration for the State of Tennessee, (FEMA–1464–DR), dated May 8, 2003, and related determinations.

EFFECTIVE DATE: May 15, 2003.

FOR FURTHER INFORMATION CONTACT: Magda Ruiz, Recovery Division, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–2705.

SUPPLEMENTARY INFORMATION: The notice of a major disaster declaration for the State of Tennessee is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of May 8, 2003:

Bedford, Bledsoe, Bradley, Cannon, Coffee, Davidson, DeKalb, Hamilton, Lincoln, Marion, Marshall, Maury, McMinn, Meigs, Monroe, Polk, Rhea, Rutherford, Sequatchie, Warren, Wayne, Williamson, and Wilson Counties for Individual Assistance.

Carroll, Haywood, Henderson, Henry, and Lauderdale Counties for Public Assistance (already designated for Individual Assistance).

Benton, Cannon, DeKalb, Dickson, Lawrence, Marion, McMinn, Meigs, Perry,

Polk, Stewart, and Williamson for Public Assistance.

(The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 83.537, Community Disaster Loans; 83.538, Cora Brown Fund Program; 83.539, Crisis Counseling; 83.540, Disaster Legal Services Program; 83.541, Disaster Unemployment Assistance (DUA); 83.556, Fire Management Assistance; 83.558, Individual and Household Housing; 83.559, Individual and Household Disaster Housing Operations; 83.560, Individual and Household Program-Other Needs, 83.544, Public Assistance Grants; 83.548, Hazard Mitigation Grant Program.)

Michael D. Brown,

Under Secretary, Emergency Preparedness and Response.

[FR Doc. 03–12979 Filed 5–02–03; 8:45 am]

BILLING CODE 6718–02–P

DEPARTMENT OF HOMELAND SECURITY

Transportation Security Administration

Notice of Intent To Request Approval From the Office of Management and Budget (OMB) for Three Public Collections of Information; Aviation Security Customer Satisfaction Performance Measurement Data Collection Instruments

AGENCY: Transportation Security Administration (TSA), DHS.

ACTION: Notice.

SUMMARY: TSA invites public comment on three new information collection requirements abstracted below that will be submitted to OMB for approval in compliance with the Paperwork Reduction Act.

DATES: Send your comments by July 22, 2003.

ADDRESSES: Comments may be mailed or delivered to Yani Collins, Office of Strategic Management and Analysis; Transportation Security Administration Headquarters; West Tower, Suite 1045N; 400 Seventh Street, SW.; Washington, DC 20590–0001.

FOR FURTHER INFORMATION CONTACT: Yani Collins at the above address or by telephone (571) 227–1620; facsimile (571) 227–1927; or e-mail *yani.collins@dhs.gov.*

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), a Federal government agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. Therefore, in preparation for submission to obtain clearance of the following information collection, TSA solicits comments in order to:

(1) Evaluate whether the proposed information requirement is necessary for the proper performance of TSA functions, including whether the information will have practical utility;

(2) Evaluate the accuracy of TSA's estimate of the burden on those who are to respond;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology where appropriate.

Purpose of Data Collection

In its effort to provide world-class customer service as it provides world-class security, the Transportation Security Administration seeks to administer three instruments to collect data on the satisfaction of passengers who experience TSA's aviation passenger and baggage security processes. TSA intends for the instruments to be consistent across all airports to maximize the utility and customer-friendliness of the data collection efforts. TSA will use the data collected from these instruments to continuously improve security and customer service.

Description of Data Collection

TSA intends to collect data via the following instruments:

(1) *Statistically Valid Intercept Surveys.* TSA intends to conduct a statistically valid passenger survey at commercial airports nationwide. The survey will be administered using an intercept methodology, in which passengers will be handed survey forms soon after they experience TSA's aviation security functions and be invited to mail the form back. Passengers who receive surveys will be selected randomly such that the sample of passengers that receive surveys at each airport over the survey period is representative of all passenger demographics—including passengers who travel on weekdays or weekends; those who travel in the morning, mid-day, or evening; those who pass through each of the different security screening locations at the airport; those who are subject to more intensive screening of their baggage or person; and those who experience different volume conditions and wait times as they proceed through the security checkpoint. The surveys will also be representative of passenger identity factors such as gender, frequency of travel, and purpose of the trip as business or leisure.

Participation by passengers will be voluntary. TSA Headquarters will supply independent administrators to each site to distribute the survey forms. The administrators will not be TSA employees and will handle the forms and data independently of TSA to ensure the validity of the results, as well as be subject to quality assurance and monitoring from TSA Headquarters. The form will include up to ten questions about aspects of the passenger experience plus approximately four demographic questions.

Dates, times, and screening locations will be chosen within each airport in order to provide a statistically valid representation of customer satisfaction over the survey period. TSA intends to conduct up to two surveys annually, each with a target of 500 returned forms, at each of the major airports that are TSA hubs (which are defined to be Category X, I, and II hub airports, up to 119 in all). We estimate an annual total of 119,000 respondents (2 surveys per airport × 119 airports × 500 returned forms per survey) and, based on an estimate of a five-minute burden per respondent, a maximum total annual burden system-wide of 9,917 hours. There will be no burden on passengers who choose not to respond.

(2) *Informal Surveys Conducted by Airport Staff.* TSA staff at individual airports also wish to conduct informal surveys to collect performance data for improved customer service throughout the year, most often to test passenger response to service improvements implemented in response to identified service problems. The results of these surveys will not generally be as statistically rigorous as the intercept survey described above, but will be subject to guidance from TSA Headquarters regarding respondent selection, survey distribution frequency, and the handling of the completed forms. Therefore, the results will not be used for any formal performance measurement nor published outside of TSA, but will be valid to enable localized service improvements at each airport. Participation by passengers will be voluntary. TSA Headquarters will provide a list of approximately 25 approved questions, from which airports may select a subset, and a Headquarters-designed and -approved template for the survey form.

Surveys will be conducted at the discretion of the TSA airport staff, subject to a limit (as imposed by TSA

Headquarters and pending approval of the Office of Management and Budget) of a five-minute burden per respondent and an aggregate burden of 100 hours per airport per year. Assuming that all 119 major hub airports and half of the 310 smaller airports (or 155 in all) employ this process, aggregate systemwide burden will not exceed 27,400 hours per year. There will be no burden on passengers who choose not to respond.

(3) *Complaints and Compliments at the Point of Service.* In response to passenger requests to provide customer-initiated feedback right at the point of service, TSA also intends to make available to airports a Customer Comment Form, which will collect open-ended feedback and, if the passenger desires, contact information so that TSA staff can respond to the passenger's comment. TSA Headquarters will design the form and make it available to airports. Airports will distribute it upon request to passengers who indicate that they wish to make a formal complaint, compliment, or other comment.

TSA airport staff will collect the forms back from passengers, categorize comments, enter the results into an on-line system for storage and reporting, and respond to passengers as necessary. We will also provide an e-mail address, phone number, and mailing address for passengers to return the forms to either airports or TSA Headquarters. TSA may consider adding a postage-paid business reply frank to the cards so that they can be returned to TSA at the passenger's convenience and at no cost to them. TSA will also continue to provide mechanisms on its web site and the TSA Contact Center for passengers to make comments independently of airport involvement.

Based on the number of comments that have been made at the airports and reported to TSA Headquarters via the Performance Measurement Information System through the first quarter of Calendar Year 2003, total projected volume is approximately 25,200 comments per year systemwide. Assuming an average burden of 10 minutes per comment per passenger who chooses to make one, total burden is estimated to be 4,200 hours annually.

Use of Results

TSA Headquarters and individual airports will use all of these results to evaluate and improve customer service, both via formal, rigorous performance measurement and via targeted responses to problem areas identified at individual sites. These data collection efforts will have no impact on non-TSA airport administration staff, although TSA may seek to partner with airport management at some sites to share relevant data with one another. Results of the Statistically Valid Intercept Surveys (1) and Complaints and Compliments at the Point of Service (3) will be used, along with other inputs, to create a Customer Satisfaction Index for Aviation Operations (CSI-A), a key TSA performance measure. TSA will use both the CSI-A and other customer-oriented performance measures to evaluate the impact of policy or process changes on customer satisfaction and public confidence.

Issued in Arlington, Virginia, on May 15, 2003.

Susan T. Tracey,

Deputy Chief Administrative Officer.

[FR Doc. 03–12776 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–62–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–4817–N–07]

Notice of Proposed Information Collection for Public Comment—Public Housing Homeownership Program—Application, Documentation, Reporting and Recordkeeping

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Notice.

SUMMARY: The proposed information collection requirement described below will be submitted to the Office of Management and Budget (OMB) for review, as required by the Paperwork Reduction Act. The Department is soliciting public comments on the subject proposal.

DATES: *Comments Due Date:* July 22, 2003.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments should refer to the proposal by name and/or OMB Control number and should be sent to: Mildred M. Hamman, Reports Liaison Officer, Public and Indian Housing, Department of Housing and Urban Development, 451 7th Street, SW., Room 4249, Washington, DC 20410–5000.

FOR FURTHER INFORMATION CONTACT: Mildred M. Hamman, (202) 708–0614, extension 4128. (This is not a toll-free number).

SUPPLEMENTARY INFORMATION: The Department will submit the proposed information collection to OMB for review, as required by the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35, as amended).

This notice is soliciting comments from members of the public and affected agencies concerning the proposed collection of information to: (1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information; (3) enhance the quality, utility, and clarity of the information to be collected; and (4) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated collection techniques or other forms of information technology; *e.g.*, permitting electronic submission of responses.

This notice also lists the following information:

Title of Proposal: Public Housing Agency Homeownership—Documentation.

OMB Control Number: 2577–0233.

Description of the need for the information and proposed use: Public Housing Agencies (PHAs) make available public housing units; public housing projects, and other housing units or developments owned, assisted, or operated, or otherwise acquired for purchase by low-income families for use as principal residences by such families. Families who are interested in purchasing a unit must submit applications to the PHA or purchase and resale entities (PREs). A PRE must prepare and submit to the PHA and HUD a homeownership program before the PRE may purchase any public housing units or projects. The PRE must demonstrate legal and practical capability to carry out the program, provide a written agreement that specifies the respective rights and obligations of the PRE and the PRE, the PHA must develop a homeownership program and obtain HUD approval before it can be implemented, provide supporting documentation and additional supporting documentation for acquisition or non-public housing for homeownership. PHA applications can be submitted electronically via the Internet. PHAs will be required to maintain records and report annually on the public housing homeownership program.

Agency form numbers, if applicable: HUD 52860, if the Public and Indian Housing Information Center (PIC) is used for submission.

Members of affected public: State or local government.

Estimation of the total number of hours needed to pare the information collection including number of respondents, frequency of response, and hours of response: 1,000 respondents, annual submission, 9.7 hours per response; the total reporting burden is 9,720 hours.

Status of the proposed information collection: Extension.

Authority: Section 3506 of the Paperwork Reduction Act of 1995, 44 U.S.C. chapter 35, as amended.

Dated: May 19, 2003.

Michael Liu,

Assistant Secretary for Public and Indian Housing.

[FR Doc. 03–12928 Filed 5–22–03; 8:45 am]

BILLING CODE 4210–33–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–4809–N–21]

Federal Property Suitable as Facilities To Assist the Homeless

AGENCY: Office of the Assistant Secretary for Community Planning and Development, HUD.

ACTION: Notice.

SUMMARY: This Notice identifies unutilized, underutilized, excess, and surplus Federal property reviewed by HUD for suitability for possible use to assist the homeless.

FOR FURTHER INFORMATION CONTACT: Mark Johnston, room 7266, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, DC 20410; telephone (202) 708–1234; TTY number for the hearing- and speech-impaired (202) 708–2565 (these telephone numbers are not toll-free), or call the toll-free Title V information line at 1–800–927–7588.

SUPPLEMENTARY INFORMATION: In accordance with 24 CFR part 581 and section 501 of the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11411), as amended, HUD is publishing this Notice to identify Federal buildings and other real property that HUD has reviewed for suitability for use to assist the homeless. The properties were reviewed using information provided to HUD by Federal landholding agencies regarding unutilized and underutilized buildings and real property controlled by such agencies or by GSA regarding its inventory of excess or surplus Federal property. This Notice is also published in order to comply with the December 12, 1988 Court Order in *National Coalition for the Homeless* v. *Veterans Administration*, No. 88–2503–OG (D.D.C.).

Properties reviewed are listed in this Notice according to the following categories: Suitable/available, suitable/unavailable, suitable/to be excess, and unsuitable. The properties listed in the three suitable categories have been reviewed by the landholding agencies, and each agency has transmitted to HUD: (1) Its intention to make the property available for use to assist the homeless, (2) its intention to declare the property excess to the agency's needs, or (3) a statement of the reasons that the property cannot be declared excess or made available for use as facilities to assist the homeless.

Properties listed as suitable/available will be available exclusively for homeless use for a period of 60 days from the date of this Notice. Where property is described as for ''off-site use only'' recipients of the property will be required to relocate the building to their own site at their own expense. Homeless assistance providers interested in any such property should send a written expression of interest to HHS, addressed to Shirley Kramer, Division of Property Management, Program Support Center, HHS, room 5B–41, 5600 Fishers Lane, Rockville, MD 20857; (301) 443–2265. (This is not a toll-free number.) HHS will mail to the interested provider an application packet, which will include instructions for completing the application. In order to maximize the opportunity to utilize a suitable property, providers should submit their written expressions of interest as soon as possible. For complete details concerning the processing of applications, the reader is encouraged to refer to the interim rule governing this program, 24 CFR part 581.

For properties listed as suitable/to be excess, that property may, if subsequently accepted as excess by GSA, be made available for use by the homeless in accordance with applicable law, subject to screening for other Federal use. At the appropriate time, HUD will publish the property in a Notice showing it as either suitable/available or suitable/unavailable.

For properties listed as suitable/unavailable, the landholding agency has decided that the property cannot be declared excess or made available for use to assist the homeless, and the property will not be available .

Properties listed as unsuitable will not be made available for any other purpose for 20 days from the date of this Notice. Homeless assistance providers interested in a review by HUD of the determination of unsuitability should call the toll free information line at 1–800–927–7588 for detailed instructions or write a letter to Mark Johnston at the address listed at the beginning of this Notice. Included in the request for review should be the property address (including zip code), the date of publication in the **Federal Register**, the landholding agency and the property number.

For more information regarding particular properties identified in this Notice (*i.e.*, acreage, floor plan, existing sanitary facilities, exact street address), providers should contact the appropriate landholding agencies at the following addresses: *Air Force:* Mr. Albert F. Lowas, Jr., Air Force Real Property Agency 1700 North Moore Street, Suite 2300, Arlington, VA 22209–2802; (703) 696–5501; *Army:* Ms. Julie Jones-Conte, Department of the Army, Office of the Assistant Chief of Staff for Installation Management, Attn: DAIM–MD, Room 1E677, 600 Army Pentagon, Washington, DC 20310–600; (703) 692–9223: *Dot:* Mr. Rugene Spruill, DOT Headquarters Project Team, Department of Transportation, 400 7th Street, SW, Room 10314, Washington, DC 20590; (202) 366–4246; *Energy:* Mr. Tom Knox, Department of Energy, Office of Engineering & Construction Management, CR–80, Washington, DC 20585; (202) 586–8715: (These are not toll-free numbers).

Dated: May 15, 2003.

John D. Garrity,

Director, Office of Special Needs Assistance Programs.

TITLE V, FEDERAL SURPLUS PROPERTY PROGRAM FEDERAL REGISTER REPORT FOR 5/23/03

Suitable/Available Properties

Buildings (by State)

Kansas

5 Bldgs.
Fort Leavenworth 00490, 00491, 00492, 00494, 00497
Ft. Leavenworth Co: KS 66048–
Landholding Agency: Army
Property Number: 21200320104
Status: Unutilized
Comment: 156 sq. ft., guard towers, off-site use only

Maryland

Bldg. 2273
Ft. George G. Meade
Ft. Meade Co: MD 20755–5115
Landholding Agency: Army
Property Number: 21200320105
Status: Unutilized
Comment: 54 sq. ft., most recent use—storage, off-site use only

Bldg. 2456
Ft. George G. Meade
Ft. Meade Co: MD 20755–5115

Landholding Agency: Army
Property Number: 21200320106
Status: Unutilized
Comment: 4720 sq. ft., presence of asbestos/lead paint, most recent use—clinic, off-site use only

Bldg. 00375
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320107
Status: Unutilized
Comment: 64 sq. ft., most recent use—storage, off-site use only

Bldg. 0384A
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320108
Status: Unutilized
Comment: 130 sq. ft., most recent use—ordnance facility, off-site use only

Bldg. 00385
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320109
Status: Unutilized
Comment: 5517 sq. ft., most recent use—storage, off-site use only

Bldg. 0385A
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320110
Status: Unutilized
Comment: 944 sq. ft., off-site use only

Bldg. 00442
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320111
Status: Unutilized
Comment: 900 sq. ft., most recent use—storage, off-site use only

Bldg. 00443
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320112
Status: Unutilized
Comment: 1488 sq. ft., off-site use only

Bldg. 00523
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320113
Status: Unutilized
Comment: 3897 sq. ft., most recent use—paint shop, off-site use only

Bldg. 00524
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320114
Status: Unutilized
Comment: 240 sq. ft., most recent use—storage, off-site use only

Bldg. 0645A
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320115
Status: Unutilized
Comment: 64 sq. ft., most recent use—storage, off-site use only

Bldg. 00649
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320116
Status: Unutilized
Comment: 1079 sq. ft., most recent use—storage, off-site use only

Bldg. 00650
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320117
Status: Unutilized
Comment: 4215 sq. ft., most recent use—storage, off-site use only

Bldgs. 00654, 00655
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320118
Status: Unutilized
Comment: 1110 sq. ft., off-site use only

Bldg. 00657
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320119
Status: Unutilized
Comment: 1048 sq. ft., most recent use—bunker, off-site use only

Bldgs. 00679, 00705
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320120
Status: Unutilized
Comment: 119/100 sq. ft., most recent use—safety shelter, off-site use only

Bldg. 0700B
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320121
Status: Unutilized
Comment: 505 sq. ft., off-site use only

Bldg. 00741
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320122
Status: Unutilized
Comment: 894 sq. ft., most recent use—storage, off-site use only

Bldg. 00768
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320123
Status: Unutilized
Comment: 97 sq. ft., most recent use—observation bldg., off-site use only

Bldg. 00786
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320124
Status: Unutilized
Comment: 1600 sq. ft., most recent use—ordnance bldg., off-site use only

Bldgs. 00900, 00911
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320125
Status: Unutilized
Comment: 225/112 sq. ft., most recent use—safety shelter, off-site use only

Bldg. 01101
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320126
Status: Unutilized
Comment: 6435 sq. ft., most recent use—storage, off-site use only

Bldg. 1102A
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320127
Status: Unutilized
Comment: 1416 sq. ft., most recent use—storage, off-site use only

Bldg. 01113
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320128
Status: Unutilized
Comment: 1012 sq. ft., off-site use only

Bldgs. 01124, 01132
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320129
Status: Unutilized
Comment: 740/2448 sq. ft., most recent use—lab, off-site use only

Bldgs. 02373, 02378
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320130
Status: Unutilized
Comment: 8359 sq. ft., most recent use—training, off-site use only

Bldg. 03328
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320131
Status: Unutilized
Comment: 1628 sq. ft., most recent use—exchange, off-site use only

Bldg. 03512
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320132
Status: Unutilized
Comment: 10,944 sq. ft., most recent use—storage, off-site use only

Bldg. 03558
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320133
Status: Unutilized
Comment: 18,000 sq. ft., most recent use—storage, off-site use only

Bldgs. 05258, 05260
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320135

Status: Unutilized
Comment: 10067 sq. ft., most recent use—storage, off-site use only

Bldgs. 05262
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320136
Status: Unutilized
Comment: 864 sq. ft., most recent use—storage, off-site use only

Bldgs. 05608
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320137
Status: Unutilized
Comment: 1100 sq. ft., most recent use—maint bldg., off-site use only

Bldgs. E1387
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320138
Status: Unutilized
Comment: 433 sq. ft., most recent use—woodworking shop, off-site use only

Bldgs. E1415
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320139
Status: Unutilized
Comment: 730 sq. ft., most recent use—lab, off-site use only

Bldgs. E1416
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320140
Status: Unutilized
Comment: 120 sq. ft., most recent use—safety shelter, off-site use only

Bldgs. E1420, E1429
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320141
Status: Unutilized
Comment: 220/150 sq. ft., most recent use—test range/storage, off-site use only

6 Bldgs.
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Location: E1432, E1444, E1446, E1447, E1449, E1453
Landholding Agency: Army
Property Number: 21200320142
Status: Unutilized
Comment: Various sq. ft., most recent use—range shelter, off-site use only

Bldgs. E1481, E1482
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320143
Status: Unutilized
Comment: 100 sq. ft., most recent use—observation bldg., off-site use only

Bldg. E1484
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320144
Status: Unutilized
Comment: 256 sq. ft., most recent use—admin., off-site use only

Bldgs. E2363, E2610
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320145
Status: Unutilized
Comment: 138/133 sq. ft., most recent use—storage, off-site use only

Bldgs. E3328, E3540, E4261
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320146
Status: Unutilized
Comment: Various sq. ft., most recent use—test facilities, off-site use only

Bldg. E5108
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320147
Status: Unutilized
Comment: 5155 sq. ft., most recent use—recreation center, off-site use only

Bldg. E5483
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320148
Status: Unutilized
Comment: 2140 sq. ft., most recent use—vehicle storage, off-site use only

Bldg. E5602
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320149
Status: Unutilized
Comment: 283 sq. ft., most recent use—storage, off-site use only

Bldg. E5645
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320150
Status: Unutilized
Comment: 548 sq. ft., most recent use—storage, off-site use only

Bldg. E7228
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320151
Status: Unutilized
Comment: 441 sq. ft., off-site use only

New York

Bldg. 00002
Fort Drum
Ft. Drum Co: Jefferson NY 13602–
Landholding Agency: Army
Property Number: 21200320153
Status: Unutilized
Comment: 109 sq. ft., most recent use—storage, off-site use only

Bldg. 01235
Fort Drum
Ft. Drum Co: Jefferson NY 13602–
Landholding Agency: Army
Property Number: 21200320154
Status: Unutilized
Comment: 40 sq. ft., most recent use—dispatch bldg., off-site use only

Bldg. 02240
Fort Drum
Ft. Drum Co: Jefferson NY 13602–
Landholding Agency: Army
Property Number: 21200320155
Status: Unutilized
Comment: 120 sq. ft., most recent use—storage, off-site use only

Bldgs. 02748, 02749
Fort Drum
Ft. Drum Co: Jefferson NY 13602–
Landholding Agency: Army
Property Number: 21200320156
Status: Unutilized
Comment: 384/900 sq. ft., most recent use—vehicle storage, off-site use only

Bldgs. 22652, 22655
Fort Drum
Ft. Drum Co: Jefferson NY 13602–
Landholding Agency: Army
Property Number: 21200320157
Status: Unutilized
Comment: 70/64 sq. ft., most recent use—observation tower, off-site use only

South Dakota

95 Duplexes
Ellsworth Air Force Base
Ellsworth AFB Co: Meade SD 57706–
Landholding Agency: Air Force
Property Number: 18200320009
Status: Excess
Comment: 2355 or 2409 sq. ft. military family housing, off-site use only, arrangements required for access for removal via adjacent privately owned lands

Texas

Bldg. 1249
Fort Bliss
El Paso Co: TX 79916–
Landholding Agency: Army
Property Number: 21200320166
Status: Unutilized
Comment: 4378 sq. ft., presence of asbestos, most recent use—storage, off-site use only

Bldg. 5000
Fort Bliss
El Paso Co: TX 79916–
Landholding Agency: Army
Property Number: 21200320167
Status: Unutilized
Comment: 16,185 sq. ft., presence of asbestos, most recent use—museum, off-site use only

Bldg. 9441
Fort Bliss
El Paso Co: TX 79916–
Landholding Agency: Army
Property Number: 21200320168
Status: Unutilized
Comment: 12,396 sq. ft., presence of asbestos, most recent use—dining, off-site use only

Bldg. 9611
Fort Bliss
El Paso Co: TX 79916–
Landholding Agency: Army
Property Number: 21200320169
Status: Unutilized
Comment: 3267 sq. ft., presence of asbestos, most recent use—admin., off-site use only

Bldg. 9692
Fort Bliss
El Paso Co: TX 79916–

Landholding Agency: Army
Property Number: 21200320170
Status: Unutilized
Comment: 239 sq. ft., most recent use—block house, off-site use only

Bldg. P2657
Fort Sam Houston
San Antonio Co: Bexar TX 78234–
Landholding Agency: Army
Property Number: 21200320171
Status: Excess
Comment: 7500 sq. ft., possible asbestos/lead paint, most recent use—lab, off-site use only

Virginia

Bldg. 18
Defense Supply Center
Richmond Co: Chesterfield VA 23875–
Landholding Agency: Army
Property Number: 21200320174
Status: Unutilized
Comment: 6962 sq. ft., most recent use—office/warehouse, off-site use only

Suitable/Unavailable Properties

Buildings (by State)

Alabama

Bldg. 24220
Fort Rucker
Fort Rucker Co: Dale AL 36362–
Landholding Agency: Army
Property Number: 21200320093
Status: Unutilized
Comment: 2128 sq. ft., needs repair, most recent use—scout bldg., off-site use only

Alaska

Bldgs. 345, 347
Ft. Richardson
Ft. Richardson Co: AK 99505–6500
Landholding Agency: Army
Property Number: 21200320094
Status: Excess
Comment: 9456 sq. ft., needs rehab, off-site use only

Bldgs. 354, 357, 359
Ft. Richardson
Ft. Richardson Co: AK 99505–6500
Landholding Agency: Army
Property Number: 21200320095
Status: Excess
Comment: 9456 sq. ft., needs rehab, off-site use only

Bldg. 368
Ft. Richardson
Ft. Richardson Co: AK 99505–6500
Landholding Agency: Army
Property Number: 21200320096
Status: Excess
Comment: 12,642 sq. ft., needs rehab, off-site use only

Bldg. 370
Ft. Richardson
Ft. Richardson Co.: AK 99505–6500
Landholding Agency: Army
Property Number: 21200320097
Status: Excess
Comment: 9456 sq. ft., needs rehab, off-site use only

Indiana

Bldg. 301
Fort Benjamin Harrison
Indianapolis Co: Marion IN 45216–
Landholding Agency: Army
Property Number: 21200320098
Status: Unutilized
Comment: 1564 sq. ft., possible asbestos/lead paint, most recent use—storage shed, off-site use only

Bldg. 302
Fort Benjamin Harrison
Indianapolis Co: Marion IN 46216–
Landholding Agency: Army
Property Number: 21200320099
Status: Unutilized
Comment: 400 sq. ft., possible asbestos/lead paint, most recent use—switch station, off-site use only

Bldg. 303
Fort Benjamin Harrison
Indianapolis Co: Marion IN 46216–
Landholding Agency: Army
Property Number: 212003200100
Status: Unutilized
Comment: 462 sq. ft., possible asbestos/lead paint, most recent use—heat plant bldg., off-site use only

Bldg. 304
Fort Benjamin Harrison
Indianapolis Co: Marion IN 46216–
Landholding Agency: Army
Property Number: 212003200101
Status: Unutilized
Comment: 896 sq. ft., possible asbestos/lead paint, most recent use—heat plant bldg., off-site use only

Bldg. 334
Fort Benjamin Harrison
Indianapolis Co: Marion IN 46216–
Landholding Agency: Army
Property Number: 2120032009102
Status: Unutilized
Comment: 652 sq. ft., possible asbestos/lead paint, off-site use only

Bldg. 337
Fort Benjamin Harrison
Indianapolis Co: Marion IN 46216–
Landholding Agency: Army
Property Number: 21200320103
Status: Unutilized
Comment: 675 sq. ft., possible asbestos/lead paint, off-site use only

Maryland

Bldg. 05257
Aberdeen Proving Grounds
Aberdeen Co: Harford MD 21005–
Landholding Agency: Army
Property Number: 21200320134
Status: Unutilized
Comment: 10,067 sq. ft., most recent use—maint shop, off-site use only

New York

Bldgs. 1501–1508
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320158
Status: Unutilized
Comment: 2463 sq. ft. each, needs rehab, most recent use— barracks, off-site use only

Bldgs. 1509–1510, 1519–1522
U.S. Military Academy
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320159
Status: Unutilized
Comment: 2400 sq. ft. each, needs rehab, most recent use—barracks, off-site use only

Bldgs. 1511–1518
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320160
Status: Unutilized
Comment: 2400 sq. ft. each, needs rehab, most recent use—barracks, off-site use only

Bldgs. 1523–1526
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320161
Status: Unutilized
Comment: 2400 sq. ft. each, needs rehab, most recent use—barracks, off-site use only

Bldgs. 1704–1705, 1721–1722
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320162
Status: Unutilized
Comment: 2400 sq. ft. each, needs rehab, most recent use—barracks, off-site use only

Bldg. 1723
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320163
Status: Unutilized
Comment: 2400 sq. ft., needs rehab, most recent use—day room, off-site use only

Bldgs. 1706–1709
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320164
Status: Unutilized
Comment: 2400 sq. ft. each, needs rehab, most recent use—barracks, off-site use only

Bldgs. 1731–1735
U.S. Military Academy
Training Area
Highlands Co: Orange NY 10996–
Landholding Agency: Army
Property Number: 21200320165
Status: Unutilized
Comment: 2400 sq. ft. each, needs rehab, most recent use—barracks, off-site use only

Ohio

Bldg. 00105
Defense Supply Center
Columbus Co: Franklin OH 43216–5000
Landholding Agency: Army
Property Number: 21200320152
Status: Unutilized
Comment: 4565 sq. ft., most recent use—residential, off-site use only

Virginia

Bldg. T2827
Fort Pickett
Blackstone Co: Nottoway VA 23824–
Landholding Agency: Army
Property Number: 21200320172
Status: Unutilized

Comment: 3550 sq. ft., presence of asbestos, most recent use—dining, off-site use only

Bldg. T2841
Fort Pickett
Blackstone Co: Nottoway VA 23824–
Landholding Agency: Army
Property Number: 21200320173
Status: Unutilized
Comment: 2950 sq. ft., presence of asbestos, most recent use—dining, off-site use only

Bldg. 30
Defense Supply Center
Richmond Co: Chesterfield VA 23875–
Landholding Agency: Army
Property Number: 21200320175
Status: Unutilized
Comment: 69,000 sq. ft., presence of asbestos, most recent use—office/warehouse, off-site use only

Unsuitable Properties

Buildings (by State)

Alaska

Bldg. 7537
Elmendorf Air Force Base
Elmendorf AFB Co: AK 99506–
Landholding Agency: Air Force
Property Number: 18200320001
Status: Unutilized
Reason: Extensive deterioration

Bldg. 9340
Elmendorf Air Force Base
Elmendorf AFB Co: AK 99506–
Landholding Agency: Air Force
Property Number: 18200320002
Status: Unutilized
Reason: Extensive deterioration

Bldg. 9342
Elmendorf Air Force Base
Elmendorf AFB Co: AK 99506–
Landholding Agency: Air Force
Property Number: 18200320003
Status: Unutilized
Reason: Extensive deterioration

Bldg. 12737
Elmendorf Air Force Base
Elmendorf AFB Co: AK 99506–
Landholding Agency: Air Force
Property Number: 18200320004
Status: Unutilized
Reason: Extensive deterioration

Bldg. 13251
Elmendorf Air Force Base
Elmendorf AFB Co: AK 99506–
Landholding Agency: Air Force
Property Number: 18200320005
Status: Unutilized
Reason: Extensive deterioration

Bldg. 29453
Elmendorf Air Force Base
Elmendorf AFB Co: AK 99506–
Landholding Agency: Air Force
Property Number: 18200320006
Status: Unutilized
Reason: Extensive deterioration

California

Bldg. 2410
Edwards Air Force Base
Edwards AFB Co: Kern CA 93524–
Landholding Agency: Air Force
Property Number: 18200320007
Status: Unutilized
Reasons: Secured Area. Extensive deterioration

Indiana

Bldgs. 00143, 00144
Newport Chemical Depot
Newport Co: Vermillion IN 47966–
Landholding Agency: Army
Property Number: 21200320177
Status: Excess
Reasons: Within 2000 ft. of flammable or explosive material contamination. Secured Area

Bldgs. 00145, 00156
Newport Chemical Depot
Newport Co: Vermillion IN 47966–
Landholding Agency: Army
Property Number: 21200320178
Status: Excess
Reasons: Within 2000 ft. of flammable or explosive material contamination. Secured Area

Maine

Bldg. 499
Bangor IAP
Bangor Co: Penobscot ME 04401–
Landholding Agency: Air Force
Property Number: 18200320008
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material. Secured Area

Michigan

Warehouse Bldg.
U.S. Coast Guard
Charlevoix Co: MI 49720–
Landholding Agency: DOT
Property Number: 87200320002
Status: Excess
Reason: Secured Area

New York

Bldg. 184
Brookhaven National Lab
Upton Co: Suffolk NY 11973–
Landholding Agency: Energy
Property Number: 41200320004
Status: Unutilized
Reasons: Within 2000 ft of flamable or explosive material. Secured Area

Bldg. 206
Brookhaven National Lab
Upton Co: Suffolk NY 11973–
Landholding Agency: Energy
Property Number: 41200320005
Status: Unutilized
Reasons: Within 2000 ft. of flamable or explosive material. Secured Area

Bldg. 459
Brookhaven National Lab
Upton Co: Suffolk NY 11973–
Landholding Agency: Energy
Property Number: 41200320006
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material. Secured Area

[FR Doc. 03–12681 Filed 5–22–03; 8:45 am]

BILLING CODE 4210–29–M

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Sport Fishing and Boating Partnership Council

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, the Fish and Wildlife Service announces a meeting designed to foster partnerships to enhance public awareness of the importance of aquatic resources and the social and economic benefits of recreational fishing and boating in the United States. This meeting, sponsored by the Sport Fishing and Boating Partnership Council (Council), is open to the public, and interested persons may make oral statements to the Council or may file written statements for consideration.

DATES: The meeting will be held on Wednesday, June 4, 2003, from 10 a.m. to 4 p.m.

ADDRESSES: The meeting will be held at the Radisson Hotel Old Town Alexandria, 901 N. Fairfax St., Alexandria, VA 22314–1501; (703) 683–6000.

Summary minutes of the conference will be maintained by the Council Coordinator at 4401 N. Fairfax Drive, MBSP 4036, Arlington, VA 22203, and will be available for public inspection during regular business hours within 30 days following the meeting. Personal copies may be purchased for the cost of duplication.

FOR FURTHER INFORMATION CONTACT: Laury Parramore, Council Coordinator, at (703) 358–1711.

SUPPLEMENTARY INFORMATION: The Sport Fishing and Boating Partnership Council was formed in January 1993 to advise the Secretary of the Interior through the Director, U.S. Fish and Wildlife Service, about sport fishing and boating issues. The Council represents the interests of the public and private sectors of the sport fishing and boating communities and is organized to enhance partnerships among industry, constituency groups, and government. The 18-member Council includes the Director of the Service and the president of the International Association of Fish and Wildlife Agencies, who both serve in ex officio capacities. Other Council members are Directors from State agencies responsible for managing recreational fish and wildlife resources and individuals who represent the interests of saltwater and freshwater

recreational fishing, recreational boating, the recreational fishing and boating industries, recreational fisheries resource conservation, aquatic resource outreach and education, and tourism. The Council will convene to discuss: (1) The Council's continuing role in providing input to the Fish and Wildlife Service on the Service's strategic vision for its Fisheries Program; (2) the Council's work in its role as a facilitator of discussions with Federal and State agencies and other sportfishing and boating interests concerning a variety of national boating and fisheries management issues; and (3) the Council's role in providing the Interior Secretary with information about the implementation of the Strategic Plan for the National Outreach and Communications Program. The Interior Secretary approved the Strategic Plan in February 1999, as well as the five-year, $36-million federally funded outreach campaign authorized by the 1998 Sportfishing and Boating Safety Act that is now being implemented by the Recreational Boating and Fishing Foundation, a private, nonprofit organization.

Dated: May 9, 2003.

Matt Hogan,

Deputy Director.

[FR Doc. 03–12923 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[WO–250–1220–PC–24 1A]

OMB Approval Number 1004–0165; Information Collection Submitted to the Office of Management and Budget Under the Paperwork Reduction Act

The Bureau of Land Management (BLM) has submitted a request to extend the current approved collection to the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.).* On July 30, 2002, the BLM published a notice in the **Federal Register** (67 FR 49370) requesting comment on this information collection. The comment period ended on September 30, 2002. BLM received no comments. You may obtain copies of the collection of information and related forms and explanatory material by contacting the BLM Information Collection Clearance Office at the telephone number listed below.

The OMB must respond to this request within 60 days but may respond after 30 days. For maximum consideration your comments and suggestions on the requirement should be directed to the Office of Management and Budget, Interior Department Desk Officer (1004–0165), at OMB–OIRA via facsimile to (202) 395-5806 or e-mail to *Ruth Solomon@omb.eop.gov.* Please provide a copy of your comments to the Bureau Information Collection Clearance Officer (WO–630), Bureau of Land Management, Eastern States Office, 7450 Boston Blvd., Springfield, Virginia 22153.

Nature of Comments: We specifically request your comments on the following:

1. Whether the collection of information is necessary for the proper functioning of the BLM, including whether the information will have practical utility;

2. The accuracy of the BLM's estimate of the burden of collecting the information, including the validity of the methodology and assumptions used;

3. The quality, utility and clarity of the information to be collected; and

4. How to minimize the burden of collecting the information on those who are to respond, including the use of appropriate automated electronic, mechanical, or other forms of information technology.

Title: Cave Management: Cave Nominations and Confidential Information (43 CFR 37).

OMB Approval Number: 1004-0165.

Bureau Form Number: None.

Abstract: We integrate cave management into existing planning and management processes and provide protection of cave resource information in order to prevent vandalism and disturbance of significant caves. Federal agencies must consult with ''cavers'' and other interested parties to develop a listing of significant caves.

Frequency: Once, when nominating the cave or requesting confidential cave information.

Description of Respondents: Respondents are cavers and other interested parties.

Estimated Completion Time: 3 hours for each nomination and 30 minutes for each request for confidential cave information.

Annual Responses: 50 cave nominations and 10 requests for confidential cave information.

Application Fee per Response: $0.

Annual Burden Hours: 155.

Bureau Clearance Officer: Michael Schwartz, (202) 452–5033.

Dated: January 9, 2003.

Michael H. Schwartz,

Bureau of Land Management, Information Collection Clearance Officer.

[FR Doc. 03–12925 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–84–M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[WO–880–9500–PF–24 1A; OMB Approval Number 1004–0109]

Information Collection Submitted to the Office of Management and Budget Under the Paperwork Reduction Act

The Bureau of Land Management (BLM) has submitted a request to extend the current approved collection to the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). On August 5, 2002, the BLM published a notice in the **Federal Register** (67 FR 50690) requesting comment on this information collection. The comment period ended on October 4, 2002. BLM received no comments. You may obtain copies of the collection of information and related forms and explanatory material by contacting the BLM Information Collection Clearance Officer at the telephone number listed below.

The OMB must respond to this request within 60 days but may respond after 30 days. For maximum consideration your comments and suggestions on the requirement should be directed to the Office of Management and Budget, Interior Department Desk Officer (1004–0109), at OMB–OIRA via facsimile to (202) 395–5806 or e-mail to *Ruth Solomon@omb.eop.gov.* Please provide a copy of your comments to the Bureau Information Collection Clearance Officer (WO–630), Bureau of Land Management, Eastern States Office, 7450 Boston Blvd., Springfield, Virginia 22153.

Nature of Comments: We specifically request your comments on the following:

1. Whether the collection of information is necessary for the proper functioning of the BLM, including whether the information will have practical utility;

2. The accuracy of the BLM's estimate of the burden of collecting the information, including the validity of the methodology and assumptions used;

3. The quality, utility and clarity of the information to be collected; and

4. How to minimize the burden of collecting the information on those who are to respond, including the use of

appropriate automated electronic, mechanical, or other forms of information technology.

Title: Statement of Federal Land Payments (43 CFR 1881).

OMB Approval Number: 1004–0109.

Bureau Form Number: None.

Abstract: We collect the statutorily required information to compute payments due units of general local government under the Payments in Lieu of Taxes (PILT) Act. The Act requires the governor of each State to furnish a statement as to the amounts paid to units of general local government under 11 receipt sharing statutes in the prior fiscal year.

Frequency: Once.

Description of Respondents: Respondents are State governments.

Estimated Completion Time: 20 hours.

Annual Responses: 50.

Application Fee Per Response: $0.

Annual Burden Hours: 1,000.

Bureau Clearance Officer: Michael Schwartz, (202) 452–5033.

Dated: November 6, 2002.

Michael H. Schwartz,

Bureau of Land Management, Information Collection Clearance Officer.

[FR Doc. 03–12926 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–84–M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NV–050–1610–DQ]

Notice of Availability of the Proposed Nevada Test and Training Range Resource Management Plan and Final Environmental Impact Statement

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of availability.

SUMMARY: The Proposed Nevada Test and Training Range Resource Management Plan and Final Environmental Impact Statement (RMP/FEIS) is available to the public for a 30-day protest period. The Proposed Plan and associated FEIS were developed in accordance with the National Environmental Policy Act of 1969 and the Federal Land Policy and Management Act of 1976.

DATES: Written protests on the FEIS will be accepted if postmarked within 30 calendar days from the date that a Notice of Availability is published in the **Federal Register** by the Environmental Protection Agency. Instructions for filing protests are contained in the Final Environmental Impact Statement document cover sheet just inside the front cover, and are included below under Supplemental Information.

ADDRESSES: Copies of the Proposed RMP/FEIS may be obtained from the Las Vegas Field Office, 4701 N. Torrey Pines Drive, Las Vegas, NV 89130–2301. Public reading copies are available for review at the public libraries of Clark, Lincoln and Nye Counties, all government document repository libraries and at the following BLM locations: Office of External Affairs, Main Interior Building, Room 6214, 1849 C Street, NW., Washington, DC; Public Room, Nevada State Office, 1340 Financial Blvd., Reno, NV; and the Las Vegas Field Office at the above address.

FOR FURTHER INFORMATION CONTACT: Jeff Steinmetz, RMP Team Leader, at BLM's Las Vegas Field Office listed above or telephone (702) 515–5097.

SUPPLEMENTARY INFORMATION: The Environmental Protection Agency published the Notice of Availability of the Nevada Test and Training Range Resource Management Plan and Draft EIS in the **Federal Register** on September 21, 2001. The public comment period on the DEIS ended December 20, 2001. The agency preferred alternative, Alternative B, is the selected alternative for the Proposed Plan and FEIS. The preferred alternative represents a coordinated effort between Nellis, the Bureau of Land Management (BLM) and input from the public on a proposal that would limit conflicts on the military mission by dispersing animals evenly throughout a core area within the herd management area. In addition, the proposed plan provides for the needs of wildlife in the area and rangeland health improvement. The document contains a summary of the decisions and resulting impacts, an overview of the planning process and planning issues, the Proposed Plan, comment letters and responses and verbal comments received during public review of the Draft Plan, and responses to the substantive issues raised during the review.

The Proposed Plan may be protested by any person who participated in the planning process, and who has an interest which is or may be, adversely affected by the approval of the Proposed Plan. A protest may raise only those issues which were submitted for the record during the planning process (*see* 43 CFR 1610.5–2). The protest shall contain the following information:

- The name, mailing address, telephone number, and interest of the person filing the protest.
- A statement of the issue or issues being protested.
- A statement of the part or parts of the document being protested.
- A copy of all documents addressing the issue or issues previously submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record.
- A concise statement explaining precisely why the Bureau of Land Management, Nevada State Director's decision is wrong.

To be considered ''timely'' the protest must be postmarked no later than the last day of the 30-day protest period. Also, although not a requirement, it is recommended that the protest be sent by certified mail, return receipt requested. E-mail protests will not be accepted. Faxed protests will be considered as potential valid protests provided (1) that the signed faxed letter is received by the Washington Office protest coordinator by the closing date of the protest period and (2) that the protesting party also provides the original letter by either regular or overnight mail postmarked by the close of the protest period. Please direct faxed protests to ''BLM Protest Coordinator'' at 202–452–5112. Please direct the follow-up letter to the appropriate address provided below.

Upon resolution of any protests, an Approved Plan and Record of Decision will be issued. The approved Plan/Record of Decision will be mailed to all individuals who participated in this planning process and all other interested public upon their request. Mailing address for filing a protest:

Regular mail	Overnight mail
Director (210), Attn: Brenda Williams, P.O. Box 66538, Washington, DC 20035.	U.S. Department of the Interior, Director, Bureau of Land Management, Protest Coordinator (WO–210), 1620 ''L'' Street, NW., Rm 1075, Washington, DC 20036.

Dated: March 4, 2003.

Robert V. Abbey,

State Director, Nevada.

[FR Doc. 03–12913 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–HC–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of availability of the draft Supplemental Environmental Impact Statement to remove or modify the Survey and Manage mitigation measure standards and guidelines.

SUMMARY: The Forest Service and Bureau of Land Management (BLM) (collectively the Agencies) have prepared a draft Supplemental EIS (SEIS). The Agencies are supplementing the analyses contained in the Final SEIS (2000) for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, and the Final SEIS (1994) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl. The responsible officials for this document have been changed. The responsible official for lands administered by the Forest Service will be the Secretary of Agriculture. The responsible official for public lands administered by the BLM will be the Secretary of the Interior. The Draft SEIS is now available for public review. Requests to receive copies of the Draft SEIS should be sent to the address listed below. Alternately, the Draft SEIS is available on the Internet at *http://www.or.blm.gov/nwfpnepa.*

DATES: Written comments on the Draft SEIS will be accepted for 90 days following the date that the Environmental Protection Agency publishes their Notice of Availability of the Draft SEIS in the **Federal Register**. The Agencies ask that those submitting comments on the Draft SEIS make them as specific as possible with reference to page numbers and chapters of the document.

ADDRESSES: If you wish to comment, you may submit your comments by any one of the following three methods. You may mail your comments to Survey and Manage, Argonne National Laboratory, EAD/900, 9700 South Cass Avenue, Argonne, IL 60439. You may comment via the Internet at *http://web.ead.anl.gov/surveyandmanage.* You may also comment via facsimile transmission to 1–866–542–5904. Comments received in response to this solicitation, including names and home addresses, will be considered part of the public record on this proposal and are available for public review during regular business hours. Comments, including names and home addresses, may be published as part of the Final SEIS. If you wish to withhold your name or address from public review, or from disclosure under the Freedom of Information Act (FOIA), you must state this prominently at the beginning of your written comments. Additionally, pursuant to 7 CFR 1.27(d), any person may request that submissions be withheld from the public record by showing how the FOIA permits such confidentiality. Persons requesting such confidentiality should be aware that under FOIA, confidentiality may be granted in only limited circumstances, such as to protect trade secrets. The requester will be informed of the Agencies' decision regarding the request for confidentiality. Where the request is denied, the comments will be returned to the requester and the requester will be notified that the comments may be resubmitted with or without name and address. Comments submitted anonymously will be accepted and considered. Anonymous comments do not create standing or a record of participation. All submissions from organizations and business, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

FOR FURTHER INFORMATION CONTACT: Jerry Hubbard, SEIS Team Logistics Coordinator, P.O. Box 2965, Portland, Oregon 97208, telephone (503) 326–2355, or facsimile number (503) 326–2396.

SUPLLEMENTARY INFORMATION: A limited number of individual copies of the Draft SEIS may be obtained by contacting Jerry Hubbard. Copies are also available for inspection at Forest Service and BLM offices in western Washington, western Oregon, and northwestern California.

Three alternatives, including no action, are considered in detail in the Draft SEIS. The preferred alternative is Alternative 2 with mitigation. The preferred alternative would remove the Survey and Manage Mitigation Measure and the Agencies would rely on their existing Special Status Species Programs to conserve rare species. A decision to select one of the action alternatives would amend the management direction in all 28 Forest Service land and resource management plans and BLM resource management plans in the Northwest Forest Plan area.

The responsible official for lands administered by the Forest Service will be the Secretary of Agriculture. The responsible official for public lands administered by the BLM will be the Secretary of Interior.

No public hearings or meetings are planned.

Nancy Diaz,

Acting State Director, Oregon and Washington, Bureau of Land Management.

[FR Doc. 03–12912 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–33–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[ID–933–4310–ET; GPO–03–0003; IDI–34424]

Notice of Proposed Withdrawal and Opportunity for a Public Meeting; Idaho

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The United States Forest Service proposes to withdraw approximately 7,131.56 acres of National Forest System lands to protect and preserve the Yellowstone Cutthroat trout and the areas historic mining features. This notice segregates the land for up to 2 years from location and entry under the United States mining laws. The lands have been and will remain open to such forms of disposition as may by law be made of National Forest System lands and mineral leasing. The proposed withdrawal would allow recreational gold panning and limited suction dredging in planned development areas.

DATES: Comments on the new proposed withdrawal must be received by August 21, 2003.

ADDRESSES: Comments should be sent to the State Director, Bureau of Land Management, 1387 South Vinnell Way, Boise, Idaho 83709.

FOR FURTHER INFORMATION CONTACT: Jackie Simmons, BLM, Idaho State Office, 1387 S. Vinnell Way, Boise, Idaho 83709, 208–373–3867.

SUPPLEMENTARY INFORMATION: The Forest Service proposes to withdraw the following described National Forest System Lands from location and entry under the United States mining laws, subject to valid existing rights:

Caribou-Targhee National Forest

Boise Meridian

T. 3 S., R. 44 E.,
Sec. 14, SW¼NW¼, W½SW¼, SE¼SW¼, and SE¼SE¼;

Sec. 15, NE¼, NE¼NW¼, and S½NW¼;
Sec. 16, S½NE¼, N½SW¼, SW¼SW¼, and N½SE¼;
Sec. 17, NE¼SE¼ and S½SE¼;
Sec. 19, SE¼NE¼ and SE¼;
Sec. 20, E½NE¼NE¼, W½NW¼NE¼, and NW¼;
Sec. 23, N½NE¼ and NE¼NW¼;
Sec. 24, NW¼NE¼, NW¼, and W½SW¼;
Sec. 25, W½W½;
Sec. 29, S½;
Sec. 30, E½;
Sec. 31, NE¼NE¼;
Sec. 32, All;
Sec. 33, W½;
Sec. 35, SE¼;
Sec. 36, NW¼ and W½SW¼.
T. 4 S., R. 44 E., Boise Meridian
Sec. 2, lots 1 thru 4, inclusive, and S½N½;
Sec. 4, all;
Sec. 5, all;
Sec. 8, all;
Sec. 9, all;
Sec. 10, W½.

The area described contains approximately 7,131.56 acres in Bonneville County, Idaho.

The following lands are patented mining and mill site claims lying within the exterior boundaries of the above described lands and that are excepted from the proposed withdrawal, but will become subject to the withdrawal if and when acquired by the Federal Government:

Boise Meridian

T. 4 S., R. 44 E.,
Sec. 4, Mineral patent 1097900 and those portions of mineral patents 8062, 8519, and 38675 that lie within section 4;
Sec. 5, That portion of mineral patent 38675 that lies within section 5;
Sec. 8, Mineral patent 38674 and those portions of mineral patents 38223, 38527, and 38675 that lie within section 8;
Sec. 9, Those portions of mineral patents 8062, 8519, 38527, 38675, 1101444 that lie within section 9;
Sec. 10, That portion of mineral patent 1101444 that lies within section 10.

The area of the patented lands described above contains approximately 274.68 acres in Bonneville County, Idaho.

All persons who wish to submit comments, suggestions, or objections in connection with the proposed withdrawal may present their views in writing to the Idaho State Director, Bureau of Land Management, at the address stated above by August 21, 2003.

Notice is hereby given that an opportunity for a public meeting is afforded in connection with the proposed withdrawal. All interested persons who desire a public meeting for the purpose of being heard on the proposed withdrawal must submit a written request to the Idaho State Director within 90 days from the date of publication of this notice. Upon determination by the authorized officer that public meeting will be held, a notice of the time and place will be published in the **Federal Register** and newspaper having general circulation in the vicinity of the land at least 30 days before the scheduled date of the meeting.

The application will be processed in accordance with the regulations set forth in 43 CFR part 2300.

For a period of 2 years from May 23, 2003, in accordance with 43 CFR 2310.2(a), the land will be segregated from location and entry under the United States mining laws, unless the application is denied or canceled or the withdrawal is approved prior to that date.

William H. Lee,

Acting Branch Chief for Lands and Minerals.

[FR Doc. 03–12971 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–GG–P

INTERNATIONAL TRADE COMMISSION

[Investigations Nos. 701–TA–435 and 731–TA–1036–1038 (Preliminary)]

Certain 4,4'-Diamino-2,2'-Stilbenedisulfonic Acid Chemistry from China, India and Germany

AGENCY: International Trade Commission.

ACTION: Institution of countervailing duty and antidumping investigations and scheduling of preliminary phase investigations.

SUMMARY: The Commission hereby gives notice of the institution of investigations and commencement of preliminary phase countervailing duty investigation No. 701–TA–435 (Preliminary) and antidumping investigations Nos. 731–TA–1036–1038 (Preliminary) under sections 703(a) and 733(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a) and 1673b(a)) (the Act) to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from India of 4,4'-diamino-2,2'-stilbenedisulfonic acid and stilbenic fluorescent whitening agents, provided for in subheadings 2921.59.20 and 3204.20.80, respectively of the Harmonized Tariff Schedule of the United States, that are alleged to be subsidized by the Government of India and by reason of such imports from China, Germany, and India that are alleged to be sold in the United States at less than fair value. Unless the Department of Commerce extends the time for initiation pursuant to sections 702(c)(1)(B) and 732(c)(1)(B) of the Act (19 U.S.C. 1671a(c)(1)(B) and 1673a(c)(1)(B)), the Commission must reach preliminary determinations in countervailing duty and antidumping investigations in 45 days, or in this case by June 30, 2003. The Commission's views are due at Commerce within five business days thereafter, or by July 8, 2003.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's rules of practice and procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and B (19 CFR part 207).

EFFECTIVE DATE: May 14, 2003.

FOR FURTHER INFORMATION CONTACT: Cynthia Trainor (202–205–3354), Office of Investigations, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (http://www.usitc.gov). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at http://edis.usitc.gov.

SUPPLEMENTARY INFORMATION:

Background.—These investigations are being instituted in response to a petition filed on May 14, 2003, by Ciba Specialty Chemicals Corp., Tarrytown, NY.

Participation in the investigations and public service list.—Persons (other than petitioners) wishing to participate in the investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in sections 201.11 and 207.10 of the Commission's rules, not later than seven days after publication of this notice in the **Federal Register**. Industrial users and (if the merchandise under investigation is sold at the retail level) representative consumer organizations have the right to appear as parties in Commission countervailing duty and antidumping investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to these investigations

upon the expiration of the period for filing entries of appearance.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.—Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in these investigations available to authorized applicants representing interested parties (as defined in 19 U.S.C. 1677(9)) who are parties to the investigations under the APO issued in the investigations, provided that the application is made not later than seven days after the publication of this notice in the **Federal Register**. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Conference.—The Commission's Director of Operations has scheduled a conference in connection with these investigations for 9:30 a.m. on June 4, 2003, at the U.S. International Trade Commission Building, 500 E Street, SW., Washington, DC. Parties wishing to participate in the conference should contact Cynthia Trainor (202–205–3354) not later than June 2, 2003, to arrange for their appearance. Parties in support of the imposition of countervailing and antidumping duties in these investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

Written submissions.—As provided in sections 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before June 9, 2003, a written brief containing information and arguments pertinent to the subject matter of the investigations. Parties may file written testimony in connection with their presentation at the conference no later than three days before the conference. If briefs or written testimony contain BPI, they must conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002).

In accordance with sections 201.16(c) and 207.3 of the rules, each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: These investigations are being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.12 of the Commission's rules.

By order of the Commission.

Issued: May 19, 2003.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 03–12938 Filed 5–22–03; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigations Nos. 701–TA–430A and 430B (Final) and 731–TA–1019A and 1019B (Final)]

Durum and Hard Red Spring Wheat From Canada

AGENCY: United States International Trade Commission.

ACTION: Scheduling of the final phase of countervailing duty and antidumping investigations.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of countervailing duty investigations Nos. 701–TA–430A and 430B (Final) under section 705(b) of the Tariff Act of 1930 (19 U.S.C. 1671d(b)) (the Act) and the final phase of antidumping investigations Nos. 731–TA–1019A and 1019B (Final) under section 735(b) of the Act (19 U.S.C. 1673d(b)) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of subsidized and less-than-fair-value imports from Canada of durum and hard red spring wheat, provided for in subheadings 1001.10.00, 1001.90.10, and 1001.90.20 of the Harmonized Tariff Schedule of the United States.[1]

For further information concerning the conduct of this phase of the investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

EFFECTIVE DATE: May 8, 2003.

FOR FURTHER INFORMATION CONTACT: D.J. Na (202–708–4727), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

SUPPLEMENTARY INFORMATION:

Background. The final phase of these investigations is being scheduled as a result of affirmative preliminary determinations by the Department of Commerce that certain benefits which constitute subsidies within the meaning of section 703 of the Act (19 U.S.C. 1671b) are being provided to manufacturers, producers, or exporters in Canada of durum and hard red spring wheat, and that such products are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigations were requested in petitions filed on September 13, 2002, by counsel on behalf of the North Dakota Wheat Commission (hard red spring wehat), Bismarck, ND; the Durum Growers Trade Action Committee (durum wheat), Bismarck, ND; and the U.S. Durum Growers Association (durum wheat), Bismarck, ND.

Participation in the investigations and public service list. Persons, including industrial users of the subject merchandise and, if the merchandise is sold at the retail level, representative consumer organizations, wishing to participate in the final phase of these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission's rules, no later than 21 days prior to the hearing date specified in this notice. A party that filed a notice of appearance during the preliminary phase of the investigations need not file an additional notice of appearance during this final phase. The Secretary will maintain a public service list containing

[1] For purposes of these investigations, the Department of Commerce has defined durum wheat as ''all varieties of durum wheat from Canada. This includes, but is not limited to, a variety commonly referred to as Canada Western Amber Durum.'' The Department of Commerce has defined hard red spring wheat as ''all varieties of hard red spring wheat from Canada. This includes, but is not limited to, varieties commonly referred to as Canada Western Red Spring, Canada Western Extra Strong, and Canada Prairie Spring Red.''

the names and addresses of all persons, or their representatives, who are parties to the investigations.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list. Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final phase of these investigations available to authorized applicants under the APO issued in the investigations, provided that the application is made no later than 21 days prior to the hearing date specified in this notice. Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigations. A party granted access to BPI in the preliminary phase of the investigations need not reapply for such access. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff report. The prehearing staff report in the final phase of these investigations will be placed in the nonpublic record on July 15, 2003, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission's rules.

Hearing. The Commission will hold a hearing in connection with the final phase of these investigations beginning at 9:30 a.m. on July 28, 2003, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before July 21, 2003. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on July 23, 2003, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.24 of the Commission's rules. Parties must submit any request to present a portion of their hearing testimony in camera no later than 7 days prior to the date of the hearing.

Written submissions. Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.23 of the Commission's rules; the deadline for filing is July 22, 2003. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.24 of the Commission's rules, and posthearing briefs, which must conform with the provisions of section 207.25 of the Commission's rules. The deadline for filing posthearing briefs is August 4, 2003; witness testimony must be filed no later than three days before the hearing. In addition, any person who has not entered an appearance as a party to the investigations may submit a written statement of information pertinent to the subject of the investigations on or before August 4, 2003. On August 18, 2003, the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before August 20, 2003, but such final comments must not contain new factual information and must otherwise comply with section 207.30 of the Commission's rules. All written submissions must conform with the provisions of section 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002).

In accordance with sections 201.16(c) and 207.3 of the Commission's rules, each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: These investigations are being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission's rules.

By order of the Commission.

Issued: May 19, 2003.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 03–12934 Filed 5–22–03; 8:45 am]

BILLING CODE 7020–02–P

UNITED STATES INTERNATIONAL TRADE COMMISSION

[Inv. No. 337–TA–406, Consolidated Enforcement and Advisory Opinion Proceedings]

In the Matter of Certain Lens-Fitted Film Packages; Notice of Commission Decision Not To Review the Administrative Law Judge's Supplemental Initial Determination; Decision To Issue Cease and Desist Orders and Civil Penalties; Termination of Consolidated Enforcement and Advisory Proceedings

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined not to review a supplemental initial advisory opinion (IAO) and enforcement initial determination (EID) issued by the presiding administrative law judge (ALJ) on October 24, 2002, in the above-captioned proceedings under section 337 of the Tariff Act, as amended, 19 U.S.C. 1337. Notice is also given of the Commission's decision to issue cease and desist orders to four respondents in the proceedings who were found to have violated the Commission's general exclusion order which was issued in the original investigation, and the Commission's decision to levy civil penalties against three respondents who were found to have violated cease and desist orders that were issued in the original investigation.

FOR FURTHER INFORMATION CONTACT: Jean Jackson, Esq., telephone 202–205–3104, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436. Copies of all nonconfidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436, telephone 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS–ON–LINE) at *http://edis.usitc.gov.* Hearing-impaired persons are advised that information on the matter can be obtained by contacting the Commission's TDD terminal on 202–205–1810.

SUPPLEMENTARY INFORMATION: The Commission's original investigation in this matter was terminated on June 2, 1999, with a finding of violation of section 337 by 26 respondents by reason of importation or sales after importation of certain lens-fitted film packages (LFFPs) (*i.e.*, disposable cameras) that were found to infringe one or more claims of 15 patents held by complainant Fuji Photo Film Co. (Fuji). 64 FR 30541 (June 8, 1999). The Commission issued a general exclusion order, prohibiting the importation of LFFPs that infringe any of the claims at issue, and issued cease and desist orders to twenty domestic respondents. *Id.* Three respondents appealed the part of the Commission's determination that concerned refurbished cameras to the U.S. Court of Appeals for the Federal Circuit. No party appealed the Commission's determinations concerning newly-manufactured cameras.

On June 27, 2001, Fuji filed a ''Complaint for Enforcement Proceedings Under Rule 210.75, Petition for Modification Under Rule 210.76 and/or Request for Advisory Opinion Under Rule 210.79.'' Fuji's enforcement complaint asserted 22 claims contained in nine utility patents and named twenty entities as respondents. Fuji later withdrew its complaint as to three of the respondents. Fuji's complaint concerns only newly-manufactured cameras that were not the subject of the appeal to the Federal Circuit. On July 31, 2001, the Commission instituted advisory opinion and enforcement proceedings and referred them to the ALJ for issuance of a separate initial advisory opinion (IAO) and enforcement initial determination (EID). 63 FR 40721 (August 3, 2001).

On May 2, 2002, the ALJ issued his IAO and EID in which he made 59 separate infringement determinations involving seven patents, 13 respondents, and 28 different types of accused LFFP. He also recommended the penalties to be assessed against the respondents who were found to have violated the general exclusion order (GEO) or cease and desist orders that were issued in the original investigation. Eight petitions for review of the IAO and/or EID violation issues were filed on May 16, 2002. Responses were filed on May 24, 2002. On June 7, 2002, Fuji filed a supplemental brief concerning the application of intervening Supreme Court precedent, *Festo Corp.* v. *Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.,* 122 S.Ct. 1831 (May 28, 2002), to the issue of infringement under the doctrine of equivalents. The Commission determined not to review the remainder of the IAO and EID. The Commission also requested comments on the ALJ's penalty recommendations. Comments were filed by Fuji, the Commission investigative attorney (IA), and respondents Argus Industries, Inc. and Photo Works, Inc. Response comments were filed by Fuji, the IA, Argus, PhotoWorks, Achiever Industries, Ltd., Highway Holdings, Ltd., The Message Group, Inc., and VastFame Camera Ltd. Ad-Tek Specialities, Inc. filed an affidavit.

On October 24, 2002, the ALJ issued a supplemental IAO and EID in which he determined that the application of the *Festo* decision did not change his earlier determination that VastFame camera models VN99 and VN991 did not infringe claim 9 of U.S. Patent No. 4,972,649 (the '649 patent) under the doctrine of equivalents. Fuji filed a petition for review of the supplemental IAO and EID. VastFame opposed Fuji's petition. The Commission, having examined the petition for review, and the response thereto determined not to review the findings of the supplemental IAO and EID on the issue of infringement of claim 9 of the '649 patent in view of the Supreme Court decision, *Festo Corp.* v. *Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.,* 122 S.Ct. 183.

The Commission also received written submissions from the parties that addressed the EID's recommendations on civil penalties, the effect of the cease and desist orders recommended in the EID on the public interest, and the amount of bond that should be imposed during the 60-day Presidential review period concerning the cease and desist orders.

Having reviewed the record in this investigation, including the written submissions of the parties, the Commission determined: (1) To issue cease and desist orders to defaulted respondents Americam, Inc.; Camera Custom Design a/k/a Title the Moment Inc.; CS Industries a/k/a PLF Inc.; and Penmax, Inc. to prevent them from engaging in unfair acts in the importation and sale of lens-fitted film packages from inventory; (2) that the public interest factors enumerated in subsection (f) of section 337 do not preclude the issuance of the aforementioned cease and desist orders, and that the bond during the Presidential review period shall be in the amount of 100 percent of the entered value of the articles in question; (3) to levy civil penalties against Argus Industries, Inc. in the amount of $480,000, Ad-Tek Specialities, Inc., in the amount of $200,000, and PhotoWorks, Inc. in the amount of $1.6 million for violations of cease and desist orders that the Commission issued at the completion of the Lens-Fitted Film Packages investigation.

This action is taken under the authority of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and sections 210.75 and 210.79 of the Commission's Rules of Practice and Procedure (19 CFR 210.75 and 210.79).

Issued: May 19, 2003

By order of the Commission.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 03–12937 Filed 5–22–03; 8:45 am]

BILLING CODE 7020–02–P

UNITED STATES INTERNATIONAL TRADE COMMISSION

[Investigation No. 731–TA–1022 (Final)]

Refined Brown Aluminum Oxide From China

AGENCY: United States International Trade Commission.

ACTION: Scheduling of the final phase of an antidumping investigation.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of antidumping investigation No. 731–TA–1022 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of less-than-fair-value imports from China of refined brown aluminum oxide, provided for in subheading 2818.10.20 of the Harmonized Tariff Schedule of the United States.[1]

For further information concerning the conduct of this phase of the investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

DATES: May 6, 2003.

FOR FURTHER INFORMATION CONTACT: Jim McClure (202–205–3191), Office of

[1] For purposes of this investigation, the Department of Commerce has defined the subject merchandise as ''ground, pulverized or refined artificial corundum, also known as brown aluminum oxide or brown fused alumina, in grit size of ⅜ inch or less. Excluded from the scope of the investigation is crude artificial corundum in which particles with a diameter greater than ⅜ inch constitute at least 50 percent of the total weight of the entire batch. The scope includes brown artificial corundum in which particles with a diameter greater than ⅜ inch constitute less than 50 percent of the total weight of the batch.''

Investigations, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*.

SUPPLEMENTARY INFORMATION:

Background.—The final phase of this investigation is being scheduled as a result of an affirmative preliminary determination by the Department of Commerce that imports of refined brown aluminum oxide from China are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigation was requested in a petition filed on November 20, 2002, by Washington Mills Company, Inc., North Grafton, MA.[2]

Participation in the investigation and public service list.—Persons, including industrial users of the subject merchandise and, if the merchandise is sold at the retail level, representative consumer organizations, wishing to participate in the final phase of this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission's rules, no later than 21 days prior to the hearing date specified in this notice. A party that filed a notice of appearance during the preliminary phase of the investigation need not file an additional notice of appearance during this final phase. The Secretary will maintain a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigation.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.—Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final phase of this investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made no later than 21 days prior to the hearing date specified in this notice. Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigation. A party granted access to BPI in the preliminary phase of the investigation need not reapply for such access. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff report.—The prehearing staff report in the final phase of this investigation will be placed in the nonpublic record on September 10, 2003, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission's rules.

Hearing.—The Commission will hold a hearing in connection with the final phase of this investigation beginning at 9:30 a.m. on September 23, 2003, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before September 15, 2003. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on September 18, 2003, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.24 of the Commission's rules. Parties must submit any request to present a portion of their hearing testimony *in camera* no later than 7 days prior to the date of the hearing.

Written submissions.—Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.23 of the Commission's rules; the deadline for filing is September 17, 2003. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.24 of the Commission's rules, and posthearing briefs, which must conform with the provisions of section 207.25 of the Commission's rules. The deadline for filing posthearing briefs is September 30, 2003; witness testimony must be filed no later than three days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before September 30, 2003. On October 15, 2003, the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before October 17, 2003, but such final comments must not contain new factual information and must otherwise comply with section 207.30 of the Commission's rules. All written submissions must conform with the provisions of section 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission's rules, as amended, 67 Fed. Reg. 68036 (November 8, 2002).

In accordance with sections 201.16(c) and 207.3 of the Commission's rules, each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: This investigation is being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission's rules.

Issued: May 19, 2003.

By order of the Commission.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 03–12936 Filed 5–22–03; 8:45 am]

BILLING CODE 7020–02–P

[2] On November 27, 2002, the petition was amended to include two additional petitioners, C–E Minerals, King of Prussia, PA, and Treibacher Schleifmittel Corporation, Niagara Falls, NY.

INTERNATIONAL TRADE COMMISSION

Summary of Commission Practice Relating to Administrative Protective Orders

AGENCY: International Trade Commission.

ACTION: Summary of Commission practice relating to administrative protective orders.

SUMMARY: Since February 1991, the U.S. International Trade Commission (''Commission'') has issued an annual report on the status of its practice with respect to violations of its administrative protective orders (''APOs'') in investigations under Title VII of the Tariff Act of 1930 in response to a direction contained in the Conference Report to the Customs and

Trade Act of 1990. Over time, the Commission has added to its report discussions of APO breaches in Commission proceedings other than Title VII and violations of the Commission's rule on bracketing business proprietary information (''BPI'') (the ''24-hour rule''), 19 CFR 207.3(c). This notice provides a summary of investigations of breaches in Title VII, sections 202 and 204 of the Trade Act of 1974, as amended, and section 337 of the Tariff Act of 1930, as amended, completed during calendar year 2002. There were no completed investigations of 24-hour rule violations during that period. The Commission intends that this report educate representatives of parties to Commission proceedings as to some specific types of APO breaches encountered by the Commission and the corresponding types of actions the Commission has taken.

FOR FURTHER INFORMATION CONTACT: Carol McCue Verratti, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone (202) 205–3088. Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal at (202) 205–1810. General information concerning the Commission can also be obtained by accessing its Internet server (*http://www.usitc.gov*).

SUPPLEMENTARY INFORMATION: Representatives of parties to investigations conducted under Title VII of the Tariff Act of 1930, sections 202 and 204 of the Trade Act of 1974, and section 337 of the Tariff Act of 1930, as amended, may enter into APOs that permit them, under strict conditions, to obtain access to BPI (Title VII) or confidential business information (''CBI'') (sections 201–204 and section 337) of other parties. *See* 19 U.S.C. 1677f; 19 CFR 207.7; 19 U.S.C. 2252(i); 19 CFR 206.17; 19 U.S.C. 1337(n); 19 CFR 210.5, 210.34. The discussion below describes APO breach investigations that the Commission has completed, including a description of actions taken in response to breaches. The discussion covers breach investigations completed during calendar year 2002.

Since 1991, the Commission has published annually a summary of its actions in response to violations of Commission APOs and the 24-hour rule. *See* 56 FR 4846 (Feb. 6, 1991); 57 FR 12,335 (Apr. 9, 1992); 58 FR 21,991 (Apr. 26, 1993); 59 FR 16,834 (Apr. 8, 1994); 60 FR 24,880 (May 10, 1995); 61 FR 21,203 (May 9, 1996); 62 FR 13,164 (March 19, 1997); 63 FR 25064 (May 6, 1998); 64 FR 23355 (April 30, 1999); 65 FR 30434 (May 11, 2000); 66 FR 27685 (May 18, 2001); 67 FR 39425 (June 7, 2002). This report does not provide an exhaustive list of conduct that will be deemed to be a breach of the Commission's APOs. APO breach inquiries are considered on a case-by-case basis.

As part of the effort to educate practitioners about the Commission's current APO practice, the Commission Secretary issued in March 2001 a third edition of *An Introduction to Administrative Protective Order Practice in Import Injury Investigations* (Pub. L. 3403). This document is available upon request from the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, tel. (202) 205–2000.

I. In General

The current APO form for antidumping and countervailing duty investigations, which the Commission has used since March 2001, requires the applicant to swear that he or she will:

(1) Not divulge any of the BPI obtained under the APO and not otherwise available to him, to any person other than—

(i) Personnel of the Commission concerned with the investigation,

(ii) The person or agency from whom the BPI was obtained,

(iii) A person whose application for disclosure of BPI under this APO has been granted by the Secretary, and

(iv) Other persons, such as paralegals and clerical staff, who (a) are employed or supervised by and under the direction and control of the authorized applicant or another authorized applicant in the same firm whose application has been granted; (b) have a need thereof in connection with the investigation; (c) are not involved in competitive decisionmaking for an interested party which is a party to the investigation; and (d) have submitted to the Secretary a signed Acknowledgment for Clerical Personnel in the form attached hereto (the authorized applicant shall also sign such acknowledgment and will be deemed responsible for such persons' compliance with the APO);

(2) Use such BPI solely for the purposes of the Commission investigation or for judicial or binational panel review of such Commission investigation;

(3) Not consult with any person not described in paragraph (1) concerning BPI disclosed under this APO without first having received the written consent of the Secretary and the party or the representative of the party from whom such BPI was obtained;

(4) Whenever materials (*e.g.*, documents, computer disks, etc.) containing such BPI are not being used, store such material in a locked file cabinet, vault, safe, or other suitable container (N.B.: storage of BPI on so-called hard disk computer media is to be avoided, because mere erasure of data from such media may not irrecoverably destroy the BPI and may result in violation of paragraph C of the APO);

(5) Serve all materials containing BPI disclosed under this APO as directed by the Secretary and pursuant to section 207.7(f) of the Commission's rules;

(6) Transmit each document containing BPI disclosed under this APO:

(i) With a cover sheet identifying the document as containing BPI,

(ii) With all BPI enclosed in brackets and each page warning that the document contains BPI,

(iii) If the document is to be filed by a deadline, with each page marked ''Bracketing of BPI not final for one business day after date of filing,'' and

(iv) If by mail, within two envelopes, the inner one sealed and marked ''Business Proprietary Information—To be opened only by [name of recipient]'', and the outer one sealed and not marked as containing BPI;

(7) Comply with the provision of this APO and section 207.7 of the Commission's rules;

(8) Make true and accurate representations in the authorized applicant's application and promptly notify the Secretary of any changes that occur after the submission of the application and that affect the representations made in the application (*e.g.*, change in personnel assigned to the investigation);

(9) Report promptly and confirm in writing to the Secretary any possible breach of the APO; and

(10) Acknowledge that breach of the APO may subject the authorized applicant and other persons to such sanctions or other actions as the Commission deems appropriate including the administrative sanctions and actions set out in this APO.

The APO further provides that breach of an APO may subject an applicant to:

(1) Disbarment from practice in any capacity before the Commission along with such person's partners, associates, employer, and employees, for up to seven years following publication of a determination that the order has been breached;

(2) Referral to the United States Attorney;

(3) In the case of an attorney, accountant, or other professional, referral to the ethics panel of the appropriate professional association;

(4) Such other administrative sanctions as the Commission determines to be appropriate, including public release of or striking from the record any information or briefs submitted by, or on behalf of, such person or the party he represents; denial of further access to BPI in the current or any future investigations before the Commission; and issuance of a public or private letter of reprimand; and

(5) Such other actions, including but not limited to, a warning letter, as the Commission determines to be appropriate.

Commission employees are not signatories to the Commission's APOs and do not obtain access to BPI through APO procedures. Consequently, they are not subject to the requirements of the APO with respect to the handling of BPI. However, Commission employees are subject to strict statutory and regulatory constraints concerning BPI, and face potentially severe penalties for noncompliance. *See* 18 U.S.C. 1905; Title 5, U.S. Code; and Commission personnel policies implementing the statutes. Although the Privacy Act (5 U.S.C. 552a) limits the Commission's authority to disclose any personnel action against agency employees, this should not lead the public to conclude that no such actions have been taken.

An important provision of the Commission's rules relating to BPI is the ''24-hour'' rule. This rule provides that parties have one business day after the deadline for filing documents containing BPI to file a public version of the document. The rule also permits changes to the bracketing of information in the proprietary version within this one-day period. No changes—other than changes in bracketing—may be made to the proprietary version. The rule was intended to reduce the incidence of APO breaches caused by inadequate bracketing and improper placement of BPI. The Commission urges parties to make use of the rule. If a party wishes to make changes to a document other than bracketing, such as typographical changes or other corrections, the party must ask for an extension of time to file an amended document pursuant to section 201.14(b)(2) of the Commission's rules.

II. Investigations of Alleged APO Breaches

Upon finding evidence of an APO breach or receiving information that there is a reason to believe one has occurred, the Commission Secretary notifies relevant offices in the agency that an APO breach investigation file has been opened. Upon receiving notification from the Secretary, the Office of General Counsel (OGC) begins to investigate the matter. The OGC prepares a letter of inquiry to be sent to the possible breacher over the Secretary's signature to ascertain the possible breacher's views on whether a breach has occurred. If, after reviewing the response and other relevant information, the Commission determines that a breach has occurred, the Commission often issues a second letter asking the breacher to address the questions of mitigating circumstances and possible sanctions or other actions. The Commission then determines what action to take in response to the breach. In some cases, the Commission determines that although a breach has occurred, sanctions are not warranted, and therefore has found it unnecessary to issue a second letter concerning what sanctions might be appropriate. Instead, it issues a warning letter to the individual. A warning letter is not considered to be a sanction.

Sanctions for APO violations serve two basic interests:

(a) Preserving the confidence of submitters of BPI that the Commission is a reliable protector of BPI; and (b) disciplining breachers and deterring future violations. As the Conference Report to the Omnibus Trade and Competitiveness Act of 1988 observed, ''[T]he effective enforcement of limited disclosure under administrative protective order depends in part on the extent to which private parties have confidence that there are effective sanctions against violation.'' H.R. Conf. Rep. No. 576, 100th Cong., 1st Sess. 623 (1988).

The Commission has worked to develop consistent jurisprudence, not only in determining whether a breach has occurred, but also in selecting an appropriate response. In determining the appropriate response, the Commission generally considers mitigating factors such as the unintentional nature of the breach, the lack of prior breaches committed by the breaching party, the corrective measures taken by the breaching party, and the promptness with which the breaching party reported the violation to the Commission. The Commission also considers aggravating circumstances, especially whether persons not under the APO actually read the BPI. The Commission considers whether there are prior breaches by the same person or persons in other investigations and multiple breaches by the same person or persons in the same investigation.

The Commission's rules permit economists or consultants to obtain access to BPI under the APO if the economist or consultant is under the direction and control of an attorney under the APO, or if the economist or consultant appears regularly before the Commission and represents an interested party who is a party to the investigation. 19 CFR 207.7(a)(3)(B) and (C). Economists and consultants who obtain access to BPI under the APO under the direction and control of an attorney nonetheless remain individually responsible for complying with the APO. In appropriate circumstances, for example, an economist under the direction and control of an attorney may be held responsible for a breach of the APO by failing to redact APO information from a document that is subsequently filed with the Commission and served as a public document. This is so even though the attorney exercising direction or control over the economist or consultant may also be held responsible for the breach of the APO.

The records of Commission investigations of alleged APO breaches in antidumping and countervailing duty cases are not publicly available and are exempt from disclosure under the Freedom of Information Act, 5 U.S.C. 552, section 135(b) of the Customs and Trade Act of 1990, and 19 U.S.C. 1677f(g).

The breach most frequently investigated by the Commission involves the APO's prohibition on the dissemination of BPI to unauthorized persons. Such dissemination usually occurs as the result of failure to delete BPI from public versions of documents filed with the Commission or transmission of proprietary versions of documents to unauthorized recipients. Other breaches have included: the failure to bracket properly BPI in proprietary documents filed with the Commission; the failure to report immediately known violations of an APO; and the failure to supervise adequately non-legal personnel in the handling of BPI.

Counsel participating in Title VII investigations have reported to the Commission potential breaches involving the electronic transmission of public versions of documents. In these cases, the document transmitted appears to be a public document with BPI omitted from brackets. However, the BPI is actually retrievable by manipulating codes in software. The Commission has found that the electronic transmission of a public document containing BPI in a recoverable form was a breach of the APO.

The Commission advised in the preamble to the notice of proposed rulemaking in 1990 that it will permit authorized applicants a certain amount of discretion in choosing the most appropriate method of safeguarding the confidentiality of the BPI. However, the Commission cautioned authorized applicants that they would be held responsible for safeguarding the confidentiality of all BPI to which they are granted access and warned applicants about the potential hazards of storage on hard disk. The caution in that preamble is restated here:

> [T]he Commission suggests that certain safeguards would seem to be particularly useful. When storing business proprietary information on computer disks, for example, storage on floppy disks rather than hard disks is recommended, because deletion of information from a hard disk does not necessarily erase the information, which can often be retrieved using a utilities program. Further, use of business proprietary information on a computer with the capability to communicate with users outside the authorized applicant's office incurs the risk of unauthorized access to the information through such communication. If a computer malfunctions, all business proprietary information should be erased from the machine before it is removed from the authorized applicant's office for repair. While no safeguard program will insulate an authorized applicant from sanctions in the event of a breach of the administrative protective order, such a program may be a mitigating factor. Preamble to notice of proposed rulemaking, 55 FR 24100, 24103 (June 14, 1990).

In 2002, the Commission completed two investigations of instances in which members of a law firm or consultants working with a firm were granted access to APO materials by the firm although they were not APO signatories (Cases 1 and 5). In these cases and four others in 2001, the firm and the person using the BPI mistakenly believed an APO application had been filed for that person. The Commission determined in all these cases that the person who was a non-signatory, and therefore did not agree to be bound by the APO, could not be found to have breached the APO. Action could be taken against these persons, however, under Commission rule 201.15 (19 CFR 201.15) for good cause shown. In all cases, the Commission decided that the non-signatory was a person who appeared regularly before the Commission and was aware of the requirements and limitations related to APO access and should have verified his or her APO status before obtaining access to and using the BPI. In all but one case, the Commission issued warning letters because it was the first time the persons in question were subject to possible sanctions under section 201.15.

Also in 2002, the Commission found the lead attorney to be responsible for breaches in at least four cases where he or she failed to provide adequate supervision over the handling of BPI. (Cases 1, 3, 9, and 10). Lead attorneys should be aware that their responsibilities for overall supervision of an investigation, when a breach has been caused by the actions of someone else in the investigation, may lead to a finding that the lead attorney has also violated the APO. The Commission has found that a lead attorney did not violate the APO in cases where his delegation of authority was reasonable.

III. Specific Investigations in Which Breaches Were Found

The Commission presents the following case studies to educate users about the types of APO breaches found by the Commission. The studies provide the factual background, the actions taken by the Commission, and the factors considered by the Commission in determining the appropriate actions. The Commission has not included some of the specific facts in the descriptions of investigations where disclosure of such facts could reveal the identity of a particular breacher. Thus, in some cases, apparent inconsistencies in the facts set forth in this notice result from the Commission's inability to disclose particular facts more fully.

Case 1: Four attorneys were investigated for a breach involving the release of BPI to an attorney in the firm who was not a signatory to the APO. The attorneys who were involved in the Commission investigation assumed that they all had been included on the APO and shared the APO materials with each other. However, one of these attorneys, an associate, had not been included on the APO. The lead attorney was found to have breached the APO because he failed to provide adequate supervision over the handling of BPI and permitted the release of BPI to an associate in his firm who was not a signatory to the APO. The other attorneys were found to have breached because they provided the non-signatory with BPI to use in a Commission investigation. The fourth attorney did not breach the APO because he was a non-signatory, but the Commission determined that his actions were sufficient to demonstrate good cause for the imposition of sanctions under 19 CFR 201.15. He was not a signatory to the APO when he reviewed BPI contained in documents received under the APO and utilized the BPI in the preparation of a brief in the Commission investigation.

The three attorneys who breached the APO were issued warning letters. This was their first breach of an APO involving a section 201.15 violation. The attorney who was a non-signatory was issued a private letter of reprimand. Although this was his first violation under section 201.15, he had helped to cause a breach of the APO in a previous matter by failing to redact BPI from the public version of a brief filed in the Commission investigation. This breach had been previously investigated and reported. In that APOB investigation, the Commission found that there was sufficient information to suggest that a non-signatory outside the firm viewed the BPI.

Case 2: The Commission determined that an attorney, an APO coordinator, and a legal secretary breached the APO. The APO coordinator, who was a senior legal secretary, gave another legal secretary an attorney's edits to a draft brief and provided instructions regarding redaction of the CBI from brackets and the subsequent faxing of the draft brief to clients. The legal secretary did not remove all the CBI from the brackets because she believed it was the clients' information. She also did not have an attorney review the document, as required by the firm's procedures, after she made the edits and before she faxed the document to the clients. In the affidavits provided by the firm in this APOB investigation, there was a dispute between the legal secretary and the rest of the firm as to whether the legal secretary had received adequate instructions from the APO coordinator regarding the handling of the CBI. One of the attorneys working on the brief also recalled instructing the legal secretary to remove all the CBI from the brackets because the information had been generated by multiple clients.

In defending against the breach allegations, the firm raised issues about whether the information was CBI. The Commission considered each of the arguments and determined that CBI had been released.

In spite of the dispute over instructions given to the legal secretary, the Commission determined that she had breached the APO. In addition, the Commission determined that the APO coordinator and the attorney who made the edits to the brief, and who was also the lead attorney and managing partner in the firm, breached the APO for failure to provide adequate supervision over the legal secretary.

The Commission issued private letters of reprimand to all three persons, after considering that persons who were non-signatories to the APO actually read the

CBI. The Commission considered the mitigating circumstances that the firm had reported the breach promptly, took immediate steps to minimize the effect of the breach, and strengthened procedures to prevent future breaches. In addition, none of the persons found to have breached had a record of prior breaches.

Case 3: The Commission determined that two attorneys breached the APO when one of them sent copies of the Commission's confidential views to executives of the law firm's clients with an attached cover memorandum that had been drafted by one attorney and signed by the firm's lead attorney. In determining that the lead attorney breached the APO, the Commission considered the fact that the lead attorney had overall responsibility for APO matters. The Commission issued private letters of reprimand to both attorneys, even though it was both attorneys' first breach, because of the serious nature of the breach. The Commission noted that the confidential brief had been in the possession of the clients for seven days before the breach was discovered and that two of the clients read the BPI.

Case 4: The Commission investigated whether two attorneys had breached the APO. The lead attorney had asked at the Commission hearing if the confidential record from a prior investigation could be incorporated into the confidential record of the subject investigation. The Commission had not yet determined whether to allow the prior record to be used when the attorney used the BPI from the previous investigation by referencing it to support arguments in his post-hearing brief. The Commission determined that the lead attorney breached the APO by including arguments in his post-hearing brief that referenced and compared BPI in the previous investigation with BPI in the subject investigation. The Commission found a breach even though the BPI was not actually disclosed to non-signatories to the APO.

The Commission noted that it had not found that the attorney breached the APO by making arguments using public information, by asking the Commission to include BPI from one investigation in the confidential record of another investigation, or by asking the Commission in the subject investigation to consider issues already discussed in the confidential prehearing staff report of the subject investigation.

The Commission decided to issue a warning letter after considering that this was the only breach in which the attorney had been involved within the two year period prior to the breach, his prompt action to remedy the breach, and the fact there had been no disclosure of BPI to persons not already under the APO. The Commission also noted that the attorney might not have realized that comparing BPI from two different investigations, and referencing without disclosing BPI from a separate investigation, could trigger an APO violation.

The Commission decided the second attorney did not breach the APO because the lead attorney had clearly stated that the decision to put the arguments in the post-hearing brief was his alone.

Case 5: The Commission investigated a breach involving the use of CBI by one attorney in a firm who was not a signatory to the APO. The lead attorney for the firm in the Commission investigation assigned an associate to the investigation and gave him access to CBI. Both attorneys thought the associate was a signatory to the APO. The Commission found that the lead attorney breached the APO by assigning the associate to handle CBI when he was not a signatory to the APO. The Commission also found that the lead attorney failed adequately to supervise the handling of CBI. The Commission found that the associate did not breach the APO because he was not a signatory. However, the Commission found there was good cause to caution the associate pursuant to 19 CFR 201.15(a).

The Commission issued warning letters to both attorneys. The mitigating circumstances considered by the Commission that led to warning letters included the facts that the breach was unintentional, that there were no prior breaches or allegations of violations under section 201.15 for either attorney within the prior two year period, that the attorneys immediately notified the Commission of the breach once they discovered it, that they took action to prevent further breaches, that the associate protected the CBI as if he had been a signatory, and that the firm immediately sought APO access to the CBI for the associate as soon as the breach was discovered.

Case 6: The Commission determined that two attorneys and a records administrator in a law firm breached the APO for failing to return or destroy a document containing BPI within the time required by the APO and for falsely certifying that it had been destroyed. When searching in an archives file to retrieve documents for litigation purposes, one of the attorneys discovered a copy of a post-hearing brief that had not been returned or destroyed with the rest of the APO material obtained in a Commission investigation. The Commission found that both during and after the Commission investigation, that attorney and the records administrator failed to assure that the document in question was filed and stored in a manner and place that was inaccessible to persons unauthorized to review APO material, as required by 19 CFR 207.7(b)(1) and (4).

The Commission found that the senior attorney in the firm committed a breach because a document containing BPI was not filed properly or destroyed at the conclusion of the Commission investigation. The Commission noted that as head of his firm the senior attorney was responsible for establishing adequate procedures to assure that documents containing BPI are handled, maintained, and destroyed in a manner consistent with the Commission's APO regulations.

The Commission issued warning letters to the two attorneys and the records administrator. It considered the mitigating factors that the breach was unintentional, that prompt action was taken to report and remedy the breach, that no unauthorized person accessed the document, and, with regard to the first attorney and the records administrator, that this was their first breach. The senior attorney was found to have breached under similar circumstances in the previous year, but the Commission declined to issue a sanction because the current breach occurred prior to the one for which he had already received a warning letter and he had instituted new procedures at the firm to avoid future breaches as a result of the previous year's APOB investigation.

Case 7: The Commission determined that three attorneys breached an APO by failing to redact BPI from one page of the public version of their prehearing brief. The three attorneys were mid-level associates and were solely responsible for preparing the public version of the brief. The brief was filed with the Commission and served on the parties on the public service list including a non-signatory. The brief was also sent to several clients who were not signatories.

The Commission determined that three other attorneys whose names were on the brief did not breach. None of these attorneys participated in the preparation of the public version of the brief. In addition, the Commission found that the lead attorney did not breach because he had reasonably delegated the task of preparing the public version of the brief to three experienced associates. None of these associates had previously breached an APO.

The Commission issued private letters of reprimand to the three associates after considering the aggravating circumstances that the Secretary's Office and not the law firm discovered the breach; that the breach was not discovered until 19 days after the brief had been filed and served; and that the BPI may have been read by one or more non-signatories to the APO. The Commission noted that, although the attorneys stated that no recipients of the brief informed their firm that they had read, copied, or transmitted the public version of the brief, it was not clear that non-signatories did not review the BPI.

In reaching its decision to issue private letters of reprimand, the Commission also considered the mitigating circumstances that the breach was unintentional, that corrective measures were taken immediately after the breach was discovered, that there were internal APO procedures before the breach that were followed, and that these procedures were strengthened after the breach.

Case 8: The Commission determined that two attorneys breached the APO by e-mailing an electronic version of a public prehearing brief, which contained electronically masked but recoverable CBI, to their clients and to parties that had agreed to that type of service. Although the brief appeared to be a public document with CBI omitted from within the brackets, the deleted CBI was retrievable electronically. Both attorneys believed that they were e-mailing a document from which CBI was deleted and not retrievable.

The Commission, deciding not to sanction the attorneys, sent them warning letters. The Commission reached that decision after giving consideration to the facts that this was the only breach in which either attorney had been involved within the prior two year period considered by the Commission in determining sanctions, that the breach was unintentional, that the breach was discovered by the attorneys, that there was no indication that anyone not on the APO viewed the CBI, that prompt action was taken to remedy the breach, and that new procedures had been established by the firm to avoid a similar APO violation in the future.

Case 9: The Commission determined that a lead attorney breached the APO by failing to provide adequate supervision over his firm's personnel regarding the care of CBI. Another law firm had been added to the public service list late in an investigation. The clerical personnel in charge of serving documents manually created mailing labels for the firm rather than creating computer generated labels that were segregated between public and APO lists. The secretary who typed the labels mistakenly typed them for service of APO materials. The newly added firm received APO materials for two days. The outer envelopes were opened but the inner envelopes remained sealed and were returned to the original law firm.

Upon inquiry, the law firm was unable to provide the Commission with the name of the person responsible for the mislabeling. However, the Commission did determine that the lead attorney was responsible for the breach. He had signed the APO application for the clerical personnel indicating he was responsible for their compliance with APO requirements.

The Commission issued a warning letter to the lead attorney after considering that the breach was unintentional, that his firm took immediate steps to reeducate its personnel regarding the proper handling of CBI, that non-signatories had not reviewed the BPI, and that the lead attorney had not breached an APO within a prior two year period considered by the Commission in determining an appropriate sanction.

Case 10: The Commission considered whether two attorneys and one clerical employee breached the APO. The breach occurred when a clerical employee served a law firm with the BPI version of a post-conference brief although the firm was not a signatory to the Commission's APO. The recipient firm notified the law firm that the package was opened, but the brief was viewed only to the extent of determining that it was a document containing BPI covered by the Commission's APO, not Commerce's APO, to which the firm was a signatory. The Commission determined that, in addition to the clerical employee, the attorney supervising the clerical employees and the lead attorney in the investigation were both responsible for the breach.

In a previous APOB investigation concerning the same Commission investigation, the Commission had found that five clerical employees, including the one responsible for this breach, and the same attorney who supervised the clerical employees in the investigations had breached the APO. Warning letters were issued at that time. The Commission did not find that the lead attorney had breached because he had reasonably delegated the responsibility of supervising the clerical employees to an experienced attorney who had no prior violations.

In the current APOB investigation, the Commission determined that the lead attorney was responsible for the breach because he was aware that both the supervising attorney and the clerical employee had previously breached the APO. Since the lead attorney had recently received a private letter of reprimand in a different breach investigation, the Commission issued a private letter of reprimand to the lead attorney with a requirement that he update the firm's APO procedures and conduct a training session for attorneys and staff involved in APO practice in his firm. The supervising attorney and the clerical employee both received private letters of reprimand. The Commission considered the unintentional nature of the breach, the fact that corrective measures were immediately taken to retrieve the document from the non-signatory law firm and to remove the project assistant from the APO, the immediate reporting of the incident to the Commission, and that no non-signatory viewed the BPI as mitigating circumstances and the prior breaches of both attorneys and the clerical employee as an aggravating circumstance.

Case 11: The Commission determined that two attorneys and a legal secretary breached the APO. An associate attorney and the secretary worked together to prepare the public version of a draft post-conference brief. The attorney e-mailed the brief in an electronic form that masked the BPI. However, one footnote contained unredacted BPI. The Microsoft Word macro that was used to mask BPI in the brief did not mask BPI in the footnotes. The secretary missed the BPI in one of the footnotes when she did a manual review of the brief before the attorney e-mailed it to eight clients. The attorney did not check the brief to be sure all BPI was masked before he e-mailed the document. The information provided in the APOB investigation indicated that the persons involved in the breach did not know that the BPI was recoverable by the recipients of the e-mail.

When the lead attorney who had been out of the office while the public brief was prepared and transmitted to the client returned, he reviewed the brief and discovered that one of the footnotes contained unmasked BPI. The associate attorney was directed to take immediate action to contact the Commission, to inform the recipients of the draft brief to destroy all paper and electronic versions of it, and to prepare a revised electronic brief with masked BPI and e-mail that to the same clients.

The Commission found that the lead secretary breached the APO by failing to

redact BPI from the draft public brief which resulted in possession of the BPI by several non-signatories, including one who actually viewed the BPI. The Commission issued a warning letter to the secretary rather than a private letter of reprimand largely because she, as a clerical employee, was under the direct supervision of an attorney at the time of the breach. In addition, this was her first breach, the breach was unintentional, prompt action was taken to remedy the breach, and actions were taken by the firm to improve APO compliance procedures.

The Commission found that the lead attorney breached the APO because the associate attorney had e-mailed two versions of the public draft brief with masked but recoverable BPI. The Commission noted that the information provided in this APOB investigation indicated that it was the law firm's practice to e-mail public versions of documents containing masked but recoverable BPI to its clients. Further, although the first electronic brief had been retrieved or destroyed, there was no indication in the record that anyone had attempted to retrieve or destroy the electronic copies of the revised draft brief sent to the eight non-signatory clients. Consequently, the masked BPI in those electronic copies had evidently remained unprotected for at least nine months, and at risk of disclosure to APO non-signatories. The Commission determined that the lead attorney was not responsible for the breach involving BPI remaining visible in the one footnote as his delegation of the preparation of the public version of a brief to a mid-level associate was reasonable. However, the Commission issued the lead attorney a private letter of reprimand because of the serious problem raised by e-mailing electronic documents containing masked but retrievable BPI. The lead attorney had no prior breaches.

The associate attorney was also given a private letter of reprimand. The Commission reached its decision to sanction the associate after giving consideration to the existence of several mitigating factors with respect to the unredacted BPI, including the unintentional nature of the breach, the fact that corrective measures were immediately taken, the breach was reported to the Secretary's Office the following day, and certain procedures at the law firm were strengthened to prevent future breaches. The Commission noted that, with respect to the breach involving masked but recoverable BPI in both versions of the electronic brief, the breach was inadvertent. The Commission also considered the fact this was the associate's first breach. A sanction was warranted, however, because a non-signatory viewed the unredacted BPI in the footnote in the first draft brief. Moreover, the Commission and not the law firm identified the breach involving the masked but recoverable BPI. Finally, there was no information on the record suggesting that anyone in the law firm had attempted to prevent disclosure to unauthorized persons of recoverable BPI contained in the revised draft brief.

Case 12: The Commission determined that three attorneys breached the APO. All three attorneys, who were from two different firms, had been responsible for preparing the public version of a joint brief in which not all BPI received under the APO had been redacted. After the public brief was completed, one of the firms sent copies to two of its clients where one office at each of the companies viewed the brief with the unredacted BPI. The Commission issued two of the attorneys private letters of reprimand and the third attorney received a private letter of reprimand with the additional requirement that he conduct an APO compliance seminar at his firm. This was the first breach for the first two attorneys, but the third attorney had breached another APO within two years of the occurrence of this breach. In issuing these sanctions, the Commission considered that BPI was viewed by non-signatories to the APO, and also considered the mitigating circumstances that the breach was unintentional; that corrective measures were taken immediately; that internal APO procedures existed before the breach and they had been followed; and that these procedures were strengthened.

A fourth attorney initially was found by the Commission to have breached the APO. His involvement with the preparation of the public brief had been solely to check the adequacy of the bracketing in the confidential version. He had delegated preparation of the public version to an attorney in his firm who was an experienced trade lawyer. The fourth attorney had sent the public brief to his clients not knowing that it contained unredacted BPI. During the sanctions phase of the APOB investigation, the fourth attorney cited a Commission summary of an APOB investigation completed in 2001 which had not been published during the breach phase of the current APOB investigation. The attorney argued that, since the facts contained in the summary were very similar to his circumstances and, in that case, the supervising attorney was found not to have breached, the Commission should reconsider and reverse its decision that he had breached the APO. Based on these new arguments that had not been available to the attorney earlier, the Commission reconsidered and reversed its previous decision that he had breached.

Case 13: The Commission determined that a lead economic consultant breached the APO by failing to return or destroy confidential documents and certify that the documents were returned or destroyed within 60 days after the Commission's publication of its final remedy determination in the **Federal Register**. The Commission issued a warning letter to the lead consultant, while determining that other consultants in his firm were not responsible for the breach of the APO. The Commission, in reaching its determination, considered that this was the only breach in which the consultant had been involved within a two year period examined by the Commission for purposes of determining sanctions; that the consultant and other employees who were signatories to the APO executed and filed certificates of return or destruction of CBI materials less than one month after the deadline; that there was no indication in the record that any non-signatory had access to the CBI in question; and that the consultant's firm had implemented, pursuant to requirements imposed by litigation in which it was involved, a strict document retention policy which required various approvals before documents could be destroyed.

Case 14: The Commission determined that one attorney breached the APO when he filed a public version of a prehearing brief containing BPI. The BPI, the name of a business that was the source of a lost revenue allegation, had been contained in the confidential staff report at an earlier phase of the investigation. That report bracketed the name of a business in all but one place. The name of the business was deleted from the public version of the report in all locations. The attorney argued that he didn't breach the APO because the information was publicly available, since it was not consistently bracketed in the staff report. In response, the Commission noted that the confidential staff report was distributed only to parties who were signatories to the APO and was not distributed to the public. The public version of the staff report was distributed to the public, but it did not reveal the identify of the source of the lost revenue allegation. The attorney also argued that the information in question theoretically could have been obtained from public sources, *i.e.*, from information contained in public files for

litigation to which his client was a party. The Commission determined that the ''theoretical'' availability of information through public sources cannot justify the use of BPI obtained through the APO. Finally, the attorney argued that counsel for the person who previously owned the company from which the information had been received did not object to disclosures of ''historical information'' about the firm. Nevertheless, the Commission noted that the company had not waived confidential treatment for the questionnaires it submitted to the Commission which contained the information in question.

There were several aggravating factors in the investigation. The breach was discovered by the Commission, the attorney did not act promptly to cure the breach, and the brief had been distributed to a non-signatory who retained the document for almost three weeks. Nonetheless, the Commission issued a warning letter to the attorney. In deciding not to issue sanctions, the Commission considered the fact that this was the attorney's first breach and that he failed to redact the BPI is good faith after relying on the incomplete bracketing in the confidential staff report.

Case 15: The Commission investigated whether two attorneys breached the APO in an investigation by serving on other counsel a document that indicated on its face it did not contain CBI but did in fact contain CBI. The Commission determined that the attorneys breached the APO and issued a warning letter to them. The Commission considered the mitigating factors that the release was inadvertent, that there was no actual dissemination of CBI to non-signatories to the APO, and that immediate steps were taken to remedy the situation once counsel became aware of the breach. In addition, the attorneys implemented new procedures regarding preparation of non-proprietary submissions in order to prevent future breaches.

IV. Investigations in Which No Breach Was Found

During 2002, four additional APO breach investigations were initiated. In one investigation the Commission determined that no breach had occurred. In the other three, the investigations were closed administratively. The reasons that the investigations were closed or that there was a ''no breach'' determination included that: (1) The breach concerned a judicial protective order, not a Commission APO; (2) the information at issue that ordinarily would be entitled to treatment as BPI was not consistently treated as such in the public record including by persons entitled to claim it was BPI; (3) testimony at a hearing did not reveal BPI because the information in question had been previously revealed on the public record; and (4) while information that was revealed in an attachment to a document filed with the Commission might have been proprietary under the terms of an agreement connected with outside litigation, the information was not obtained under the APO and, therefore, its disclosure could not constitute a breach of the APO.

By order of the Commission.

Issued: May 19, 2003.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 03–12935 Filed 5–22–03; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Task Force for Faith-Based and Community Initiatives; Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 60-day emergency notice of information collection under review: New collection, survey on ensuring equal opportunity for applicants.

The Department of Justice, Task Force for Faith-Based and Community Initiatives has submitted the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with emergency review procedures of the Paperwork Reduction Act of 1995. OMB approval has been requested by May 26, 2003. The proposed information collection is published to obtain comments form the public and affected agencies. If granted, the emergency approval is only valid for 180 days. Comments should be directed to OMB, Office of Information and Regulatory Affairs, Attention: Department of Justice Desk Officer (202) 395–6466, Washington, DC 20503.

During the first 60 days of this same review period, a regular review of this information collection is also being undertaken. All comments and suggestions, or questions regarding additional information, to include obtaining a copy of the proposed information collection instrument with instructions, should be directed to U.S. Department of Justice, Task Force for Faith-Based and Community Initiatives, ATTN: Patrick D. Purtill, Director, 950 Pennsylvania Ave., NW., Room 4409, Washington, DC 20530.

Request written comments and suggestions from the public and affected agencies concerning the proposed collection of information. Your comments should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information

(1) *Type of information collection:* New collection.

(2) *The title of the form/collection:* Survey on Ensuring Equal Opportunity for Applicants.

(3) *The agency form number, if any, and the applicable component of the department sponsoring the collection: Form Number:* none. Task Force for Faith-Based and Community Initiatives, Department of Justice.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary:* not-for-profit institutions. *Abstract:* To ensure equal opportunity for all applicants including small, community-based, faith-based and religious groups, it is essential to collect information that enables the Federal agencies to determine the level of participation of such organizations in Federal grant programs while ensuring that such information is not used in grant-making decisions.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond/reply:* There are approximately 15,361 respondents who will each require an average of five minutes to respond.

(6) *An estimate of the total public burden (in hours) associated with the collection:* The total annual public burden hours for this information

collection is estimated to be 1,280 hours.

If additional information is required contact: Robert B. Briggs, Department Clearance Officer, Information Management and Security Staff, Justice Management Division, United States Department of Justice, 601 D Street, NW., Patrick Henry Building, Suite 1600, Washington, DC 20530.

Dated: May 19, 2003.

Robert B. Briggs,

Department Clearance Officer, United States Department of Justice.

[FR Doc. 03–12927 Filed 5–22–03; 8:45 am]

BILLING CODE 7410–20–M

DEPARTMENT OF JUSTICE

Antitrust Division

Responses to Public Comments on Proposed Final Judgment in United States v. Northrop Grumman Corporation and TRW Inc.

Pursuant to the Antitrust Procedures and Penalties Act, 15 U.S.C. 16(b)–(h), the United States hereby publishes the four public comments on the proposed Final Judgment in *United States* v. *Northrop Grumman Corporation and TRW Inc.,* Civil No. 1:02CV02432, filed in the United States District Court for the District of Columbia, together with the responses of the United States to the comments.

On December 11, 2002, the United States filed a Complaint alleging that Northrop Grumman Corporation's proposed acquisition of TRW Inc. would lessen competition substantially in the development, production, and sale of radar reconnaissance satellite systems and electro-optical/infrared reconnaissance satellite systems, and the payloads for those systems, in the United States, in violation of section 7 of the Clayton Act, 15 U.S.C. 18. The proposed Final Judgment, filed at the same time as the Complaint, requires the defendant Northrop to act in a non-discriminatory manner in making teaming and purchase decisions on programs in which, by virtue of the acquisition of TRW, it will be able to compete as both a prime contractor and the supplier of the payloads for the program.

Public comment was invited within the statutory 60-day comment period. The public comments and the responses of the United States thereto are hereby published in the **Federal Register,** and shortly thereafter these documents will be attached to a Certificate of Compliance with Provisions of the Antitrust Procedures and Penalties Act and filed with the Court, together with a motion urging the Court to enter the proposed Judgment. Copies of the Complaint, the proposed Final Judgment, and the Competitive Impact Statement are currently available for inspection in Room 200 of the Antitrust Division, Department of Justice, 325 7th Street, NW., Washington, DC 20530 (telephone: 202–514–2481) and at the Clerk's Office, United States District Court for the District of Columbia, 333 Constitution Avenue, NW., Washington, DC 20001. (The United States's Certificate of Compliance with Provisions of the Antitrust Procedures and Penalties Act will be made available at the same locations shortly after they are filed with the Court.) Copies of any of these materials may be obtained upon request and payment of a copying fee.

Constance K. Robinson,

Director of Operations, Antitrust Division.

BILLING CODE 4410–11–M

U.S. Department of Justice

Antitrust Division

City Center Building
1401 H Street, NW
Washington, DC 20530

May 5, 2003

Roger F. Roberts
Senior Vice President
Space & Intelligence Systems
The Boeing Company
2800 Westminster Boulevard MC SZ-84
Seal Beach, CA 90740-2089

Re: Comment on Proposed Final Judgment in *United States v. Northrop Grumman Corporation and TRW Inc.*, No. 1:02CV02432, filed December 11, 2002

Dear Mr. Roberts:

This letter responds to your March 10 letter, commenting on the proposed Final Judgment submitted for entry in the captioned case. The government's Complaint in the case charged that the proposed acquisition of TRW Inc. ("TRW") by Northrop Grumman Corp. ("Northrop") would combine one of the only two suppliers of radar and EO/IR payloads for reconnaissance satellite systems sold to the U.S. Government (Northrop) with one of the few companies able to act as prime contractor on U.S. reconnaissance satellite programs that use these payloads (TRW). The Complaint alleges that as a result of this combination, Northrop would have the incentive and ability to lessen competition by favoring its own payload and/or prime contractor capabilities to the detriment or foreclosure of competitors, and would harm the U.S. Government by posing an immediate danger to competition in two current or future programs, the Space-Based Radar and Space Based InfraRed System-Low programs (the latter program is now called the Space Tracking and Surveillance System).

Your letter requests that two modifications be made to the Final Judgment. The first, and most substantive, request is that the definition of "Payload" be expanded to explicitly include signal intelligence ("SIGINT") technology, as well as the electro-optical, infrared, and radar technology that is now contained in the definition in the Final Judgment. You state that you believe signal intelligence payloads, which prior to the merger were made only by TRW, and not by Northrop, were probably intended to be included, and that their inclusion must be made explicit to "ensure that TRW SIGINT payloads continue to be made available on a non-discriminatory basis to all potential primes who wish to bid future covered procurements featuring SIGINT systems." A specific concern raised in your letter is the impact of the acquisition on future programs that involve multi-mission satellites combining both SIGINT and radar capabilities.

The scope of the proposed consent decree is limited to remedying the anticompetitive effects arising from this transaction. These effects result from the combination of Northrop's payload

capability with TRW's satellite prime capabilities. Your letter states that TRW already possesses SIGINT payload capability. In such event, the combination of this payload capability with TRW's satellite prime capability was pre-existing and did not arise from the merger. Therefore, it is not addressed in the proposed consent decree.

The second request in your letter is that the Compliance Officer be expressly empowered to sponsor potential competitors for access to classified information that might be needed to compete for a given program. Access to classified information is a sensitive issue in any classified program, and detailed procedures have been developed by the appropriate agencies to deal with questions that may arise regarding such access. The United States does not believe that the Final Judgment should be used to modify government procedures, but instead is directed at modifying private anticompetitive conduct. If internal U.S. Government classification procedures restrict the number of potential competitors for a project, it is always in the discretion of the affected agency, after carefully balancing that problem against the need to protect classified technologies, to modify its own procedures.

Thank you for bringing your concerns to our attention; we hope this information will help alleviate them. Pursuant to the Antitrust Procedures and Penalties Act, 15 U.S.C. § 16(d), a copy of your comment and this response will be published in the Federal Register and filed with the Court.

Sincerely yours,

J. Robert Kramer II
Chief
Litigation II Section

U.S. Department of Justice

Antitrust Division

City Center Building
1401 H Street, NW
Washington, DC 20530

May 5, 2003

Raymond A. Jacobsen, Jr., Esquire
McDermott, Will & Emery
600 Thirteenth St., NW
Washington, DC 20005-3096

Re: Comment on Proposed Final Judgment in *United States v. Northrop Grumman Corporation and TRW Inc.*, No. 1:02CV02432, filed December 11, 2002

Dear Mr. Jacobsen:

This letter responds to your March 17 letter, commenting on the proposed Final Judgment submitted for entry in the captioned case. The government's Complaint in the case charged that the proposed acquisition of TRW Inc. ("TRW") by Northrop Grumman Corp. ("Northrop") would combine one of the only two suppliers of radar and EO/IR payloads for reconnaissance satellite systems sold to the U.S. Government (Northrop) with one of the few companies able to act as prime contractor on U.S. reconnaissance satellite programs that use these payloads (TRW). The Complaint alleges that as a result of this combination, Northrop would have the incentive and ability to lessen competition by favoring its own payload and/or prime contractor capabilities to the detriment or foreclosure of competitors, and would harm the U.S. Government by posing an immediate danger to competition in two current or future programs, the Space-Based Radar and Space Based InfraRed System-Low programs (the latter program is now called the Space Tracking and Surveillance System).

In your letter, you note that Lockheed "fully supports" the non-discrimination principles set forth in the Final Judgment, and specifically endorses many of the provisions in that Final Judgment, including both the non-discrimination requirements themselves and the provisions that enforce the requirements and incentivize Northrop to comply with those requirements voluntarily. However, you also assert that these provisions will not be fully effective unless the Final Judgment is modified in several specific ways.

Section IV.B.(1)(b) of the Final Judgment requires that Northrop negotiate in good faith to enter into teaming agreements with prime contractors who wish to use Northrop electro-optical, infrared, or radar payloads to compete for satellite programs. Lockheed proposes that this provision be modified to include a specific requirement that Northrop negotiate such teaming agreements "on a timely basis," and that the Judgment state explicitly that that "generally means not later than thirty (30) days after the competing prime expresses desire for such Agreement." The United States does not believe that such a provision is either necessary or effective to achieve the objective sought by

Lockheed. "Good faith" necessarily requires that negotiations take place in a timely manner. Northrop could not be considered to have acted in good faith if it unreasonably delayed negotiations in order to give its own team an advantage in a particular competition. I also note that your proposal does not state whether negotiations must be started, or finished, within the requisite 30-day period; if it is the former, that would not protect Lockheed from delays during the negotiations themselves, and if it is the latter there will always still be questions as to which party was responsible for there being no final agreement in the allotted time. In either case, Lockheed's protection will come from the broad duties imposed on Northrop and the enforcement provisions already endorsed by Lockheed.

Your letter next requests that Section IV.B(3) be stricken or modified. That section limits Northrop's obligation to provide payloads to all satellite system primes in the event that the number of primes seeking the payload, or the burden of working with each of them, becomes unreasonably large. This section recognizes that Northrop's resources, including facilities and human capital, are not unlimited. Given the scarcity of human capital in highly demanding technical fields, as well as budgetary constraints at the Department of Defense (DoD), forcing Northrop to form teams with every company that seeks its services, under any and all circumstances, could result in inferior products, and may not be in the best interests of DoD. In such an event, the decree provides that the Secretary of the Air Force shall determine Northrop's teaming arrangements. You propose that the circumstances in which the provision may be invoked be listed in the decree. We believe, however, that it would be unwise to attempt to predict all of the circumstances that could arise in future competitions. The decree provides the Compliance Officer with the necessary flexibility to make this determination when and if it becomes necessary. You also propose that prime contractors be notified if the provision is being invoked. We see no reason to selectively create a separate notice requirement for this particular provision, since prime contractors should know if Northrop is refusing to enter into teaming negotiations with them and will have the opportunity to bring that fact to the attention of the Compliance Officer, who will be reviewing Northrop's actions, and interacting with industry, on a continuing basis.

The next concern in your letter relates to the term "discriminate." Definition N of the Final Judgment provides in part that "'[d]iscriminate' means to choose or advantage Northrop, or to reject or disadvantage a Northrop Prime or Payload competitor, in the procurement process for any reason other than the competitive merits." You state that the use of the phrase "other than the competitive merits" creates a loophole that will permit Northrop to evade its responsibility not to discriminate. This claim misunderstands the purpose and effect of this provision. The purpose of the clause is to permit Northrop to continue to choose its teammates in an efficient and procompetitive manner, while preventing it from engaging in anticompetitive conduct. Prior to the acquisition, Northrop and TRW chose their teammates based in part on considerations such as which teammates offered the best terms and provided the greatest likelihood of ultimately winning the contract. The Final Judgment is not intended to radically change the manner in which such teaming decisions have been made in the past, but to preserve the existing teaming dynamics, by preventing Northrop from basing its decisions on the opportunity to

disadvantage companies that are now competing primes. The use of the term "competitive merits" simply recognizes that Northrop is permitted to continue to act in this rational manner. Therefore, Northrop need not offer precisely the same terms to all teammates. Northrop may take into account, among other things, the terms proposed by that teammate and the likelihood of ultimately winning a contract with that teammate. The Final Judgment provides the Compliance Officer with the flexibility to determine whether any particular teammate has been discriminated against in a manner which violates the Final Judgment.

Finally, Lockheed urges that the required time periods for certain actions to be taken by the Compliance Officer and the Secretary of the Air Force be increased from 5 days to 10 days, [g]iven the importance of this matter, and the demands on the Compliance Officer and Air Force Secretary." The time periods in the Final Judgment must take into account both the need for careful consideration and the need for prompt resolution of disputes. An increase in the time for consideration also increases the time of uncertainty, and as Lockheed has emphasized elsewhere in its comments, timeliness is a significant factor, and tight time frames may be required at critical junctures. Furthermore, as noted above, we anticipate that the Compliance Officer will be overseeing Northrop's conduct on a continuing basis, and will be advised of potential issues well before the time periods actually become effective.

Thank you for bringing your concerns to our attention; we hope this information will help alleviate them. Pursuant to the Antitrust Procedures and Penalties Act, 15 U.S.C. § 16(d), a copy of your comment and this response will be published in the Federal Register and filed with the Court.

Sincerely yours,

J. Robert Kramer II
Chief
Litigation II Section

U.S. Department of Justice

Antitrust Division

City Center Building
1401 H Street, NW
Washington, DC 20530

May 5, 2003

Barbara A. Pollack, Esquire
Vice President, Legal and General Counsel
Space and Airborne Systems
Raytheon Company
2000 East El Segundo Boulevard
Building E1
Mail Station A114
El Segundo, CA 90245

Re: Comment on Proposed Final Judgment in *United States v. Northrop Grumman Corporation and TRW Inc.*, No. 1:02CV02432, filed December 11, 2002

Dear Ms. Pollack:

This letter responds to your March 12 letter, commenting on the proposed Final Judgment submitted for entry in the captioned case. The government's Complaint in the case charged that the proposed acquisition of TRW Inc. ("TRW") by Northrop Grumman Corp. ("Northrop") would combine one of the only two suppliers of radar and EO/IR payloads for reconnaissance satellite systems sold to the U.S. Government (Northrop) with one of the few companies able to act as prime contractor on U.S. reconnaissance satellite programs that use these payloads (TRW). The Complaint alleges that as a result of this combination, Northrop would have the incentive and ability to lessen competition by favoring its own payload and/or prime contractor capabilities to the detriment or foreclosure of competitors, and would harm the U.S. Government by posing an immediate danger to competition in two current or future programs, the Space-Based Radar and Space Based InfraRed System-Low programs (the latter program is now called the Space Tracking and Surveillance System).

In your letter, you state that the proposed Final Judgment lacks clarity in three areas, and you propose specific modifications to the Final Judgment that you believe will provide that clarity. The first issue you raise concerns the definition of Payload and the Northrop Payload business, which under the terms of the decree must be kept separate from the TRW Space & Electronics Satellite Systems business. You request that the Final Judgment be modified to clarify that the definition of Payload includes signal intelligence (SIGINT) technology, millimeter wave technologies, all frequencies of radar, space and ground mission data processing, payload system integration, and algorithms. We do not believe that such modifications are necessary or advisable. The Final Judgment is designed to remedy only those potential foreclosures of Northrop's competitors that are

made possible by the acquisition of TRW. Those foreclosures are in radar, electro-optical, and infrared technologies, and thus the Complaint filed in this case, and Final Judgment, are targeted at Northrop's conduct with relation to those payloads.

As for the other technologies Raytheon wishes to specify in the definition of Payload, the definition already covers "the assembly or assemblies on a Satellite that ... enable a Satellite to perform a specific mission," and specifically includes "all related components, software, interfaces, any other items within the assembly or assemblies that enable the Payload to perform its contemplated function, and all related technical data and information customarily provided by a Payload supplier to a Prime Contractor ...." The definition was made as broad as possible to ensure that Northrop's responsibilities are not simply to provide a sensor package, but a functioning, usable payload. The requirement that Northrop provide payloads does not, however, include an obligation that Northrop provide pieces or components of those payloads separate from the payload itself. To the extent that your concern is that Northrop as a prime contractor could migrate certain work traditionally done by the payload provider into the prime contractor responsibilities, such trade-offs could exist whether or not Northrop purchased TRW, and the required separation between the prime and payload businesses at Northrop may inhibit this from occurring. Further, the Compliance Officer should have the authority to resolve any disputes that arise in this regard, which may depend in large part on how the Department of Defense wants to run the program.

Raytheon's second point is that, under the Final Judgment, Northrop could refuse to separately sell its satellites to other potential prime contractors, including Raytheon, if it were to choose to compete as a prime. As noted above, the Complaint and Final Judgment target the possible anticompetitive effects created by the combination of Northrop's payload capabilities and TRW's prime contractor capabilities, and are not designed to force Northrop to make available selected components of either the payload or prime capabilities. This would include the provision of satellites as a separate product, as opposed to Northrop's making itself available to a payload competitor as a prime contractor.

Finally, you argue that Paragraph IV. C. of the Final Judgment, which protects from disclosure the "products and/or other results of ... joint investment or development activity" when the two Northrop businesses are teamed on a given project, should be modified to require Northrop to make available to competing teams all results of innovation by the Satellite Prime Business that are funded by the Satellite Prime Business, and all results of innovation by the Payload Business that are funded by the Payload Business. Thus, the protections of IV.C. would not apply to any investment or development to which both the Payload and Satellite Prime businesses contribute, even in a teaming context. Such a rule would strip away from Northrop basic intellectual property protections that Raytheon itself recognizes as important to protect. Raytheon's proposal would make funding source the sole criterion for determining whether a project is a joint undertaking, and this is far too narrow a definition. Teammates are often expected to invest their own funds to further the competitive abilities of a team, and that would be no less the case in a team including the two Northrop businesses. The language you propose

could thus reduce the incentive for Northrop's Payload and Satellite Prime businesses to team with each other, even if the formation of such teams would be in the best interests of DoD. Rather than creating an inflexible rule, the Final Judgment permits the Compliance Officer to take all relevant factors into account in deciding whether the withholding of any given investment or development result constitutes the discrimination forbidden by the Final Judgment.

Thank you for bringing your concerns to our attention; we hope this information will help alleviate them. Pursuant to the Antitrust Procedures and Penalties Act, 15 U.S.C. § 16(d), a copy of your comment and this response will be published in the Federal Register and filed with the Court.

Sincerely yours,

J. Robert Kramer II
Chief
Litigation II Section

U.S. Department of Justice

Antitrust Division

City Center Building
1401 H Street, NW
Washington, DC 20530

May 5, 2003

Mr. Neil F. Keehn
2603 Third Street
Santa Monica, CA 90405

Re: Comment on Proposed Final Judgment in *United States v. Northrop Grumman Corporation and TRW Inc.*, No. 1:02CV02432, filed December 11, 2002

Dear Mr. Keehn:

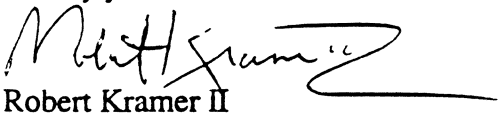
This letter responds to your January 7, 2003 letter, commenting on the proposed Final Judgment submitted for entry in the captioned case. The government's Complaint in the case charged that the proposed acquisition of TRW Inc. ("TRW") by Northrop Grumman Corp. ("Northrop") would combine one of the only two suppliers of radar and EO/IR payloads for reconnaissance satellite systems sold to the U.S. Government (Northrop) with one of the few companies able to act as prime contractor on U.S. reconnaissance satellite programs that use these payloads (TRW). The Complaint alleges that as a result of this combination, Northrop would have the incentive and ability to lessen competition by favoring its own payload and/or prime contractor capabilities to the detriment or foreclosure of competitors, and would harm the U.S. Government by posing an immediate danger to competition in two current or future programs, the Space-Based Radar and Space Based InfraRed System-Low programs (the latter program is now called the Space Tracking and Surveillance System).

Your letter relates exclusively to matters that are not in any way directly related to either the acquisition of TRW by Northrop or the proposed relief. Specifically, you claim that there have been unfair allegations that you were involved in illegal activities during a past employment by TRW. Your letter includes proposed modifications to the Final Judgment, which also relate specifically to your personal claims and not to the subject acquisition or efforts to remedy any competitive problems that it may cause.

The purpose of the proposed Final Judgment, and the Complaint on which it is based, is to address the potential lessening of competition that may result from the acquisition of TRW by Northrop. The Final Judgment cannot serve as a vehicle for addressing totally unrelated issues. For this reason, the United States cannot adopt the proposed modifications you have requested.

Pursuant to the Antitrust Procedures and Penalties Act, 15 U.S.C. § 16(d), a copy of your comment and this response will be published in the Federal Register and filed with the Court. However, we will not publish or file the extensive materials that you included with your comment, which do not relate to the issues of this lawsuit.

Sincerely yours,



J. Robert Kramer II
Chief
Litigation II Section

Roger F. Roberts, Ph.D
Senior Vice President
Space and Intelligence Systems
Integrated Defense Systems

The Bo. _ Company
2600 Westminster Boulevard MC SZ-84
Seal Beach, CA 90740-2089

March 7, 2003

Mr. J. Robert Kramer, II
Chief, Litigation II Section
Antitrust Division
U.S. Department of Justice
1401 H Street, NW., Suite 3000
Washington, D.C. 20530

Dear Mr. Kramer:

We appreciate the opportunity to comment on the interim consent decree regarding Northrop Grumman's acquisition of TRW. Boeing is pleased the Government has issued this interim decree to ensure competition and sourcing choices continue for reconnaissance satellite systems. Our comments follow.

Definition of Payload to cover Signal Intelligence ("SIGINT") capabilities.

It's almost unquestioned that TRW is considered a "national resource" for its payloads that perform missions gathering information about the origin, nature and content of radio signal transmissions or emanations. Collectively these capabilities are called signal intelligence or "SIGINT." The U.S. Government has spent billions helping TRW develop SIGINT capabilities and these are now a key element of modern orbital satellite reconnaissance. Some of these SIGINT capabilities are highly classified.

There is some question about whether the Consent Decree's definition of "payload" clearly covers this crucial SIGINT technology. Definition H of the Final Judgment defines "Payload" as satellite assemblies "using electro-optical technology, infrared technology or radar technology, [to] enable a satellite to perform a specific mission." This definition "expressly excludes those payloads whose primary mission is communications."

While Boeing concurs with the exclusion of payloads whose primary mission is communications, we do not believe it was intended nor is it prudent to exclude those satellite payloads whose primary mission is signal intelligence reconnaissance. Electronic signal intelligence technology should be added to electro-optic, IR and radar technologies. *We believe the decree must ensure that TRW SIGINT payloads continue to be available on a nondiscriminatory basis to all potential primes who wish to bid future covered procurements featuring SIGINT systems.*

Unless these clarifications are made, the following scenario could occur: A heritage Northrop Grumman ("NOC") division could decide to bid as a prime for a multi-mission satellite that combines NOC radar capabilities and TRW SIGINT technology. While the consent decree requires it to offer use of NOC radar systems on a non-discriminatory basis to other potential competitors, NOC could "lock up" the TRW SIGINT payload for the NOC prime bid. This would deprive other potential primes from using TRW's unique and critical SIGINT capabilities in their own bids for future multi-mission reconnaissance satellite platforms. This is not just a matter of data rights, which the government probably already has as "unlimited" because of its extensive funding of TRW SIGINT technology, but it affects access to cleared personnel with highly specialized knowledge in these areas, facilities and equipment. Boeing expects that increasingly government customers will be seeking multi-mission systems as part of their network centric warfare initiatives.

Accordingly, to preserve potential competition for multi-mission reconnaissance satellites forecast for the future, we recommend that coverage for signal intelligence capability be added to the definition of "Payload" in Definition H of the Final Judgment. The clarified definition would read that "Payload means the assembly or assemblies on a Satellite that use electro-optical technology, infrared technology, electronic signal intelligence technology or radar technology... ." The last sentence of Definition H should be modified to read, "Payload expressly excludes those payloads whose primary mission is communications, but includes those payloads whose primary mission is to gather intelligence through signal interception.

Classified Systems.

Many of the systems covered are likely to be highly classified. If NOC/TRW positions itself for a sole source award, Government agencies may be reluctant to provide security billets to other potentially competing contractors. We would like to see the Compliance Officer specifically empowered by the Final Judgment to sponsor potential competitors for security access to covered programs.

Thank you for considering our comments. Please contact my focal point on this matter, Jeffrey Rohm at 562-797-1143, if you have any questions.

Sincerely,

Roger Roberts

Roger F. Roberts
Senior Vice President
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McDERMOTT, WILL & EMERY

March 17, 2003

BY HAND DELIVERY

J. Robert Kramer, Esq.
Chief, Litigation II Section
Antitrust Division
U.S. Department of Justice
1401 H Street, N.W., Suite 3000
Washington, D.C. 20530

Re: U.S. v. Northrop Grumman Corporation and TRW, Inc. - Proposed Consent Order

Dear Mr. Kramer:

Lockheed Martin Corporation ("Lockheed Martin") respectfully submits the following comments concerning the proposed Consent Order in the captioned matter. Lockheed Martin fully supports the "non-discrimination" principles set forth in Section IV.B. of the proposed Consent Order. (See Part I. infra.) However, for the reasons set forth in Part II infra., certain provisions of the proposed Consent Order need to be deleted or revised to insure that the "non-discrimination" objectives of the Order are achieved.

I. Lockheed Martin Fully Supports the Non-Discrimination Principles Set Forth in Section IV.B. of the Consent Order

As the Competitive Impact Statement ("CIS") reflects, Northrop Grumman is one of two leading suppliers of radar and electro-optical/infrared ("EO/IR") payloads for reconnaissance satellites. 68 Fed. Reg. 1862 (January 14, 2003). Therefore, it is essential that other prime contractors competing with Northrop Grumman to sell satellite systems to the U.S. Government have non-discriminatory access to Northrop Grumman payload capability. Otherwise, as the CIS reflects, Northrop Grumman would have the ability and incentive to foreclose prime contractor competitors "by denying them the Northrop [Grumman] payload or by making personnel, investment, design, and other payload-related decisions that disadvantage those competitors." Id. Absent non-discriminatory access to payloads, the U.S. Government would be harmed because innovation in radar and EO/IR satellite programs

would be lessened and the Government would be less likely to obtain satellite systems that take advantage of both the best prime contractor and the best payload provider. Id.

Lockheed Martin is one of the nation's major suppliers of military satellite systems, with substantial expertise in designing, manufacturing, selling and integrating satellite systems using radar and/or EO/IR payloads. However, Lockheed Martin does not produce radar or EO/IR payloads for military satellites; rather, it is dependent on others to supply those payloads. Therefore, these comments focus on those parts of the proposed Order - particularly Section IV.B. - which are intended to protect competition in procurements where Northrop Grumman would be supplying payloads to other primes and also competing with those primes for the prime contract.

Lockheed Martin endorses many of the key provisions of the proposed Consent Order. In particular (subject to comments below), Lockheed Martin endorses those provisions which:

(1) require that Northrop Grumman supply competing prime contractors Northrop Grumman payloads "in a manner that does not discriminate in favor of its in-house proposal team against any other Prime Contractor on any basis" (see §IV.B.(1)(a));

(2) require that Northrop Grumman negotiate in good faith with prime contractors to enter into commercially reasonable teaming agreements and contracts for the purpose of bidding on satellite competitions and similar activities which shall not discriminate in favor of its in-house proposal team against any other prime contractor on any basis (see §IV.B.(1)(b));

(3) require that Northrop Grumman, on a non-discriminatory basis, provide information regarding its payload to its in-house proposal team(s) and to any prime contractor that has notified Northrop Grumman of a desire to obtain the Northrop Grumman payload or which has teamed with Northrop Grumman to obtain the payload (see §IV.B.(1)(d)); and

(4) require that Northrop Grumman "make all personnel, resource allocation and design decisions regarding its satellite payload capabilities on a non-discriminatory basis" (see §IV.B.(1)(e)).

These key "non-discrimination" requirements should assist in preserving competition/innovation on satellite programs involving radar and/or EO/IR payloads. Accordingly, subject to its comments below, Lockheed Martin also endorses those Consent Order provisions that would enforce these "non-discrimination" requirements and those that should incentivize Northrop Grumman to comply with the "non-discrimination" requirements. In particular, Lockheed Martin endorses the Consent Order provisions which:

(1) provide for appointment of a Compliance Officer to oversee compliance with the Order (see §V);

(2) require that Northrop Grumman maintain the former TRW Space & Electronics Satellite Systems businesses separate and apart from the Northrop Grumman payload business (see §IV.F);

(3) provide for substantial civil penalties for each violation of the Consent Order (see §VII);

(4) provide that the Consent Order's term shall be at least seven (7) years and can be extended for an additional three (3) years upon motion of the Justice Department[1] (see §X); and

(5) provide for continued Justice Department oversight of defendant's compliance with the Order (see §VI.).

II. Revisions Needed To Insure That the Purposes of the Consent Order Are Fulfilled

A. Northrop Grumman Should be Required To Negotiate Teaming Agreements "On a Timely Basis"

As the CIS acknowledges, prime contractors and payload providers "must work together at an early stage to develop an integrated system" that can perform the particular satellite mission. Therefore, it is important that Lockheed Martin (and other potential prime contractors) know early in the development of a satellite system that they will have non-discriminatory access to the particular Northrop Grumman payload capabilities. Any delay by Northrop Grumman in actively negotiating appropriate teaming agreements required by §IV.B.(1)(b) would jeopardize the competing prime contractor's ability to work with Northrop Grumman to develop the integrated system needed by the Government customer. Were that to happen, the U.S. Government would be denied effective competition for the satellite program.

To insure that Northrop Grumman enters into Teaming Agreements with Lockheed Martin and other prime contractors on a timely basis, and thus insure effective compliance with §IV.B.(2)(b), we urge that that Section be modified to make clear that Northrop Grumman is required to negotiate Teaming Agreements with other prime contractors "on a timely basis." Although this may vary depending on circumstances, the Consent Agreement should specify that "on a timely basis" generally means not later than thirty (30) days after the competing prime expresses desire for such Agreement.

[1] Depending on the schedules of several anticipated satellite programs, it may well be necessary to extend the Consent Order for an additional three years.

B. The Exemption in Section IV B.(3) Should Be Stricken or at Least Modified

Section IV.B.(3) permits Northrop Grumman to "refuse to supply a Payload to any Satellite System Prime if the number and/or burden of Satellite System Primes seeking the benefit of this Section becomes unreasonably large." If Northrop Grumman invokes this provision, it is to notify the Compliance Officer, who makes a recommendation to the Air Force Secretary, who "shall have the sole discretion to decide with whom, and on what terms, Northrop enters into such teaming agreements."

We know of no legal basis to exempt Northrop Grumman from its non-discriminatory payload supply requirements simply because of the number of potential prime contractors. If, as the CIS acknowledges, Northrop Grumman is one of few suppliers of radar and EO/IR payloads, competition will be lessened on satellite products unless Northrop Grumman is obligated to supply that payload to competing primes. (An entity which is deemed an "essential facility" is obligated to serve all potential customers, regardless of their number.)[2]

The Consent Order should be revised to (1) make clear the precise (and we believe very limited) circumstances in which it may be applicable; and (2) provide Lockheed Martin and other prime contractors notice whenever it is being invoked, to afford us/them the opportunity to be heard by the Compliance Officer.

C. The Definition of "Discriminate" Should Be Stricken or Clarified

Lockheed Martin submits that the definition of "discriminate" set forth in Section II. N. of the Consent Order is unnecessary - at least as applied to §IV.B. - and could create "loopholes" that would enable Northrop Grumman to evade the key requirements of the Order.[3]

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[2] See MCI Communications Corp. v. AT&T, 708 F.2d 1081 (7th Cir.) cert denied, 464 U.S. 891 (1983).

[3] As a potentially competing prime, Lockheed Martin's comments focus on Section IV.B. of the Order (and not on Section IV.A., which applies to procurements where Northrop Grumman has already been selected as the prime.) For the reasons discussed herein, the phrase "for any reason other than the competitive merits" should not appear in any definition of "Discriminate" as that term is used in Section IV.B. Lockheed Martin takes no position with respect to whether the term "Discriminate" needs to be defined with respect to Section IV.A. and, if so, whether the proposed definition of that term is appropriate as applied to that Section.

As the CIS acknowledges, the "central provisions" of the Consent Order are the non-discrimination rules. Lockheed Martin believes that the basic requirements of those provisions, by their terms, are clear: Northrop Grumman must, inter alia: (1) supply competing prime contractors its payload "in a manner that does not discriminate in favor of its in-house proposal team against any other Prime Contractor on any basis;" (2) negotiate in good faith with competing prime contractors to enter into commercially reasonable teaming agreements that "shall not discriminate in favor of its in-house proposal team against any other Prime Contractor on any basis;" (3) provide information regarding its payload to its in-house proposal team and to any competing prime contractor; and (4) "make all personnel, resource allocation and design decisions regarding the payload on a non-discriminatory basis." See §IV.B.(1)(a), (b), (d), (e).

The scope of the "non-discrimination" rules is also made clear by the terms of these substantive provisions. Northrop Grumman must not discriminate "on any basis including but not limited to, price, schedule, quality, data, personnel, investment (including but not limited to, independent research and development), technology, innovations, design and risk." See §IV.B.(1)(a), (b).

Lockheed Martin submits that these "non-discrimination" rules as set forth in the substantive provisions of Section IV.B. of the Consent Order are clear and unambiguous and that there is no need to define the term "discriminate" as that term is used in Section IV.B. (We note that Congress saw no need to define the term "discriminate" in either the Robinson-Patman Act, 15 U.S.C. §13a, which prohibits certain price discrimination, or in statutes prohibiting discrimination by common carriers, see, e.g. 46 U.S.C. §1709.)

If the term "discriminate" is to be defined as it is used in Section IV.B., it should be clear and unambiguous, so as not to create confusion, and not create potential "loopholes," when read in conjunction with the substantive provisions (described above). In this regard, if it is deemed necessary to define the term at all we suggest "discriminate" be defined as: "to treat Northrop Grumman's in-house proposal team more favorably than any other competing prime contractor on any basis." Such definition would, we believe, be clear, but essentially duplicative of the substantive provisions (hence, our preference would be to omit any definition of "discriminate" entirely).

The existing definition of "discriminate" (in Section II.N.) creates confusion and potential "loopholes" and should not be made applicable to Section IV.B. or, in the alternative, should be modified in the manner suggested above. Specifically, we are concerned that Northrop Grumman could use the existing definition to favor itself in the supply of

payloads by arguing that such favoritism is permitted if done for "the competitive merits."[4] Such a reading would be completely contrary to the key substantive provisions of the Order - which prohibit Northrop Grumman from favoring itself "on any basis" (see §IV.B.(1)(a), (b), emphasis added). Moreover, the term "competitive merits" is ambiguous and nowhere explained in the Consent Order or in the CIS. Therefore, the entire phrase "for any reason other than the competitive merits" must be stricken from definition N (at least as applied to Section IV.B.) as both contrary to the key substantive non-discrimination rules of the Order and as ambiguous. Given that the non-discrimination provisions are the "central" provisions of the Order, no phrase should be allowed in any definition that could give Northrop Grumman opportunity to evade those "central" requirements.

D. Additional Time Should Be Provided For Teaming Agreement Reviews

The proposed Order provides that teaming agreements between Northrop Grumman and competing primes are to be submitted for approval to a Compliance Officer who shall have five (5) business days to review them. If the Compliance Officer does not approve a given teaming agreement, the matter will be submitted to the Secretary of the Air Force who shall have five (5) business days to determine the terms on which Northrop Grumman shall enter into teaming agreements. See §IV.B.(1)(c).

If the Compliance Officer determines that Northrop Grumman has discriminated in favor of its in-house proposal team, failed to negotiate a teaming agreement in good faith or refused to enter into a teaming agreement, the Compliance Officer shall refer the matter to the Secretary of the Air Force, who shall have five (5) business days to decide with whom and on what terms Northrop Grumman enters into teaming relationships. See §IV.B.(2).

We urge that the time periods described above be doubled to provide the Compliance Officer ten (10) business days to review teaming agreements and provide the Secretary of the Air Force ten (10) business days to review any recommendation of the Compliance Officer. Given the importance of this matter, and the demands on the Compliance Officer and Air Force Secretary, we believe this additional time is warranted.

[4] Definition N states, inter alia, that "Discriminate" "means to choose or advantage Northrop, or to reject or disadvantage a Northrop Prime or Payload Competitor, in the procurement process for any reason other than the competitive merits" (emphasis added).

Conclusion

For the foregoing reasons, we urge that the proposed Consent Order be revised at least in the following respects: (1) that Section IV.B.(1)(b) be modified in the manner suggested in II.A. above to require that teaming agreements be entered into "on a timely basis;" (2) that Section IV.B.(3) be stricken or modified in the manner suggested in II.B. above so that the exemption in that Section is substantially narrowed; (3) that the definition of "Discriminate" stated in Section II.N. be stricken at least as it pertains to Section IV.B. or modified in the manner suggested in II.C. above; and (4) that the periods allowed for teaming agreement review by the Compliance Officer and Secretary of the Air Force be modified in the manner suggested in II.D. above.

Respectfully submitted,

Raymond A. Jacobsen, Jr.

cc: Kathy A. Brown, Esq.
Kevin C. Quin, Esq.
Stephen E. Smith, Esq.
Robert W. Wilder, Esq.

Raytheon

Barbara A. Pollack
Vice President, Legal
310 647 9146
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Space & Airborne Systems

March 12, 2003

J. Robert Kramer II
Chief, Litigation II Section
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Dear Mr. Kramer:

Raytheon Company respectfully submits the following comments on the Proposed Final Judgment in United States v. Northrop Grumman Corp. and TRW, Inc., Civil No. 1:02 CV 02432 (GK), 68 Fed. Reg. 1861 (1/14/03) (hereafter referred to as the "Consent Decree"). As a competitor to Northrop Grumman in the development, production, and sale of radar, electro-optic, and infrared payloads for reconnaissance satellite systems used in highly complex US Government space systems, Raytheon uniquely appreciates the need for the Consent Decree and for clear guidance regarding the boundaries of permissible conduct under the Decree. As discussed more fully below, the Consent Decree lacks clarity in three key areas. First, the Consent Decree fails to identify the existing Northrop Grumman businesses that fall within the definition of the Northrop Grumman Payload Business, a critical term used throughout the Consent Decree. Second, the Consent Decree does not squarely address how the remedy will apply if Northrop or a competitor decides to bid as a prime contractor for a reconnaissance satellite system through its Payload Business rather than through its satellite business. Finally, Raytheon believes the Consent Decree should be modified to clarify the extent to which the results of internally funded research and development may be reserved solely for a Northrop Grumman Payload/Satellite team.

There are two competitions addressed explicitly in the Competitive Impact Statement: the Space Based Radar Program and SBIRS-Low (now referred to as the Space Tracking & Surveillance System (STSS) Program). If lack of clarity in the scope of the Consent Decree leads to inappropriate disclosure of information between Northrop Grumman's Satellite Business (formerly TRW) and Northrop Grumman's Payload Business, it is unlikely the Government can obtain an effective remedy on those programs. Raytheon similarly would suffer irreparable damage from a less robust competitive opportunity. We submit, therefore, that the parties should clarify the requirements of the Consent Decree to eliminate potential loopholes rather than leave the issues addressed below to a trial and error process.

DEFINITION OF NORTHROP PAYLOAD BUSINESS:

The Consent Decree defines the term "Northrop Satellite Prime Business" by reference to the acquired TRW business and the term "Payload" by reference to technologies and capabilities. Payload includes radar, electro-optical and infrared assemblies on a Satellite and assemblies and all related components, software, interfaces, and the like that enable the payload to perform its contemplated function, whether or not on the Satellite. Consent Decree Section II.H.

There are a number of technologies and capabilities of Northrop Grumman that we believe fall within the definition of Payload. To ensure Northrop maintains the separation between its Payload and Satellite businesses, as required by the Consent Decree, reference to particular business divisions of Northrop as well as technologies is appropriate. Raytheon requests modification of Section II.H. of the Consent Decree to make the inclusion of those technologies, capabilities, and businesses explicit.

The technologies and capabilities we believe fall within the definition of Payload that should be specifically identified are: Signals Intelligence, often referred to as SIGINT, millimeter wave technologies, radar technologies regardless of frequency (e.g. 20 MHz to 28 GHz), space and ground mission data processing, payload systems integration, and algorithms.

Space and ground mission data processing, payload systems integration, and algorithms do not fit as neatly into the definition of Payload as hardware components or radar frequencies but these tasks and capabilities are integral to the competitiveness of payload designs. The question is where to draw the boundary between permissible vertical integration and competitive procurement opportunities.

Although space and ground mission data processing may be procured separately from the payload, it is an integral part of the payload business. Payload providers routinely make trades between the payload and ground. The tasking and control of the payload and the subsequent processing of the collected data are integral elements of the payload design optimization process. The scope of the space and ground mission data processing, therefore, materially impacts the design of the payload. With the continued evolution of high speed processors, the data processing function, historically done on the ground, is migrating into the space payload. These trades between payload and ground need to be procured competitively. Northrop recognizes this relationship in their organization; the existing Northrop ground mission data processing capability is part of their Space Systems Payload Business.

The space and ground mission data processing responsibility is a key part of payload systems integration since it involves the ability to efficiently parse the data processing function between space and ground. The Program Research and Development Agreement (PRDA) for the Space Based Radar Program provides a useful description of payload systems integration.[1] We submit the Court should adopt this definition for inclusion in the definition of Payload. The Space Based Radar PRDA states that the radar payload systems integrator shall be responsible for providing key interfaces and requirements data to the prime systems integrator. For example, on the Space Based Radar program the establishment of interface parameters across the Electronically Scanned Array, Radar Electronics Unit, Front End Processor, Back End Processor, Mass Data Storage, Communications,[2] and Data Handling subsystems, with the spacecraft bus are the responsibility of

[1] Since the PRDA represents the government customer's view of the role of a payload provider, with specificity regarding the tasks to be performed by a payload provider, Raytheon submits the Court should use the PRDA as a guide to what capabilities and technologies should be deemed part of the Northrop Grumman Payload Business, which must be segregated from Northrop's Satellite Prime Business.

[2] The Consent Decree explicitly excludes those payloads whose primary mission is communications from the definition of Payload. Raytheon included communications here because it is included in the PRDA for the Space Based Radar program but does not by doing so object to this limited consent Decree exclusion.

the payload contractor, including electrical, mechanical, and software specifications. Final integration/test and delivery of the complete Radar payload to the prime systems integrator is also the responsibility of the radar payload contractor.

There are few competitions in payloads for reconnaissance satellite systems. Should Northrop's satellite business have responsibility for payload systems integration, they would impact payload providers in a substantive and material way, relegating the payload provider to a parts supplier role. Should Northrop Grumman combine its payload integration capability and its prime satellite system integration capability, the combination will be difficult if not impossible to undo after the fact for the upcoming competitions. Such combination of the two capabilities would undermine the purpose of the Consent Decree and cause the very anti-competitive harm the Consent Decree is intended to prevent.

Raytheon also requests explicit confirmation that the Northrop Grumman Space Systems Division ("NGSSD") is part of the Northrop Grumman Payload Business under the Consent Decree. This business, formerly the Electronics and Information Systems Group of Aerojet-General, provided "sensing solutions" for SBIRS High, among other programs. NG Press Release dated October 22, 2001 (copy attached). See also NG Press Release dated April 9, 2001, in which Northrop stated that the EO sensor (FPA) for SBIRS High was delivered to Aerojet's production facility in Azusa, Calif., where it was to be integrated into the overall *payload* for SBIRS High (copy attached).[3]

NGSSD, the former Electronic and Information Systems Group of Aerojet-General is now part of Northrop's Electronic Systems sector, the sector that also contains Northrop's Baltimore payload operations. Prior to Northrop's acquisition of the former EIS Group of Aerojet, Raytheon entered into a teaming agreement with the business to seek opportunities jointly for payload business from then-TRW. In its efforts to obtain approval of that acquisition, Northrop committed to take specific actions to protect Raytheon's proprietary and competitively sensitive information. In doing so, Northrop recognized the important payload roles of the former Aerojet business.[4]

MERCHANT SUPPLIER OF SATELLITES:

The Consent Decree mandates a separation between the Northrop Satellite Prime Business and the Northrop Payload Business, Consent Decree Section IV.F., and requires that the Northrop Payload Business offer its payload to other satellite prime contractors on a non-discriminatory basis. Consent Decree Section IV.B. This is necessary to ensure a fair competitive process for prime contracts. The assumption that the satellite manufacturer will serve as prime contractor is consistent with prior practice in this market, where satellite manufacturers typically bid programs as prime and team with or competitively select payload providers. This approach is not required by the terms of the Government's Requests for Proposals and may not continue to be the norm in the future, however.

[3] Other examples of payload competitive activity by NGSSD include: (1) GOES payload trade studies; (2) Advanced Technology Microwave Sounder program for NOAA; (4) Advanced Microwave Sounding Unit; and (5) Defense Support Program.

[4] Notwithstanding an exclusive arrangement between Raytheon and Aerojet, now NGSSD, NGSSD recently informed Raytheon it would not respond to a Request for Information to pursue a Payload opportunity on the STSS Program but intends to work with Northrop's payload business in an offering competitive with Raytheon's offering.

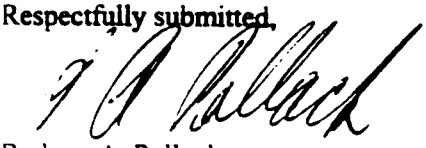
This is not a hypothetical issue. Raytheon and other payload providers bid as prime contractors on programs for other customers and procure the platforms. For example, Raytheon bid as a prime contractor against traditional satellite providers for the MUOS Program. The Government selected Raytheon as one of two contractors to continue to the next phase. Should Raytheon elect to bid as prime in the reconnaissance satellite systems opportunities addressed in the Consent Decree, Northrop could withhold access to its Satellite Business -- including access to satellites, space vehicle integration and test, and support and associated services -- and effectively hamper such competition. Raytheon submits, therefore, that Section IV.B of the Consent Decree should be modified to apply to the Northrop Satellite Prime Business in the same fashion as they apply to the Northrop Payload Business to the extent a competitor of Northrop intends to submit a proposal as a Prime contractor on a US Government Satellite program, bidding through a competitor payload business. Further, the Consent Decree should be modified to apply in like fashion whether Northrop chooses to bid a program as prime through its Satellite Business or through its Payload Business.

RESEARCH AND DEVELOPMENT:

Raytheon recognizes the need to protect from disclosure to other parties joint investments between payload providers and their Satellite Prime Business partners. Section IV.C. of the Consent Decree should be modified, however, to state more clearly that Northrop may withhold from other parties the results of innovation funded by its Satellite Prime Business and executed by its Payload Business or vice versa, but not those innovations funded by the part of the Business that conducts the research. So, for example, Northrop could not treat as "joint investment" advances achieved by its Payload Business through Payload Business-funded research just because the Payload Business is teamed with its Satellite Business for a particular opportunity. Rather, as would be the case if the Payload Business teamed with an external Satellite prime, Northrop may and should withhold Payload Business research funded by the Satellite prime but make available to other Satellite primes research funded by the Payload Business. Similarly, the Satellite Prime Business cannot withhold from external payload providers research funded by the Satellite Business just because it also is teamed with the Northrop Payload Business.

Suggested language for the Consent Decree is attached as Attachment A. Raytheon will be available to answer questions or elaborate on any of the points raised above should the Government or Court deem such additional information appropriate.

Respectfully submitted,



Barbara A. Pollack
Vice President, Legal and
General Counsel, Space and Airborne Systems
RAYTHEON COMPANY

NORTHROP GRUMMAN NEWS RELEASE

Northrop Grumman Delivers Infrared Focal Plane Assembly for SBIRS High

BALTIMORE, April 9, 2001 -- Northrop Grumman Corporation's (NYSE:NOC) Electronic Sensors and Systems Sector (ES3) has delivered the first qualification focal plane assembly (FPA) for integration in the U.S. Air Force's Space-Based Infrared Systems High (SBIRS High) program.

The FPA is the primary infrared sensor for the SBIRS High system. It is the key component that allows SBIRS High to detect and track missile launches around the world.

The FPA was delivered to Aerojet's production facility in Azusa, Calif., where it will be integrated into the overall payload for SBIRS High as it is prepared for the system integration and test phase in 2001.

Northrop Grumman supplies the FPA, the optical telescope assembly and the thermal control subsystem to the SBIRS High Payload team led by Aerojet. Lockheed Martin Corporation is the prime contractor for the SBIRS High Program.

"This delivery represents the culmination of three years of development work on the primary IR sensors for the SBIRS High mission," said Tom Reid, Northrop Grumman's FPA program manager. "Northrop Grumman relied upon its extensive background and expertise in infrared sensor programs such as Orbview 3, Warfighter and Advanced Landsat Focal Plane to successfully develop and deliver this critical system component."

SBIRS High is a series of high Earth orbiting satellites whose sensitive IR sensors can detect the launch of strategic and theater ballistic missiles from space and pass the time and location of launch to battlefield commanders.

SBIRS High works in conjunction with SBIRS Low, together forming a system of missile tracking satellites supporting missile defense by providing missile tracking, technical intelligence and battlespace characterization. Northrop Grumman is partnered with Spectrum Astro for SBIRS Low and is providing the overall sensor payload and ground station data processing and integration for the program definition and risk reduction phase.

For more than 30 years, Northrop Grumman Space Systems, a business unit of ES3 in Baltimore, has supplied the sensors for scores of space-based missions, including the Gemini rendezvous radar, the cloud imager for the Defense Meteorological Satellite Program and the multispectral/hyperspectral cameras for the Orbview 3 and 4 commercial remote sensing programs.

Northrop Grumman's ES3, headquartered in Baltimore, is a leading designer, systems integrator and manufacturer of defense electronics and systems, airspace management systems, marine systems, precision weapons, space systems, logistics systems, and automation and information systems.

Northrop Grumman Corporation is a $15 billion, global aerospace and defense company with its worldwide headquarters in Los Angeles. Northrop Grumman provides technologically advanced, innovative products, services and solutions in defense and commercial electronics, systems integration, information technology and non-nuclear shipbuilding and systems. With 80,000 employees and operations in 44 states and 25 countries, Northrop Grumman serves U.S. and international military, government and commercial customers.

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NORTHROP GRUMMAN NEWS RELEASE

Northrop Grumman Completes Acquisition of Aerojet-General's Electronics Group

Creates New $400 Million Space Systems Division

LOS ANGELES, Oct. 22, 2001 -- Northrop Grumman Corporation (NYSE:NOC) announced today that it has completed the acquisition of the Electronics and Information Systems (EIS) Group of Aerojet-General Corporation for $315 million in cash after securing necessary regulatory approvals. Aerojet-General is a wholly owned subsidiary of GenCorp Inc. (NYSE:GY).

The EIS business unit provides space-borne sensing for early warning systems, weather and ground systems that process C4ISR data from space-based platforms, and smart weapons technology for high-priority U.S. government national security programs. This unit had 2000 revenues of $323 million and has approximately 1,200 employees.

This operation is now part of Northrop Grumman's Electronic Systems sector's newly formed Space Systems Division, with approximately 1,600 employees and more than $400 million in annual revenues. The new division includes several ongoing space-based programs such as Space-Based Infrared Systems (SBIRS) High and SBIRS Low Defense Support Program, the Defense Meteorological Satellite Program and the National Polar Orbiting Operational Environmental Satellite System.

"This acquisition significantly enhances Northrop Grumman's capabilities in space-based systems and missile defense systems," said Robert P. Iorizzo, corporate vice president and president of the company's Electronic Systems sector. "The EIS business complements our cyberspace and information warfare efforts, sharpens our focus on advanced battlefield management and strengthens our company's capabilities in the growing space arena."

Carl Fischer, former president of Aerojet-General, has been named vice president and general manager of the new Space Systems Division, reporting to Mr. Iorizzo. Based in Baltimore, the new division also has facilities in Azusa, Calif.; Bethpage, N.Y.; Boulder, Colo.; and Colorado Springs, Colo.

Northrop Grumman Corporation is a $15 billion, global aerospace and defense company with its worldwide headquarters in Los Angeles. Northrop Grumman provides technologically advanced, innovative products, services and solutions in defense and commercial electronics, systems integration, information technology and non-nuclear shipbuilding and systems. With 80,000 employees and operations in 44 states and 25 countries, Northrop Grumman serves U.S. and international military, government and commercial customers.

Members of the news media may receive our releases via e-mail by registering at: http://www.northgrum.com/cgi-bin/regist_form.cgi

LEARN MORE ABOUT US: Northrop Grumman news releases, product information, photos and video clips are available on the Internet at: http://www.northropgrumman.com

CONTACT: Northrop Grumman Corporation, Los Angeles
Frank Moore
(310) 201-3335

Attachment A
Letter to J. Robert Kramer, II
Ref: United States v. Northrop Grumman Corp. and TRW, Inc.,
Civil No. 1:02 CV 02432 (GK)

Consent Decree Suggested Changes:

Definitions:
IV.G. "Prime" or "Prime Contractor" means any entity engaged in the research, development, manufacture, sale and/or integration of Satellite Systems or Payloads that sells or competes to sell Satellite Systems directly to the United States government.[1]
II. H. "Payload" means the assembly or assemblies on a Satellite that, using electro-optical technology, infrared technology, or radar technology, including without limitation Signals Intelligence, millimeter wave technologies, and radar technologies regardless of frequency (e.g. 20 MHz to 28 GHz), enable a Satellite to perform a specific mission. Payload also shall include, with the assembly or assemblies, all related components, software, interfaces, electrical, mechanical and software specifications and any other items within the assembly or assemblies that enable the Payload to perform its contemplated function, space and ground mission data processing, payload systems integration, algorithms and all related technical data and information customarily provided by a Payload supplier to a Prime Contractor prior to entering into, or in the course of working pursuant to, a teaming agreement or contract. Data and information customarily provided includes the types of data and information provided by Northrop to its in-house Prime contract proposal team. Payload expressly excludes those payloads whose primary mission is communications.
II. K. "Northrop Payload Business" means that portion of Northrop engaged in the research, development, manufacture, or sale of Payloads, including the former Electronic and Information Systems Group of Aerojet-General, now part of Northrop's Electronic Systems sector but excluding TRW Payload entities.

Merchant Supplier of Satellites:
New IV.C. When Northrop is a competitor (or for potential future Programs, when Northrop has the capability to compete and has taken steps in anticipation of potentially competing) to be the Prime Contractor on a United States Government Satellite Program in which Northrop has the opportunity to offer its own Payload, the following is required:

(1) Northrop shall:

(a) For each Program or potential future Program for which a competitor of the Northrop Payload Business notifies Northrop that it potentially desires to compete to be the Prime Contractor and have Northrop supply the Satellite, space vehicle integration and test, or associated services, supply such Prime Contractor its Satellite, space vehicle integration and test, or associated services in a manner that does not discriminate in favor

[1] The use of the term "Prime Contractor" in Section IV.F.(4) will need to be changed to accommodate this modification. Substitution of the term "Satellite Provider" for the term "Prime Contractor" in Section IV.F.(4) should adequately clarify the permissible uses of non-public information.

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of its in-house proposal team against any other Prime Contractor on any basis, including but not limited to, price, schedule, quality, data, personnel, investment (including but not limited to, independent research and development), technology, innovations, design, and risk;

(b) For each Program or potential future Program for which a competitor of the Northrop Payload Business notifies Northrop of a bona fide potential desire to have Northrop supply the Satellite, space vehicle integration and test, or associated services, negotiate in good faith with such Prime Contractor to enter into commercially reasonable nonexclusive teaming agreements and contracts for the purpose of bidding on Satellite competitions and similar activities; such agreements and contracts shall not discriminate in favor of its in-house proposal team against any other Prime Contractor on any basis, including but not limited to, price, schedule, quality, data, personnel, investment (including but not limited to, independent research and development) technology, innovations design, and risk;

(c) Prior to entering into any such teaming agreements and contracts, provide to the Compliance Officer copies of such agreements for his approval. The Compliance Officer shall not unreasonably withhold approval of such agreements and contracts, and shall approve or reject the agreements and contracts within five (5) business days of receipt of the agreement or contract. If the Compliance Officer does not approve of the terms of an agreement or contract, the Compliance Officer shall refer the matter to the Secretary of the Air Force, and Northrop shall enter into teaming agreements and contracts on specific terms as required by the Secretary of the Air Force, in his sole discretion, such decision to be made within five (5) days of the decision of the Compliance Officer;

(d) On a non-discriminatory basis, provide information, as set forth in Definition J, regarding its Satellite, space vehicle integration and test, and associated services to its in-house proposal team(s) and to any Prime Contractor that has notified Northrop of a bona fide potential desire to have Northrop supply its Satellite, space vehicle integration and test, or associated services or with which Northrop has teamed to supply its Satellite, space vehicle integration and test, or associated services; and

(e) Make all personnel, resource allocation, and design decisions regarding the Satellite, space vehicle integration and test, or associated services on a non-discriminatory basis between its in-house proposal team(s) and any Prime Contractor with which Northrop has teamed.

(2) If the Compliance Officer concludes that Northrop has discriminated in favor of its in-house proposal team, failed to negotiate a teaming agreement or contract in good faith, or refused to enter into a commercially reasonable teaming agreement or contract, the Compliance Officer shall refer the matter to the Secretary of the Air Force who shall have the sole discretion to decide with whom, and on what terms Northrop enters into such teaming relationship, such decision to be made within five (5) business days of the decision of the Compliance Officer.

(3) Notwithstanding any provisions of this Section IV.C., Northrop may refuse to supply a Satellite, space vehicle integration and test, or associated services to any Prime Contractor if the number and/or burden of Primes Contractors seeking the benefit of this

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Section becomes unreasonably large. In such event, Northrop shall notify the Compliance Officer, who shall review the decision and make a recommendation to the Secretary of the Air Force within ten (10) business days. The Secretary of the Air Force shall have the sole discretion to decide with whom, and on what terms, Northrop enters into such teaming relationships, such decision to be made within ten (10) business days of the decision of the Compliance Officer.

(4) In the event that Northrop notifies the Compliance Officer in writing that: (i) the Northrop Payload business elects not to supply its Payload to the Northrop Satellite Prime Business and not to bid as Prime Contractor through the Northrop Payload Business; or (ii) Northrop elects not to compete at either the Prime or Payload level, Northrop need not comply with the requirements of Section IV.C. after such notice.

Existing IV.C. through IV.I. renumbered to IV.D. through IV.J.

Research and Development:

Existing IV.C (to be renumbered IV.D.) and replaced with the following: When the Northrop Payload Business enters into teaming agreements or contracts or similar intra-company arrangements that function as teaming agreements with the Northrop Satellite Prime Business, the provisions in this Final Judgment requiring non-discriminatory behavior shall not require that Northrop disclose to any other team for the Program or potential future Program the products and/or other results of investments or developments achieved by the Northrop Payload Business to the extent funded exclusively by the Northrop Satellite Prime Business. When the Northrop Satellite Prime Business enters into teaming agreements or contracts or similar intra-company arrangements that function as teaming agreements with the Northrop Payload Business, the provisions in this Final Judgment requiring non-discriminatory behavior shall not require that Northrop disclose to any other team for the Program or potential future Program the products and/or other results of investments or developments achieved by the Northrop Satellite Prime Business to the extent funded exclusively by the Northrop Payload Business. When the Northrop Payload Business or the Northrop Satellite Prime Business enters into teaming agreements or contracts with any unrelated Company to compete for any Program or potential future Program, and the team engages in joint investment or development activity for that Program, the provisions in this Final Judgment requiring non-discriminatory behavior shall not require that Northrop disclose the products and/or other results of such joint investments or developments of that team to any other team for the Program or potential future Program.

NEIL F. KEEHN
2603 THIRD STREET ■ SANTA MONICA, CA 90405
(310) 396-0622 ■ neilkeehn@yahoo.com

January 7, 2003

J. Robert Kramer II
Antitrust Division
1401 H Street, NW. Suite 3000
Washington, D.C. 20530

RE: Proposed Addenda to Northrop Grumman Consent Decree

Dear Mr. Kramer,

This correspondence is for the purpose of submitting proposed addenda, which are included as **Exhibit A**, to the above referenced consent decree.

In July 2002, I sent a package to Secretary of Defense Rumsfeld as well as to Attorney General Ashcroft. The package sent to Attorney General Ashcroft, received by DoJ on 7/18 via certified mail, is included herein as **Exhibit B, and addresses allegations that the former TRW illegally sold a satellite reconnaissance system to the People's Republic of China in which I was allegedly the program manager.** The Department of Defense addressed this issue in a competent and professional manner. As a part of its response, DoD informed me that I was perfectly correct in bring this issue to the attention of the Department of Justice. However, I have never received a response of any kind from the DoJ, and several attempts to speak to someone at DoJ about the status of my inquiry resulted in my calls being transferred to the mailroom. Finally, I asked to speak with Attorney General Ashcroft's correspondence secretary. I twice left her a detailed message as per her voice mail instruction. Said voice mail promised to return my call, but I never received any call from anyone at the DoJ.

As a result of my on-going efforts to clear my name as well as to learn as much as possible about the alleged use of my name in what people high in the intelligence community have labeled as treason, I wish to submit the addenda in Exhibit A. If the consent decree's Compliance Officer finds evidence of the aforereferenced sale to the PRC and my name is found in any documentation associated with that sale, I want to be so informed. I also understand that the names of several other people who had nothing to do with this alleged transaction were also included in the program's documentation. Further information is included in my sworn declaration in Exhibit B.

I hope that you will take seriously my proposed addenda to the consent decree, and that, as a result, I might begin to find justice in a system that to date has proven to be anything but just.

Respectfully submitted,

Neil F. Keehn

PROPOSED ADDENDA TO THE FINAL JUDGMENT

IV.J. Northrop shall not in any way have contact with any government (other than the U.S. Government), company, organization, individual nor any other type of entity for the purpose of selling reconnaissance satellite systems, in whole or in part, without the explicit, written permission of the Secretary of Defense.

V.G. If, in the course of his duties, the Compliance Officer finds evidence that the former TRW sold, provided, donated or in any manner was involved in the transfer of reconnaissance satellite systems, in whole or in part, at any time in its history, to any government (other than the U.S. Government), company, organization or individual, he shall provide notice of such evidence to the Secretary of Defense within ten (10) business days.

(1) If the Secretary of Defense finds that such a program was likely to have been the result of an illegal transfer, the Compliance Officer shall:

(a) prepare a list of all names found to be associated with any such sale;

(b) notify all individuals whose names appear on this list that their names have been found associated with a program that may have been illegal;

(c) provide these individuals the opportunity to review the nature of their alleged involvement in the program(s) in which their names were found in program documentation, memos, etc. that are associated with the program.

V.H. If, in the course of his duties, the Compliance Officer finds evidence that any documentation of any kind of any transactions by the former TRW that conforms to the types of transactions identified in Section V.G., has been destroyed, he shall notify the Secretary of Defense of said discovery within ten (10) business days.

[FR Doc. 03–13028 Filed 5–22–03; 8:45 am]
BILLING CODE 4410–11–C

DEPARTMENT OF LABOR

Employment and Training Administration

Proposed Collection; Comment Request; Correction

AGENCY: Employment and Training Administration, USDOL.

ACTION: Correction.

SUMMARY: In notice document 03–12248 beginning on Page 26654 in the issue of Friday, May 16, 2003, make the following correction:

On page 26654 in the first column in the fourth paragraph, the contact official was previously listed as Darrin King. This should be changed to read Stephanie Curtis. Ms. Curtis can be reached at (202) 693–3353 or via e-mail at *curtis.stephanie@dol.gov*.

Dated: May 19, 2003.

Shirley M. Smith,

Administrator.

[FR Doc. 03–12996 Filed 5–22–03; 8:45 am]
BILLING CODE 4510–30–M

DEPARTMENT OF LABOR

Employment Standards Administration; Wage and Hour Division

Minimum Wages for Federal and Federally Assisted Construction; General Wage Determination Decisions

General wage determination decisions of the Secretary of Labor are issued in accordance with applicable law and are based on the information obtained by the Department of Labor from its study of local wage conditions and data made available from other sources. They specify the basic hourly wage rates and fringe benefits which are determined to be prevailing for the described classes of laborers and mechanics employed on construction projects of a similar character and in the localities specified therein.

The determinations in these decisions of prevailing rates and fringe benefits have been made in accordance with 29 CFR part 1, by authority of the Secretary of Labor pursuant to the provision of the Davis-Bacon Act of March 23, 1931, as amended (46 Stat. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in 29 CFR part 1, Appendix, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act. The prevailing rates and fringe benefits determined in these decisions shall, in accordance with the provisions of the foregoing statues. constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

Good cause is hereby found for not utilizing notice and public comment procedure thereon prior to the issuance of these determinations as prescribed in 5 U.S.C. 553 and not providing for delay in the effective date as prescribed in that section, because the necessity to issue current construction industry wage determinations frequently and in large volume causes procedures to be impractical and contrary to the public interest.

General wage determination decisions, and modifications and supersedeas decisions thereto, contain no expiration dates and are effective from their date of notice in the **Federal Register,** or on the date written notice is received by the agency, whichever is earlier. These decisions are to be used in accordance with the provisions of 29 CFR parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made apart of every contract for performance of the described work within the geographic area indicated as required by an applicable Federal prevailing wage law and 29 CFR part 5. The wage rates and fringe benefits, notice of which is published herein, and which are contained in the Government Printing Office (GPO) document entitled ''General Wage Determinations Issued Under The Davis-Bacon And Related Acts,'' shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

Any person, organization, or governmental agency having an interest in the rates determined as prevailing is encouraged to submit wage rate and fringe benefit information for consideration by the Department.

Further information and self-explanatory forms for the purpose of submitting this data may be obtained by writing to the U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division, Division of Wage Determinations, 200 Constitution Avenue, NW., Room S–3014, Washington, DC 20210.

Modification to General Wage Determination Decisions

The number of the decisions listed to the Government Printing Office document entitled ''General Wage Determinations Issued Under the Davis-Bacon and Related Acts'' being modified are listed by Volume and State. Dates of publication in the **Federal Register** are in parentheses following the decisions being modified.

Volume I

None

Volume II

None

Volume III

None

Volume IV

None

Volume V

None

Volume VI

None

Volume VII

None

General Wage Determination Publication

General wage determinations issued under the Davis-Bacon and related Acts, including those noted above, may be found in the Government Printing Office (GPO) document entitled ''General Wage Determinations Issued Under the Davis-Bacon and Related Acts''. This publication is available at each of the 50 Regional Government Depository Libraries and many of the 1,400 Government Depository Libraries across the country.

General wage determination issued under the Davis-Bacon and related Acts are available electronically at no cost on the Government Printing Office site at *www.access.gpo.gov/davisbacon*. They are also available electronically by subscription to the Davis-Bacon Online Service (*http://davisbacon.fedworld.gov)* of the National Technical Information Service (NTIS) of the U.S. Department of Commerce at 1–800–363–2068. This subscription offers value-added features such as electronic delivery of modified wage decisions directly to the user's desktop, the ability to access prior wage decisions issued during the year, extensive Help Desk Support, etc.

Hard-copy subscriptions may be purchased from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800.

When ordering hard-copy subscription(s), be sure to specify the State(s) of interest, since subscriptions may be ordered for any or all of the six separate Volumes, arranged by State. Subscriptions include an annual edition (issued in January or February) which includes all current general wage determinations for the States covered by each volume. Throughout the remainder of the year, regular weekly updates will be distributed to subscribers.

Signed at Washington, DC this 14th day of May, 2003.

Carl Poleskey,

Chief, Branch of Construction Wage Determinations.

[FR Doc. 03–12712 Filed 5–22–03; 8:45 am]

BILLING CODE 4510–27–M

DEPARTMENT OF LABOR

Mine Safety and Health Administration

Petitions for Modification

The following parties have filed petitions to modify the application of existing safety standards under section 101(c) of the Federal Mine Safety and Health Act of 1977.

1. CONSOL of Kentucky

[Docket No. M–2003–029–C]

CONSOL of Kentucky, 1800 Washington Road, Pittsburgh, Pennsylvania 15241 has filed a petition to modify the application of 30 CFR 75.1101–8 (Water sprinkler systems; arrangement of sprinklers) to its Salyers Branch Mine (MSHA I.D. No. 15–18591) located in Floyd County, Kentucky. The petitioner proposes to use a single line of automatic sprinklers for its fire protection system on main and secondary belt conveyors in the Salyers Branch Mine. The petitioner states that the sprinklers will be maintained at a distance of not more than 10 feet apart so that the water discharged from the sprinklers will cover 50 feet of fire-resistant belt or 150 feet of non-fire resistant belt adjacent to the belt drive. The discharge of water will extend over the belt drive, belt take-up, electrical control, and gear reducing unit with the water pressure no less than 10 psi during operation of the system. The petitioner asserts that the proposed alternative method would provide at least the same measure of protection as the existing standard.

2. Eastern Associated Coal Corporation

[Docket No. M–2003–030–C]

Eastern Associated Coal Corporation, 202 Laidley Tower, P.O. Box 1233, Charleston, West Virginia 25324–1233 a petition to modify the application of 30 CFR 75.503 (Permissible electric face equipment; maintenance) and 30 CFR 18.44(c) (Non-intrinsically safe battery powered equipment) to its Harris No. 1 Mine (MSHA I.D. No. 46–01271) located in Boone County, West Virginia. The petitioner proposes to change the length of exposed cable and conduit on the Stamler BH20 Coal Haulers from 36 inches to 48 inches. The petitioner states that all glands and cables will remain the same as approved and no other changes will be made as part of this petition. The petitioner asserts that the 36 inch maximum cable length on the coal haulers would result in a diminution of safety to the miners.

3. Pine Ridge Coal Company

[Docket No. M–2003–031–C]

Pine Ridge Coal Company, 202 Laidley Tower, P.O. Box 1233, Charleston, West Virginia 25324–1233 has filed a petition to modify the application of 30 CFR 75.503 (Permissible electric face equipment; maintenance) and 30 CFR 18.44(c) (Non-intrinsically safe battery powered equipment) to its Big Mountain No. 16 Mine (MSHA I.D. No. 46–07908) located in Boone County, West Virginia. The petitioner proposes to change the length of exposed cable and conduit on the Stamler BH20 Coal Haulers from 36 inches to 48 inches. The petitioner states that all glands and cables will remain the same as approved and no other changes will be made as part of this petition. The petitioner asserts that the 36 inch maximum cable length on the coal haulers would result in a diminution of safety to the miners.

Request for Comments

Persons interested in these petitions are encouraged to submit comments via e-mail to *comments@msha.gov,* or on a computer disk along with an original hard copy to the Office of Standards, Regulations, and Variances, Mine Safety and Health Administration, 1100 Wilson Boulevard, Room 2352, Arlington, Virginia 22209. All comments must be postmarked or received in that office on or before June 23, 2003. Copies of these petitions are available for inspection at that address.

Dated at Arlington, Virginia this 16th day of May 2003.

Marvin W. Nichols, Jr.,

Director, Office of Standards, Regulations, and Variances.

[FR Doc. 03–12903 Filed 5–22–03; 8:45 am]

BILLING CODE 4510–43–P

DEPARTMENT OF LABOR

Occupational Safety and Health Administration (OSHA), Labor.

Agency Information Collection Activities: Announcement of Office of Management and Budget (OMB) Control Numbers Under the Paperwork Reduction Act

AGENCY: Occupational Safety and Health Administration (OSHA), Labor.

ACTION: Announcement of OMB approval of information collection requirements.

SUMMARY: The Occupational Safety and Health Administration (OSHA) announces that the Office of Management and Budget (OMB) has extended its approval for a number of information collection requirements found in certain sections of 29 CFR parts 1910, 1915, and 1926. OSHA sought approval under the paperwork Reduction Act of 1995 (PRA–95), and, as required by that Act, is announcing the approval numbers and expiration dates for those requirements.

EFFECTIVE DATE: These amendments are effective May 23, 2003.

FOR FURTHER INFORMATION CONTACT: Todd Owen or Theda Kenney, Directorate of Standards and Guidance, Occupational Safety and Health Administration, U.S. Department of Labor, Room N–3609, 200 Constitution Avenue, NW., Washington, DC 20210, telephone (202) 693–2222.

SUPPLEMENTARY INFORMATION: In a series of **Federal Register** notices, the Agency announced its requests to OMB to renew its current extensions of approvals for various information collection (paperwork) requirements in its safety and health standards for General Industry, Shipyard Employment, and Construction. In these **Federal Register** announcements, the Agency provided 60-day comment periods for the public to respond to OSHA's burden hour and cost estimates.

In accordance with PRA–95 (44 U.S.C. 3501–3520), OMB renewed its approval for these information collection requirements and assigned OMB control numbers to these requirements. The table below provides the following information for each of these OMB-approved requirements: The title of the collection; the date of the **Federal Register** notice, the **Federal Register** Reference (date, volume, and leading page); OMB's control number; and the new expiration date.

Also, in accordance with the PRA 95 (44 U.S.C. 3507(d) and 5 CFR 1320.11), OSHA submitted 12 revised ICRs to OMB for approval when the Agency published the Standards Improvement Project—Phase II; Proposed Rule on October 31, 2002 (67 FR 66494). OSHA will resubmit these ICRs to OMB as revisions if changes are made based on public comments on the Standards Improvement Project—Phase II (SIPs) proposed rule. The SIPs ICRs in the following Table may either be identified by the publication date of October 31, 2002, or by Docket Number S–778–A.

Title	Date of Federal Register publication, Federal Register reference, and OSHA docket no.	OMB Control No.	Expiration date
Derricks (29 CFR 1910.181)	06/05/2002, 67 FR 38675, Docket No. 1218–0222 (2002).	1218–0222	04/30/2004
Material Hoists, Personnel Hoists, and Elevators (29 CFR 1926.552).	06/10/2002, 67 FR 39748, Docket No. 1218–0231 (2002).	1218–0231	04/30/2004
Crawler, Locomotive, and Truck Cranes (29 CFR 1926.550)	06/10/2002, 67 FR 39747, Docket No. 1218–0232 (2002).	1218–0232	05/31/2004
Overhead and Gantry Cranes (29 CFR 1910.179)	06/18/2002, 67 FR 41502, Docket No. 1218–0224 (2002).	1218–0224	05/31/2004
Hydrostatic Testing of Portable Fire Extinguishers (29 CFR 1910.157).	06/27/2002, 67 FR 43345, Docket No. 1218–0218 (2002).	1218–0218	05/31/2004
Standard on Mechanical Power Presses (29 CFR 1910.217(e)).	06/27/2002, 67 FR 43346, Docket No. 1218–0229 (2002).	1218–0229	05/31/2004
Crawler, Locomotive, and Truck Cranes (29 CFR 1910.180)	07/01/2002, 67 FR 44241, Docket No. 1218–0221 (2002).	1218–0221	05/31/2004
Rigging Equipment for Material Handling (29 CFR 1926.251).	07/18/2002, 67 FR 47408, Docket No. 1218–0233 (2002).	1218–0233	05/31/2004
Standard on the Control of Hazardous Energy Sources (Lockout/Tagout) (29 CFR 1910.147).	12/28/2001, 66 FR 67321, Docket No. 1218–0150 (2002).	1218–0150	05/31/2004
Standard on Slings (29 CFR 1910.184)	04/05/2002, 67 FR 16452, Docket No. 1218–0223 (2002).	1218–0223	08/31/2004
Manlifts (29 CFR 1910.68)	04/18/2002, 67 FR 19317, Docket No. 1218–0226 (2002).	1218–0226	08/31/2004
Forging Machines (29 CFR 1910.218)	03/15/2002, 67 FR 11718, Docket No. 1218–0228 (2002).	1218–0228	08/31/2005
Hazard Communication (29 CFR 1910.1200)	03/18/2002, 67 FR 12050, Docket No. 1218–0072 (2002).	1218–0072	09/30/2005
Telecommunications (29 CFR 1910.268)	05/03/2002, 67 FR 22459, Docket No. 1218–0225 (2002).	1218–0225	09/30/2005
Shipyard Employment (29 CFR part 1915)	05/03/2002, 67 FR 22460, Docket No. 1218–0220 (2002).	1218–0220	09/30/2005
Servicing Multi-Piece and Single Piece Rim Wheels (29 CFR 1910.177).	05/03/2002, 67 FR 22461, Docket No. 1218–0219 (2002).	1218–0219	09/30/2005
Vinyl Chloride (29 CFR 1910.1017)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0010	09/30/2005
Inorganic Arsenic (29 CFR 1910.1018)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0104	09/30/2005
Coke Oven Emissions (29 CFR 1910.1028)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0128	09/30/2005
Cotton Dust (29 CFR 1910.1043)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0061	09/30/2005
Acrylonitrile (29 CFR 1910.1045)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0126	09/30/2005
Longshoring and Marine Terminal Operations (29 CFR parts 1918 and 1917).	04/23/2002, 67 FR 19776, Docket No. 1218–0196 (2002).	1218–0196	10/31/2005
Blasting Operations (29 CFR 1926.900)	06/05/2002, 67 FR 38574, Docket No. 1218–0217 (2002).	1218–0217	10/31/2005

Title	Date of Federal Register publication, Federal Register reference, and OSHA docket no.	OMB Control No.	Expiration date
Vehicle-Mounted Elevating and Rotating Work Platforms (Aerial Lifts) (29 CFR 1910.67).	06/06/2002, 67 FR 39050, Docket No. 1218–0230 (2002).	1218–0230	10/31/2005
Trucks Used Underground to Transport Explosives (29 CFR 1926.903).	06/18/2002, 67 FR 41503, Docket No. 1218–0227 (2002).	1218–0227	10/31/2005
Permit-Required Confined Spaces (29 CFR 1910.146)	06/28/2002, 67 FR 43686, Docket No. 1218–0203 (2002).	1218–0203	10/31/2005
The 13 Carcinogens Standard (29 CFR 1910.1003, 1915.1003, and 1926.1003).	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0085	11/30/2005
1,2-Dibromo-3-Chloropropane (DBCP) (29 CFR 1910.1044)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0101	11/30/2005
Hazardous Waste Operations and Emergency Response (HAZWOPER) (29 CFR 1910.146).	08/22/2002, 67 FR 55035, Docket No. 1218–0202 (2003).	1218–0202	12/31/2005
Lead in General Industry (29 CFR 1910.120)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0092	12/31/2005
Cadmium in General Industry (29 CFR 1910.1027)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0185	12/31/2005
Asbestos in Shipyards (29 CFR 1910.1001)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0195	12/31/2005
Lead in Construction (29 CFR 1926.62)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0189	12/31/2005
Asbestos in Construction (29 CFR 1926.1101)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0134	12/31/2005
Cadmium in Construction (29 CFR 1926.1127)	10/31/2002, 67 FR 66494, Docket No. S–778–A	1218–0186	12/31/2005
Temporary Labor Camps (29 CFR 1910.142)	11/01/2002, 67 FR 66671, Docket No. 1218–0096 (2003).	1218–0096	03/31/2006
Process Safety Management of Highly Hazardous Chemicals (PSM) (29 CFR 1910.119).	11/29/2002, 67 FR 71210, Docket No. 1218–0200 (2003).	1218–0200	03/31/2006

In accordance with 5 CFR 1320.5(b), an agency cannot conduct, sponsor, or require a response to a collection of information unless: the collection displays a valid OMB control number; and the Agency informs respondents that they are not required to respond to the collection of information unless it displays a currently valid OMB control number.

Authority And Signature

John L. Henshaw, Assistant Secretary of Labor for Occupational Safety and Health, directed the preparation of this notice. The authority for this notice is the Paperwork Reduction Act of 1995 (44 U.S.C. 3506), and Secretary of Labor's Order No. 5–2002 (67 FR 65008).

Signed at Washington, DC, on May 19, 2003.

John L. Henshaw,

Assistant Secretary of Labor.

[FR Doc. 03–12999 Filed 5–22–03; 8:45 am]

BILLING CODE 4510–26–M

Neighborhood Reinvestment Corporation

Annual Board of Directors Meeting

TIME AND DATE: 2 p.m., Wednesday, May 28, 2003.

PLACE: Neighborhood Reinvestment Corporation, 1325 G Street, NW., Suite 800, Washington DC 20005.

STATUS: Open.

FOR FURTHER INFORMATION CONTACT: Jeffrey T. Bryson, General Counsel/Secretary 202–220–2372; *jbryson@nw.org.*

AGENDA:

I. Call to Order
II. Approval of Minutes: February 14, 2003, Regular Meeting
III. Election of Chairman
IV. Election of Vice Chairman
V. Committee Appointments
  a. Audit Committee
  b. Budget Committee
  c. Personnel Committee
VI. Personnel Committee Report
VII. Election of Officers
VIII. Board Appointments
  a. Internal Audit Director
  b. Assistant Secretary
IX. Audit Committee Report
X. Treasurer's Report
XI. Executive Director's Quarterly Management Report
  a. The Campaign for Homeownership, Challenges Opportunities and the Chicago Experience
XII. Adjournment

Jeffrey T. Bryson,

General Counsel/Secretary.

[FR Doc. 03–13189 Filed 5–21–03; 3:37 pm]

BILLING CODE 7570–01–M

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–293]

Entergy Nuclear Generation Company, Entergy Nuclear Operations, Inc.; Notice of Partial Withdrawal of Application for Amendment to Facility Operating License

The U.S. Nuclear Regulatory Commission (NRC or Commission) has granted the request of Entergy Nuclear Operations, Inc. (the licensee), to withdraw a portion of its January 23, 2003, application for amendment to Facility Operating License No. DPR–35 for the Pilgrim Nuclear Power Station, located in Plymouth County, Massachusetts. The licensee's application was supplemented by letters dated February 24 and April 17, 2003.

The Commission had previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** on March 18, 2003 (68 FR 12952). However, by letter dated April 17, 2003, the licensee withdrew a portion of the original amendment request pertaining to the proposed change to note (1) of Technical Specification (TS) Table 3.2.B.

The Commission issued License Amendment No. 200 on April 22, 2003, which revised the TSs pertaining to requirements for the emergency core cooling system during shutdown conditions. The change modified the core spray and low pressure injection system's TS requirements to be applicable during the Run, Startup, and Hot Shutdown Modes. The change also modified the high drywell pressure instrumentation TSs to require the instrumentation to be Operable during the Run, Startup and Hot Shutdown Modes. Unnecessary TS requirements were removed based on the plant's operating Mode. Other changes were administrative in nature.

For further details with respect to this action, *see* the application for amendment dated January 23, 2003, as supplemented February 24, 2003; and the licensee's April 17, 2003, letter that withdrew a portion of the application for license amendment. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North,

Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the internet at the NRC Web site, *http://www.nrc.gov/reading-rm/adams/html.* Persons who do not have access to ADAMS, or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR reference staff by telephone at 1–800–397–4209, or 301–415–4737, or by email to *pdr@nrc.gov.*

Dated in Rockville, Maryland, this 19th day of May, 2003.

For the Nuclear Regulatory Commission.

Travis L. Tate,

Project Manager, Section 2, Project Directorate I, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 03–12972 Filed 5–22–03; 8:45 am]

BILLING CODE 7590–01–P

POSTAL SERVICE BOARD OF GOVERNORS

Sunshine Act Meeting

TIMES AND DATE: Monday, June 2, 2003; 10:30 a.m. and 3 p.m.

PLACE: Washington, DC, at U.S. Postal Service Headquarters, 475 L'Enfant Plaza, SW., in the Benjamin Franklin Room.

STATUS: June 2—10:30 a.m. (Closed); 3 p.m. (Open).

MATTERS TO BE CONSIDERED: Monday, June 2—10:30 a.m. (Closed)

1. Strategic Planning.
2. Postal Rate Commission Opinion and Recommended Decision in Docket No. MC2002–2, Experimental Rate and Service Changes to Implement Negotiated Service Agreement with Capital One Services, Inc.
3. Financial Update.
4. Personnel Matters and Compensation Issues.

Monday, June 2—3 p.m. (Open)

1. Minutes of the Previous Meeting, May 5–6, 2003.
2. Remarks of the Postmaster General and CEO.
3. Quarterly Report on Financial Performance.
4. Capital Investment.
   a. Sales Support Solution.
5. Tentative Agenda for the August 4–5, 2003, meeting in Portland, Maine.

CONTACT PERSON FOR MORE INFORMATION; William T. Johnstone, Secretary of the Board, U.S. Postal Service, 475 L'Enfant Plaza SW., Washington, DC. 20260–1000. Telephone (202) 268–4800.

William T. Johnstone,

Secretary

[FR Doc. 03–13080 Filed 5–22–03; 4:24 pm]

BILLING CODE 7710–12–M

RAILROAD RETIREMENT BOARD

Proposed Collection; Comment Request

SUMMARY: In accordance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 which provides opportunity for public comment on new or revised data collections, the Railroad Retirement Board (RRB) will publish periodic summaries of proposed data collections.

Comments are invited on: (a) Whether the proposed information collection is necessary for the proper performance of the functions of the agency, including whether the information has practical utility; (b) the accuracy of the RRB's estimate of the burden of the collection of the information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden related to the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Title and Purpose of Information Collection

Employer Reporting; OMB 3220–0005

Under Section 9 of the Railroad Retirement Act (RRA), and section 6 of the Railroad Unemployment Insurance Act (RUIA), railroad employers are required to submit reports of employee service and compensation to the RRB as needed for administering the RRA and RUIA. To pay benefits due on a deceased employee's earnings records or determine entitlement to, and amount of annuity applied for, it is necessary at times to obtain from railroad employers current (lag) service and compensation not yet reported to the RRB through the annual reporting process. The reporting requirements are specified in 20 CFR part 209.

The RRB currently utilizes Form G–88a.1, Notice of Retirement and Verification of Date Last Worked, Form G–88a.2, Notice of Retirement and Request for Service Needed for Eligibility, and Form AA–12, Notice of Death and Compensation, to obtain the required lag service and related information from railroad employers. Form G–88a.1 is a computer-generated listing sent by the RRB to railroad employers and used for the specific purpose of verifying information previously provided to the RRB regarding the date last worked by an employee. If the information is correct, the employer need not reply. If the information is incorrect, the employer is asked to provide corrected information. Form G–88a.2 is used by the RRB to secure lag service and compensation information when it is needed to determine benefit eligibility. Form AA–12 obtains a report of lag service and compensation from the last railroad employer of a deceased employee. This report covers the lag period between the date of the latest record of employment processed by the RRB and the date an employee last worked, the date of death or the date the employee may have been entitled to benefits under the Social Security Act. The information is used by the RRB to determine benefits due on the deceased employee's earnings record. No changes are proposed to Form G–88a.1, Form G–88a.2 or Form AA–12.

In addition, 20 CFR 209.12(b) requires all railroad employers to furnish the RRB with the home address of all employees hired within the last year (new-hires). Form BA–6a, BA–6 Address Report, is used by the RRB to obtain home address information of employees from railroad employers that do not have the home address information computerized and who submit the information in a paper format. The form also serves as an instruction sheet to railroad employers who submit the information electronically by magnetic tape, cartridge, or PC diskette. No changes are proposed to the approved Form BA–6a currently in use.

In accordance with the Government Paperwork Elimination Act (GPEA) of 1998, which directed Federal agencies to develop electronic service delivery instruments as an alternative to traditional paper-based processes, the RRB is proposing the addition of an Internet equivalent of current Form BA–6a, BA–6 Address Report, to the information collection.

The completion time for the Proposed Form G–88a.1 is estimated at 5 to 20 minutes. Form G–88a.2 is estimated at 5 minutes per response. The estimated completion time for Form AA–12 is 6½ minutes per response. The estimated completion time for Form BA–6a is 10 to 30 minutes. Completion is mandatory. The RRB estimates that approximately 800 Form AA–12's, 400 Form G–88a.1's, 1,200 Form G–88a.2's and 900 Form BA–6a's are completed annually.

ADDITIONAL INFORMATION OR COMMENTS: To request more information or to obtain a copy of the information collection justification, forms, and/or supporting material, please call the RRB Clearance Officer at (312) 751–3363. Comments regarding the information collection should be addressed to Ronald J. Hodapp, Railroad Retirement Board, 844 North Rush Street, Chicago, Illinois 60611–2092. Written comments should be received within 60 days of this notice.

Chuck Mierzwa,

Clearance Officer.

[FR Doc. 03–12930 Filed 5–22–03; 8:45 am]

BILLING CODE 7905–01–M

SECURITIES AND EXCHANGE COMMISSION

Sunshine Act Meetings

Notice is hereby given, pursuant to the provisions of the Government in the Sunshine Act, Pub. L. 94–409, that the Securities and Exchange Commission will hold the following meetings during the week of May 26, 2003:

A Closed Meeting will be held on Tuesday, May 27, 2003 at 2 p.m., and an Open Meeting will be held on Wednesday, May 28, 2003 at 10 a.m., in Room 1C30, the William O. Douglas Room.

Commissioners, Counsel to the Commissioners, the Secretary to the Commission, and recording secretaries will attend the Closed Meeting. Certain staff members who have an interest in the matters may also be present.

The General Counsel of the Commission, or his designee, has certified that, in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552b(c)(4), (5), (7), (8), (9)(B) and (10) and 17 CFR 200.402(a)(4), (5), (7), (8), (9)(ii) and (10), permit consideration of the scheduled matters at the Closed Meeting.

The subject matter of the Closed Meeting scheduled for Tuesday, May 27, 2003 will be:

Institution and settlement of administrative proceedings of an enforcement nature;

Institution and settlement of injunctive actions;

Consideration of amicus participation; and

Formal orders of investigation.

The subject matter of the Open Meeting scheduled for Wednesday, May 28, 2003 will be:

1. The Commission will consider whether to adopt new rule 2a–8 under the Investment Company Act of 1940 that would provide a nonexclusive safe harbor from the definition of investment company for certain bona fide research and development companies.

2. The Commission will consider whether to adopt rules that were proposed in Release No. 33–8138 (Oct. 22, 2002) [67 FR 66208] regarding Section 404 of the Sarbanes-Oxley Act of 2002 and rules proposed in Release 33–8212 (March 21, 2003 [68 FR 15600] regarding Sections 302 and 906 of the Sarbanes-Oxley Act. The rules to implement Section 404 of the Sarbanes-Oxley Act of 2002 would require a public company, other than registered investment companies, to include in their annual reports a report of management on the company's internal control over financial reporting. Under the rules, the registered public accounting firm that audited the company's financial statements included in the annual report must issue an attestation report on management's assessment of the company's internal control over financial reporting. Companies would be required to file the registered public accounting firm's attestation report as part of the annual report. In addition, the rules add a requirement that management evaluate, as of the end of each fiscal quarter, any change in the company's internal control over financial reporting that occurred during such quarter that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting. The Commission will also consider whether to adopt amendments to the rules and forms under the Securities Exchange Act of 1934 and the Investment Company Act of 1940 to require issuers to provide the certifications required by Sections 302 and 906 of the Sarbanes-Oxley Act of 2002 as exhibits to the periodic reports to which they relate.

At times, changes in Commission priorities require alterations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted, or postponed, please contact:

The Office of the Secretary at (202) 942–7070.

Dated: May 19, 2003.

Jonathan G. Katz,

Secretary.

[FR Doc. 03–13081 Filed 5–20–03; 4:25 pm]

BILLING CODE 8010–01–M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–47882; File No. SR–Amex–2003–43]

Self-Regulatory Organizations; Notice of Filing and Immediate Effectiveness of Proposed Rule Change by American Stock Exchange LLC Relating to Amendments to Rules 575, 576, 577, and 585 and Sections 721, 722, 723, and 725 of the American Stock Exchange Company Guide To Allow Authorized State-Registered Investment Advisers To Receive and Vote Proxy Materials on Behalf of Beneficial Owners

May 16, 2003.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on May 13, 2003, the American Stock Exchange LLC (''Amex'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Exchange filed the proposed rule change pursuant to section 19(b)(3)(A) of the Act,[3] and Rule 19b–4(f)(6) thereunder,[4] which renders the proposal effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Amex proposes to amend Amex Rules 575, 576, 577, and 585 and Sections 721, 722, 723, and 725 of the Amex Company Guide to specify that a designated investment adviser may be registered under either the Investment Advisers Act of 1940 or under the laws of a state. The text of the proposed change is below; new language is italicized.

* * * * *

Giving of Proxies Restricted

Rule 575. No member organization shall give or authorize the giving of a proxy to vote stock registered in its name, or in the name of its nominee, except as required or permitted under the provisions of Rule 577, unless such member organization is the beneficial owner of such stock. Notwithstanding the foregoing:

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A).

[4] 17 CFR 240.19b–4(f)(6).

(1) No change.

(2) Any person registered as an investment adviser *either* under the Investment Advisers Act of 1940 *or under the laws of a state,* who exercises investment discretion pursuant to an advisory contract for the beneficial owner and has been designated in writing by the beneficial owner to vote the proxies for stock which is in the possession or control of the member organization, may vote such proxies.

Commentary

.01 The term ''state'' as used in Rules 575, 576(a), 577 and 585, and Sections 721, 722, 723 and 725 of the Exchange Company Guide shall have the meaning given to such term in section 202(a)(19) of the Investment Advisers Act of 1940, as such term may be amended from time to time therein.

Transmission of Proxy Material to Customers

Rule 576. (a) Whenever a person soliciting proxies shall furnish a member organization:

(1) Copies of all soliciting material which such person is sending to registered holders, and

(2) Satisfactory assurance that he will reimburse such member organization for all out-of-pocket expenses, including reasonable clerical expenses, incurred by such member organization in connection with such solicitation, such member organization shall transmit to each beneficial owner of stock which is in its possession or control or to an investment adviser registered either under the Investment Advisers Act of 1940 *or under the laws of a state,* who exercises investment discretion pursuant to an advisory contract for the beneficial owner and has been designated in writing by the beneficial owner of such stock (hereinafter ''designated investment adviser'') to receive soliciting material in lieu of the beneficial owner, the material furnished; and

(b) No further change.

Giving Proxies by Member Organization

Rule 577. A member organization shall give or authorize the giving of a proxy for stock registered in its name, or in the name of its nominee, at the direction of the beneficial owner. If the stock is not in the control or possession of the member organization, satisfactory proof of the beneficial ownership as of the record date may be required.

Voting Member Organization Holdings as Executor, etc.

No change.

Voting Procedure Without Instructions

A member organization which has transmitted proxy soliciting material to the beneficial owner of stock or to an investment adviser registered *either* under the Investment Advisers Act of 1940 *or under the laws of a state* who exercises investment discretion pursuant to an advisory contract for the beneficial owner and has been designated in writing by the beneficial owner of such stock (hereinafter ''designated investment adviser'') to receive soliciting material in lieu of the beneficial owner and solicited voting instructions in accordance with the provisions of Rule 576, and which has not received instructions from the beneficial owner or from the beneficial owner's designated investment adviser by the date specified in the statement accompanying such material, may give or authorize the giving of a proxy to vote such stock, provided the person in the member organization giving or authorizing the giving of the proxy has no knowledge of any contest as to the action to be taken at the meeting and provided such action is adequately disclosed to stockholders and does not include authorization for a merger, consolidation or any other matter which may affect substantially the rights or privileges of such stock.

No further change.

Transmission of Interim Reports and Other Material

Rule 585. A member organization, when so requested by a company, and upon being furnished with:

(1) Copies of interim reports of earnings or other material being sent to stockholders, and

(2) Satisfactory assurance that it will be reimbursed by such company for all out-of-pocket expenses, including reasonable clerical expenses, shall transmit such reports or materials to each beneficial owner of stock of such company held by such member organization and registered in a name other than the name of the beneficial owner unless the beneficial owner has instructed the member organization in writing to transmit such reports or material to a designated investment adviser registered *either* under the Investment Advisers Act of 1940 *or under the laws of a state,* who exercises investment discretion pursuant to an advisory contract for such beneficial owner.

Giving of Proxies—Restriction on Member Organizations (Exchange Rule 575)

Sec. 721.

No member organization shall give or authorize the giving of a proxy to vote stock registered in its name, or in the name of its nominee, except as required or permitted under the provisions of Rule 577, unless such member organization is the beneficial owner of such stock. Notwithstanding the foregoing.

(1) No change.

(2) any person registered as an investment adviser *either* under the Investment Advisers Act of 1940 *or under the laws of a state,* who exercises investment discretion pursuant to an advisory contract for the beneficial owner and has been designated in writing by the beneficial owner to vote the proxies for stock which is in the possession or control of the member organization, may vote such proxies.

Commentary

.01 The term ''state'' as used in Rules 575, 576(a), 577 and 585, and Sections 721, 722, 723 and 725 of the Exchange Company Guide shall have the meaning given to such term in section 202(a)(19) of the Investment Advisers Act of 1940, as such term may be amended from time to time therein.

Transmission of Proxy Material to Customers (See Exchange Rule 576)

Sec. 722

(a) Whenever a person soliciting proxies shall furnish a member organization:

(1) Copies of all soliciting material which such person is sending to registered holders, and

(2) Satisfactory assurance that he will reimburse such member organization for all out-of-pocket expenses, including reasonable clerical expenses, incurred by such member organization in connection with such solicitation, such member organization shall transmit to each beneficial owner of stock which is in its possession or control or to an investment adviser registered *either* under the Investment Advisers Act of 1940 *or under the laws of a state,* who exercises investment discretion pursuant to an advisory contract for the beneficial owner and has been designated in writing by the beneficial owner of such stock (hereinafter ''designated adviser'') to receive soliciting material in lieu of the beneficial owner, the material furnished; and

(a) No further change.

Giving Proxies by Member Organization (See Exchange Rule 577)

Rule 723. A member organization shall give or authorize the giving of a proxy for stock registered in its name, or in the name of its nominee, at the direction of the beneficial owner. If the stock is not in the control or possession of the member organization, satisfactory proof of the beneficial ownership as of the record date may be required.

Voting Member Organization Holdings as Executor, etc.

No change.

Voting Procedure Without Instructions

A member organization which has transmitted proxy soliciting material to the beneficial owner of stock or to an investment adviser registered *either* under the Investment Advisers Act of 1940 *or under the laws of a state* who exercises investment discretion pursuant to an advisory contract for the beneficial owner and has been designated in writing by the beneficial owner of such stock (hereinafter ''designated investment adviser'') to receive soliciting material in lieu of the beneficial owner and solicited voting instructions in accordance with the provisions of Rule 576, and which has not received instructions from the beneficial owner or from the beneficial owner's designated investment adviser by the date specified in the statement accompanying such material, may give or authorize the giving of a proxy to vote such stock, provided the person in the member organization giving or authorizing the giving of the proxy has no knowledge of any contest as to the action to be taken at the meeting and provided such action is adequately disclosed to stockholders and does not include authorization for a merger, consolidation or any other matter which may affect substantially the rights or privileges of such stock.

No further change.

Transmission of Interim Reports and Other Material (See Exchange Rule 585)

Sec. 725

A member organization, when so requested by a company, and upon being furnished with:

(1) Copies of interim reports of earnings or other material being sent to stockholders, and

(2) Satisfactory assurance that it will be reimbursed by such company for all out-of-pocket expenses, including reasonable clerical expenses, shall transmit such reports or materials to each beneficial owner of stock of such company held by such member organization and registered in a name other than the name of the beneficial owner unless the beneficial owner has instructed the member organization in writing to transmit such reports or material to a designated investment adviser registered *either* under the Investment Advisers Act of 1940 *or under the laws of a state,* who exercises investment discretion pursuant to an advisory contract for such beneficial owner.

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Amex included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Amex has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

Amex Rules 575 (Giving of Proxies Restricted), 576 (Transmission of Proxy Material to Customers), 577 (Giving Proxies by Member Organization), and 585 (Transmission of Interim Reports and Other Material) relate to voting of proxies and transmission of proxy and related issuer material. These rules are also incorporated into Sections 721, 722, 723, and 725, respectively, of the Amex Company Guide. These rules permit beneficial owners of stock to authorize investment advisers registered under the Investment Advisers Act of 1940 (''Advisers Act'')[5] to receive proxy soliciting materials, annual reports and other related issuer material and to vote proxies for beneficial owners. Investment advisers can do so if they exercise investment discretion pursuant to an advisory contract and have been designated in writing by the beneficial owner to perform these activities.

The Exchange proposes to amend the above-noted Amex rules and Company Guide provisions to provide that a designated investment adviser must be registered either under the Advisers Act or under the laws of a state. These amendments are similar to changes made to comparable New York Stock Exchange (''NYSE'') and National Association of Securities Dealers (''NASD'') rules approved recently by the Commission.[6] These rule changes take into account rules and rule amendments adopted effective July 1997 by the Commission under the Advisers Act, which implement provisions of Title III of the National Securities Markets Improvement Act of 1996, reallocating regulatory responsibilities for investment advisers between the Commission and the states.[7] The Commission now only regulates advisers with $25 million or more of assets under management and the states regulate advisers with less than $25 million of assets. Because the majority of investment advisers manage assets of less than $25 million and, therefore, are not registered under the Advisers Act, the amendments are needed to apply Exchange proxy transmission and voting rules to the many investment advisers registered under state law that exercise investment discretion pursuant to an advisory contract and have been designated by the beneficial owner to vote and receive proxy materials on their behalf.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with section 6(b) of the Act,[8] in general, and furthers the objectives of section 6(b)(5),[9] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, to protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition.

[5] 15 U.S.C. 80b.

[6] *See* Securities Exchange Act Release Nos. 47458 (March 6, 2003), 68 FR 12131 (March 13, 2003) (SR–NYSE–2002–50); and 47459 (March 6, 2003), 68 FR 12120 (March 13, 2003) (SR–NASD–2002–124).

[7] 62 FR 28112 (May 22, 1997); Release No. IA–1633, File No. S7–31–96

[8] 15 U.S.C. 78f(b).

[9] 15 U.S.C. 78f(b)(5).

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change: (1) Does not significantly affect the protection of investors or the public interest; (2) does not impose any significant burden on competition; and (3) does not become operative for 30 days from the date of filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, and the Exchange has provided the Commission with written notice of its intent to file the proposed rule change at least five business days prior to the filing date,[10] the proposed rule change has become effective pursuant to section 19(b)(3)(A) of the Act [11] and Rule 19b–4(f)(6) thereunder.[12]

A proposed rule change filed under Rule 19b–4(f)(6) [13] does not become operative prior to 30 days after the date of filing or such shorter time as the Commission may designate if such action is consistent with the protection of investors and the public interest. The Amex has requested, in order to permit Amex rules to immediately take into account rules adopted by the Commission to implement provisions of the National Securities Market Improvement Act of 1996, that the Commission waive the 30-day operative date.[14] The Commission believes waiving the 30-day operative date is consistent with the protection of investors and the public interest. For this reason, the Commission has determined to make the proposed rule change operative as of the date of this notice.[15]

At any time within 60 days of filing of such proposed rule change, the Commission may summarily abrogate such rule change if its appears to the Commission that such action is necessary of appropriate in the public interest, for the protection of investors, or otherwise in the furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549–0609. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the Amex. All submissions should refer to File No. SR–Amex–2003–43 and should be submitted by June 13, 2003.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.[16]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 03–12940 Filed 5–22–03; 8:45 am]

BILLING CODE 8010–01–P

[10] *See* letter from Michael Cavalier, Associate General Counsel, Amex, to Nancy Sanow, Division of Market Regulation, Commission, dated April 29, 2003.

[11] 15 U.S.C. 78s(b)(3)(A).

[12] 17 CFR 240.19b–4(f)(6).

[13] *Id.*

[14] 17 CFR 240.19b–4(f)(6)(iii).

[15] For purposes only of accelerating the operative date of this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[16] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–47884; File No. SR–Amex–2003–37]

Self-Regulatory Organizations; Notice of Filing and Accelerated Approval of Proposed Rule Change by American Stock Exchange LLC Relating to Trust Certificates Linked to a Basket of Investment Grade Fixed Income Securities

May 16, 2003.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 29, 2003, the American Stock Exchange LLC (''Amex'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'' or ''SEC'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is approving the proposal on an accelerated basis.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to approve for listing and trading under Section 107A of the Amex Company Guide (''Company Guide''), trust certificates linked to a basket of investment grade fixed income debt instruments.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Amex included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item III below. The Amex prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

Under Section 107A of the Company Guide, the Exchange may approve for listing and trading securities which cannot be readily categorized under the listing criteria for common and preferred stocks, bonds, debentures, or warrants.[3] The Amex proposes to list for trading under Section 107A of the Company Guide, asset-backed securities (the ''ABS Securities'') representing ownership interest in the Select Income Trust 2003–03 (''Trust''), a special purpose entity to be formed by Structured Obligations Corporation (''SOC''),[4] and the trustee of the Trust pursuant to a trust agreement, which will be entered into on the date that the ABS Securities are issued. The assets of the Trust will consist primarily of a basket or portfolio of up to

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 27753 (March 1, 1990), 55 FR 8626 (March 8, 1990) (order approving File No. SR–Amex–89–29).

[4] SOC is a wholly-owned special purpose entity of J.P. Morgan Securities Holdings Inc. and the registrant under the Form S–3 Registration Statement (No. 333–70730) under which the securities will be issued.

approximately twenty-five investment-grade fixed-income securities (the ''Underlying Corporate Bonds'') and the United States Department of Treasury STRIPS or securities issued by the United States Department of Treasury (the ''Treasury Securities'') or government sponsored entity securities (the ''GSE Securities''). In the aggregate, component securities will be referred to as the ''Underlying Securities.''

The ABS Securities will conform to the initial listing guidelines under Section 107A [5] and continued listing guidelines under Sections 1001–1003 [6] of the Company Guide, except for the assets and stockholder equity characteristics of the Trust. At the time of issuance, the ABS Securities will receive an investment grade rating from a nationally recognized securities rating organization (an ''NRSRO''). The issuance of the ABS Securities will be a repackaging of the Underlying Corporate Bonds together with the addition of either Treasury Securities or GSE Securities,[7] with the obligation of the Trust to make distributions to holders of the ABS Securities depending on the amount of distributions received by the Trust on the Underlying Securities. Due to the pass-through and passive nature of the ABS Securities, the Exchange intends to rely on the assets and stockholder equity of the issuers of the Underlying Corporate Bonds as well as GSE Securities, rather than the Trust to meet the requirement in Section 107A of the Company Guide. The corporate issuers of the Underlying Corporate Bonds and GSE Securities will meet or exceed the requirements of Section 107A of the Company Guide. The distribution and principal amount/aggregate market value requirements found in Sections 107A(b) and (c), respectively, will otherwise be met by the Trust as issuer of the ABS Securities.[8] In addition, the Exchange for purposes of including Treasury Securities will rely on the fact that the issuer is the U.S. Government rather than the asset and stockholder tests found in Section 107A.

The basket of Underlying Securities will not be managed and will generally remain static over the term of the ABS Securities. Each of the Underlying Securities provide for the payment of interest on a semi-annual basis, but the ABS Securities will provide for monthly or quarterly distributions of interest. Neither the Treasury Securities or GSE Securities will make periodic payments of interest.[9] The Exchange represents that, to alleviate this cash flow timing issue, the Trust will enter into an interest distribution agreement (the ''Interest Distribution Agreement'') as described in the prospectus supplement related to the ABS Securities (the ''Prospectus Supplement'').[10] Principal distributions on the ABS Securities are expected to be made on dates that correspond to the maturity dates of the Underlying Securities (*i.e.*, the Underlying Corporate Bonds and Treasury Securities or GSE Securities). However, some of the Underlying Securities may have redemption provisions and in the event of an early redemption or other liquidation (*e.g.*, upon an event of default) of the Underlying Securities, the proceeds from such redemption (including any make-whole premium associated with such redemption) or liquidation will be distributed pro rata to the holders of the ABS Securities. Each Underlying Corporate Bond will be issued by a corporate issuer and purchased in the secondary market.

In the case of Treasury Securities, the trust will either purchase the securities directly from primary dealers or in the secondary market which consists of primary dealers, non-primary dealers, customers, financial institutions, non-financial institutions and individuals. Similarly, in the case of GSE Securities, the trust will either purchase the securities directly from the issuer or in the secondary market.

Holders of the ABS Securities generally will receive interest on the face value in an amount to be determined at the time of issuance of the ABS Securities and disclosed to investors. The rate of interest payments will be based upon prevailing interest rates at the time of issuance and interest payments will be made to the extent that coupon payments are received from the Underlying Securities. Distributions of interest will be made monthly or quarterly. Investors will also be entitled to be repaid the principal of their ABS Securities from the proceeds of the principal payments on the Underlying Securities.[11] The payout or return to investors on the ABS Securities will not be leveraged.

The ABS Securities will mature on the latest maturity date of the Underlying Securities. Holders of the ABS Securities will have no direct ability to exercise any of the rights of a holder of an Underlying Corporate Bond; however, holders of the ABS Securities as a group will have the right to direct the Trust in its exercise of its rights as holder of the Underlying Securities.

The proposed ABS Securities are virtually identical to a product currently listed and traded on the Exchange,[12]

[5] The initial listing standards for the ABS Securities require: (1) A minimum public distribution of one million units; (2) a minimum of 400 shareholders; (3) a market value of at least $4 million; and (4) a term of at least one year. However, if traded in thousand dollar denominations, then there is no minimum holder requirement. In addition, the listing guidelines provide that the issuer have assets in excess of $100 million, stockholder's equity of at least $10 million, and pre-tax income of at least $750,000 in the last fiscal year or in two of the three prior fiscal years. In the case of an issuer which is unable to satisfy the earning criteria stated in Section 101 of the Company Guide, the Exchange will require the issuer to have the following: (1) Assets in excess of $200 million and stockholders' equity of at least $10 million; or (2) assets in excess of $100 million and stockholders' equity of at least $20 million.

[6] The Exchange's continued listing guidelines are set forth in Sections 1001 through 1003 of Part 10 to the Exchange's Company Guide. Section 1002(b) of the Company Guide states that the Exchange will consider removing from listing any security where, in the opinion of the Exchange, it appears that the extent of public distribution or aggregate market value has become so reduced to make further dealings on the Exchange inadvisable. With respect to continued listing guidelines for distribution of the ABS Securities, the Exchange will rely on the guidelines for bonds in Section 1003(b)(iv). Section 1003(b)(iv)(A) provides that the Exchange will normally consider suspending dealings in, or removing from the list, a security if the aggregate market value or the principal amount of bonds publicly held is less than $400,000.

[7] A GSE Security is a security that is issued by a government-sponsored entity such as Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac), Student Loan Marketing Association (Sallie Mae), the Federal Home Loan Banks and the Federal Farm Credit Banks. All GSE debt is sponsored but not guaranteed by the federal government, whereas government agencies such as Government National Mortgage Association (Ginnie Mae) are divisions of the U.S. government whose securities are backed by the full faith and credit of the U.S.

[8] Telephone Conversation between Eric Van Allen, Assistant General Counsel, Amex, and Geoffrey Pemble, Special Counsel, Division, Commission, on May 16, 2003.

[9] A stripped fixed income security, such as a Treasury Security or GSE Security, is a security that is separated into its periodic interest payments and principal repayment. The separate strips are then sold individually as zero coupon securities providing investors with a wide choice of alternative maturities.

[10] Pursuant to the Interest Distribution Agreement, shortfalls in the amounts available to pay monthly or quarterly interest to holders of the ABS Securities due to the Underlying Securities paying interest semi-annually will be made to the Trust by JP Morgan Chase Bank or one of its affiliates and will be repaid out of future cash flow received by the Trust from the Underlying Securities.

[11] The Underlying Securities may drop out of the basket upon maturity or upon payment default or acceleration of the maturity date for any default other than payment default. *See* Prospectus for a schedule of the distribution of interest and of the principal upon maturity of each Underlying Security and for a description of payment default and acceleration of the maturity date.

[12] *See* Securities Exchange Act Release Nos. 46835 (November 14, 2002), 67 FR 70271 (November 21, 2002) (File No. SR–Amex–2002–70); 46923 (November 27, 2002), 67 FR 72247 (December 4, 2002) (File No. SR–Amex–2002–92).

with the only difference being the actual Underlying Securities in the basket of investment-grade fixed-income securities. Furthermore, publicly issued asset backed securities that repackage a single underlying corporate debt obligation are currently listed and traded on the New York Stock Exchange, Inc. (''NYSE'').[13] The proposed ABS Securities also are similar to those repackaging transactions, except that the Trust will own more than one corporate debt obligation and, in the single repackaging transactions, there is no need for an Interest Distribution Agreement because the timing of the payment of interest on the underlying debt obligation matches the obligation to distribute interest on the repackaged securities. Accordingly, the Exchange proposes to provide for the listing and trading of the ABS Securities where the Underlying Securities meet the Exchange's Bond and Debenture Listing Standards set forth in Section 104 of the Company Guide. The Exchange represents that all of the Underlying Securities in the proposed basket will meet or exceed these listing standards.

The Exchange's Bond and Debenture Listing Standards in Section 104 of the Company Guide provide for the listing of individual bond or debenture issuances provided the issue has an aggregate market value or principal amount of at least $5 million and any of: (1) The issuer of the debt security has equity securities listed on the Exchange (or on the NYSE or on the Nasdaq National Market (''Nasdaq'')); (2) an issuer of equity securities listed on the Exchange (or on the NYSE or on Nasdaq) directly or indirectly owns a majority interest in, or is under common control with, the issuer of the debt security; (3) an issuer of equity securities listed on the Exchange (or on the NYSE or on Nasdaq) has guaranteed the debt security; (4) a NRSRO has assigned a current rating to the debt security that is no lower than an S&P Corporation (''S&P'') ''B'' rating or equivalent rating by another NRSRO; or (5) or if no NRSRO has assigned a rating to the issue, an NRSRO has currently assigned (i) an investment grade rating to an immediately senior issue or (ii) a rating that is no lower than a S&P ''B'' rating or an equivalent rating by another NRSRO to a pari passu or junior issue.

In addition to the Exchange's Bond and Debenture Listing Standards, an Underlying Security must also be of investment grade quality as rated by a NRSRO and at least 75% of the underlying basket is required to contain Underlying Securities from issuances of $100 million or more. The maturity of each Underlying Security is expected to match the payment of principal of the ABS Securities with the maturity date of the ABS Securities being the latest maturity date of the Underlying Securities. Amortization of the ABS Securities will be based on: (1) The respective maturities of the Underlying Securities, including Treasury Securities or GSE Securities; (2) principal payout amounts reflecting the pro-rata principal amount of maturing Underlying Securities; and (3) any early redemption or liquidation of the Underlying Securities, including Treasury Securities or GSE Securities.

Investors will be able to obtain the prices for the Underlying Securities through Bloomberg L.P. or other market vendors, including the broker-dealer through whom the investor purchased the ABS Securities. In addition, The Bond Market Association (''TBMA'') provides links to price and other bond information sources on its investor Web site at *http://www.investinginbonds.com.* Transaction prices and volume data for the most actively-traded bonds on the exchanges are also published daily in newspapers and on a variety of financial Web sites. The National Association of Securities Dealers, Inc. (''NASD'') Trade Reporting and Compliance Engine (''TRACE'') will also help investors obtain transaction information for most corporate debt securities, such as investment grade corporate bonds.[14] For a fee, investors can have access to intra-day bellwether quotes.[15]

Price and transaction information for Treasury Securities and GSE Securities may also be obtained at *http://publicdebt.treas.gov* and *http://www.govpx.com,* respectively. Price quotes are also available to investors via proprietary systems such as Bloomberg, Reuters and Dow Jones Telerate. Valuation prices[16] and analytical data may be obtained through vendors such as Bridge Information Systems, Muller Data, Capital Management Sciences, Interactive Data Corporation and Barra.

The ABS Securities will be listed in $1,000 denominations with the Exchange's existing debt floor trading rules applying to trading. First, pursuant to Amex Rule 411, the Exchange will impose a duty of due diligence on its members and member firms to learn the essential facts relating to every customer prior to trading the ABS Securities.[17] Second, the ABS Securities will be subject to the debt margin rules of the Exchange.[18] Third, the Exchange will, prior to trading the ABS Securities, distribute a circular to the membership providing guidance with regard to member firm compliance responsibilities (including suitability recommendations) when handling transactions in the ABS Securities and highlighting the special risks and characteristics of the ABS Securities. With respect to suitability recommendations and risks, the Exchange will require members, member organizations and employees thereof recommending a transaction in the ABS Securities: (1) to determine that such transaction is suitable for the customer, and (2) to have a reasonable basis for believing that the customer can evaluate the special characteristics of, and is able to bear the financial risks of such transaction.

The Exchange represents that its surveillance procedures are adequate to properly monitor the trading of the ABS Securities. Specifically, the Amex will rely on its existing surveillance procedures governing debt, which have been deemed adequate under the Act. In addition, the Exchange also has a general policy which prohibits the distribution of material, non-public information by its employees.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with section 6 of the Act[19] in general and furthers the objectives of section

[13] *See e.g.,* Structured Asset Trust Unit Repackagings (SATURNS), CSFB USA Debenture Backed Series 2002–10, 1,330,000 of 7.00% Class A Callable Units dated August 15, 2002 and trading under the symbol ''MKK''; 1,380,000 PreferredPlus 8.375% Trust Certificates underlying 7.05% Debentures of Citizens Communications Company dated August 24, 2001 and trading under the symbol ''PIY''; and 1,980,000 Corporate Backed Trust Certificates, Royal & Sun Alliance Bond Backed Series 2002–2 underlying securities 8.95% subordinated guaranteed bonds issued by Royal & Sun Alliance Insurance Group plc dated February 11, 2002 and trading under the symbol ''CCS.''

[14] *See* Securities Exchange Act Release No. 43873 (January 23, 2001), 66 FR 8131 (January 29, 2001) (File No. SR–NASD–99–65). Investors are able to access TRACE information at *http://www.nasdbondinfo.com/.*

[15] Corporate prices are available at 20-minute intervals from Capital Management Services at *http://www.bondvu.com/.*

[16] ''Valuation Prices'' refer to an estimated price that has been determined based on an analytical evaluation of a bond in relation to similar bonds that have traded. Valuation prices are based on bond characteristics, market performance, changes in the level of interest rates, market expectations and other factors that influence a bond's value.

[17] Amex Rule 411 requires that every member, member firm or member corporation use due diligence to learn the essential facts, relative to every customer and to every order or account accepted.

[18] *See* Amex Rule 462.

[19] 15 U.S.C. 78f(b).

6(b)(5)[20] in particular in that it is designed to prevent fraudulent and manipulative acts and practices, promote just and equitable principles of trade, remove impediments to and perfect the mechanisms of a free and open market and a national market system, and, in general, protect investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

The Exchange did not receive any written comments on the proposed rule change.

III. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549–0609. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the Amex. All submissions should refer to the File No. SR–Amex–2003–37 and should be submitted by June 13, 2003.

IV. Commission's Findings and Order Granting Accelerated Approval of Proposed Rule Change

After careful consideration, the Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange, and, in particular, with the requirements of section 6(b)(5) of the Act.[21] The Commission finds that this proposal is similar to several approved equity-linked instruments currently listed and traded on the Amex,[22] as well as to asset-backed securities listed and traded on the NYSE.[23] Accordingly, the Commission finds that the listing and trading of the ABS Securities is consistent with the Act and will promote just and equitable principles of trade, foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, and, in general, protect investors and the public interest consistent with section 6(b)(5) of the Act.[24]

As described more fully above, the ABS securities are asset-backed securities and represent a repackaging of the Underlying Corporate Bonds together with the addition of either Treasury Securities or GSE Securities, subject to certain distribution of interest obligations of the Trust. The ABS Securities are not leveraged instruments. The ABS Securities are debt instruments whose price will still be derived and based upon the value of the Underlying Securities. The Exchange represents that the value of the Underlying Securities will be determined by one or more market makers, in accordance with Exchange rules and generally accepted principles of accounting regarding the valuation of securities. Investors are guaranteed at least the principal amount that they paid for the Underlying Securities. In addition, each of the Underlying Corporate Bonds will pay interest on a semi-annual basis while the ABS securities themselves will pay interest on a monthly or quarterly basis, pursuant to the Interest Distribution Agreement. Neither the Treasury Securities or GSE Securities will make periodic payments of interest.[25] In addition, the ABS securities will mature on the latest maturity date of the Underlying Securities.[26] However, due to the pass-through nature of the ABS Securities, the level of risk involved in the purchase or sale of the ABS Securities is similar to the risk involved in the purchase or sale of traditional common stock. The Commission notes that asset-backed securities that repackage a single underlying debt instrument are currently listed and traded on the NYSE. However, because the ABS Securities are similar to those repackaging transaction, except that the Trust will own more than one corporate debt obligation (in this case, also Treasury Securities or GSE Securities) and, in the single repackaging transactions, there is no need for an Interest Distribution Agreement because the timing of the payment of interest on the underlying debt obligation matches the obligation to distribute interest on the repackaged securities, there are several issues regarding the trading of this type of product that the Exchange must address.

The Commission notes that the Exchange's rules and procedures that address the special concerns attendant to the trading of hybrid securities will be applicable to the ABS Securities. In particular, by imposing the hybrid listing standards, suitability, disclosure, and compliance requirements noted above, the Commission believes the Exchange has addressed adequately the potential problems that could arise from the hybrid nature of the ABS Securities. Moreover, the Commission notes that

[20] 15 U.S.C. 78f(b)(5).

[21] *Id.*

[22] *See* Securities Exchange Act Release Nos. 45160 (December 17, 2001), 66 FR 66485 (December 26, 2001) (approving the listing and trading of non-principal protected notes linked to the Balanced Strategy Index) (File No. SR–Amex–2001–91); 44483 (June 27, 2001), 66 FR 35677 (July 6, 2001) (approving the listing and trading of non-principal protected notes linked to the Institutional Holdings Index) (File No. SR–Amex–2001–40); 44437 (June 18, 2001), 66 FR 33585 (June 22, 2001) (approving the listing and trading of non-principal protected notes linked to the Industrial 15 Index) (File No. SR–Amex–2001–39); 44342 (May 23, 2001), 66 FR 29613 (May 31, 2001) (accelerated approval order for the listing and trading of Select Ten Notes) (File No. SR–Amex–2001–28); 42582 (March 27, 2000), 65 FR 17685 (April 4, 2000) (accelerated approval order for the listing and trading of notes linked to a basket of no more than twenty equity securities) (File No. SR–Amex–99–42); 41546 (June 22, 1999), 64 FR 35222 (June 30, 1999) (accelerated approval order for the listing and trading of notes linked to a narrow based index with a non-principal protected put option) (File No. SR–Amex–99–15); 39402 (December 4, 1997), 62 FR 65459 (December 12, 1997) (notice of immediate effectiveness for the listing and trading non-principal protected commodity preferred securities linked to certain commodities indices) (File No. SR–Amex–97–47); 37533 (August 7, 1996), 61 FR 42075 (August 13, 1996) (accelerated approval order for the listing and trading of the Top Ten Yield Market Index Target Term Securities (''MITTS'')) (File No. SR–Amex–96–28); 33495 (January 19, 1994), 59 FR 3883 (January 27, 1994) (accelerated approval order for the listing and trading of Stock Upside Note Securities) (File No. SR–Amex–93–40); and 32343 (May 20, 1993), 58 FR 30833 (May 27, 1993) (accelerated approval order for the listing and trading of non-principal protected notes linked to a single equity security) (File No. SR–Amex–92–42).

[23] *See, e.g., supra* note 13.

[24] 15 U.S.C. 78f(b)(5). In approving this rule, the Commission notes that it has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[25] *See supra* n. 9.

[26] The Commission notes, however, that the Exchange has represented that the Underlying Securities may drop out of the basket upon maturity or upon payment default or acceleration of the maturity date for any default other than payment default. *See* Prospectus for a schedule of the distribution of interest and of the principal upon maturity of each Underlying Security and for a description of payment default and acceleration of the maturity date.

the Exchange will distribute a circular to its membership calling attention to the specific risks associated with the ABS Securities.

The Commission notes that the ABS Securities are dependent upon the individual credit of the issuers of the Underlying Securities. To some extent this credit risk is minimized by the Exchange's listing standards in Section 107A of the Company Guide which provide that only issuers satisfying asset and equity requirements may issue securities such as the ABS Securities. In addition, the Exchange's ''Other Securities'' listing standards further provide that there is no minimum holder requirement if the securities are traded in thousand dollar denominations.[27] The Commission notes that the Exchange has represented that the ABS Securities will be listed in $1000 denominations with its existing debt floor trading rules applying to the trading. In any event, financial information regarding the issuers of the Underlying Securities will be publicly available.[28]

Due to the pass-through and passive nature of the ABS Securities, the Commission does not object to the Exchange's reliance on the assets and stockholder equity of the Underlying Securities rather than the Trust to meet the requirement in Section 107A of the Company Guide. The Commission notes that the distribution and principal amount/aggregate market value requirements found in Sections 107A(b) and (c), respectively, will otherwise be met by the Trust as issuer of the ABS Securities. Thus, the ABS Securities will conform to the initial listing guidelines under Section 107A and continued listing guidelines under Sections 1001–1003 of the Company Guide, except for the assets and stockholder equity characteristics of the Trust. At the time of issuance, the Commission also notes that the ABS Securities will receive an investment grade rating from an NRSRO.

The Commission also believes that the listing and trading of the ABS Securities should not unduly impact the market for the Underlying Securities or raise manipulative concerns. As discussed more fully above, the Exchange represents that, in addition to requiring the issuers of the Underlying Securities meet the Exchange's Section 107A listing requirements (in the case of Treasury securities, the Exchange will rely on the fact that the issuer is the U.S. Government rather than the asset and stockholder tests found in Section 107A), the Underlying Securities will be required to meet or exceed the Exchange's Bond and Debenture Listing Standards pursuant to Section 104 of the Amex's Company Guide, which among other things, requires that underlying debt instrument receive at least an investment grade rating of ''B'' or equivalent from an NRSRO. Furthermore, at least 75% of the basket is required to contain Underlying Securities from issuances of $100 million or more. The Amex also represents that the basket of Underlying Securities will not be managed and will remain static over the term of the ABS securities. In addition, the Amex's surveillance procedures will serve to deter as well as detect any potential manipulation.

The Commission notes that the investors may obtain price information on the Underlying Securities through market venders such Bloomberg, L.P., or though Web sites such as *http://www.investinbonds.com* (for Underlying Corporate Bonds) and *http://publicdebt.treas.gov* and *http://www.govpx.com* (for Treasury Securities and GSE Securities, respectively).

The Commission finds good cause for approving the proposed rule change, as amended, prior to the thirtieth day after the date of publication of notice thereof in the **Federal Register**. The Amex has requested accelerated approval because this product is similar to several other equity-linked instruments currently listed and traded on the Amex,[29] and other asset-backed securities currently listed and traded on the NYSE.[30] The Commission believes that the ABS Securities will provide investors with an additional investment choice and that accelerated approval of the proposal will allow investors to begin trading the ABS Securities promptly. Additionally, the ABS Securities will be listed pursuant to Amex's existing hybrid security listing standards as described above. Based on the above, the Commission believes that there is good cause, consistent with sections 6(b)(5) and 19(b)(2) of the Act[31] to approve the proposal, as amended, on an accelerated basis.

V. Conclusion

It is therefore ordered, pursuant to section 19(b)(2) of the Act,[32] that the proposed rule change (SR–Amex–2003–25) is hereby approved on an accelerated basis.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.[33]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 03–12941 Filed 5–22–03; 8:45 am]

BILLING CODE 8010–01–P

[27] *See* Company Guide Section 107A.

[28] The ABS Securities will be registered under section 12 of the Act.

[29] *See supra* note 10.

[30] *See, e.g., supra* note 11.

[31] 15 U.S.C. 78f(b)(5) and 78s(b)(2).

[32] 15 U.S.C. 78*o*–3(b)(6) and 78s(b)(2).

[33] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–47885; File No. SR–Amex–2001–92]

Self-Regulatory Organizations; Order Approving Proposed Rule Change and Amendment Nos. 1, 2, 3 and 4 Thereto by the American Stock Exchange LLC To Simplify the Manner in Which a Contrary Exercise Advice Is Submitted and To Extend by One Hour the Time for Members To Submit Contrary Exercise Advices

May 16, 2003.

I. Introduction

On October 29, 2001, the American Stock Exchange LLC (''Amex'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission''), pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] a proposed rule change to amend Amex Rule 980 to: (i) Simplify the manner in which a Contrary Exercise Advice (''CEA'') is submitted to the Exchange; and (ii) extend by one hour the cut-off time by which members must submit to the Exchange CEA notices for customer accounts. On December 17, 2001, Amex filed Amendment No. 1 to the proposed rule change.[3] The proposed rule change and Amendment No. 1 (''Original Proposal'') were published for comment in the **Federal Register** on January 15, 2002.[4] The Commission received four comment letters regarding the Original Proposal.[5]

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* letter from Jeffrey P. Burns, Assistant General Counsel, Amex, to Jennifer L . Colihan, Special Counsel, Division of Market Regulation (''Division''), Commission, dated December 14, 2001 (''Amendment No. 1'').

[4] *See* Securities Exchange Act Release No. 45253 (January 8, 2002), 67 FR 2003.

[5] *See* letters to Jonathan G. Katz, Secretary, Commission, from Mark R. Mudry, Chairman, the Options Operations Subcommittee of the OCC Roundtable, dated February 22, 2002 (''Subcommittee Letter''); Margo R. Topman, Vice President, Assistant General Counsel, Goldman, Sachs & Co., dated February 15, 2002 (''Goldman Sachs Letter''); Thomas N. McManus, Executive

Continued

Amex responded to the issues raised in the comment letters in Amendment No. 2, which Amex filed with the Commission on June 19, 2002.[6] On March 6, 2003, Amex submitted Amendment No. 3 to the proposal.[7] Amendment No. 3 was published for comment in the **Federal Register** on March 26, 2003.[8] The Commission received no comments regarding Amendment No. 3. On April 29, 2003, Amex submitted Amendment No. 4.[9] This order approves the proposed rule change, as amended.

II. Description of the Proposed Rule Change

The Options Clearing Corporation (''OCC'') has an established procedure that provides for the automatic exercise of certain options that are in-the-money by a specified amount known as Exercise-by-Exception or ''Ex-by-Ex.'' Option holders who wish to have their contracts exercised in accordance with the Ex-by-Ex procedure need to take no further action; those contracts that are in-the-money by the appropriate amount will be automatically exercised. Option holders who do not want their options automatically exercised or who want their options to be exercised under parameters different than the Ex-by-Ex parameters must file a CEA [10] with the Exchange pursuant to Amex Rule 980 and instruct OCC of their contrary intention.[11]

In its Original Proposal, Amex proposed to amend Amex Rule 980 to simplify the manner in which a CEA is submitted to the Exchange and extend by one hour the cut-off time for members to submit customer CEAs and Advice Cancels to the Exchange. Specifically, Amex proposed to: (1) Eliminate the requirement that a CEA be submitted if the option holder does not want to exercise an option when OCC has waived its Ex-by-Ex procedure for that options class;[12] (2) extend the cut-off time for members to deliver CEAs and Advice Cancels for customer accounts to the Exchange by one hour (from 5:30 p.m. to 6:30 p.m. (EST)); (3) extend the time for making a final decision whether to exercise an expiring option and submit the CEA or Advice Cancel when the Exchange announces a modified time for the close of trading in equity options to 1 hour and 28 minutes after the announced close of trading for accounts of members and member firms, and establish a time period of 1 hour and 28 minutes following the time announced for the close of trading for customers to make a final decision on whether to exercise an expiring option, but a time period of 2 hours and 28 minutes after the close of trading instead of the current 6:30 p.m. to deliver a CEA or Advice Cancel to the Exchange; and (4) provide the Exchange with the ability to establish different exercise cut-off times on a case-by-case basis to address unusual circumstances.

III. Summary of Comments and Amex's Response

The Commission received four comment letters regarding the Original Proposal.[13] Amex filed Amendment Nos. 2 and 3 to address the issues raised by the commenters.[14]

One commenter specifically expressed support for the Exchange's proposal to eliminate the requirement that a CEA be submitted if the holder does not want to exercise the option when OCC has waived its Ex-by-Ex procedure for that options class. The commenter stated that ''it makes sense to only require members to submit exercise notices for option positions they affirmatively want to exercise.''[15]

Two commenters also supported the Exchange's proposal to extend the cut-off time for members to deliver CEAs for customer accounts to the Exchange by one hour (from 5:30 p.m. to 6:30 p.m. (EST)).[16] However, they expressed concern that extending the cut-off time for customer accounts only and not firm accounts would increase processing burden [17] and create operational inefficiencies.[18] The commenters believed that the proposal would burden them with the process of having to separate firm and customer exercise notices into two batches in order to avail themselves of the extra hour given to deliver notices for customer accounts.

The Exchange responded to these comments by explaining that the Original Proposal was prompted by concerns expressed by clearing firms that the current 5:30 p.m. (EST) cut-off time was problematic for customer accounts due to the logistical difficulties of receiving customer exercise instructions and processing them through their retail branch systems and back office areas before submitting them to the Exchange.[19] The proposal had originally retained the 5:30 p.m. (EST) deadline for submission of CEAs for firm proprietary accounts because proprietary accounts did not present the same logistical difficulties as customer accounts. However, because the commenters stated that it would be operationally burdensome to develop different CEA processes for customer and firm accounts, Amex revised the proposal to adopt a single extended deadline of 6:30 p.m. (EST) for submission of CEAs for all accounts. The proposal to extend the deadline to 6:30 p.m. (EST) for firm accounts only applies to those member firms that have an electronic submission procedure that records the time that decisions whether to exercise or not exercise an option are received by the firm. The Exchange explicitly outlined the different CEA submission deadlines for non-customer accounts, in proposed Commentary .04, depending on the manner of the decision whether to exercise or not exercise, and required, in proposed Commentary .05, that each member organization establish fixed procedures to ensure that the time stamps used for the recording of the time of receipt of exercise decisions are secure.

Three commenters addressed Amex's Original Proposal to change the time period for members and member firms and customers to make a final decision and deliver the CEA or Advice Cancel when the Exchange announces a modified time for the close of trading in

Director and Counsel, Morgan Stanley, dated February 11, 2002 (''Morgan Stanley Letter''); and Mark Straubel, Assistant Vice President, Pershing, dated February 5, 2002 (''Pershing Letter'').

[6] *See* letter (with exhibit) from Jeffrey P. Burns, Assistant General Counsel, Amex, to Nancy Sanow, Assistant Director, Division, Commission, dated June 18, 2002 (''Amendment No. 2''). The exhibit to Amendment No. 2 set forth proposed rule text, which was subsequently replaced by Amendment No. 3.

[7] *See* letter from Jeffrey P. Burns, Assistant General Counsel, Amex, to Nancy Sanow, Assistant Director, Division, Commission, dated March 5, 2003, replacing Form 19b–4 in its entirety (''Amendment No. 3'').

[8] *See* Securities Exchange Act Release No. 47540 (March 19, 2003), 68 FR 14717.

[9] *See* letter from Jeffrey P. Burns, Assistant General Counsel, Amex, to Cyndi Rodriguez, Special Counsel, Division, Commission, dated April 28, 2003 (''Amendment No. 4''). In Amendment No. 4, Amex added rule text to proposed Amex Rule 980(d) that was included in Amendment No. 1 but inadvertently deleted in Amendment No. 3. This was initially subject to notice and comment in the Original Proposal.

[10] A CEA is a communication either to not exercise an option that would be automatically exercised under OCC's Ex-by-Ex procedure, or to exercise an option that would not be automatically exercised under OCC's Ex-by-Ex procedure.

[11] Amex Rule 980 also applies to the submission of Advice Cancels, which cancel CEAs.

[12] Currently, when OCC waives its Ex-by-Ex procedure for an options class, Amex Rule 980 requires the submission of a CEA evidencing the intention to exercise or not exercise.

[13] *See supra* note 5.

[14] *See* Amendment Nos. 2 and 3, *supra* notes 6 and 7.

[15] *See* Morgan Stanley Letter.

[16] *See* Goldman Sachs Letter and Morgan Stanley Letter.

[17] *See* Goldman Sachs Letter.

[18] *See* Morgan Stanley Letter.

[19] *See* Amendment No. 2, *supra* note 6.

equity options.[20] These commenters stated that while it might be appropriate for Amex to have the ability to *extend* the delivery time when Amex extends its closing time there might be an adverse effect on customers if the Exchange had the ability to *reduce* the decision making time frame when Amex announces a closing time prior to the regular close of trade. Specifically, the commenters expressed concerns over the manner in which Amex would notify members of the shortened period and how firms, in turn, would notify customers.

In response to these comments, Amex revised its proposed rule to state that in the event the Exchange provides advanced notice on or before 5:30 p.m. (EST) on the business day immediately prior to the last business day before the expiration date that a modified time for the close of trading in equity options will occur on such last business day before expiration, then the deadline to make a final decision to exercise or not exercise an expiring option shall be 1 hour 28 minutes following the time announced for the close of trading instead of 5:30 p.m. (EST). In addition, members and member organizations will have 2 hours 28 minutes following the close of trading to deliver a CEA or Advice Cancel to the Exchange for customer accounts, and non-customer accounts of member firms that employ electronic submission procedures with time stamps that record the time of submission of the exercise instructions. The Exchange represented that this proposed amendment would ensure that at least one day's prior notice is provided by 5:30 p.m. (EST) before the Exchange establishes an earlier cut-off time.[21]

Two commenters supported the proposal to provide the Exchange with the authority to extend the cut off times due to unusual circumstances, but believed that it would be inappropriate for the Exchange to use this authority to reduce the time frames.[22] Indeed, all four commenters urged the Exchange to define the term ''unusual circumstances'' and explain the conditions to which this provision would apply.[23] Three of these commenters requested that the Exchange outline how this provision would operate in terms of the time frame involved in informing members of the change in cut-off times and how it would be implemented,[24] and two of the commenters believed that this provision should be limited to force majeur-type of events.[25]

The Exchange responded by revising paragraph (h) of Amex Rule 980. Proposed Amex Rule 980(h)(1) would provide the Exchange with the ability to *extend* cut-off times by which an options holder must decide whether to exercise an expiring option and by which a member must submit a CEA or Advice Cancel to the Exchange. The Exchange may make decisions to extend cut-off times on a case-by-case basis due to unusual circumstances. In proposed Commentary .03, Amex defined ''unusual circumstances'' for purposes of paragraph (h)(1) as including, but not limited to, increased market volatility, significant order imbalances, significant volume surges and/or systems capacity constraints, significant spreads between the bid and offer in underlying securities, internal system malfunctions affecting the ability to disseminate or update market quotes and/or deliver orders, or other similar occurrences.

Proposed Amex Rule 980(h)(2) would permit the Exchange to *reduce* the cut-off times by which an options holder must decide whether to exercise an expiring option and by which members must submit CEAs and Advice Cancels to the Exchange, but only if the Exchange provides notice to members by 12 p.m. (EST) on the day prior to the day with the reduced cut-off time. The Exchange may decide to reduce the cut-off times on a case-by-case basis due to unusual circumstances, provided, however, that under no circumstances may the cut-off times be before the close of trading. For purposes of paragraph (h)(2), Amex proposed to define ''unusual circumstances'' as including, but not limited to, significant news announcements concerning the underlying security of an option contract that is scheduled to be released after the close of trading on the business day immediately prior to expiration.

Finally, one commenter stated that the meaning of ''customer'' should be clarified.[26] Amex proposed in Commentary .01 that, for purposes of Amex Rule 980, the terms ''customer account'' and ''non-customer account'' have the same meaning as defined in OCC By-Laws Article I(C)(25) and Article I(N)(2), respectively.

IV. Discussion

After careful review, the Commission finds that the proposed rule change, as amended, is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange.[27] In particular, the Commission finds that the proposal, as amended, is consistent with section 6(b)(5) of the Act,[28] in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, and to remove impediments to and perfect the mechanism of a free and open market and a national market system.

Specifically, the Commission finds that Amex's proposal, as amended, is designed to simplify and clarify the process by which members and member firms accept exercise decisions from options holders and submit such decisions to the Exchange. For example, during instances when OCC has waived its Ex-by-Ex procedure for a particular options class, the Commission finds Amex's proposal to require the submission of a CEA only if the options holder wants to exercise the option contract to be less cumbersome and confusing for options holders and members.

Amex also proposed to extend the time by which CEAs and Advice Cancels must be delivered to the Exchange to 6:30 p.m. (EST). Options holders, however, must still decide whether to exercise or not exercise an expiring option by 5:30 p.m. The Commission believes that this new deadline should provide members with additional time to process the exercise decisions of options holders while maintaining the goal of the rule to prevent individuals from taking improper advantage of late-breaking news.

In the Original Proposal, Amex proposed that the 6:30 (EST) deadline apply only to public customer accounts. Several commenters noted that limiting the extension of the submission deadline to only public customers would create operational burdens. The Commission notes that Amex addressed these concerns by extending the use of the 6:30 p.m. (EST) deadline to all accounts. However, members that wish to submit CEAs and Advice Cancels of

[20] *See* Goldman Sachs Letter, Morgan Stanley Letter, and Subcommittee Letter.

[21] *See* Amendment No. 2, *supra* note 6.

[22] *See* Morgan Stanley Letter and Pershing Letter.

[23] *See* Goldman Sachs Letter, Morgan Stanley Letter, Subcommittee Letter, and Pershing Letter.

[24] *See* Morgan Stanley Letter, Subcommittee Letter, and Pershing Letter.

[25] *See* Goldman Sachs Letter and Morgan Stanley Letter.

[26] *See* Subcommittee Letter.

[27] In approving this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[28] 15 U.S.C. 78f(b)(5).

non-customers by the 6:30 p.m. (EST) deadline must use an electronic time stamp to record the time the member received the exercise decision from the non-customer options holder. This requirement is in response to Amex's concern that firms that manually submit CEAs or Advice Cancels could have an opportunity to improperly extend the 5:30 p.m. (EST) deadline to decide whether to exercise an expiring option. The Commission believes that the requirement that an electronic time stamp be employed in such circumstances adequately addresses these concerns.

Amex also proposed alternate time frames for exercise decisions and CEA and Advice Cancel submissions when trading times are modified. Specifically, if the Exchange announces a modified close of trading by 5:30 p.m. (EST) on the business day immediately prior to the last business day before expiration, then options holders will have 1 hour and 28 minutes after the close of trading to make a decision whether to exercise an expiring option and members will have 2 hours and 28 minutes to submit CEAs and Advice Cancels of customers and non-customers to the Exchange.[29] In addition, Amex proposed to allow it to extend cut-off times for exercise decisions and CEA and Advice Cancel submissions due to unusual circumstances [30] and on a case-by-case basis. Finally, Amex proposed to allow it to reduce cut-off times for exercise decisions and CEA and Advice Cancel submissions due to unusual circumstances [31] so long as the Exchange provides at least one business day prior notice, by 12 noon on such day. If the Exchange reduces cut-off times, however, they cannot set such cut-off times before the close of trading.

As noted above, several commenters raised concerns regarding the Exchange's ability to modify the cut-off times. The Commission believes that Amex addressed commenters concerns by requiring that advance notice be provided in the event that Amex modifies the cut-off times due to either modified trading hours or unusual circumstances. The Commission believes that the advance notice requirements should enable members to notify customers and non-customers of the modified cut-off times.

V. Conclusion

For the foregoing reasons, the Commission finds that the proposed rule change, as amended by Amendment Nos. 1, 2, 3 and 4, is consistent with the requirements of the Act and rules and regulations thereunder.

It is therefore ordered, Pursuant to section 19(b)(2) of the Act,[32] that the proposed rule change, as amended, (SR–Amex–2001–92) be, and it hereby is, approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[33]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 03–12942 Filed 5–22–03; 8:45 am]

BILLING CODE 8010–01–P

[29] As required above, members must use an electronic time stamp for non-customer exercise decisions. If a member does not employ an electronic time stamp procedure, then it must submit the CEAs and Advice Cancels of non-customer options holders within 1 hour and 28 minutes following the close of trading.

[30] For purposes of extending cut-off times, Amex defined ''unusual circumstances'' as including increased market volatility, significant order imbalances; significant volume surges and/or systems capacity constraints; significant spreads between the bid and offer in underlying securities; internal systems malfunctions affecting the ability to disseminate or update market quotes and/or deliver orders; or other similar occurrences.

[31] For purposes of reducing cut-off times, Amex defined ''unusual circumstances'' as including a significant news announcement concerning the underlying security of an options contract that is scheduled to be released just after the close of trading on the business day immediately prior to expiration.

[32] 15 U.S.C. 78s(b)(2).

[33] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–47883; File No. SR–NASD–2003–72]

Self-Regulatory Organizations; Notice of Filing of a Proposed Rule Change and Amendment No. 1 Thereto by the National Association of Securities Dealers, Inc. To Reduce the Non-Directed Order Maximum Response Time for Order-Delivery ECNs in Nasdaq's SuperMontage System

May 16, 2003.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and rule 19b–4 thereunder,[2] notice is hereby given that on April 14, 2003, the National Association of Securities Dealers, Inc. (''NASD''), through its subsidiary, The Nasdaq Stock Market, Inc. (''Nasdaq''), filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in items I, II, and III below, which items have been prepared by Nasdaq. On May 15, 2003, Nasdaq submitted Amendment No. 1 to the proposed rule change.[3] The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Nasdaq proposes to reduce, from 30 seconds to 7 seconds, the maximum time allowed for Nasdaq's National Market Execution System (''NNMS'') Order-Delivery Electronic Communications Networks (''Order-Delivery ECNs'') to respond to non-directed orders sent to them by Nasdaq's SuperMontage system (''SuperMontage''). Below is the text of the proposed rule change. Proposed new language is underlined; proposed deletions are in brackets.

* * * * *

4710. Participant Obligations in NNMS

(a) No Change.

(b) Non-Directed Orders.

(1) No Change.

(A) through (B) No Change.

(C) Decrementation Procedures—The size of a Quote/Order displayed in the Nasdaq Order Display Facility and/or the Nasdaq Quotation Montage will be decremented upon the delivery of a Liability Order or the delivery of an execution of a Non-Directed Order or Preferenced Order in an amount equal to the system-delivered order or execution.

(i) No Change.

(ii) If an NNMS Order-Delivery ECN declines or partially fills a Non-Directed Order without immediately transmitting to Nasdaq a revised Attributable Quote/Order that is at a price inferior to the previous price, or if an NNMS Order-Delivery ECN fails to respond in any manner within [30] *7* seconds of order delivery, the system will cancel the delivered order and send the order (or remaining portion thereof) back into the system for immediate delivery to the next Quoting Market Participant in queue. The system then will zero out the ECN's Quote/Orders at that price level on that side of the market, and the ECN's quote on that side of the market will remain at zero until the ECN transmits to Nasdaq a revised Attributable Quote/Order. If both the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* letter from Thomas P. Moran, Associate General Counsel, Nasdaq, to Katherine A. England, Assistant Director, Division of Market Regulation, Commission, dated May 15, 2003 (''Amendment No. 1''). Amendment No. 1: (1) Inserts a section I to Exhibit 1 of the filing that Nasdaq inadvertently excluded; and (2) clarifies in the purpose section of the proposal that Nasdaq believes that commenters concerns regarding prior SuperMontage system issues related to the delivery of orders to market participants are no longer valid.

bid and offer are zeroed out, the ECN will be placed into an excused withdrawal state until the ECN transmits to Nasdaq a revised Attributable Quote/Order.

(iii) through (iv) No Change.

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, Nasdaq included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in item IV below. Nasdaq has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Currently, NASD rules regarding Nasdaq's SuperMontage system allow NNMS Order-Delivery ECNs a maximum time period of 30 seconds to respond to non-directed orders sent to them by the system.[4] If an Order-Delivery ECN fails to respond within those 30 seconds, the delivered order is canceled by SuperMontage and forwarded to the next NNMS Quoting Market Participant in queue for execution. The ECN's quote at the price level on the side of the market to which the order was delivered is then reduced to zero.[5] In this filing, Nasdaq proposes to reduce that maximum response time from 30 seconds to 7 seconds. Other than the reduction in the response-time maximum, Nasdaq represents that non-directed orders that time-out in ECNs will continue to be processed (*e.g.*, canceled by SuperMontage and forwarded to the next party available for execution) in the same manner.

Nasdaq believes that the current 30-second response time is excessive, and can inappropriately delay the processing of orders.[6] According to Nasdaq, this is particularly the case given Nasdaq's recent analysis of ECN responsiveness, which indicates that the average response-time across all ECNs participating in SuperMontage is less than one quarter of a single second. Nasdaq believes that the 7-second maximum response time proposed here draws an appropriate balance between giving ECNs ample time to execute non-directed orders sent to them, and the need of other market participants to more swiftly retrieve and execute orders originally dispatched to non-responsive ECNs. Nasdaq will continue to monitor ECN responsiveness to delivered orders in SuperMontage and propose additional modification to response time parameters if warranted.

2. Statutory Basis

Nasdaq believes that the proposed rule change, as amended, is consistent with the provisions of section 15A of the Act[7] in general, and with section 15A(b)(6) of the Act[8] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to, and perfect the mechanism of, a free and open market and a national market system, and, in general, to protect investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

Nasdaq does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

A. By order approve such proposed rule change, or

B. Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change, as amended, is consistent with the Act. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549–0609. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the NASD.

All submissions should refer to File No. SR–NASD–2003–72 should be submitted by June 13, 2003.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[9]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 03–12939 Filed 5–22–03; 8:45 am]

BILLING CODE 8010–01–P

DEPARTMENT OF STATE

[Public Notice 4373]

Culturally Significant Objects Imported for Exhibition Determinations: ''Hendrick Goltzius, Dutch Master (1558–1617): Drawings, Prints and Paintings''

AGENCY: Department of State.

ACTION: Notice.

SUMMARY: Notice is hereby given of the following determinations: Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), Executive Order 12047 of March 27, 1978, the Foreign Affairs Reform and Restructuring Act of 1998 (112 Stat. 2681, *et seq.*; 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of

[4] *See* NASD rule 4710(b)(1)(C)(ii).

[5] The ECN's quote on that side of the market will remain at zero until the ECN transmits to Nasdaq a revised Attributable Quote/Order. If both the bid and offer are zeroed out, the ECN will be placed into an excused withdrawal state until the ECN transmits to Nasdaq a revised Attributable Quote/Order.

[6] Nasdaq notes that the 30-second time period contained in the current rule resulted, in part, because of concerns raised by commenters about past Nasdaq system issues related to the delivery of messages to market participants. Nasdaq believes that, based upon SuperMontage's performance to date, such concerns are no longer valid.

[7] 15 U.S.C. 78*o*–3.

[8] 15 U.S.C. 78*o*–3(6).

[9] 17 CFR 200.30–3(a)(12).

October 1, 1999, and Delegation of Authority No. 236 of October 19, 1999, as amended, I hereby determine that the objects to be included in the exhibition Hendrick Goltzius, Dutch Master (1558–1617): Drawings, Prints and Paintings,'' imported from abroad for temporary exhibition within the United States, are of cultural significance. The objects are imported pursuant to loan agreements with the foreign owners. I also determine that the exhibition or display of the exhibit objects at the Metropolitan Museum of Art, from on or about June 23, 2003 until on or about January 4, 2004, at the Toledo Museum of Art, in Ohio, from October 18, 2003 to January 4, 2004, and at possible additional venues yet to be determined, is in the national interest. Public Notice of these Determinations is ordered to be published in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: For further information, including a list of the exhibit objects, contact Orde F. Kittrie, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State, (telephone: 202/401–4779). The address is U.S. Department of State, SA–44, 301 4th Street, SW., Room 700, Washington, DC 20547-0001.

Dated: May 19, 2003.

C. Miller Crouch,

Principal Deputy Assistant Secretary for Educational and Cultural Affairs, Department of State.

[FR Doc. 03–13023 Filed 5–22–03; 8:45 am]

BILLING CODE 4710–08–P

DEPARTMENT OF STATE

[Notice Number 4281]

Shipping Coordinating Committee; Notice of Meeting

The Shipping Coordinating Committee (SHC) will conduct an open meeting at 9 a.m. on Tuesday, June 3, 2003, in Room 6319 of the United States Coast Guard Headquarters Building, 2100 2nd Street SW., Washington, DC 20593–0001. The primary purpose of the meeting is to prepare for the 46th Session of the International Maritime Organization (IMO) Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF 46) to be held at IMO Headquarters in London, England from September 8th to 12th 2003.

The primary matters to be considered include:

- Harmonization of damage stability provisions in SOLAS Chapter II–1;
- Large passenger ship safety;
- Review of the Intact Stability Code;
- Revision of the Fishing Vessel Safety Code and Voluntary Guidelines;
- Review of the Offshore Supply Vessel Guidelines;
- Harmonization of the damage stability provisions in other IMO instruments, including the 1993 Torremolinos Protocol (probabilistic method).

Members of the public may attend this meeting up to the seating capacity of the room. Interested persons may seek information by writing to Mr. Paul Cojeen, Commandant (G–MSE), U.S. Coast Guard Headquarters, 2100 Second Street SW., Room 1308, Washington, DC 20593–0001 or by calling (202) 267–2988.

Dated: May 19, 2003.

Frederick J. Kenney,

Executive Secretary, Shipping Coordinating Committee, Department of State.

[FR Doc. 03–13149 Filed 5–22–03; 8:45 am]

BILLING CODE 4710–07–P

DEPARTMENT OF STATE

[Public Notice 4370]

Bureau of Nonproliferation; Imposition of Nonproliferation Measures on an Entity in China, Including a Ban on U.S. Government Procurement

AGENCY: Bureau of Nonproliferation, Department of State.

ACTION: Notice.

SUMMARY: The U.S Government has determined that a foreign entity has engaged in missile technology proliferation activities that require the imposition of measures pursuant to Executive Order 12938 of November 14, 1994, as amended by Executive Order 13094 of July 28, 1998.

EFFECTIVE DATE: May 9, 2003.

FOR FURTHER INFORMATION CONTACT: On general issues: Vann H. Van Diepen, Office of Chemical, Biological, and Missile Nonproliferation, Bureau of Nonproliferation, Department of State, (202–647–1142). On import ban issues, Rachelle Stern, Director, Policy Planning and Program Management, Office of Foreign Assets Control, Department of the Treasury, (202–622–2500). On U.S. Government procurement ban issues: Gladys Gines, Office of the Procurement Executive, Department of State, (703–516–1691).

SUPPLEMENTARY INFORMATION: Pursuant to the authorities vested in the President by the Constitution and the laws of the United States of America, including the International Emergency Economic Powers Act (50 U.S.C. 1701 *et seq.*) (IEEPA), the National Emergencies Act (50 U.S.C. 1601 *et seq.*), the Arms Export Control Act (22 U.S.C. 2751 *et seq.*), and section 301 of title 3, United States Code, and Executive Order 12938 of November 14, 1994, as amended, the U.S. Government determined on May 9, 2003 that the following Chinese person has engaged in proliferation activities that require the imposition of measures pursuant to sections 4(b), 4(c), and 4(d) of Executive Order 12938: North China Industries Corporation (NORINCO)

Accordingly, pursuant to the provisions of Executive Order 12938, the following measures are imposed on this entity, its subunits, and successors for two years:

1. All departments and agencies of the United States Government shall not procure or enter into any contract for the procurement of any goods, technology, or services from these entities including the termination of existing contracts;

2. All departments and agencies of the United States government shall not provide any assistance to these entities, and shall not obligate further funds for such purposes;

3. The Secretary of the Treasury shall prohibit the importation into the United States of any goods, technology, or services produced or provided by these entities, other than information or informational materials within the meaning of section 203(b)(3) of International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

These measures shall be implemented by the responsible departments and agencies as provided in Executive Order 12938.

In addition, pursuant to §126.7(a)(1) of the International Traffic in Arms Regulations, it is deemed that suspending the above-named entity from participating in any activities subject to Section 38 of the Arms Export Control Act would be in furtherance of the national security and foreign policy of the United States.

Therefore, until further notice, the Department of State is hereby suspending all licenses and other approvals for:

(a) Exports and other transfers of defense articles and defense services from the United States; (b) transfers of U.S.-origin defense articles and defense services from foreign destinations; and (c) temporary import of defense articles to or from the above-named entity.

Moreover, it is the policy of the United States to deny licenses and other approvals for exports and temporary imports of defense articles and defense services destined for this entity.

Dated: May 16, 2003.

John S. Wolf,

Assistant Secretary of State for Nonproliferation, Department of State.

[FR Doc. 03–13021 Filed 5–22–03; 8:45 am]

BILLING CODE 4710–25–P

DEPARTMENT OF STATE

[Public Notice 4371]

Bureau of Nonproliferation; Imposition of Nonproliferation Measures on an Iranian Entity, Including a Ban on U.S. Government Procurement

AGENCY: Bureau of Nonproliferation, Department of State.

ACTION: Notice.

SUMMARY: The U.S Government has determined that a foreign entity has engaged in missile technology proliferation activities that require the imposition of measures pursuant to Executive Order 12938 of November 14, 1994, as amended by Executive Order 13094 of July 28, 1998.

EFFECTIVE DATE: May 9, 2003.

FOR FURTHER INFORMATION CONTACT: On general issues: Vann H. Van Diepen, Office of Chemical, Biological, and Missile Nonproliferation, Bureau of Nonproliferation, Department of State, (202–647–1142). On import ban issues, Rachelle Stern, Director, Policy Planning and Program Management, Office of Foreign Assets Control, Department of the Treasury, (202–622–2500). On U.S. Government procurement ban issues: Gladys Gines, Office of the Procurement Executive, Department of State, (703–516–1691).

SUPPLEMENTARY INFORMATION: Pursuant to the authorities vested in the President by the Constitution and the laws of the United States of America, including the International Emergency Economic Powers Act (50 U.S.C. 1701 *et seq.*) (IEEPA), the National Emergencies Act (50 U.S.C. 1601 *et seq.*), the Arms Export Control Act (22 U.S.C. 2751 *et seq.*), and section 301 of title 3, United States Code, and Executive Order 12938 of November 14, 1994, as amended, the U.S. Government determined on May 9, 2003 that the following Iranian person has engaged in proliferation activities that require the imposition of measures pursuant to sections 4(b), 4(c), and 4(d) of Executive Order 12938: Shahid Hemmat Industrial Group.

Accordingly, pursuant to the provisions of Executive Order 12938, the following measures are imposed on this entity, its subunits, and successors for two years:

1. All departments and agencies of the United States Government shall not procure or enter into any contract for the procurement of any goods, technology, or services from these entities including the termination of existing contracts;

2. All departments and agencies of the United States government shall not provide any assistance to these entities, and shall not obligate further funds for such purposes;

3. The Secretary of the Treasury shall prohibit the importation into the United States of any goods, technology, or services produced or provided by these entities, other than information or informational materials within the meaning of section 203(b)(3) of International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

These measures shall be implemented by the responsible departments and agencies as provided in Executive Order 12938.

In addition, pursuant to §126.7(a)(1) of the International Traffic in Arms Regulations, it is deemed that suspending the above-named entity from participating in any activities subject to Section 38 of the Arms Export Control Act would be in furtherance of the national security and foreign policy of the United States.

Therefore, until further notice, the Department of State is hereby suspending all licenses and other approvals for:

(a) Exports and other transfers of defense articles and defense services from the United States; (b) transfers of U.S.-origin defense articles and defense services from foreign destinations; and (c) temporary import of defense articles to or from the above-named entity.

Moreover, it is the policy of the United States to deny licenses and other approvals for exports and temporary imports of defense articles and defense services destined for this entity.

Dated: May 16, 2003.

John S. Wolf,

Assistant Secretary of State for Nonproliferation, Department of State.

[FR Doc. 03–13022 Filed 5–22–03; 8:45 am]

BILLING CODE 4710–25–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Proposed Revisions to Advisory Circular 25.1419–1, Certification of Transport Category Airplanes for Flight in Icing Conditions

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed advisory circular revision and request for comments.

SUMMARY: The Federal Aviation Administration invites comments concerning a proposed revision to Advisory Circular 25.1419–1, ''Certification of Transport Category Airplanes for Flight in Icing Conditions.'' The proposed revision provides revised guidance for certification of airframe ice detection and protection systems on transport category airplanes. This action provides interested persons an opportunity to comment on the proposed revision to the AC.

DATES: Send your comments on or before July 22, 2003.

ADDRESSES: You should send your comments on the proposed AC revision to the Federal Aviation Administration, Attention: Robert Jones, Propulsion/Mechanical Systems Branch, ANM–112, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Ave SW., Renton, WA 98055–4056. You may examine comments at this address between 7:30 a.m. and 4 p.m. weekdays, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Robert Jones at the above address, telephone (425) 227–1118, facsimile (425) 227–1320, or e-mail at: *robert.jones@faa.gov*.

SUPPLEMENTARY INFORMATION:

How Do I Submit Comments on the Advisory Circular Revision?

You are invited to comment on the proposed revision to AC 25.1419–1 by submitting written comments, data, or views. You should identify the title of the AC and submit comments in duplicate to the address specified above. The Transport Airplane Directorate will consider all comments received on or before the closing date for comments before issuing a revision to the AC. You may view the complete text of AC 25.1419–1 at the following Internet address: *http://www.airweb.faa.gov/rgl*. At the home page, click on ''Advisory Circulars,'' then at the next page, enter ''AC 25.1419–1'' in the ''Search'' box and press ''GO.''

Discussion

AC 25.1419–1, ''Certification of Transport Category Airplanes for Flight in Icing Conditions,'' dated August 18, 1999, provides guidance for certification of airframe ice detection and protection systems on transport category airplanes. Paragraph 3, Analyses, describes information that should be included in a certification plan submitted by the

applicant. Note 2 of that paragraph states:

An applicant may determine that protection is not required for one or more of these areas or components. If so, the applicant should include supporting data and rationale in the analyses for allowing those areas or components to go unprotected. The applicant should show that the lack of protection does not adversely affect the handling characteristics or performance of the airplane. If there is uncertainty about the effects of the lack of protection, the effects should be determined by flight test demonstration.

Several questions regarding the meaning of this note have been raised. Several applicants have erroneously thought this note allowed adequate analysis and testing to preclude the requirement for flight test demonstrations. However, 14 CFR 25.1419(b) at amendment level 25–72 requires flight testing in natural icing conditions as a means to verify the analyses required by paragraph (a) to check for icing anomalies, and to demonstrate that the ice protection system and its components are effective. Guidance material may not supersede the rule and, therefore, Note 2 does not preclude the need for flight testing in natural icing conditions.

As part of a new type certification program, flight in natural icing conditions is required to show compliance with § 25.1419(b). In addition to flight in natural icing conditions, additional wind tunnel, laboratory, and other flight tests may be required to verify the analyses required by § 25.1419(a). However, under some circumstances, flight test data acquired on a previous certification program may be found to be applicable to a new or modified airplane (such a derivative model). To use the previous flight test data, the applicant is required to provide supporting data and rationale that show:

a. The original flight test data is applicable (similarity)

b. The applicant possesses the flight test data

c. The new or modified configuration is safe for flight in icing conditions.

Because of the erroneous interpretations, the following clarification is provided.

Proposed Revision to AC 25.1419–1

Replace the existing Note 2, paragraph 3a, with the following:

Note 2: An applicant may determine that protection is not required for one or more of these areas or components. If so, the applicant should include supporting data and rationale in the analyses for allowing those areas or components to go unprotected. The applicant should show that the lack of protection does not adversely affect the handling characteristics or performance of the airplane. Section 25.1419(b) of part 25 at amendment level 25–72 requires certain flight testing. However, flight test data from previous certification programs may be used to show partial compliance with § 25.1419(b) if it can be shown that the data is applicable to the airplane in question. This would generally require a similarity analysis. If a similarity analysis is used, the guidelines of paragraph 3(f) of this AC are applicable. If there is uncertainty about the effects of the lack of protection, or the similarity analysis, the manufacturer should conduct flight test demonstrations.

Issued in Renton, Washington, on May 12, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–13049 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Intent To Rule on Application 03–05–C–00–LEB To Impose and Use the Revenue From a Passenger Facility Charge (PFC) at Lebanon Municipal Airport, Lebanon, NH

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Lebanon Municipal Airport under the provisions of the 49 U.S.C. 40117 and part 158 of the Federal Aviation Regulations (14 CFR part 158).

DATES: Comments must be received on or before June 23, 2003.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate to the FAA at the following address: Ms. Priscilla Scott, PFC Program Manager, Federal Aviation Administration, Airports Division, 12 New England Executive Park, Burlington, Massachusetts 01803.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to Timothy J. Edwards, Airport Manager of the Lebanon Municipal Airport at the following address: 5 Airpark Road, West Lebanon, New Hampshire 03784.

Air carriers and foreign air carriers may submit copies of written comments previously provided to the City of Lebanon under section 158.23 of part 158.

FOR FURTHER INFORMATION CONTACT: Priscilla Scott, PFC Program Manager, Federal Aviation Administration, Airports Division, 12 New England Executive Park, Burlington, Massachusetts 01803, (781) 238–7614. The application may be reviewed in person at 16 New England Executive Park, Burlington, Massachusetts.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Lebanon Municipal Airport under the provisions of the 49 U.S.C. 40117 and Part 158 of the Federal Aviation Regulations (14 CFR part 158).

On May 12, 2003, the FAA determined that the application to impose and use the revenue from a PFC submitted by City of Lebanon was substantially complete within the requirements of section 158.25 of part 158. The FAA will approve or disapprove the application, in whole or in part, no later than August 12, 2003.

The following is a brief overview of the application.

Proposed charge effective date: October 1, 2003.

Proposed charge expiration date: April 1, 2006.

Level of the proposed PFC: $4.50.

Total estimated PFC revenue: $63,774.

Brief description of proposed project(s):

Purchase Snow Removal Equipment (Loader)
Hazard Beacon Winch Acquisition
Security System Upgrade
Environmental Assessment
Purchase Snow Removal Equipment (Plow Truck)
Airport Terminal Building Renovations
PFC Administration

Class or classes or air carriers, which the public agency has requested, not be required to collect PFCs: ATCO—Nonscheduled/On-Demand Air Carriers.

Any person may inspect the application in person at the FAA office listed above under **FOR FURTHER INFORMATION CONTACT.**

In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at the City of Lebanon, Lebanon Municipal Airport.

Issued in Burlington, Massachusetts on May 13, 2003.

Vincent A. Scarano,

Manager, Airports Division, New England Region.

[FR Doc. 03–13050 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Intent To Rule on Application To Use the Revenue From a Passenger Facility Charge (PFC) at San Antonio International Airport, San Antonio, TX

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to use the revenue from a PFC at San Antonio International Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (Title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

DATES: Comments must be received on or before June 23, 2003.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate copies to the FAA at the following address: Mr. G. Thomas Wade, Federal Aviation Administration, Southwest Region, Airports Division, Planning and Programming Branch, ASW–611, Fort Worth, Texas 76193–0610.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to Mr. Kevin Dolliole, Manager of San Antonio International Airport at the following address: Mr. Kevin Dolliole, Director of Aviation, San Antonio International Airport, 9800 Airport Boulevard, San Antonio, TX 78216–9990.

Air carriers and foreign air carriers may submit copies of the written comments previously provided to the Airport under section 158.23 of part 158.

FOR FURTHER INFORMATION CONTACT: Mr. G. Thomas Wade, Federal Aviation Administration, Southwest Region, Airports Division, Planning and Programming Branch, ASW–611, Fort Worth, Texas 76193–0610, (817) 222–5613.

The application may be reviewed in person at this same location.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to use the revenue from a PFC at San Antonio International Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (Title IX of the Omnibus Budget Reconciliation Act of 1990) (Public Law 101–508) and part 158 of the Federal Aviation Regulations (14 CFR part 158).

On May 14, 2003, the FAA determined that the application to impose and use the revenue from a PFC submitted by the Airport was substantially complete within the requirements of section 158.25 of part 158. The FAA will approve or disapprove the application, in whole or in part, no later than September 2, 2003.

The following is a brief overview of the application.

Level of the proposed PFC: N/A.

Proposed charge effective date: N/A.

Proposed charge expiration date: N/A.

Total estimated PFC revenue: $49,579,422.

PFC application number: 03–02–U–00–SAT.

Brief description of proposed project(s):

Projects To Use PFC's

1.10 Construct Concourse B
1.12 Construct Concourse B Elevated Roadway

Proposed class or classes of air carriers to be exempted from collecting PFC's: N/A.

Any person may inspect the application in person at the FAA office listed above under **FOR FURTHER INFORMATION CONTACT** and the FAA regional Airports office located at: Federal Aviation Administration, Southwest Region, Airports Division, Planning and Programming Branch, ASW–610, 2601 Meacham Blvd., Fort Worth, Texas 76137–4298.

In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at San Antonio International Airport.

Issued in Forth Worth, Texas on May 14, 2003.

Naomi L. Saunders,

Manager, Airports Division.

[FR Doc. 03–13048 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–13–M

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15218]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel ARC TIME.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15218 at *http://dms.dot.gov.* Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15218. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/.* All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., E.T., Monday through Friday, except Federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel ARC TIME is:

Intended Use: ''Sportfishing for 12 plus crew.''

Geographic Region: ''Matagorda County, Palacios Bay, Gulf of Mexico within 110 miles from Houston and Corpus Christi.''

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13015 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–P

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15215]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel INTERNATIONAL HARVESTER.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15215 at *http://dms.dot.gov.* Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15215. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/.* All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., E.T., Monday through Friday, except Federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel INTERNATIONAL HARVESTER is:

Intended Use: ''Passengers for hire.''

Geographic Region: ''Massachusetts Bay.''

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13014 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–P

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15221]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel ISLAND TIME.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15221 at *http://dms.dot.gov.* Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15221. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/.* All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., E.T., Monday through Friday, except Federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel ISLAND TIME is:

Intended Use: ''Hourly to extended overnight charters and outings.''

Geographic Region: ''Florida and Georgia Coastwise.''

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13016 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–P

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15220]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel KEY PLAYER.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime

Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15220 at *http://dms.dot.gov.* Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15220. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/.* All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., e.t., Monday through Friday, except federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel KEY PLAYER is:

Intended Use: ''New Jersey to Florida. One example season may be:

a. June–September: Daytrips (maximum one per week) for 6 passengers or less to view and instruct sail racing rules and tactics at weekly BBYRA sailboat races on Sundays on Barnegat Bay NJ. Occasional sightseeing trips to points of interest along ICW.

b. October & May: Occasional (highly unlikely, but possible) sightseeing trips for 6 passengers or less to view points of interest along the East Coast ICW.

c. November—April: Possible occasional (once or twice per month) ''picnic'' daytrips in and about Florida Bay.''

Geographic Region: ''New Jersey to Florida. One example season may be:

a. June–September: NJ ICW, primarily Toms River and Barnegat Bay, NJ.

b. October & May: Various points between Long Island Sound and Florida Keys, as we bring the boat slowly south in October and north in May.

c. November–April: SW Florida, mostly between Charlotte Harbor and the Keys.''

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13020 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–M

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15219]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel LA LUNA.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15219 at *http://dms.dot.gov.* Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15219. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/.* All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., e.t., Monday through Friday, except federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel LA LUNA is:

Intended Use: ''Charter.''

Geographic Region: '' Northern California: primarily San Pablo Bay and the Delta and San Francisco Bay.''

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13018 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–P

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15216]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel SURPRISE.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime

Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15216 at *http://dms.dot.gov*. Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15216. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/*. All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., e.t., Monday through Friday, except federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel SURPRISE is:

Intended Use: ''6 passenger sightseeing cruises.''

Geographic Region of Intended Operation and Trade: ''Chicago, IL and Lake Michigan.''

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13019 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–P

MARITIME ADMINISTRATION

[Docket Number: MARAD 2003–15214]

Requested Administrative Waiver of the Coastwise Trade Laws

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Invitation for public comments on a requested administrative waiver of the Coastwise Trade Laws for the vessel YES DEAR! II.

SUMMARY: As authorized by Public Law 105–383 and Public Law 107–295, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below. The complete application is given in DOT docket 2003–15214 at *http://dms.dot.gov*. Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with Public Law 105–383 and MARAD's regulations at 46 CFR part 388 (68 FR 23084; April 30, 2003), that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter's interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD's regulations at 46 CFR part 388.

DATES: Submit comments on or before June 23, 2003.

ADDRESSES: Comments should refer to docket number MARAD–2003–15214. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. DOT Dockets, Room PL–401, Department of Transportation, 400 7th St., SW., Washington, DC 20590–0001. You may also send comments electronically via the Internet at *http://dmses.dot.gov/submit/*. All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., E.T., Monday through Friday, except federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Michael Hokana, U.S. Department of Transportation, Maritime Administration, MAR–830 Room 7201, 400 Seventh Street, SW., Washington, DC 20590. Telephone 202–366–0760.

SUPPLEMENTARY INFORMATION: As described by the applicant the intended service of the vessel YES DEAR! II is:

Intended Use: ''cruises for celebrations, birthdays, weddings, parties, fishing or memorial services''.

Geographic Region: ''South Florida Coastal & Intercoastal waters''.

Dated: May 20, 2003.

By order of the Maritime Administrator.

Joel C. Richard,

Secretary, Maritime Administration.

[FR Doc. 03–13017 Filed 5–22–03; 8:45 am]

BILLING CODE 4910–81–P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Ex Parte No. 590]

Exemption for Railroad Agent Designation Under 49 U.S.C. 723

AGENCY: Surface Transportation Board, DOT.

ACTION: Policy statement on procedure; withdrawal of proposed exemption.

SUMMARY: The Surface Transportation Board (Board) is withdrawing a proposal to exempt rail carriers from the requirement that they designate agents in the District of Columbia on whom the Board may serve decisions and notices in proceedings. The Board is announcing instead a policy change concerning administrative procedure. The Board will no longer serve decisions and notices on designated agents but will continue to make Board decisions and notices available through alternative methods consistent with the statute.

DATES: This change of policy concerning procedure and the withdrawal of the proposed exemption will be effective June 22, 2003.

FOR FURTHER INFORMATION CONTACT: John Sado, (202) 565–1661. (Federal Information Relay Service (FIRS) for the hearing impaired: 1–800–877–8339.)

SUPPLEMENTARY INFORMATION: In a notice of proposed exemption served

September 26, 2002, and published in the **Federal Register** on September 27, 2002 (67 FR 61186) (September notice), we proposed to exempt rail carriers providing transportation subject to the Board's jurisdiction from the requirement of 49 U.S.C. 723(a), to designate an agent in the District of Columbia on whom service of notices and actions of the Board may be made.[1] In proposing the exemption, we indicated that designation of, and service on, agents was unnecessary. Such an exemption, we submitted, ''would end a duplicative method of giving notice with resulting cost reduction and efficiency benefits to rail carriers and the Board.'' September notice at 4.

The September notice delineated the various methods available for rail carriers to obtain notice of Board actions. We indicated that the Board currently issues the majority of its decisions and/or notices as ''regular releases'' at 10:30 a.m. and the others, on occasion, as ''late releases'' at other times later in the day. For regular release, at 10:30 a.m. the official copies of all Board decisions or notices are placed in the Board's seventh floor Docket File Reading Room (Room 755), where they can be read or photocopied for a fee.[2] Where a rail carrier has a designated agent, a messenger is contacted at about 10:30 a.m. to retrieve a copy of the decision or notice to deliver to a designated agent, and the railroad is billed for the messenger's cost. If the railroad does not have a designated agent, a copy of the decision is placed on the Board's first floor bulletin board, located in Suite 100. A copy of the decision is also mailed at about 4:30 p.m. by first class mail to all parties of record in the proceeding. Finally, the decision is put on the Board's Internet Web site (*http://www.stb.dot.gov*), usually between 10:30 a.m. and 11:30 a.m.[3]

For late releases, as in regular releases, the official copy of the Board decision or notice is placed in the Board's Docket File Reading Room. Copies of all late releases are also placed on the Board's first floor bulletin board, whether or not the carrier has a designated agent. Depending on how late in the day the late release occurs, the decision or notice is mailed, a messenger called, and the decision or notice is placed on the Board's Internet Web site either on the same day or the next.[4]

In the September notice, we indicated our belief that not serving designated agents was consistent with the statutory scheme. While mandating the designation of agents and the service of decisions and notices, section 723 does not make service on agents the exclusive method of service:

> Service on the designated agent appears to be an option and not a requirement. As indicated, section 723(c) states that a Board action ''shall be served on the agent or in another manner provided by law,'' and section 723(a) indicates that a carrier is required to designate an agent ''on whom service * * * *may* be made.'' (Emphasis supplied.) While service is required, serving an agent appears to be only one of the permissible ways of effecting service.

September notice at 4 n.7.

In response to our proposal, we received only one comment, filed by John D. Fitzgerald, for and on behalf of the United Transportation Union-General Committee of Adjustment. (UTU–GCA). UTU–GCA argues that the designation of an agent is not exclusively concerned with the service of a decision or notice on the agent. It claims that many new carriers have been formed in the recent past, and designating agents would facilitate obtaining information about these smaller entities. Moreover, UTU–GCA submits that because, under 49 CFR 1111.3, private parties, and not the Board, serve complaints, eliminating the designated agent would make it more difficult to identify the appropriate individual to serve.

UTU–GCA's concern is focused on the issue of the designation of, and not service on, agents. It argues that concern about the cost of effecting service is misplaced, because there are alternative means of service available under the statute. UTU–GCA also submits that exempting the designation of agents would bring no cost savings because, under 49 U.S.C. 724, rail carriers still have to designate agents ''on whom service of process in an action before a district court may be made.''

UTU–GCA also asserts that the Board does not have the authority under 49 U.S.C. 10502 to grant an exemption from the requirements of section 723, which is in Subtitle I of Title 49, because, it contends, section 10502 applies only to Subtitle IV, Part A of Title 49. In any event, UTU–GCA claims that the exemption criteria of section 10502 are not met because there would be no savings as a result of the proposal, regulation would become more onerous because of the difficulties in serving carriers, and the proposal would adversely affect shippers and railroad employees in having to locate carriers.

Discussion and Conclusions

We will withdraw the proposed exemption in light of the UTU–GCA's comments, but we will proceed with adoption of alternative methods of providing for service and notice instead of effecting service on designated agents. Under the statutory scheme of section 723, while designating an agent and serving a notice or decision are mandatory (section 723(a)),[5] serving the notice or decision on a designated agent is not (section 723(c)). A decision or notice must be immediately served on an agent or in another manner provided by law. *Id.* As UTU–GCA notes, '' 'designation' and 'service' are not inextricably intertwined.'' UTU–GCA petition at 5. On the record there is opposition to exempting rail carriers from the section 723(a) requirement of designating agents, but no one has objected to our proposal to discontinue the practice of serving designated agents under section 723(c). As noted, UTU–GCA was the only party to file comments, and, while it opposed

[1] The statute also provides that the Board ''shall'' serve notices of proceedings and actions ''immediately on the agent *or in another manner provided by law.*'' 49 U.S.C. 723(c). (Emphasis supplied.) In the absence of a designated agent, the Board can effect service by posting the notice in the Board's office. In proceedings concerning the lawfulness of a rail carrier's rates, practices, or classifications, where there is no designated agent the statute provides that ''service of notice * * * on an attorney in fact for the carrier constitutes service of notice on the carrier.'' 49 U.S.C. 723(d).

[2] Our practice of placing all notices and decisions in our Docket File Reading Room goes beyond the requirements of maintaining a ''reading room'' in conformity with the Freedom of Information Act (FOIA), 5 U.S.C. 552, which must contain final decisions in adjudications; statements of policy and interpretation not published in the **Federal Register**; administrative staff manuals; and records released pursuant to a request under FOIA that have become or are likely to become the subject of a subsequent request. *See* 49 CFR 1001.1(b). Our Docket File Reading Room makes these reading room documents available—including all decisions and notices in adjudications—and also rulemakings, which are not required to be made available in this way.

[3] The Board maintains an Electronic Reading Room at this website, pursuant to the Electronic Freedom of Information Act of 1996, Pub. L. No. 104–231, 110 Stat. 3049 (1996) (EFOIA), containing documents found in the reading room, including final decisions issued on or after November 1, 1996. *See* 49 CFR 1001.1(d). As in the case of FOIA, *supra,* the Board, however, goes beyond the requirements of EFOIA and makes documents available in rulemakings as well as adjudications.

[4] The Board also issues an index of its decisions called the ''Surface Transportation Board Daily Releases'' (Daily Release), which is placed both in the seventh floor Docket File Reading Room and on the Board's first floor bulletin board. Each Daily Release index sheet lists all of the decisional documents issued by the Board as of 10:30 a.m. on that day. Late release documents are listed in the Daily Release for the next business day.

[5] In reviewing our list of designated agents, it appears that some of the information is out of date and that a number of carriers have not designated agents. We request that the carriers provide the necessary information.

exempting the designation of agents, its comments appear to support using alternative methods of service under section 723: ''[T]here [are] no major expenses for the Board in effecting service under § 723 for, as the [September notice] acknowledges, a Board action ''shall be served immediately on the agent or *in another manner provided by law.*'' UTU–GCA petition at 5 (emphasis in original) (citation omitted).[6]

Because there may be potential informational benefits from the designation of agents, particularly in the light of the increase in the number of small carriers, we will not exempt rail carriers from the requirement that they designate agents.[7] While our September notice proposed that carriers be exempted from designating agents, our notice was also directed to the serving of the decisions on agents: We indicated that not serving agents would result in cost reductions and efficiency benefits for rail carriers and the Board, that service on agents was not a requirement because alternative methods of service were permitted; and the Board was in fact making decisions and notices available through first class mail, our Docket File Reading Room, our Internet Web site, and, for late releases and where no agent is designated, our first floor bulletin board.

We find that the grounds for not serving decisions and notices on agents are still valid. Moreover, no one has objected to not serving agents, and the only filed comment appears to support this. Accordingly, we are announcing a change in policy and will no longer serve decisions and notices on designated agents but will rely on the alternative methods of service and notice. We believe that making decisions and notices available in this manner is consistent with the requirement of section 723(c) that, as an alternative to service on designated agents, service may be made ''in another manner provided by law.''

The statute does not explicitly define what ''in another manner provided by law'' means. It does, however, list alternative methods of service where no agent is designated: Posting a notice in the Board office (section 723(c)) and service on a carrier's attorney in cases involving rate lawfulness (section 723(d)). We note that, consistent with these, the Board posts notices for all late releases, as well as cases where no agent is designated, and all decisions are mailed by first class mail to all parties of record. Moreover, Rule 5(b)(2)(B) of the Federal Rules of Civil Procedure (FRCP) provides that service of court orders may be made by ''[m]ailing a copy to the last known address of the person served.''[8] We also make official copies of all Board decisions and notices available in the Docket File Reading Room, which goes beyond the requirements of FOIA (5 U.S.C. 552). We also make these decisions and notices available on our Internet Web site, which also exceeds the requirements of EFOIA (5 U.S.C. 552(a)(2)(E)). As noted in our September notice, the availability of decisions and notices on the Internet usually provides faster notice than messenger delivery to designated agents.[9] We believe that these alternative methods of service and notice are consistent with the requirement under section 723(c) that, if service is not immediately made on a designated agent, it be made in another lawful manner.

This action will not significantly affect either the quality of the human environment or the conservation of energy resources.

Decided: May 15, 2003.

By the Board, Chairman Nober and Commissioner Morgan.

Vernon A. Williams,

Secretary.

[FR Doc. 03–12861 Filed 5–22–03; 8:45 am]

BILLING CODE 4915–00–P

[6] We agree with UTU–GCA that there is no ''inextricable'' linkage between designation and service, because, while designation is mandatory, the statute does not require service on agents if an alternative service method is effected. Our September notice described why we believed that that result would have been consistent with the statute.

[7] Because we believe that retention of designated agents would serve a useful purpose, we will withdraw the proposed exemption without deciding the issue of whether a provision of Subtitle I of Title 49 can be exempted under 49 U.S.C. 10502.

[8] The FRCP were issued in original form through joint action of Congress and the United States Supreme Court. *Sears, Roebuck & Co.* v. *Mackey,* 351 U.S. 427, 433 (1956). ''[T]he Federal Rules of Civil Procedure, like any other statute, should be given their plain meaning.'' *Berckeley Inv. Group, LTD.* v. *Colkitt,* 259 F.3d 135, 143 n.7 (3rd Cir. 2001) (citations omitted).

[9] Section 723(c) provides that, when service is made on a designated agent, it shall be done ''immediately.'' In many cases, the decision or notice is available on our Web site before the agent receives it.

DEPARTMENT OF THE TREASURY

Delegation of Authority to the Secretary of Homeland Security

AGENCY: Departmental Offices, Treasury.

ACTION: Notice.

DATES: Treasury Department Order 100–16 became effective on May 15, 2003.

SUMMARY: On May 15, 2003, the Secretary of the Treasury issued Treasury Department Order 100–16. The Order allocates authorities between Treasury and Homeland Security concerning Customs regulations, rulings, and other matters. It delegates to the Secretary of Homeland Security general authority over Customs revenue functions vested in the Secretary of the Treasury pursuant to the Homeland Security Act of 2002, subject to certain exceptions. Under the Order, the Secretary of the Treasury retains the final authority over regulations concerning specified Customs revenue functions, and the authority to review, modify, or revoke specified determinations or rulings. The Order also specifies that the Advisory Committee on the Commercial Operations of Customs (COAC) will be administered jointly by the Departments of Treasury and Homeland Security. The Order rescinds and supplants Treasury Department Order 165–09 (February 28, 2003), which delegated to the Department of Homeland Security authority to perform specified Customs revenue functions pending the issuance of this Order.

SUPPLEMENTARY INFORMATION: The text of Treasury Department Order 100–16 is printed below.

Dated: May 19, 2003.

Richard S. Carro,

Senior Advisor to the General Counsel, (Regulatory Affairs).

Treasury Department Order No. 100–16

Delegation from the Secretary of the Treasury to the Secretary of Homeland Security of general authority over Customs revenue functions vested in the Secretary of the Treasury as set forth in the Homeland Security Act of 2002.

Treasury Department

Washington, DC.
May 15, 2003.

By virtue of the authority vested in me as the Secretary of the Treasury, including the authority vested by 31 U.S.C. 321(b) and section 412 of the Homeland Security Act of 2002 (Pub. L. 107–296) (Act), it is hereby ordered:

1. Consistent with the transfer of the functions, personnel, assets, and liabilities of the United States Customs Service to the Department of Homeland Security as set forth in section 403(l) of the Act, there is hereby delegated to the Secretary of Homeland Security the authority related to the Customs revenue functions vested in the Secretary of the Treasury as set forth in sections 412 and 415 of the Act, subject to the following exceptions and to paragraph 6 of this Delegation of Authority:

(a)(i) The Secretary of the Treasury retains the sole authority to approve any regulations concerning import quotas or trade bans, user

fees, marking, labeling, copyright and trademark enforcement, and the completion of entry or substance of entry summary including duty assessment and collection, classification, valuation, application of the U.S. Harmonized Tariff Schedules, eligibility or requirements for preferential trade programs, and the establishment of recordkeeping requirements relating thereto. The Secretary of Homeland Security shall provide a copy of all regulations so approved to the Chairman and Ranking Member of the Committee on Ways and Means and the Chairman and Ranking Member of the Committee on Finance every six months.

(ii) The Secretary of the Treasury shall retain the authority to review, modify, or revoke any determination or ruling that falls within the criteria set forth in paragraph 1(a)(i), and that is under consideration pursuant to the procedures set forth in sections 516 and 625(c) of the Tariff Act of 1930, as amended (19 U.S.C. 1516 and 1625(c)). The Secretary of Homeland Security periodically shall identify and describe for the Secretary of the Treasury such determinations and rulings that are under consideration under sections 516 and 625(c) of the Tariff Act of 1930, as amended, in an appropriate and timely manner, with consultation as necessary, prior to the Secretary of Homeland Security's exercise of such authority. The Secretary of Homeland Security shall provide a copy of these identifications and descriptions so made to the Chairman and Ranking Member of the Committee on Ways and Means and the Chairman and Ranking Member of the Committee on Finance every six months. The Secretary of the Treasury shall list any case where Treasury modified or revoked such a determination or ruling.

(b) Paragraph 1(a) notwithstanding, if the Secretary of Homeland Security finds an overriding, immediate, and extraordinary security threat to public health and safety, the Secretary of Homeland Security may take action described in paragraph 1(a) without the prior approval of the Secretary of the Treasury. However, immediately after taking any such action, the Secretary of Homeland Security shall certify in writing to the Secretary of the Treasury and to the Chairman and Ranking Member of the Committee on Ways and Means and the Chairman and Ranking Member of the Committee on Finance the specific reasons therefor. The action shall terminate within 14 days or as long as the overriding, immediate, and extraordinary security threat exists, whichever is shorter, unless the Secretary of the Treasury approves the continued action and provides notice of such approval to the Secretary of Homeland Security.

(c) The Advisory Committee on Commercial Operations of the Customs Service (COAC) shall be jointly appointed by the Secretary of the Treasury and the Secretary of Homeland Security. Meetings of COAC shall be presided over jointly by the Secretary of the Treasury and the Secretary of Homeland Security. The COAC shall advise the Secretary of the Treasury and the Secretary of Homeland Security jointly.

2. Any references in this Delegation of Authority to the Secretary of the Treasury or the Secretary of Homeland Security are deemed to include their respective delegees, if any.

3. This Delegation of Authority is not intended to create or confer any right, privilege, or benefit on any private person, including any person in litigation with the United States.

4. Treasury Order No. 165–09, ''Maintenance of delegation in respect to general authority over Customs Revenue functions vested in the Secretary of the Treasury, as set forth and defined in the Homeland Security Act of 2002,'' dated February 28, 2003, is rescinded. To the extent this Delegation of Authority requires any revocation of any other prior Order or Directive of the Secretary of the Treasury, such prior Order or Directive is hereby revoked.

5. This Delegation of Authority is effective May 15, 2003. This Delegation is subject to review on May 14, 2004. By March 15, 2004, the Secretary of the Treasury and the Secretary of Homeland Security shall consult with the Chairman and Ranking Member of the Committee on Ways and Means and the Chairman and Ranking Member of the Committee on Finance to discuss the upcoming review of this Delegation.

6. The Secretary of the Treasury reserves the right to rescind or modify this Delegation of Authority, promulgate regulations, or exercise authority at any time based upon the statutory authority reserved to the Secretary by the Act.

John W. Snow,
Secretary of the Treasury.

[FR Doc. 03–13152 Filed 5–22–03; 8:45 am]

BILLING CODE 4810–25–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Open Meeting of the Area 7 Taxpayer Advocacy Panel (Including the State of California)

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice.

SUMMARY: An open meeting of the Area 7 Taxpayer Advocacy Panel will be conducted (via teleconference).

DATES: The meeting will be held Monday, June 16, 2003.

FOR FURTHER INFORMATION CONTACT: Mary Peterson O'Brien at 1–888–912–1227, or 206–220–6098.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to Section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. App. (1988) that an open meeting of the Area 7 Taxpayer Advocacy Panel will be held Monday, June 16th, 2003 from 8:00 a.m. Pacific Time to 9:00 a.m. Pacific Time via a telephone conference call. The public is invited to make oral comments. Individual comments will be limited to 5 minutes. If you would like to have the TAP consider a written statement, please call 1–888–912–1227 or 206–220–6098, or write to Mary Peterson O'Brien, TAP Office, 915 2nd Avenue, MS W–406, Seattle, WA 98174. Due to limited conference lines, notification of intent to participate in the telephone conference call meeting must be made with Mary Peterson O'Brien. Ms. O'Brien can be reached at 1–888–912–1227 or 206–220–6098.

The agenda will include the following: Various IRS issues.

Note: Last minute changes to the agenda are possible and could prevent effective advance notice.

Dated: May 16, 2003.

Tersheia Carter,

Acting Director, Taxpayer Advocacy Panel.

[FR Doc. 03–13051 Filed 5–22–03; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Office of Thrift Supervision

[AC–1: OTS Nos. H–3959 and 04705]

Community First Bancorp, Inc. and Community First Bank, Madisonville, KY; Approval of Conversion Application

Notice is hereby given that on May 14, 2003, the Director, Supervision Policy, Office of Thrift Supervision (OTS), or her designee, acting pursuant to delegated authority, approved the application of Community First Bank, Madisonville, Kentucky, to convert to the stock form of organization. Copies of the application are available for inspection by appointment (phone number: 202–906–5922 or e-mail: *Public.Info@OTS.Treas.gov*) at the Public Reading Room, 1700 G Street, NW., Washington, DC 20552, and the OTS Southeast Regional Office, 1475 Peachtree Street, NE., Atlanta, GA 30309.

Dated: May 19, 2003.

By the Office of Thrift Supervision.

Nadine Y. Washington,

Corporate Secretary.

[FR Doc. 03–12901 Filed 5–22–03; 8:45 am]

BILLING CODE 6720–01–M

DEPARTMENT OF THE TREASURY

Office of Thrift Supervision

[AC–2: OTS Nos. H–2250 and 06817]

Jefferson Bancshares, MHC and Jefferson Federal Savings and Loan Association of Morristown, Morristown, TN; Approval of Conversion Application

Notice is hereby given that on May 14, 2003, the Director, Supervision Policy, Office of Thrift Supervision (OTS), or her designee, acting pursuant to delegated authority, approved the application of Jefferson Bancshares, MHC and Jefferson Federal Savings and Loan Association of Morristown, both in Morristown, Tennessee, to convert to the stock form of organization. Copies of the application are available for inspection by appointment (phone number: 202–906–5922 or e-mail: *Public.Info@OTS.Treas.gov*) at the Public Reading Room, OTS, 1700 G Street, NW., Washington, DC 20552, and the OTS Midwest Regional Office, 225 E. John Carpenter Freeway, Suite 500, Irving, Texas 75062–2326.

Dated: May 19, 2003.

By the Office of Thrift Supervision.

Nadine Y. Washington,

Corporate Secretary.

[FR Doc. 03–12902 Filed 5–22–03; 8:45 am]

BILLING CODE 6720–01–M

Corrections

Federal Register

Vol. 68, No. 100

Friday, May 23, 2003

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

[Docket No. 030509121–3121–01]

Addition of Persons to Unverified List—Guidance as to ''Red Flags'' Under Supplement No. 3 to 15 CFR Part 732

Correction

In notice document 03–12266 beginning on page 26569 in the issue of Friday, May 16, 2003, make the following corrections:

1. On page 26570, in the second column, after the first full paragraph, in the fifth line, ''Peluag'' should read ''Peluang''.

2. On the same page, in the same column, in the last paragraph, in the third line, ''Pelaug'' should read ''Peluang''.

[FR Doc. C3–12266 Filed 5–22–03; 8:45 am]

BILLING CODE 1505–01–D

Federal Register

Friday,
May 23, 2003

Part II

Environmental Protection Agency

40 CFR Parts 69, 80, 89, et al.
Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 69, 80, 89, 1039, 1065, and 1068

[AMS–FRL–7485–8]

RIN 2060–AK27

Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed rulemaking.

SUMMARY: Nonroad diesel engines contribute considerably to our nation's air pollution. These engines, used primarily in construction, agricultural, and industrial applications, are projected to continue to contribute large amounts of particulate matter (PM), nitrogen oxides (NO_X), and sulfur oxides (SO_X), all of which contribute to serious public health problems in the United States. These problems include premature mortality, aggravation of respiratory and cardiovascular disease, aggravation of existing asthma, acute respiratory symptoms, chronic bronchitis, and decreased lung function. We believe that diesel exhaust is likely to be carcinogenic to humans by inhalation.

Today EPA is proposing new emission standards for nonroad diesel engines and sulfur reductions in nonroad diesel fuel that will dramatically reduce emissions attributed to nonroad diesel engines. This comprehensive national program will regulate nonroad diesel engines and diesel fuel as a system. New engine standards will begin to take effect in the 2008 model year. These standards are based on the use of advanced exhaust emission control devices. We estimate PM reductions of 95%, NO_X reductions of 90%, and the virtual elimination of sulfur oxides (SO_X) from nonroad engines meeting the new standards. Nonroad diesel fuel sulfur reductions of up to 99% from existing levels will provide significant health benefits as well as facilitate the introduction of high-efficiency catalytic exhaust emission control devices as these devices are damaged by sulfur. These fuel controls would begin in mid-2007. Today's nonroad proposal is largely based on EPA's 2007 highway diesel program.

To better ensure the benefits of the standards are realized in-use and throughout the useful life of these engines, we are also proposing new test procedures, including not-to-exceed requirements, and related certification requirements. The proposal also includes provisions to facilitate the transition to the new engine and fuel standards and to encourage the early introduction of clean technologies and clean nonroad diesel fuel. We have also developed provisions for both the proposed engine and fuel programs designed to address small business considerations.

The requirements in this proposal would result in substantial benefits to public health and welfare and the environment through significant reductions in emissions of NO_X and PM, as well as nonmethane hydrocarbons (NMHC), carbon monoxide (CO), sulfur oxides (SO_X) and air toxics. We project that by 2030, this program would reduce annual emissions of NO_X, and PM by 827,000 and 127,000 tons, respectively. These emission reductions would prevent 9,600 premature deaths, over 8,300 hospitalizations, and almost a million work days lost, and other quantifiable benefits every year. All told the benefits of this rule would be approximately $81 billion annually by 2030. Costs for both the engine and fuel requirements would be many times less, at approximately $1.5 billion annually.

DATES: Comments: Send written comments on this proposal by August 20, 2003. *See* section IX for more information about written comments.

Hearings: We will hold public hearings on the following dates: June 10, 2003; June 12, 2003; and June 17, 2003. Each hearing will start at 9 a.m. local time. If you want to testify at a hearing, notify the contact person listed below at least 10 days before the hearing. *See* section IX for more information about public hearings.

ADDRESSES: Comments: Comments may be submitted by mail to: Air Docket, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. A–2001–28.

Comments may also be submitted electronically, by facsimile, or through hand delivery/courier. Follow the detailed instructions as provided in section IX of the **SUPPLEMENTARY INFORMATION** section.

Hearings: We will hold public hearings at the following three locations:

New York, New York, Park Central New York, 870 Seventh Avenue at 56th Street, New York, NY 10019, Telephone: (212) 247–8000, Fax: (212) 541–8506.	June 10, 2003
Chicago, Illinois, Hyatt Regency O'Hare, 9300 W. Bryn Mawr Avenue, Rosemont, IL 60018, Telephone: (847) 696–1234, Fax: (847) 698–0139.	June 12, 2003.
Los Angeles. California, Hyatt Regency Los Angeles, 711 South Hope Street, Los Angeles, California, USA. 90017, Telephone: (213) 683–1234, Fax: (213) 629–3230.	June 17, 2003.

See section IX, ''Public Participation'' below for more information on the comment procedure and public hearings.

FOR FURTHER INFORMATION CONTACT: U.S. EPA, Office of Transportation and Air Quality, Assessment and Standards Division hotline, (734) 214–4636, *asdinfo@epa.gov.* Carol Connell, (734) 214–4349; *connell.carol@epa.gov.*

SUPPLEMENTARY INFORMATION:

Regulated Entities

This action would affect you if you produce or import new heavy-duty diesel engines which are intended for use in nonroad vehicles such as agricultural and construction equipment, or produce or import such nonroad vehicles, or convert heavy-duty vehicles or heavy-duty engines used in nonroad vehicles to use alternative fuels. It would also affect you if you produce, import, distribute, or sell nonroad diesel fuel, or sell nonroad diesel fuel.

The following table gives some examples of entities that may have to follow the regulations. But because these are only examples, you should carefully examine the regulations in 40 CFR parts 80, 89, 1039, 1065, and 1068. If you have questions, call the person listed in the **FOR FURTHER INFORMATION CONTACT** section of this preamble:

Category	NAICS codes [a]	SIC codes [b]	Examples of potentially regulated entities
Industry	333618	3519	Manufacturers of new nonroad diesel engines.

Category	NAICS codes [a]	SIC codes [b]	Examples of potentially regulated entities
Industry	333111	3523	Manufacturers of farm machinery and equipment.
Industry	333112	3524	Manufacturers of lawn and garden tractors (home).
Industry	333924	3537	Manufacturers of industrial trucks.
Industry	333120	3531	Manufacturers of construction machinery.
Industry	333131	3532	Manufacturers of mining machinery and equipment.
Industry	333132	3533	Manufacturers of oil and gas field machinery and equipment.
Industry	811112 811198	7533 7549	Commercial importers of vehicles and vehicle components.
Industry	324110	2911	Petroleum refiners.
Industry	422710 422720	5171 5172	Diesel fuel marketers and distributors.
Industry	484220 484230	4212 4213	Diesel fuel carriers.

[a] North American Industry Classification System (NAICS).
[b] Standard Industrial Classification (SIC) system code.

How Can I Get Copies of This Document and Other Related Information?

Docket. EPA has established an official public docket for this action under Docket ID No. A–2001–28. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1742, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the ''**Federal Register**'' listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the appropriate docket identification number.

Certain types of information will not be placed in the EPA Dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EPA Dockets, the system will identify whether the document is available for viewing in EPA's electronic public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in section IX.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the Docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

For additional information about EPA's electronic public docket visit EPA Dockets online or *see* 67 FR 38102, May 31, 2002.

Outline of This Preamble

I. Overview
A. What Is EPA Proposing?
1. Nonroad Diesel Engine Emission Standards
2. Nonroad, Locomotive, and Marine Diesel Fuel Quality Standards
B. Why Is EPA Making This Proposal?
1. Nonroad, Locomotive, and Marine Diesels Contribute to Serious Air Pollution Problems
2. Technology and Fuel Based Solutions
3. Basis For Action Under the Clean Air Act
II. What Is the Air Quality Impact of the Sources Covered by the Proposed Rule?
A. Overview
B. Public Health Impacts
1. Particulate Matter
a. Health Effects of $PM_{2.5}$ and PM_{10}
b. Current and Projected Levels
i. PM_{10} Levels
ii. $PM_{2.5}$ Levels
2. Air Toxics
a. Diesel exhaust
i. Potential Cancer Effects of Diesel Exhaust
ii. Other Health Effects of Diesel Exhaust
iii. Ambient Levels and Exposure to Diesel Exhaust PM
iv. Diesel Exhaust PM Exposures
b. Gaseous Air Toxics
3. Ozone
a. What are the health effects of ozone pollution?
b. Current and projected 8-hour ozone levels
C. Other Environmental Effects
1. Visibility
a. Visibility is Impaired by Fine PM and Precursor Emissions From Nonroad Engines Subject to this Proposed Rule
b. Visibility Impairment Where People Live, Work and Recreate

c. Visibility Impairment in Mandatory Federal Class I Areas
2. Acid Deposition
3. Eutrophication and Nitrification
4. Polycyclic Organic Matter Deposition
5. Plant Damage from Ozone
D. Other Criteria Pollutants Affected by This NPRM
E. Emissions From Nonroad Diesel Engines
1. $PM_{2.5}$
2. NO_X
3. SO_2
4. VOC and Air Toxics
III. Nonroad Engine Standards
A. Why are We Setting New Engine Standards?
1.The Clean Air Act and Air Quality
2. The Technology Opportunity for Nonroad Diesel Engines
B. What Engine Standards are We Proposing?
1. Exhaust Emissions Standards
a. Standards Timing
b. Phase-In of NO_X and NMHC Standards
c. Rationale for Restructured Horsepower Categories
d. PM Standards for Smaller Engines
i. <25 hp
ii. 25–75 hp
e. Engines Above 750 hp
f. CO Standards
g. Exclusion of Marine Engines
2. Crankcase Emissions Control
C. What Test Procedure Changes Are Being Proposed?
1. Supplemental Transient Test
2. Cold Start Testing
D. What Is Being Done To Help Ensure Robust Control In Use?
1. Not-to-Exceed Requirements
a. NTE Standards We are Proposing
b. Comment Request on an Alternative NTE Approach
2. Plans for Future In-Use Testing and Onboard Diagnostics
a. Manufacturer-Run In-Use Test Program
b. Onboard Diagnostics
E. Are the Proposed New Standards Feasible?
1.Technologies To Control NO_X and PM Emissions From Mobile Source Diesel Engines
a. PM Control Technologies
b. NO_X Control Technologies
2. Can These Technologies Be Applied to Nonroad Engines and Equipment?
a. Nonroad Operating Conditions and Exhaust Temperatures
b. Nonroad Operating Conditions and Durability
3. Are the Standards Proposed for Engines of 75 hp or Higher Feasible?
4.Are the Standards Proposed for Engines ≥25 hp and <75 hp Feasible?
a. What makes the 25–75 hp category unique?
b. What engine technology is used today, and will be used for the applicable Tier 2 and Tier 3 standards?
c. Are the proposed standards for 25–75 hp engines technologically feasible?
i. 2008 PM Standards
ii. 2013 Standards
d. Why EPA has not proposed more stringent Tier 4 NO_X standards
5. Are the Standards Proposed for Engines <25 hp Feasible?
a. What makes the < 25 hp category unique?
b. What engine technology is currently used in the <25 hp category?
c. What data indicates that the proposed standards are feasible?
d. Why has EPA not proposed more stringent PM or NO_X standards for engines <25 hp?
6. Meeting the Crankcase Emissions Requirements
F. Why Do We Need 15ppm Sulfur Diesel Fuel?
1. Catalyzed Diesel Particulate Filters and the Need for Low Sulfur Fuel
a. Inhibition of Trap Regeneration Due to Sulfur
b. Loss of PM Control Effectiveness
c. Increased Maintenance Cost for Diesel Particulate Filters Due to Sulfur
2. Diesel NO_X Catalysts and the Need for Low Sulfur Fuel
a. Sulfur Poisoning (Sulfate Storage) on NO_X Adsorbers
b. Sulfate Particulate Production and Sulfur Impacts on Effectiveness of NO_X Control Technologies
G. Reassessment of Control Technology for Engines Less Than 75 hp in 2007
IV. Our Proposed Program for Controlling Nonroad, Locomotive and Marine Diesel Fuel Sulfur
A. Proposed Nonroad, Locomotive and Marine Diesel Fuel Quality Standards
1. What Fuel Is Covered by this Proposal?
2. Standards and Deadlines for Refiners, Importers, and Fuel Distributors
a. The First Step to 500 ppm
b. The Second Step to 15 ppm
c. Other Standard Provisions
d. Cetane Index or Aromatics Standard
B. Program Design and Structure
1. Background
2. Proposed Fuel Program Design and Structure
a. Program Beginning June 1, 2007
i. Use of a Marker To Differentiate Heating Oil from NRLM
ii. Non-highway Distillate Baseline Cap
iii. Setting the Non-highway Distillate Baseline
iv. Diesel Sulfur Credit Banking, and Trading Provisions for 2007
b. 2010
i. A Marker To Differentiate Locomotive and Marine Diesel from Nonroad Diesel
ii. Diesel Sulfur Credit Banking and Trading Provisions for 2010
c. 2014
3. Other Options Considered
a. Highway Baseline and a NRLM baseline for 2007
i. Highway Baseline
ii. Nonroad, Locomotive, and Marine Baseline
iii. Combined Impact of Highway and NRLM Baselines
b. Locomotive and Marine Baseline for 2010
c. Designate and Track Volumes in 2007
i. Replacement for the Non-highway Baseline Approach
ii. Designate and Track as a Refiners Option in Addition to the Baseline Approach
C. Hardship Provisions for Qualifying Refiners
1. Hardship Provisions for Qualifying Small Refiners
a. Qualifying Small Refiners
i. Regulatory Flexibility for Small Refiners
ii. Rationale for Small Refiner Provisions
iii. Limited Impact of Small Refiner Options on Program Emissions Benefits
b. How Do We Define Small Refiners for Purposes of the Hardship Provisions?
c. What Options Are Available for Small Refiners?
i. Delays in Nonroad Fuel Sulfur Standards for Small Refiners
ii. Options to Encourage Earlier Compliance by Small Refiners
d. How Do Refiners Apply for Small Refiner Status?
2. General Hardship Provisions
a. Temporary Waivers From Non-highway Diesel Sulfur Requirements in Extreme Unforeseen Circumstances
b. Temporary Waivers Based on Extreme Hardship Circumstances
D. Should Any Individual States or Territories Be Excluded From This Rule?
1. Alaska
a. How Was Alaska Treated Under the Highway Diesel Standards?
b. What Nonroad Standards Do We Propose for Urban Areas of Alaska?
c. What Do We Propose for Rural Areas of Alaska?
2. American Samoa, Guam, and the Commonwealth of Northern Mariana Islands
a. What Provisions Apply in American Samoa, Guam, and the Commonwealth of Northern Mariana Islands?
b. Why Are We Treating These Territories Uniquely?
E. How Are State Diesel Fuel Programs Affected by the Sulfur Diesel Program?
F. Technological Feasibility of the 500 and 15 ppm Sulfur Diesel Fuel Program
1. What Is the Nonroad, Locomotive and Marine Diesel Fuel Market Today?
2. How Do Nonroad, Locomotive and Marine Diesel Fuel Differ From Highway Diesel Fuel?
3. What Technology Would Refiners Use To Meet the Proposed 500 ppm Sulfur Cap?
4. Has Technology To Meet a 500 ppm Cap Been Commercially Demonstrated?
5. Availability of Leadtime To Meet the 2007 500 ppm Sulfur Cap
6. What Technology Would Refiners Use To Meet the Proposed 15 ppm Sulfur Cap for Nonroad Diesel Fuel?
7. Has Technology To Meet a 15 ppm Cap Been Commercially Demonstrated?
8. Availability of Leadtime To Meet the 2010 15 ppm Sulfur Cap
9. Feasibility of Distributing Nonroad, Locomotive and Marine Diesel Fuels That Meet the Proposed Sulfur Standards
a. Limiting Sulfur Contamination
b. Potential Need for Additional Product Segregation
G. What Are the Potential Impacts of the 15 ppm Sulfur Diesel Program on Lubricity and Other Fuel Properties?
1. What Is Lubricity and Why Might It Be a Concern?
2. A Voluntary Approach on Lubricity

3. What Other Impact Would Today's Actions Have on the Performance of Diesel and Other Fuels?
H. Refinery Air Permitting
V. Economic Impacts
A. Refining and Distribution Costs
1. Refining Costs
2. Cost of Lubricity Additives
3. Distribution Costs
4. How EPA's Projected Costs Compare to Other Available Estimates
5. Supply of Nonroad, Locomotive and Marine Diesel Fuel
6. Fuel Prices
B. Cost Savings to the Existing Fleet From the Use of Low Sulfur Fuel
C. Engine and Equipment Cost Impacts
1. Engine Cost Impacts
a. Engine Fixed Costs
i. Engine and Emission Control Device R&D
ii. Engine-Related Tooling Costs
iii. Engine Certification Costs
b. Engine Variable Costs
i. NO_X Adsorber System Costs
ii. Catalyzed Diesel Particulate Filter (CDPF) Costs
iii. CDPF Regeneration System Costs
iv. Closed-Crankcase Ventilation System (CCV) Costs
v. Variable Costs for Engines Below 75 Horsepower and Above 750 Horsepower
c. Engine Operating Costs
2. Equipment Cost Impacts
a. Equipment Fixed Costs
b. Equipment Variable Costs
3. Overall Engine and Equipment Cost Impacts
D. Annual Costs and Cost Per Ton
1. Annual Costs for the 500 ppm Fuel Program
2. Cost Per Ton for the 500 ppm Fuel Program
3. Annual Costs for the Proposed Two-Step Fuel Program and Engine Program
4. Cost per Ton of Emissions Reduced for the Total Program
5. Comparison With Other Means of Reducing Emissions
E. Do the Benefits Outweigh the Costs of the Standards?
1. What were the results of the benefit-cost analysis?
2. What was our overall approach to the benefit-cost analysis?
3. What are the significant limitations of the benefit-cost analysis?
F. Economic Impact Analysis
1. What is an Economic Impact Analysis?
2. What is EPA's Economic Analysis Approach for This Proposal?
3. What Are the Results of This Analysis?
a. Expected Market Impacts
b. Expected Welfare Impacts
VI. Alternative Program Options
A. Summary of Alternatives
B. Introduction of 15 ppm Nonroad Diesel Sulfur Fuel in One Step
1. Description of the One-Step Alternative
2. Engine Emission Impacts
3. Fuel Impacts
4. Emission and Benefit Impacts
C. Applying 15 ppm Requirement to Locomotive and Marine Diesel Fuel
D. Other Alternatives
VII. Requirements for Engine and Equipment Manufacturers
A. Averaging, Banking, and Trading
1. Are we proposing to keep the ABT program for nonroad diesel engines?
2. What are the provisions of the proposed ABT program?
3. Should we expand the nonroad ABT program to include credits from retrofit of nonroad engines?
a. What would be the environmental impact of allowing ABT nonroad retrofit credits?
b. How would EPA ensure compliance with retrofit emissions standards?
c. What is the legal authority for a nonroad ABT retrofit program?
B. Transition Provisions for Equipment Manufacturers
1. Why are we proposing transition provisions for equipment manufacturers?
2. What transition provisions are we proposing for equipment manufacturers?
a. Percent-of-Production Allowance
b. Small-Volume Allowance
c. Hardship Relief Provision
d. Existing Inventory Allowance
3. What are the recordkeeping, notification, reporting, and labeling requirements associated with the equipment manufacturer transition provisions?
a. Recordkeeping Requirements for Engine and Equipment Manufacturers
b. Notification Requirements for Equipment Manufacturers
c. Reporting Requirements for Engine and Equipment Manufacturers
d. Labeling Requirements for Engine and Equipment Manufacturers
4. What are the proposed requirements associated with use of transition provisions for equipment produced by foreign manufacturers?
C. Engine and Equipment Small Business Provisions (SBREFA)
1. Nonroad Diesel Small Engine Manufacturers
a. Lead Time Transition Provisions for Small Engine Manufacturers
i. What the Panel Recommended
ii. What EPA Is Proposing
b. Hardship Provisions for Small Engine Manufacturers
i. What the Panel Recommended
ii. What EPA Is Proposing
c. Other Small Engine Manufacturer Issues
i. What the Panel Recommended
ii. What EPA Is Proposing
2. Nonroad Diesel Small Equipment Manufacturers
a. Transition Provisions for Small Equipment Manufacturers
i. What the Panel Recommended
ii. What EPA Is Proposing
b. Hardship Provisions for Small Equipment Manufacturers
i. What the Panel Recommended
ii. What EPA is Proposing
D. Phase-In Provisions
E. What Might Be Done To Encourage Innovative Technologies?
1. Incentive Program for Early or Very Low Emission Engines
2. Continuance of the Existing Blue Sky Program
F. Provisions for Other Test and Measurement Changes
1. Supplemental Transient Test
2. Cold Start Testing
3. Control of Smoke
4. Steady-State Testing
5. Maximum Test Speed
6. Improvements to the Test Procedures
G. Not-To-Exceed Requirements
H. Certification Fuel
I. Labeling and Notification Requirements
J. Temporary In-Use Compliance Margins
K. Defect Reporting
L. Rated Power
M. Hydrocarbon Measurement and Definition
N. Auxiliary Emission Control Devices and Defeat Devices
O. Other Issues
VIII. Nonroad Diesel Fuel Program: Compliance and Enforcement Provisions
A. Fuel Covered and Not Covered by This Proposal
1. Covered Fuel
2. Special Fuel Provisions and Exemptions
a. Fuel Used in Military Applications
b. Fuel Used in Research and Development
c. Fuel Used in Racing Equipment
d. Fuel for Export
B. Additional Requirements for Refiners and Importers
1. Transfer of Credits
2. Additional Provisions for Importers and Foreign Refiners Subject to the Credit Provisions or Hardship Provisions
3. Proposed Provisions for Transmix Facilities
4. Highway or Nonroad Diesel Fuel Treated as Blendstock (DTAB)
C. Requirements for Parties Downstream of the Refinery or Import Facility
1. Product Segregation and Contamination
a. The Period From June 1, 2007 Through May 31, 2010
b. The Period From June 1, 2010 Through May 31, 2014
c. After May 31, 2014
2. Diesel Fuel Pump Labeling To Discourage Misfueling
a. Pump Labeling Requirements 2006
b. Pump Labeling Requirements 2007–2010
c. Pump Labeling Requirements 2010–2014
d. Pump Labeling Requirements Beginning June 1, 2014
e. Nozzle Size Requirements or Other Requirements To Prevent Misfueling
3. Use of Used Motor Oil in New Nonroad Diesel Equipment
4. Use of Kerosene in Diesel Fuel
5. Use of Diesel Fuel Additives
6. End User Requirements
7. Anti-Downgrading Provisions
D. Diesel Fuel Sulfur Sampling and Testing Requirements
1. Testing Requirements
a. Test Method Approval, Recordkeeping, and Quality Control Requirements
i. How Can a Given Method Be Approved?
ii. What Information Would Have To Be Reported to the Agency?
iii. What Quality Control Provisions Would Be Required?
b. Requirements To Conduct Fuel Sulfur Testing.
2. Two Part-Per-Million Downstream Sulfur Measurement Adjustment
3. Sampling Requirements
4. Alternative Sampling and Testing Requirements for Importers of Diesel

Fuel Who Transport Diesel Fuel by Tanker Truck
E. Fuel Marker Test Method
1. How Can a Given Marker Test Method Be Approved?
2. What Information Would Have To Be Reported to the Agency?
F. Requirements for Recordkeeping, Reporting, and Product Transfer Documents
1. Registration of Refiners and Importers
2. Application for Small Refiner Status
3. Applying for Refiner Hardship Relief
4. Applying for a Non-Highway Distillate Baseline Percentage
5. Pre-Compliance Reports
6. Annual Compliance Reports and Batch Reports for Refiners and Importers
7. Product Transfer Documents (PTDs)
a. The Period From June 1, 2007 Through May 31, 2010
b. The Period from June 1, 2010 Through May 31, 2014
c. The Period After May 31, 2014
d. Kerosene and Other Distillates To Reduce Viscosity
e. Exported Fuel
f. Additives
8. Recordkeeping Requirements
9. Record Retention
G. Liability and Penalty Provisions for Noncompliance
1. General
2. What Are the Proposed Liability Provisions for Additive Manufacturers and Distributors, and Parties That Blend Additives Into Diesel Fuel?
a. General
b. Liability When the Additive Is Designated as Complying With the 15 ppm Sulfur Standard
c. Liability When the Additive Is Designated as Having a Possible Sulfur Content Greater Than 15 ppm
H. How Would Compliance With the Sulfur Standards Be Determined?
IX. Public Participation
A. How and to Whom Do I Submit Comments?
1. Electronically
i. EPA Dockets
ii. E-mail
iii. Disk or CD ROM
2. By Mail
3. By Hand Delivery or Courier
B. How Should I Submit CBI to the Agency?
C. Will There Be a Public Hearing?
D. Comment Period
E. What Should I Consider as I Prepare My Comments for EPA?
X. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et. seq*
1. Overview
2. Background
3. Summary of Regulated Small Entities
a. Nonroad Diesel Engine Manufacturers
b. Nonroad Diesel Equipment Manufacturers
c. Nonroad Diesel Fuel Refiners
d. Nonroad Diesel Fuel Distributors and Marketers
4. Potential Reporting, Record Keeping, and Compliance
5. Relevant Federal Rules
6. Summary of SBREFA Panel Process and Panel Outreach
a. Significant Panel Findings
b. Panel Process
c. Transition Flexibilities
i. Nonroad Diesel Engines
ii. Nonroad Diesel Equipment
iii. Nonroad Diesel Fuel Refiners
iv. Nonroad Diesel Fuel Distributors and Marketers
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer Advancement Act
J. Plain Language
XI. Statutory Provisions and Legal Authority

I. Overview

Nonroad diesel engines are the largest remaining contributor to the overall mobile source emissions inventory. We have already taken steps to dramatically reduce emissions from light-duty vehicles and heavy-duty vehicles and engines through the Tier 2 and 2007 highway diesel programs.[1] With expected growth in the nonroad sector, the relative emissions contribution from nonroad diesel engines is projected to be even larger in future years. This proposed rule sets out emissions standards for nonroad diesel engines used mainly in construction, agricultural, industrial, and mining operations that will achieve reductions in PM and NO_X emissions levels from today's engines in excess of 95% and 90%, respectively. Nonroad diesel fuel is currently unregulated. This proposal represents the first time nonroad diesel fuel will be regulated. We are proposing to reduce sulfur levels in nonroad diesel fuel by more than 99 percent to 15 parts per million (ppm). Taken together, controls included in this proposal would result in large public health and welfare benefits.

The proposed standards for nonroad diesel engines and sulfur reductions for nonroad diesel fuel represent a dramatic step in emissions control, based on the use of advanced emissions control technology. Until the mid-90's, these engines had no emissions requirements. As a comparison, cars and trucks have been subject to a series of increasingly stringent emissions control programs since the 1970s. In terms of fuel quality requirements, nonroad diesel fuel is currently uncontrolled at the Federal level. EPA has already issued rules ending these disparities for diesel engines used in highway applications. Starting in 2007, these engines will meet standards of the same level of stringency as comparable gasoline vehicles, based on the use of advanced aftertreatment technologies and ultra low sulfur diesel fuel (containing no more than 15 ppm sulfur). This proposal is largely based on the performance of the same advanced aftertreatment technologies, and would bring nonroad diesel fuel to the same 15 ppm cap for sulfur that will be required for highway diesel fuel starting in 2006. We believe it is highly appropriate to propose dramatic steps forward in emissions standards and reductions in sulfur levels in nonroad diesel fuel. As discussed throughout this proposal, such steps represent a feasible progression in the application of advanced emissions control technologies, would achieve needed production of low sulfur diesel fuel to enable the advanced emission control technologies, the standards are cost-effective, and provide very large public health and welfare benefits.

We followed certain principles when developing the elements of this proposal. First, the program must achieve reductions in NO_X, SOx, and PM emissions as early as possible. This includes reductions from the in-use fleet of nonroad diesel engines. Second, as we did in the 2007 highway diesel program, we are treating vehicles and fuels as a system since we believe this is the best way to achieve the greatest emissions reductions. Third, the implementation of low sulfur requirements for nonroad diesel fuel must in no way interfere with the implementation and expected benefits of introducing ultra low sulfur fuel in the highway market, as required by the 2007 highway diesel program. Lastly, the program must provide sufficient lead time to allow the integration of advanced emissions control technologies from the highway sector onto nonroad diesel engines as well as the expansion of ultra low sulfur fuel production to the nonroad market.

This proposal sets out new engine exhaust emissions standards, emissions test procedures, including not-to-exceed requirements, for nonroad engines, and sulfur control requirements for nonroad, locomotive, and marine diesel fuel. The proposed exhaust standards would

[1] *See* 65 FR 6698 (February 10, 2000) and 66 FR 5001 (January 18, 2001) for the final rules regarding the Tier 2 and 2007 highway diesel programs, respectively.

result in particulate matter (PM) and nitrogen oxide (NO_X) emissions levels that are in excess of 95 percent and 90 percent, respectively, below comparable levels in effect today. They will begin to take effect in the 2008 model year, with a phase-in of standards across five different engine power rating groupings. New engine emissions test procedures are proposed to take effect with these new standards to better ensure emissions control over real-world engine operation and to help provide for effective compliance determination. Diesel fuel used in nonroad, locomotive, and marine applications would meet a 500 ppm cap starting in June 2007, a reduction of approximately 90%. There are large benefits to taking this first sulfur reduction action, especially in the reduction of particulate matter from the in-use fleet. In 2010, sulfur levels in nonroad diesel fuel (though not locomotive or marine diesel fuel) would meet a 15 ppm cap, for a total reduction of over 99%. While there are important health and welfare benefits associated with the reduction from 500 ppm to 15 ppm, the main benefit will be to facilitate the introduction of advanced aftertreatment devices on nonroad engines, which would in turn lead to significant benefits. We are also seeking comment on and seriously considering applying the 15 ppm cap to locomotive and marine diesel fuel.

The requirements in this proposal would result in substantial benefits to public health and welfare and the environment through significant reductions in emissions of NO_X and PM, as well as nonmethane hydrocarbons (NMHC), carbon monoxide (CO), sulfur oxides (SO_X) and air toxics. We project that by 2030, this program would reduce annual emissions of NO_X, and PM by 827,000, and 127,000 tons, respectively. These annual emission reductions would prevent 9,600 premature deaths, over 8,300 hospitalizations, and almost a million work days lost, among quantifiable benefits. The overall quantifiable benefits of this rule would be approximately $81 billion annually by 2030. Costs for both the engine and fuel requirements would be significantly less, at approximately $1.5 billion annually.

A. What Is EPA Proposing?

This proposal is a further step in EPA's long-term program to control emissions from nonroad diesel engines. The EPA has taken measures to reduce harmful emissions from nonroad diesel engines in two past regulatory actions. A 1994 final rule, developed under provisions of section 213 of the Clean Air Act, set initial emissions standards for new nonroad diesel engines greater than 50 hp (59 FR 31306, June 17, 1994). These standards gained modest reductions in NO_X emissions and are referred to as EPA's ''Tier 1'' standards for large nonroad engines. A subsequent final rule published in 1998 set more stringent Tier 2 and Tier 3 standards for these engines, as well as Tier 1 and Tier 2 standards for the nonroad diesel engines under 50 hp (63 FR 56968, October 23, 1998). Nonroad diesel fuel quality is not presently regulated by the EPA.

We also expressed our intent in the 1998 final rule to continue evaluating the rapidly changing state of diesel emissions control technology, and to perform a review in the 2001 timeframe of the technological feasibility of the Tier 3 standards, and of the Tier 2 standards for engines rated under 50 hp. This review was completed in 2001 and documented in an EPA staff technical paper that confirmed the feasibility of those standards, finding that the number of potential control options had expanded since the 1998 final rule to include new technologies and more effective application of existing technologies.[2]

There are two basic parts to this proposed program: (1) New exhaust emission standards and test procedures for nonroad diesel engines, and (2) new sulfur limits for nonroad, locomotive, and marine diesel fuel. The systems approach of combining the engine and fuel standards into a single program is critical to the success of our overall efforts to reduce emissions, because the emission standards will not be feasible without the fuel change. This proposal is largely based on the 2007 highway diesel program.

We looked at a number of alternative program options, as discussed in more detail in section VI below and chapter 12 of the draft Regulatory Impact Analysis (RIA). For example, we analyzed a program that would require refiners to produce 15 ppm nonroad diesel fuel starting in 2008, with appropriate engine standards phased-in beginning in 2009. Many of these alternatives provided a very similar level of projected emissions control and health and welfare benefits as our proposed program. However, taking into account the need for appropriate lead time, achieving the greatest possible emissions reductions as early as possible, and the interaction of requirements in this proposal with existing highway diesel engine environmental programs, we believe our proposed program provides the best opportunity for achieving all of our goals, as described above, including timely and significant emissions reductions from nonroad diesel engines and the associated introduction of ultra low sulfur nonroad diesel fuel. We are asking for comments on the alternatives discussed in this proposal.

The elements of the rule are outlined below. Detailed provisions and justifications for our proposed rule are discussed in subsequent sections and the draft RIA.

1. Nonroad Diesel Engine Emission Standards

Today's action proposes standards for nonroad diesel engines ranging from 3 to over 3,000 horsepower. Applicable emissions standards are determined by year for each of five engine power band categories. For engines less than 25 hp, we are proposing new engine standards for PM (0.30 g/bhp-hr) and CO (4.9 g/bhp-hr) to go along with existing NO_X standards beginning in 2008. For engines between 25–75 hp, we are proposing standards reflecting approximately 50% reduction in PM control from today's engines applicable in 2008. Then, starting in 2013, PM standards of 0.02 g/bhp-hr and NO_X standards of 3.5 g/bhp-hr would apply. For engines between 75–175 hp, the proposed standards would be 0.01 g/bhp-hr for PM, 0.30 g/bhp-hr for NO_X, and 0.14 g/bhp-hr for HC beginning in 2012. These same standards would apply for both engines between 175–750 hp and greater than 750 hp starting in 2011. These PM, NO_X, and NMHC standards are similar in stringency to the final standards included in the 2007 highway diesel program and are expected to require the use of high-efficiency aftertreatment systems to ensure compliance. Thus, virtually all nonroad diesel engines after 2013 would likely be using advanced aftertreatment systems. We are phasing in many of these proposed standards over a period of three years in order to address lead time, workload, and feasibility considerations.

We are also proposing to continue the averaging, banking, and trading nonroad emissions credits provisions to demonstrate compliance with the standards. In addition, we are proposing to include turbocharged diesels in the existing prohibition on crankcase emissions, effective in the same year that the proposed Tier 4 standards first apply in each power category. More specific information on the proposed standards can be found in section III below.

[2] ''Nonroad Diesel Emissions Standards Staff Technical Paper'', EPA420–R–01–052, October 2001.

To better ensure the benefits of the standards are realized in-use and throughout the useful life of these engines, we are also proposing new test procedures and related certification requirements. We believe the new supplemental transient test, Constant Speed Variable Load transient duty cycle, cold start transient test, and not-to-exceed test procedures and standards will all help achieve our goal. This is a significant and important aspect of this proposal that would bring greater confidence and certainty to the compliance program.

The proposal also includes provisions to facilitate the transition to the new engine and fuel standards and to encourage the early introduction of clean technologies. We are also including proposed adjustments to various fuel and engine testing and compliance requirements. These provisions are described further in sections III, IV, and VI.

2. Nonroad, Locomotive, and Marine Diesel Fuel Quality Standards

We are proposing that sulfur levels for nonroad diesel fuel be reduced from current uncontrolled levels ultimately to 15 ppm, though we are proposing an interim cap of 500 ppm. Beginning June 1, 2007, refiners would therefore be required to produce nonroad, locomotive, and marine diesel fuel that meets a maximum sulfur level of 500 ppm. This does not include diesel fuel for home heating, industrial boiler, or stationary power uses or diesel fuel used in aircraft. We estimate there are significant health and welfare benefits associated with this proposed reduction, including reductions in sulfate emissions and reduced engine operating expenses. Then, beginning in June 1, 2010, fuel used for nonroad diesel applications (excluding locomotive and marine engines) is proposed to meet a maximum sulfur level of 15 ppm, since all 2011 and later model year nonroad diesel-fueled engines with aftertreatment must be refueled with this new ultra low sulfur diesel fuel. This sulfur standard is based on our assessment of the impact of sulfur on advanced exhaust emission control technologies and a corresponding assessment of the feasibility of ultra low sulfur fuel production and distribution. We are also asking for comment on bringing sulfur levels for locomotive and marine fuel to 15 ppm in 2010 and note that we anticipate beginning the process of developing new engine controls for these two sources in 2004. This proposal includes a combination of provisions available to refiners, especially small refiners, to ensure a smooth transition to ultra low sulfur nonroad diesel fuel.

In addition, this proposal includes unique provisions for implementing the ultra low sulfur diesel fuel program in the State of Alaska. We are also proposing that certain U.S. territories be excluded from both the nonroad engine standards and diesel fuel standards. Similar actions were taken as part of the 2007 highway diesel program.

The compliance provisions for ensuring diesel fuel quality are essentially consistent with those that have been in effect since 1993 for highway diesel fuel, reflecting updated requirements that were included in the 2007 highway diesel program. Additional compliance provisions are proposed for the transition years of the program concerning the interaction of the nonroad, locomotive, and marine sulfur control requirements with existing highway diesel sulfur control provisions. These provisions could also help discourage misfueling of nonroad equipment utilizing high-efficiency aftertreatment devices. The proposed compliance requirements include provisions that would prohibit equipment operators from fueling their machines with higher sulfur fuels after completion of the shift to lower sulfur nonroad diesel fuels, regardless of the age of their equipment.

B. Why Is EPA Making This Proposal?

1. Nonroad, Locomotive, and Marine Diesels Contribute to Serious Air Pollution Problems

As discussed in detail in section II and chapter 2 and 3 of draft RIA, emissions from nonroad, locomotive, and marine diesel engines contribute greatly to a number of serious air pollution problems, and these emissions would have continued to do so into the future absent further controls to reduce them. First, these engines contribute to the health and welfare effects associated with ozone, PM, NO_X, SO_X, and volatile organic compounds (VOCs), including toxic compounds such as formaldehyde. These adverse effects include premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions and emergency room visits, school absences, work loss days, and restricted activity days), changes in lung function and increased respiratory symptoms, changes to lung tissues and structures, altered respiratory defense mechanisms, chronic bronchitis, and decreased lung function.[3 4 5] Second and importantly, in addition to its contribution to ambient PM inventories, diesel exhaust is of specific concern because it has been judged to likely pose a lung cancer hazard for humans as well as a hazard from noncancer respiratory effects. The Agency has classified diesel exhaust as likely to be carcinogenic to humans by inhalation at environmental exposures. Third, ozone and PM cause significant public welfare harm. Specifically, ozone causes damage to vegetation which leads to economic crop and forestry losses, as well as harm to national parks, wilderness areas, and other natural systems. PM causes damage to materials and soiling of commonly used building materials and culturally important items such as statues and works of art. Fourth, NO_X, SO_X and direct emissions of PM contribute to substantial visibility impairment in many parts of the U.S. where people live, work, and recreate, including mandatory Federal Class I areas. Finally, NO_X emissions from nonroad diesel engines contribute to the acidification, nitrification and eutrophication of water bodies.

Millions of Americans live in areas with unhealthful air quality that may endanger public health and welfare (*i.e.,* levels not requisite to protect the public health with an adequate margin of safety). Based upon data for 1999–2001, there are 291 counties that are violating the 8-hour ozone NAAQS, totaling 111 million people. In addition, at least 65 million people in 129 counties live in areas where annual design values of ambient $PM_{2.5}$ violate the $PM_{2.5}$ NAAQS. There are an additional 9 million people in 20 counties where levels above the $PM_{2.5}$ NAAQS are being measured, but the data are incomplete. Without emission reductions from the proposed new standards for nonroad engines, there is a significant future risk that 32 counties with 47 million people across the country may violate the 8-hour ozone national ambient air quality standard (NAAQS) in 2030, based on our modeling. Similarly, modeled $PM_{2.5}$ concentrations in 107 counties where 85 million people live are above specified levels in 2030. An additional 64 million people are projected to live in counties

[3] U.S. EPA (1996) Air Quality Criteria for Particulate Matter—Volumes I, II, and III, EPA Office of Research and Development, National Center for Environmental Assessment, July 1996. Report No. EPA/600/P–95/001aF, EPA/600/P–95/001bF, EPA/600/P–95/001cF.

[4] U.S. EPA (2002), Air Quality Criteria for Particulate Matter—Volumes I and II (Third External Review Draft). This material is available electronically at *http://cfpub.epa.gov/ncea/cfm/partmatt.cfm.*

[5] U.S. EPA (1996) Air Quality Criteria for Ozone and Related Photochemical Oxidants. EPA Office of Research and Development, National Center for Environmental Assessment, July 1996. Report No. EPA/600/P–93/004aF. The document is available on the Internet at *http://www.epa.gov/ncea/ozone.htm.*

within 10 percent of the $PM_{2.5}$ standard in 2030, and 44 million people are projected to live in counties within 10 percent of the level of the 8-hour standard in 2030. Thus, our analyses show that these counties face a significant risk of exceeding or failing to maintain the $PM_{2.5}$ and the 8-hour ozone NAAQS without significant additional controls between 2007 and 2030.

Federal, State and local governments are working to bring ozone and particulate levels into compliance with the NAAQS through State Implementation Plan (SIP) attainment and maintenance plans, and to ensure that future air quality reaches and continues to achieve these health- and welfare-based standards. The reductions in this proposed rulemaking will play a critical part in these important efforts to attain and maintain the NAAQS. In addition, reductions from this action will also reduce public health and welfare effects associated with maintenance of the 1-hour ozone and PM_{10} NAAQS.

Emissions from nonroad, locomotive, and marine diesel engines account for substantial portions of the country's ambient PM and NO_X levels. NO_X is a key precursor to ozone and PM formation. We estimate that these engines account for about ten percent of total NO_X emissions and about ten percent of total PM emissions. These proportions are even higher in some urban areas, where these engines contribute up to 19 percent of the total NO_X emissions and up to 18 percent of the total PM emissions inventory. Over time, the relative contribution of these diesel engines to air quality problems will go even higher unless EPA takes action to further reduce pollution levels. For example, EPA has already taken steps to bring emissions levels from light-duty and heavy-duty vehicles and engines to near-zero levels by the end of this decade. The PM and NO_X standards for nonroad, locomotive, and marine diesel engines in this proposal would have a substantial impact on emissions. By 2030, NO_X emissions from these diesel engines under today's standards will be reduced by 827,000 tons, and PM emissions will decline by about 127,000 tons, dramatically reducing this source of NO_X and PM emissions. Urban areas, which include many poorer neighborhoods, can be disproportionately impacted by such diesel emissions, and these neighborhoods will thus receive a relatively larger portion of the benefits expected from proposed emissions controls. Diesel exhaust is of special concern because it is associated with increased risk of lung cancer and respiratory disease. EPA recently issued its Health Assessment Document for Diesel Exhaust.[6] The Agency has classified diesel exhaust as likely to be carcinogenic to humans by inhalation at environmental exposures. State and local governments, in their efforts to protect the health of their citizens and comply with requirements of the Clean Air Act (CAA or ''the Act''), have recognized the need to achieve major reductions in diesel PM emissions, and have been seeking Agency action in setting stringent new standards to bring this about.[7]

2. Technology and Fuel Based Solutions

Although the air pollution from nonroad diesel exhaust is challenging, we believe they can be addressed through the application of high-efficiency emissions control technologies. As discussed in much greater detail in section III, the development of diesel emissions control technology has advanced in recent years so that very large emission reductions (in excess of 90 percent) are possible, especially through the use of catalytic emission control devices installed in the nonroad equipment's exhaust system and integrated with the engine controls. These devices are often referred to as ''exhaust emission control'' or ''aftertreatment'' devices. Exhaust emission control devices, in the form of the well-known catalytic converter, have been used in gasoline-fueled automobiles for 28 years.

Based on the Clean Air Act requirements in section 213, we are proposing stringent new emission standards that will result in the use of these diesel exhaust emission control devices. We are also proposing changes to nonroad diesel fuel quality standards, under section 211(c) of the Act, in order to enable these high-efficiency technologies.

To meet the proposed new standards, application of high-efficiency exhaust emission controls for both PM and NO_X will be needed for most engines. High-efficiency PM exhaust emission control technology has been available for several years. This technology has continued to improve over the years, especially with respect to durability and robust operation in use. It has also proved extremely effective in reducing exhaust hydrocarbon emissions. Thousands of such systems are now in use, especially in Europe. It is the same technology we expect to be applied to meet the PM standards in the 2007 heavy-duty highway diesel engine rule. However, as discussed in detail in section III, these systems are very sensitive to sulfur in the fuel. For the technology to be viable and capable of meeting the standards, we believe it will require diesel fuel with sulfur content capped at the 15 ppm level.

Similarly, high-efficiency NO_X exhaust emission control technology will be needed if nonroad diesel engines are to attain the proposed standards. This is the same technology that we anticipate will be applied to heavy-duty highway diesel engines to meet the NO_X standards included in the 2007 highway diesel program. This technology, like the PM technology, is dependant on the 15 ppm maximum nonroad diesel fuel levels being proposed in this action in order to be feasible and capable of achieving the standards. Similar high-efficiency NO_X exhaust emission control technology has been quite successful in gasoline direct injection engines that operate with an exhaust composition fairly similar to diesel exhaust and is expected to be used to meet the 2007 and later heavy-duty highway diesel standards. As discussed in section III, application of this technology to nonroad diesels has some additional engineering challenges. In that section, we discuss the current status of this technology as well as the major development issues still to be addressed and the development steps that can be taken. With the lead-time available and the introduction of ultra low sulfur nonroad diesel fuel, we are confident the proposed application of this technology to nonroad diesels would proceed at a reasonable rate of progress and will result in systems capable of achieving the standards.

This view is further supported by the fact that manufacturers are already working on developing high-efficiency aftertreatment devices in order to have them available for introduction on highway diesel engines by 2007. EPA issued a progress report in June 2002 which discussed our findings that industry was making substantial progress in developing these devices. Additionally, the Clean Diesel Independent Review Panel issued a report in October 2002 on similar

[6] U.S. EPA (2002) Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F Office of Research and Development, Washington DC. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060*.

[7] For example, *see* letters dated April 9, 2002, from Agency Secretary of California EPA, Commissioner of NY State DEC, and Commissioner of Texas NRCC to Governor Whitman; dated January 28, 2003 from Western Regional Air Partnership to Governor Whitman, and dated December 17, 2002, from State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials and Northeast States for Coordinated Air Use Mangement (and other organizations).

questions and concluded that, while technical issues remain, there were no technical hurdles identified that would prevent market introduction of high-efficiency aftertreatment devices on schedule.

The need to reduce sulfur in nonroad diesel fuel is driven by the requirements of the exhaust emission control technology that we project will be needed to meet the proposed standards for most nonroad diesel engines. The challenge in accomplishing the sulfur reduction is driven by the capacity to implement the needed refinery modifications, and by the costs of making the modifications and running the equipment. Today, a number of refiners are acting to provide low sulfur diesel to some markets. We believe that controlling the sulfur content of highway diesel fuel to the 15 ppm level is necessary, feasible, and cost-effective.

Additionally, there are health and welfare benefits associated with the initial step of reducing the sulfur level of nonroad, locomotive, and marine diesel fuel to 500 ppm. This proposed action will provide dramatic, immediate reductions in direct sulfate PM and SO_2 emissions from the in-use fleet. As described in this proposal, we believe this fuel control strategy is a cost-effective air quality solution as well.

3. Basis for Action Under the Clean Air Act

Section 213 of the Act gives us the authority to establish emissions standards for nonroad engines and vehicles. Section 213(a)(3) authorizes the Administrator to set standards for NO_X, VOCs, or carbon monoxide, to reduce ambient levels of ozone and carbon monoxide which ''standards shall achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines or vehicles.'' As part of this determination, the Administrator must give appropriate consideration to cost, lead time, noise, energy, and safety factors associated with the application of such technology. Section 213(a)(4) authorizes the Administrator to establish standards to control emissions of pollutants which ''may reasonably be anticipated to endanger public health and welfare''. Here, the Administrator may promulgate regulations that are deemed appropriate for new nonroad vehicles and engines which cause or contribute to such air pollution, taking into account costs, noise, safety, and energy factors. EPA believes the proposed controls for PM in today's rule would be an appropriate exercise of EPA's discretion under the authority of section 213(a)(4).

We believe the evidence provided in section III and the Draft Regulatory Impact Analysis (RIA) indicates that the stringent emission standards proposed today are feasible and reflect the greatest degree of emission reduction achievable in the model years to which they apply. We have given appropriate consideration to costs in proposing these standards. Our review of the costs and cost-effectiveness of these standards indicate that they will be reasonable and comparable to the cost-effectiveness of other emission reduction strategies that have been required or could be required in the future. We have also reviewed and given appropriate consideration to the energy factors of this rule in terms of fuel efficiency and effects on diesel fuel supply, production, and distribution, as discussed below, as well as any safety factors associated with these proposed standards.

The information in section II and chapter 2 of the draft RIA regarding air quality and the contribution of nonroad, locomotive, and marine diesel engines to air pollution provides strong evidence that emissions from such engines significantly and adversely impact public health or welfare. First, as noted earlier, there is a significant risk that several areas will fail to attain or maintain compliance with the NAAQS for 8-hour ozone concentrations or for PM2.5 concentrations during the period that these new vehicle and engine standards will be phased into the vehicle population, and that nonroad, locomotive, and marine diesel engines contribute to such concentrations, as well as to concentrations of other NAAQS-related pollutants. This risk will be significantly reduced by the standards adopted today, as also noted above. However, the evidence indicates that some risk remains even after the reductions achieved by these new controls on nonroad diesel engines and nonroad, locomotive, and marine diesel fuel. Second, EPA believes that diesel exhaust is likely to be carcinogenic to humans. The risk associated with exposure to diesel exhaust includes the particulate and gaseous components among which are benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene, all of which are known or suspected human or animal carcinogens, or have serious noncancer health effects. Third, emissions from nonroad diesel engines (including locomotive and marine diesel engines) contribute to regional haze and impaired visibility across the nation, as well as acid deposition, POM deposition, eutrophication and nitrification, all of which are serious environmental welfare problems.

EPA has already found in previous rules that emissions from new nonroad diesel engines contribute to ozone and carbon monoxide (CO) concentrations in more than one area which has failed to attain the ozone and carbon monoxide NAAQS. 59 FR 31306 (June 17, 1994). EPA has also previously determined that it is appropriate to establish standards for PM from new nonroad diesel engines under section 213(a)(4), and the additional information on diesel exhaust carcinogenicity noted above reinforces this finding. In addition, we have already found that emissions from nonroad engines significantly contribute to air pollution that may reasonably be anticipated to endanger public welfare due to regional haze and visibility impairment. 67 FR 68242, 68243 (Nov. 8, 2002). We find here, based on the information in section II of this preamble and chapter 2 of the draft RIA, that emissions from the new nonroad diesel engines covered by this proposal likewise contribute to regional haze and to visibility impairment that may reasonably be anticipated to endanger public welfare. Taken together, these findings indicate the appropriateness of the nonroad diesel engine standards proposed today for purposes of section 213(a)(3) and (4) of the Act.

Section 211(c) of the CAA allows us to regulate fuels where emission products of the fuel either: (1) Cause or contribute to air pollution that reasonably may be anticipated to endanger public health or welfare, or (2) will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it will be in general use were such a regulation to be promulgated. This rule meets both of these criteria. SOx and sulfate PM emissions from nonroad, locomotive, marine and diesel vehicles are due to sulfur in diesel fuel. As discussed above, emissions of these pollutants cause or contribute to ambient levels of air pollution that endanger public health and welfare. Control of sulfur to 500 ppm for this fuel would lead to significant, cost-effective reductions in emissions of these pollutants. The substantial adverse effect of high sulfur levels on the performance of diesel emission control devices or systems that would be expected to be used to meet the nonroad standards is discussed in detail in section III. Control of sulfur to 15 ppm in nonroad diesel fuel would enable emissions control technology that will achieve significant, cost-

effective reduction in emissions of these pollutants, as discussed in section II below. In addition, our authority under section 211(c) is discussed in more detail in Appendix A to the draft RIA.

II. What Is the Air Quality Impact of the Sources Covered by the Proposed Rule?

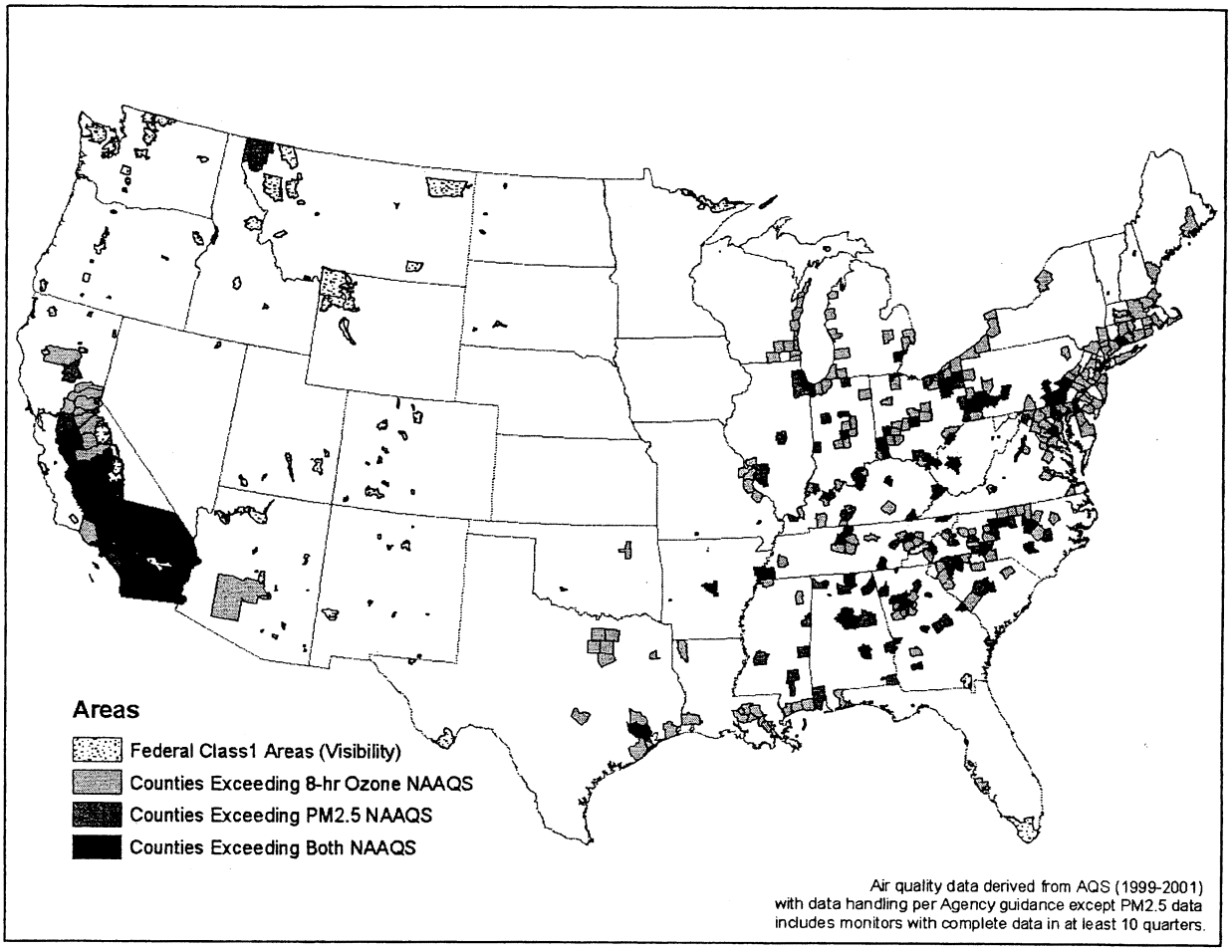
With this proposal, EPA is acting to extend highway types of emission controls to another major source of diesel engine emissions, nonroad diesel engines. These emissions are significant contributors to atmospheric pollution from particulate matter, ozone and a variety of toxic air pollutants. In our most recent nationwide inventory used for this proposal (1996), the nonroad diesels affected by this proposal [8] contribute over 43 percent of diesel PM emissions from mobile sources, up to 18 percent of $PM_{2.5}$ emissions in urban areas, and up to 14 percent of NO_X emissions in urban areas.

Without further control beyond those standards we have already adopted, by the year 2020, these engines will emit 62 percent of diesel PM emissions from mobile sources, up to 19 percent of $PM_{2.5}$ emissions in urban areas, and up to 20 percent of NO_X emissions in urban areas.

When fully implemented, this proposal would reduce nonroad diesel $PM_{2.5}$ and NO_X emissions by more than 90 percent. It will also virtually eliminate nonroad diesel SO_x emissions, which amounted to nearly 230,000 tons in 1996, and would otherwise grow to approximately 340,000 tons by 2020.

These dramatic reductions in nonroad emissions are a critical part of the effort by Federal, State and local governments to reduce the health-related impacts of air pollution and to reach attainment of the NAAQS for PM and ozone, as well as to improve other environmental effects such as atmospheric visibility. Based on the most recent data available for this rule (1999–2001), such problems are widespread in the United States. There are over 65 million people living in counties with monitored $PM_{2.5}$ levels exceeding the $PM_{2.5}$ NAAQS, and 111 million people living in counties with monitored concentrations exceeding the 8-hour ozone NAAQS. Figure II.–1 illustrates the widespread nature of these problems. Shown in this figure are counties exceeding either or both of the two NAAQS plus mandatory Federal Class I areas, which have particular needs for reductions in atmospheric haze.

FIGURE II-1 -- AIR QUALITY PROBLEMS ARE WIDESPREAD



As we will describe later in this preamble, the air quality improvements expected from this proposal is anticipated to produce major benefits to human health and welfare, with a combined value in excess of half a

[8] For NO_X and $PM_{2.5}$ this includes all land-based nonroad diesel engines, but not locomotive, commercial marine vessel, and recreational marine vessel engines. Since the latter three engine categories are affected by the fuel sulfur portions of the proposal, they are included for SO_2.

trillion dollars between 2007 and 2030. By the year 2030, this proposed rule would be expected to prevent approximately 9,600 deaths per year from premature mortality, and 16,000 nonfatal heart attacks. It is estimated to also prevent 14,000 acute bronchitis attacks in children, 260,000 respiratory symptoms in children, and nearly 1 million lost work days in 2030. The reductions will also improve visibility.

In the remainder of this section we will describe in more detail the air pollution problems associated with emissions from nonroad diesel engines, and the emission and air quality benefits we expect to realize from the fuel and engine controls in this proposal.

A. Overview

The emissions from nonroad engines that are being directly controlled by the standards in this rulemaking are NO_X, PM and NMHC, and to a lesser extent, CO. Gaseous air toxics from nonroad diesels will also be reduced as a consequence of the proposed standards. In addition there will be a substantial reduction in SO_x emissions resulting from the proposed reduction in sulfur level in diesel fuel.

From a public health perspective, we are primarily concerned with nonroad engine contributions to atmospheric levels of particulate matter in general, diesel PM in particular and various gaseous air toxics emitted by diesel engines, and ozone.[9] We will first review important public health effects linked to these pollutants, briefly describing the human health effects and the current and expected future ambient levels of direct or indirectly caused pollution. Our presentation will show that substantial further reductions of these pollutants, and the underlying emissions from nonroad diesel engines, are needed to protect public health.

Following discussion of health effects, we will discuss a number of welfare effects associated with emissions from diesel engines. These effects include atmospheric visibility impairment, ecological and property damage caused by acid deposition, eutrophication and nitrification of surface waters, environmental threats posed by polycyclic organic matter (POM) deposition, and plant and crop damage from ozone. Once again, the information available to us indicates a continuing need for further nonroad emission reductions to bring about improvements in air quality.

Next, we will describe our understanding of the engine emission inventories for the primary pollutants affected by the proposal. As noted above, these include PM, NO_X, SO_X, Air Toxics and HC. We will present current and projected future levels of emissions for the base case, including anticipated reductions from control programs already adopted by EPA and the States, but without the controls proposed today. Then we will identify expected emission reductions from nonroad engines. These reductions will make important contributions to controlling the health and welfare problems associated with ambient PM and ozone levels and with diesel related air toxics.

While the material we will present in this section will describe our understanding of the need for control of nonroad engine emissions and the air quality improvements we expect to realize, this section is not an exhaustive treatment of these issues. For a fuller understanding of the topics treated here, you should refer to the extended presentations in the Draft Regulatory Impact Analysis accompanying this proposal.

B. Public Health Impacts

1. Particulate Matter

Particulate matter (PM) represents a broad class of chemically and physically diverse substances. It can be principally characterized as discrete particles that exist in the condensed (liquid or solid) phase spanning several orders of magnitude in size. PM_{10} refers to particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers. Fine particles refer to those particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (also known as $PM_{2.5}$), and coarse fraction particles are those particles with an aerodynamic diameter greater than 2.5 microns, but less than or equal to a nominal 10 micrometers. Ultrafine PM refers to particles with diameters of less than 100 nanometers (0.1 micrometers). The health and environmental effects of PM are associated with fine PM fraction and, in some cases, to the size of the particles. Specifically, larger particles (>10 μm) tend to be removed by the respiratory clearance mechanisms whereas smaller particles are deposited deeper in the lungs. Also, particles scatter light obstructing visibility.

The emission sources, formation processes, chemical composition, atmospheric residence times, transport distances and other parameters of fine and coarse particles are distinct. Fine particles are directly emitted from combustion sources and are formed secondarily from gaseous precursors such as sulfur dioxide (SO_X), oxides of nitrogen (NO_X), or organic compounds. Fine particles are generally composed of sulfate, nitrate, chloride, ammonium compounds, organic carbon, elemental carbon, and metals. Nonroad diesels currently emit high levels of NO_X which react in the atmosphere to form secondary $PM_{2.5}$ (namely ammonium nitrate). Nonroad diesel engines also emit SO_2 and HC which react in the atmosphere to form secondary $PM_{2.5}$ (namely sulfates and organic carbonaceous $PM_{2.5}$). Combustion of coal, oil, diesel, gasoline, and wood, as well as high temperature process sources such as smelters and steel mills, produce emissions that contribute to fine particle formation. In contrast, coarse particles are typically mechanically generated by crushing or grinding. They include resuspended dusts and crustal material from paved roads, unpaved roads, construction, farming, and mining activities. These coarse particles can be either natural in source such as road dust or anthropogenic. Fine particles can remain in the atmosphere for days to weeks and travel through the atmosphere hundreds to thousands of kilometers, while coarse particles deposit to the earth within minutes to hours and within tens of kilometers from the emission source.

The relative contribution of various chemical components to $PM_{2.5}$ varies by region of the country. Data on $PM_{2.5}$ composition are available from the EPA Speciation Trends Network in 2001 and the *I*nteragency *M*onitoring of *PRO*tected *V*isual *E*nvironments (IMPROVE) network in 1999 covering both urban and rural areas in numerous regions of the U.S. These data show that carbonaceous $PM_{2.5}$ makes up the major component for $PM_{2.5}$ in both urban and rural areas in the western U.S. Carbonaceous $PM_{2.5}$ includes both elemental and organic carbon. Nitrates formed from NO_X also play a major role in the western U.S., especially in the California area where it is responsible for about a quarter of the ambient $PM_{2.5}$ concentrations. Sulfate plays a lesser role in these regions. For the eastern and mid U.S., these data show that both sulfates and carbonaceous $PM_{2.5}$ are major contributors to ambient $PM_{2.5}$ in both urban and rural areas. In some eastern areas, carbonaceous $PM_{2.5}$ is responsible for up to half of ambient $PM_{2.5}$ concentrations. Sulfate is also a

[9] Ambient particulate matter from nonroad diesel engine is associated with the direct emission of diesel particulate matter, and with particulate matter formed indirectly in the atmosphere by NO_X and SO_x emissions (and to a lesser extent NMHC emissions). Both NO_X and NMHC participate in the atmospheric chemical reactions that produce ozone.

major contributor to ambient $PM_{2.5}$ in the eastern U.S. and in some areas make greater contributions than carbonaceous $PM_{2.5}$[10 11]

Nonroad engines, and most importantly nonroad diesel engines, contribute significantly to ambient $PM_{2.5}$ levels, largely through emissions of carbonaceous $PM_{2.5}$. Carbonaceous $PM_{2.5}$ is a major portion of ambient $PM_{2.5}$, especially in populous urban areas. Nonroad diesels also emit high levels of NO_X which react in the atmosphere to form secondary $PM_{2.5}$ (namely nitrate). Nonroad diesels also emit SO_2 and NMHC which react in the atmosphere to form secondary $PM_{2.5}$ (namely sulfates and organic carbonaceous $PM_{2.5}$). For more details, consult the draft RIA for this proposed rule.

Diesel particles from nonroad diesel are a component of both coarse and fine PM, but fall mainly in the fine (and even ultrafine) size range. As discussed later, diesel PM also contains small quantities of numerous mutagenic and carcinogenic compounds associated with the particulate (and also organic gases). In addition, while toxic trace metals emitted by nonroad diesel engines represent a very small portion of the national emissions of metals (less than one percent) and a small portion of diesel PM (generally less than one percent of diesel PM), we note that several trace metals of potential toxicological significance and persistence in the environment are emitted by diesel engines. These trace metals include chromium, manganese, mercury and nickel. In addition, small amounts of dioxins have been measured in highway engine diesel exhaust, some of which may partition into the particulate phase; dioxins through out the environment are a major health concern (although the diesel contribution has not been judged significant at this point). Diesel engines also emit polycyclic organic matter (POM), including polycyclic aromatic hydrocarbons (PAH), which can be present in both gas and particle phases of diesel exhaust. Many PAH compounds are classified by EPA as probable human carcinogens.

For additional, detailed, information on PM beyond that summarized below, see the draft Regulatory Impact Analysis.

a. Health Effects of $PM_{2.5}$ and PM_{10}

Scientific studies show ambient PM (which is attributable to a number of sources, including nonroad diesel) is associated with a series of adverse health effects. These health effects are discussed in detail in the EPA Criteria Document for PM as well as the draft updates of this document released in the past year.[12 13] In addition, EPA's final ''Health Assessment Document for Diesel Engine Exhaust,'' (the Diesel HAD) also reviews health effects information related to diesel exhaust as a whole including diesel PM, which is one component of ambient PM.[14]

As described in these documents, health effects associated with short-term variation in ambient particulate matter (PM) have been indicated by epidemiologic studies showing associations between exposure and increased hospital admissions for ischemic heart disease, heart failure, respiratory disease, including chronic obstructive pulmonary disease (COPD) and pneumonia. Short-term elevations in ambient PM have also been associated with increased cough, lower respiratory symptoms, and decrements in lung function. Short-term variations in ambient PM have also been associated with increases in total and cardiorespiratory daily mortality. Studies examining populations exposed to different levels of air pollution over a number of years, including the Harvard Six Cities Study and the American Cancer Society Study suggest an association between exposure to ambient $PM_{2.5}$ and premature mortality, including deaths attributed to lung cancer.[15 16] Two studies further analyzing the Harvard Six Cities Study's air quality data have also established a specific influence of mobile source-related $PM_{2.5}$ on daily mortality[17] and a concentration-response function for mobile source-associated $PM_{2.5}$ and daily mortality.[18] Another recent study in 14 U.S. cities examining the effect of PM_{10} on daily hospital admissions for cardiovascular disease found that the effect of PM_{10} was significantly greater in areas with a larger proportion of PM_{10} coming from motor vehicles, indicating that PM_{10} from these sources may have a greater effect on the toxicity of ambient PM_{10} when compared with other sources.[19] Additional studies have associated changes in heart rate and/or heart rhythm in addition to changes in blood characteristics with exposure to ambient PM.[20 21] For additional information on health effects, see the draft RIA.

The health effects of PM_{10} are similar to those of $PM_{2.5}$, since PM_{10} includes all of $PM_{2.5}$ plus the coarse fraction from 2.5 to 10 micrometers in size. EPA is also evaluating the health effects of PM between 2.5 and 10 micrometers in the draft revised Criteria Document. As discussed in the Diesel HAD and other studies, most diesel PM is smaller than 2.5 micrometers.[22] Both fine and coarse fraction particles can enter and deposit in the respiratory system.

In addition to the information in the draft revised Criteria Document, the relevance of health effects associated with on-road diesel engine-generated PM to nonroad applications is supported by the observation in the Diesel HAD that the particulate characteristics in the zone around nonroad diesel engines is likely to be substantially the same as published air quality measurements made along busy roadways.

Of particular relevance to this rule is a recent cohort study which examined the association between mortality and

[10] Rao, Venkatesh; Frank, N.; Rush, A.; and Dimmick, F. (November 13–15, 2002). Chemical speciation of $PM_{2.5}$ in urban and rural areas (November 13–15, 2002) In the Proceedings of the Air & Waste Management Association Symposium on Air Quality Measurement Methods and Technology, San Francisco Meeting.

[11] EPA (2002) Latest Finds on National Air Quality, EPA 454/K–02–001.

[12] U.S. EPA (1996.) Air Quality Criteria for Particulate Matter—Volumes I, II, and III, EPA, Office of Research and Development. Report No. EPA/600/P–95/001a–cF. This material is available electronically at *http://www.epa.gov/ttn/oarpg/ticd.html.*

[13] U.S. EPA (2002). Air Quality Criteria for Particulate Matter—Volumes I and II (Third External Review Draft) This material is available electronically at *http://cfpub.epa.gov/ncea/cfm/partmatt.cfm.*

[14] U.S. EPA (2002). Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F Office of Research and Development, Washington DC. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060.*

[15] Dockery, DW; Pope, CA, III; Xu, X; *et al.* (1993) An association between air pollution and mortality in six U.S. cities. N Engl J Med 329:1753–1759.

[16] Pope, CA, III; Thun, MJ; Namboordiri, MM; *et al.* (1995) Particulate air pollution as a predictor of mortality in a prospective study of U.S. adults. Am J Respir Crit Care Med 151:669–674.

[17] Laden F; Neas LM; Dockery DW; *et al.* (2000) Association of fine particulate matter from different sources with daily mortality in six U.S. cities. Environ Health Perspect 108(10):941–947.

[18] Schwartz J; Laden F; Zanobetti A. (2002) The concentration-response relation between PM(2.5) and daily deaths. Environ Health Perspect 110(10): 1025–1029.

[19] Janssen NA; Schwartz J; Zanobetti A.; *et al.* (2002) Air conditioning and source-specific particles as modifiers of the effect of PM_{10} on hospital admissions for heart and lung disease. Environ Health Perspect 110(1):43–49.

[20] Pope CA III, Verrier RL, Lovett EG; *et al.* (1999) Heart rate variability associated with particulate air pollution. Am Heart J 138(5 Pt 1):890–899.

[21] Magari SR, Hauser R, Schwartz J; *et al.* (2001) Association of heart rate variability with occupational and environmental exposure to particulate air pollution. Circulation 104(9):986–991.

[22] U.S. EPA (1985). Size specific total particulate emission factor for mobile sources. EPA 460/3–85–005. Office of Mobile Sources, Ann Arbor, MI.

residential proximity to major roads in the Netherlands. Examining a cohort of 55 to 69 year-olds from 1986 to1994, the study indicated that long-term residence near major roads, an index of exposure to primary mobile source emissions (including diesel exhaust), was significantly associated with increased cardiopulmonary mortality.[23] Other studies have shown children living near roads with high truck traffic density have decreased lung function and greater prevalence of lower respiratory symptoms compared to children living on other roads.[24] A recent review of epidemiologic studies examining associations between asthma and roadway proximity concluded that some coherence was evident in the literature, indicating that asthma, lung function decrement, respiratory symptoms, and other respiratory problems appear to occur more frequently in people living near busy roads.[25] As discussed later, nonroad diesel engine emissions, especially particulate, are similar in composition to those from highway diesel vehicles. Although difficult to associate directly with $PM_{2.5}$, these studies indicate that direct emissions from mobile sources, and diesel engines specifically, may explain a portion of respiratory health effects observed in larger-scale epidemiologic studies. Recent studies conducted in Los Angeles have illustrated that a substantial increase in the concentration of ultrafine particles is evident in locations near roadways, indicating substantial differences in the nature of PM immediately near mobile source emissions.[26]

Also, as discussed in more detail later, in addition to its contribution to ambient PM inventories, diesel PM is of special concern because diesel exhaust has been associated with an increased risk of lung cancer. As also discussed later in more detail, we concluded that diesel exhaust ranks with other substances that the national-scale air toxics assessment suggests pose the greatest relative risk.

b. Current and Projected Levels

There are NAAQS for both PM_{10} and $PM_{2.5}$. Violations of the annual $PM_{2.5}$ standard are much more widespread than are violations of the PM_{10} standards. Emission reductions needed to attain the $PM_{2.5}$ standards will also assist in attaining and maintaining compliance with the PM_{10} standards. Thus, since most PM emitted by diesel nonroad engines is fine PM, the emission controls proposed today should contribute to attainment and maintenance of the existing PM NAAQS. More broadly, the proposed standards will benefit public health and welfare through reductions in direct diesel PM and reductions of NO_X, SO_X, and NMHCs which contribute to secondary formation of PM. The reductions from these proposed rules will assist States as they implement local controls as needed to help their areas attain and maintain the standards.

i. PM_{10} Levels

The current NAAQS for PM_{10} were established in 1987. The primary (health-based) and secondary (public welfare based) standards for PM_{10} include both short- and long-term NAAQS. The short-term (24 hour) standard of 150 ug/m^3 is not to be exceeded more than once per year on average over three years. The long-term standard specifies an expected annual arithmetic mean not to exceed 50 ug/m^3 averaged over three years.

Currently, 29 million people live in PM_{10} nonattainment areas. There are currently 58 moderate PM_{10} nonattainment areas with a total population of 6.8 million. The attainment date for the initial moderate PM_{10} nonattainment areas, designated by operation of law on November 15, 1990, was December 31, 1994. Several additional PM_{10} nonattainment areas were designated on January 21, 1994, and the attainment date for these areas was December 31, 2000. There are an additional 8 serious PM_{10} nonattainment areas with a total affected population of 22.7 million. According to the Act, serious PM_{10} nonattainment areas must attain the standards no later than 10 years after designation. The initial serious PM_{10} nonattainment areas were designated January 18, 1994, and had an attainment date set by the Act of December 31, 2001. The Act provides that EPA may grant extensions of the serious area attainment dates of up to 5 years, provided that the area requesting the extension meets the requirements of section 188(e) of the Act. Four serious PM_{10} nonattainment areas (Phoenix, Arizona; Coachella Valley, South Coast (Los Angeles), and Owens Valley, California) have received extensions of the December 31, 2001, attainment date and thus have new attainment dates of December 31, 2006.[27] While all of these areas are expected to be in attainment before the emission reductions from this proposed rule are expected to occur, these reductions will be important to assist these areas in maintaining the standards.

ii. $PM_{2.5}$ Levels

The need for reductions in the levels of $PM_{2.5}$ is widespread. Figure II–1 at the beginning of this air quality section highlighted monitor locations measuring concentrations above the level of the NAAQS. As can be seen from that figure, high ambient levels are widespread throughout the country.

The NAAQS for $PM_{2.5}$ were established by EPA in 1997 (62 FR 38651, July 18, 1997). The short term (24-hour) standard is set at a level of 65 μg/m$_3$ based on the 98th percentile concentration averaged over three years. (This air quality statistic compared to the standard is referred to as the ''design value.'') The long-term standard specifies an expected annual arithmetic mean not to exceed 15 ug/m^3 averaged over three years.

Current $PM_{2.5}$ monitored values for 1999–2001, which cover counties having about 75 percent of the country's population, indicate that at least 65 million people in 129 counties live in areas where annual design values of ambient fine PM violate the $PM_{2.5}$ NAAQS. There are an additional 9 million people in 20 counties where levels above the NAAQS are being measured, but there are insufficient data at this time to calculate a design value in accordance with the standard, and thus determine whether these areas are violating the $PM_{2.5}$ NAAQS. In total, this represents 37 percent of the counties and 64 percent of the population in the areas with monitors with levels above the NAAQS. Furthermore, an additional 14 million people live in 41 counties that have air quality measurements within 10 percent of the level of the standard. These areas, although not currently violating the standard, will also benefit from the additional reductions from this rule in order to ensure long term maintenance.

Our air quality modeling performed for this proposal also indicates that similar conditions are likely to continue

[23] Hoek, G; Brunekreef, B; Goldbohm, S; *et al.* (2002) Association between mortality and indicators of traffic-related air pollution in the Netherlands: a cohort study. Lancet 360(9341): 1203–1209.

[24] Brunekreef, B; Janssen NA; de Hartog, J; *et al.* (1997) Air pollution from traffic and lung function in children living near motor ways. Epidemiology (8): 298–303.

[25] Delfino RJ. (2002) Epidemiologic evidence for asthma and exposure to air toxics: linkages between occupational, indoor, and community air pollution research. Env Health Perspect Suppl 110(4): 573–589.

[26] Yifang Zhu, William C. Hinds, Seongheon Kim, Si Shen and Constantinos Sioutas Zhu Y; Hinds WC; Kim S; *et al.* (2002) Study of ultrafine particles near a major highway with heavy-duty diesel traffic. Atmos Environ 36(27): 4323–4335.

[27] EPA has also proposed to grant Las Vegas, Nevada, an extension until December 31, 2006.

to exist in the future in the absence of additional controls. For example, in 2020 based on emission controls currently adopted, we project that 66 million people will live in 79 counties with average $PM_{2.5}$ levels above 15 ug/m^3. In 2030, the number of people projected to live in areas exceeding the $PM_{2.5}$ standard is expected to increase to 85 million in 107 counties. An additional 24 million people are projected to live in counties within 10 percent of the standard in 2020, which will increase to 64 million people in 2030.

Our modeling also indicates that the reductions we are expecting will make a substantial contribution to reducing exposures in these areas.[28] In 2020, the number of people living in counties with $PM_{2.5}$ levels above the NAAQS would be reduced from 66 million to 60 million living in 67 counties, which reflects a reduction of 9 percent in potentially exposed population and 15 percent of the number of counties. In 2030, there would be a reduction from 85 million people to 71 million living in 84 counties. These represent even greater improvements than projected for 2020 (numbers of people potentially exposed down 16 percent and number of counties down 21 percent). Furthermore, our modeling also shows that the emission reductions would assist areas with future maintenance of the standards.

We estimate that the reduction of PM levels expected from this proposed rule would produce nationwide air quality improvements in PM levels. On a population weighted basis, the average change in future year annual averages would be a decrease of 0.33 ug/m^3 in 2020, and 0.46 ug/m^3 in 2030. The reductions are discussed in more detail in chapter 2 of the draft RIA.

While the final implementation process for bringing the nation's air into attainment with the $PM_{2.5}$ NAAQS is still being completed in a separate rulemaking action, the basic framework is well defined by the statute. EPA's current plans call for designating $PM_{2.5}$ nonattainment areas in late-2004. Following designation, Section 172(b) of the Clean Air Act allows states up to three years to submit a revision to their state implementation plan (SIP) that provides for the attainment of the $PM_{2.5}$ standard. Based on this provision, states could submit these SIPs as late as the end of 2007. Section 172(a)(2) of the Clean Air Act requires that these SIP revisions demonstrate that the nonattainment areas will attain the $PM_{2.5}$ standard as expeditiously as practicable but no later than five years from the date that the area was designated nonattainment. However, based on the severity of the air quality problem and the availability and feasibility of control measures, the Administrator may extend the attainment date ''for a period of no greater than 10 years from the date of designation as nonattainment.'' Therefore, based on this information, we expect that most or all areas will need to attain the $PM_{2.5}$ NAAQS in the 2009 to 2014 time frame, and then be required to maintain the NAAQS thereafter.

Since the emission reductions expected from this proposal would begin in this same time frame, the projected reductions in nonroad emissions would be used by states in meeting the $PM_{2.5}$ NAAQS. States and state organizations have told EPA that they need nonroad diesel engine reductions in order to be able to meet and maintain the $PM_{2.5}$ NAAQS as well as visibility regulations, especially in light of the otherwise increasing emissions from nonroad sources without more stringent standards.[29] [30] [31] Furthermore, this action would ensure that nonroad diesel emissions will continue to decrease as the fleet turns over in the years beyond 2014; these reductions will be important for maintenance of the NAAQS following attainment. The future reductions are also important to achieve visibility goals, as discussed later.

2. Air Toxics

a. Diesel Exhaust

A number of health studies have been conducted regarding diesel exhaust including epidemiologic studies of lung cancer in groups of workers, and animal studies focusing on non-cancer effects specific to diesel exhaust. Diesel exhaust PM (including the associated organic compounds which are generally high molecular weight hydrocarbon types but not the more volatile gaseous hydrocarbon compounds) is generally used as a surrogate measure for diesel exhaust.

i. Potential Cancer Effects of Diesel Exhaust

In addition to its contribution to ambient PM inventories, diesel exhaust is of specific concern because it has been judged to pose a lung cancer hazard for humans as well as a hazard from noncancer respiratory effects.

EPA recently released its ''Health Assessment Document for Diesel Engine Exhaust,'' (the Diesel HAD).[32] There, diesel exhaust was classified as likely to be carcinogenic to humans by inhalation at environmental exposures, in accordance with the revised draft 1996/1999 EPA cancer guidelines. A number of other agencies (National Institute for Occupational Safety and Health, the International Agency for Research on Cancer, the World Health Organization, California EPA, and the U.S. Department of Health and Human Services) have made similar classifications. It should be noted that the conclusions in the Diesel HAD were based on diesel engines currently in use, including nonroad diesel engines such as those found in bulldozers, graders, excavators, farm tractor drivers and heavy construction equipment. As new diesel engines with significantly cleaner exhaust emissions replace existing engines, the conclusions of the Diesel HAD will need to be reevaluated.

For the EPA Diesel HAD, EPA reviewed 22 epidemiologic studies in detail, finding increased lung cancer risk in 8 out of 10 cohort studies and 10 out of 12 case-control studies. Relative risk for lung cancer associated with exposure range from 1.2 to 2.6. In addition, two meta-analyses of occupational studies of diesel exhaust and lung cancer have estimated the smoking-adjusted relative risk of 1.35 and 1.47, examining 23 and 30 studies, respectively.[33] [34] That is, these two studies show an overall increase in lung cancer for the exposed groups of 35 percent and 47 percent compared to the groups not exposed to diesel exhaust. In the EPA Diesel HAD, EPA selected 1.4

[28] The results illustrate the type of PM changes for the preliminary control option, as discussed in the Draft RIA in section 3.6. The proposal differs from the modeled control case based on updated information; however, we believe that the net results would approximate future emissions, although we anticipate the PM reductions might be slightly smaller.

[29] California Air Resources Board and New York State Department of Environmental Conservation (April 9, 2002), Letter to EPA Administrator Christine Todd Whitman.

[30] State and Territorial Air Pollution Program Administrators (STAPPA) and Association of Local Air Pollution Control Officials (ALAPCO) (December 17, 2002), Letter to EPA Assistant Administrator Jeffrey R. Holmstead.

[31] Western Regional Air Partnership (WRAP) (January 28, 2003), Letter to Governor Christine Todd Whitman.

[32] U.S. EPA (2002). Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F Office of Research and Development, Washington DC. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060.*

[33] Bhatia, R., Lopipero, P., Smith, A. (1998). Diesel exhaust exposure and lung cancer. Epidemiology 9(1):84–91.

[34] Lipsett, M: Campleman, S.; (1999). Occupational exposure to diesel exhaust and lung cancer: a meta-analysis. Am J Public Health 80(7):1009–1017.

as a reasonable estimate of occupational relative risk for further analysis.

EPA generally derives cancer unit risk estimates to calculate population risk more precisely from exposure to carcinogens. In the simplest terms, the cancer unit risk is the increased risk associated with average lifetime exposure of 1 ug/m^3. EPA concluded in the Diesel HAD that it is not possible currently to calculate a cancer unit risk for diesel exhaust due to a variety of factors that limit the current studies, such as a lack of standard exposure metric for diesel exhaust and the absence of quantitative exposure characterization in retrospective studies.

EPA generally derives cancer unit risk estimates to calculate population risk more precisely from exposure to carcinogens. In the simplest terms, the cancer unit risk is the increased risk associated with average lifetime exposure of 1 ug/m^3. EPA concluded in the Diesel HAD that it is not possible currently to calculate a cancer unit risk for diesel exhaust due to a variety of factors that limit the current studies, such as lack of an adequate dose-response relationship between exposure and cancer incidence.

However, in the absence of a cancer unit risk, the EPA Diesel HAD sought to provide additional insight into the possible ranges of risk that might be present in the population. Such insights, while not confident or definitive, nevertheless contribute to an understanding of the possible public health significance of the lung cancer hazard. The possible risk range analysis was developed by comparing a typical environmental exposure level to a selected range of occupational exposure levels and then proportionally scaling the occupationally observed risks according to the exposure ratio's to obtain an estimate of the possible environmental risk. If the occupational and environmental exposures are similar, the environmental risk would approach the risk seen in the occupational studies whereas a much higher occupational exposure indicates that the environmental risk is lower than the occupational risk. A comparison of environmental and occupational exposures showed that for certain occupations the exposures are similar to environmental exposures while, for others, they differ by a factor of about 200 or more.

The first step in this process is to note that the occupational relative risk of 1.4, or a 40 percent from increased risk compared to the typical 5 percent lung cancer risk in the U.S. population, translates to an increased risk of 2 percent (or 10^{-2}) for these diesel exhaust exposed workers. The Diesel HAD derived a typical nationwide average environmental exposure level of 0.8 ug./m^3 for diesel PM from highway sources for 1996. Diesel PM is a surrogate for diesel exhaust and, as mentioned above, has been classified as a carcinogen by some agencies.

This estimate was based on national exposure modeling; the derivation of this exposure is discussed in detail in the EPA Diesel HAD. The possible risk range in the environment was estimated by taking the relative risks in the occupational setting, EPA selected 1.4 and converting this to absolute risk of 2% and then ratioing this risk by differences in the occupational vs environmental exposures of interest. A number of calculations are needed to accomplish this, and these can be seen in the EPA Diesel HAD. The outcome was that environmental risks from diesel exhaust exposure could range from a low of 10^{-4} to 10^{-5} or be as high as 10^{-3} this being a reflection of the range of occupational exposures that could be associated with the relative and absolute risk levels observed in the occupational studies.

While these risk estimates are exploratory and not intended to provide a definitive characterization of cancer risk, they are useful in gauging the possible range of risk based on reasonable judgement. It is important to note that the possible risks could also be higher or lower and a zero risk cannot be ruled out. Some individuals in the population may have a high tolerance to exposure from diesel exhaust and low cancer susceptibility. Also, one cannot rule out the possibility of a threshold of exposure below which there is no cancer risk, although evidence has not been seen or substantiated on this point.

Also, as discussed in the Diesel HAD, there is a relatively small difference between some occupational settings where increased lung cancer risk is reported and ambient environmental exposures. The potential for small exposure differences underscores the appropriateness of the extrapolation from occupational risk to ambient environmental exposure levels is reasonable and appropriate.

EPA also recently completed an assessment of air toxic emissions (the National-Scale Air Toxics Assessment or NATA) and their associated risk, and we concluded that diesel exhaust ranks with other substances that the national-scale assessment suggests pose the greatest relative risk.[35] This assessment estimates average population inhalation exposures to diesel PM in 1996 for nonroad as well as on-road sources. These are the sum of ambient levels in various locations weighted by the amount of time people spend in each of the locations. This analysis shows a somewhat higher diesel exposure level than the 0.8 ug/m^3 used to develop the risk perspective in the Diesel HAD. The NATA levels are 1.4 ug/m^3 total with an on-road source contribution of 0.5 ug/m^3 to average nationwide exposure in 1996 and a nonroad source contribution of 0.9 ug/m^3. The average urban exposure concentration was 1.6 ug/m^3 and the average rural concentration was 0.55 ug/m^3. In five percent of urban census tracts across the United States, average concentrations were above 4.3 ug/m^3. The Diesel HAD states that use of the NATA exposure number results instead of the 0.8 ug/m^3 results in a similar risk perspective.

In 2001, EPA completed a rulemaking on mobile source air toxics with a determination that diesel particulate matter and diesel exhaust organic gases be identified as a Mobile Source Air Toxic (MSAT).[36] This determination was based on a draft of the Diesel HAD on which the Clean Air Scientific Advisory Committee of the Science Advisory Board had reached closure. The purpose of the MSAT list is to provide a screening tool that identifies compounds emitted from motor vehicles or their fuels for which further evaluation of emissions controls is appropriate.

In summary, even though EPA does not have a specific carcinogenic potency with which to accurately estimate the carcinogenic impact of diesel PM, the likely hazard to humans at environmental exposure levels leads us to conclude that diesel exhaust emissions of PM and organic gases should be reduced from nonroad engines in order to protect public health.

ii. Other Health Effects of Diesel Exhaust

The acute and chronic exposure-related effects of diesel exhaust emissions are also of concern to the Agency. The Diesel HAD established an inhalation Reference Concentration (RfC) specifically based on animal studies of diesel exhaust. An RfC is defined by EPA as ''an estimate of a continuous inhalation exposure to the human population, including sensitive subgroups, with uncertainty spanning

[35] U.S. EPA (2002). National-Scale Air Toxics Assessment. This material is available electronically at *http://www.epa.gov/ttn/atw/nata/*.

[36] U.S. EPA (2001). Control of Emissions of Hazardous Air Pollutants from Mobile Sources; Final Rule. 66 FR 17230–17273 (March 29, 2001).

perhaps an order of magnitude, that is likely to be without appreciable risks of deleterious noncancer effects during a lifetime.'' EPA derived the RfC from consideration of four chronic rat inhalation studies showing adverse pulmonary effects. The diesel RfC is based on a ''no observable adverse effect'' level of 144 ug/m^3 that is further reduced by applying uncertainty factors of 3 for interspecies extrapolation and 10 for human variations in sensitivity. The resulting RfC derived in the Diesel HAD is 5 ug/m^3 for diesel exhaust as measured by diesel PM. This RfC does not consider allergenic effects such as those associated with asthma or immunologic effects. There is growing evidence that diesel exhaust can exacerbate these effects, but the exposure-response data is presently lacking to derive an RfC. Again, this RfC is based on animal studies and is meant to estimate exposure that is unlikely to have deleterious effects on humans based on those studies alone.

The Diesel HAD also briefly summarizes health effects associated with ambient PM and the EPA's annual NAAQS for $PM_{2.5}$ of 15 ug/m^3. There is a much more extensive body of human data showing a wide spectrum of adverse health effects associated with exposure to ambient PM, of which diesel exhaust is an important component due to its large contribution to ambient concentrations. The RfC is not meant to say that 5 ug/m^3 provides adequate public health protection for ambient $PM_{2.5}$. There may be benefits to reducing diesel PM below 5 ug/m^3 since diesel PM is a major contributor to ambient $PM_{2.5}$. Recent epidemiologic studies of ambient PM2.5 do not indicate a threshold of effects at low concentrations.[37]

Also, as mentioned earlier in the health effects discussion for $PM_{2.5}$, there are a number of other health effects associated with PM in general, and motor vehicle exhaust including diesels in particular, that provide additional evidence for the need for significant emission reductions from nonroad diesel sources. For example, the Diesel HAD notes that acute or short-term exposure to diesel exhaust can cause acute irritation (*e.g.*, eye, throat, bronchial), neurophysiological symptoms (*e.g.*, lightheadedness, nausea), and respiratory symptoms (*e.g.*, cough, phlegm). There is also evidence for an immunologic effect such as the exacerbation of allergenic responses to know allergens and asthma-like symptoms. All of these health effects plus the designation of diesel exhaust as a likely human carcinogen provide ample health justification for control.

iii. Ambient Levels and Exposure to Diesel Exhaust PM

Because diesel PM is part of overall ambient PM and cannot be easily distinguished from overall PM, we do not have direct measurements of diesel PM in the ambient air. Ambient diesel PM concentrations are estimated instead using one of three approaches: (1) Ambient air quality modeling based on diesel PM emission inventories; (2) using elemental carbon concentrations in monitored data as surrogates; or (3) using the chemical mass balance (CMB) model in conjunction with ambient PM measurements. (Also, in addition to CMB, UNMIX/PMF have also been used). Estimates using these three approaches are described below. In addition, estimates developed using the first two approaches above are subjected to a statistical comparison to evaluate overall reasonableness of estimated concentrations. It is important to note that, while there are inconsistencies in some of these studies on the relative importance of gasoline and diesel PM, the studies which are discussed in the Diesel HAD all show that diesel PM is a significant contributor to overall ambient PM. Some of the studies differentiate nonroad from on-road diesel PM.

(1) Air Quality Modeling

In addition to the general ambient PM modeling conducted for this proposal, diesel PM concentrations specifically were recently estimated for 1996 as part of NATA. In this assessment, the PM inventory developed for the recent regulation promulgating 2007 heavy duty vehicle standards was used. Note that the nonroad inventory used in this modeling was based on an older version of the draft NONROAD Model which showed higher diesel PM than the current version. Ambient impacts of mobile source emissions were predicted using the Assessment System for Population Exposure Nationwide (ASPEN) dispersion model. Overall mean annual national levels for both on-road and nonroad diesels of 2.06 ug/m^3 diesel PM were calculated with a mean of 2.41 in urban counties and 0.74 in rural counties. These are ambient levels such as would be seen at monitors rather than the exposure levels discussed earlier. Over half of the diesel PM comes from nonroad diesels.

Diesel PM concentrations were also recently modeled across a representative urban area, Houston, for 1996, using the Industrial Source Complex Short Term (ISCST3) model. This modeling is designed to more specifically account for local traffic patterns including diesel truck traffic along specific roadways. The modeling in Houston suggests strong spatial gradients for Diesel PM and indicates that ''hotspot'' concentrations can be very high, up to 8 ug/m^3 at receptor versus a 3 ug/m^3 average in Houston. Such concentrations are above the RfC for diesel exhaust and indicate a potential for adverse health effects from chronic exposure to diesel PM. These results also suggest that PM from diesel vehicles makes a major contribution to total ambient PM concentrations. Such ''hot spot'' concentrations along certain roadways suggest the presence of both high localized exposures plus higher estimated average annual exposure levels for urban centers than what has been estimated in assessments such as NATA, which are designed to focus on regional and national scale averages. There are similar ''hot spot'' concentrations in the immediate vicinity of use of nonroad equipment such as in urban construction sites.

(2) Elemental Carbon Measurements

As mentioned before, the carbonaceous component is significant in ambient PM. The carbonaceous component consists of organic carbon and elemental carbon. Monitoring data on elemental carbon concentrations can be used as a surrogate to determine ambient diesel PM concentrations. Elemental carbon is a major component of diesel exhaust, contributing to approximately 60 to 80 percent of diesel particulate mass, depending on engine technology, fuel type, duty cycle, lube oil consumption, and state of engine maintenance. In most areas, diesel engine emissions are major contributors to elemental carbon in the ambient air, with other potential sources including gasoline exhaust, combustion of coal, oil, or wood (including forest fires), charbroiling, cigarette smoke, and road dust. Because of the large portion of elemental carbon in diesel particulate matter, and the fact that diesel exhaust is one of the major contributors to elemental carbon in most areas, ambient diesel PM concentrations can be bounded using elemental carbon measurements.

The measured mass of elemental carbon at a given site varies depending on the measurement technique used. Moreover, to estimate diesel PM concentration based on elemental

[37] EPA–SAB-Council-ADV–99–012, 1999. The Clean Air Act Amendments Section 812 Prospective Study of Costs and Benefits (1999): Advisory by the Health and Ecological Effects Subcommittee on Initial Assessments of Health and Ecological Effects, Part 1. July 28, 1999.

carbon level, one must first estimate the percentage of PM attributable to diesel engines and the percentage of elemental carbon in diesel PM. Thus, there are significant uncertainties in estimating diesel PM concentrations using an elemental carbon surrogate. Depending on the measurement technique used, and assumptions made, average nationwide concentrations for current years of diesel PM estimated from elemental carbon data range from about 1.2 to 2.2 ug/m^3. EPA has compared these estimates based on elemental carbon measurements to modeled concentrations in NATA and concluded that the two sets of data agree reasonably well. This performance compares favorably with the model to monitor results for other pollutants assessed in NATA, with the exception of benzene, for which the performance of the NATA modeling was better. These comparisons are discussed in greater detail in the draft RIA.

(3) Chemical Mass Balance

The third approach for estimating ambient diesel PM concentrations uses the CMB model for source apportionment in conjunction with ambient PM measurements and chemical source ''fingerprints'' to estimate ambient diesel PM concentrations. The CMB model uses a statistical fitting technique to determine how much mass from each source would be required to reproduce the chemical fingerprint of each speciated ambient monitor. This source apportionment technique presently does not distinguish between on-road and nonroad but, instead, gives diesel PM as a whole. This source apportionment technique can distinguish between diesel and gasoline PM. Caution in interpreting CMB results is warranted, as the use of fitting species that are not specific to the sources modeled can lead to misestimation of source contributions. Ambient concentrations using this approach are generally about 1 ug/m^3 annual average. UNMIX/PMF models show similar results. Results from various studies are discussed in the draft RIA.

iv. Diesel Exhaust PM Exposures

Exposure of people to diesel exhaust depends on their various activities, the time spent in those activities, the locations where these activities occur, and the levels of diesel exhaust pollutants (such as particulate) in those locations. The major difference between ambient levels of diesel particulate and exposure levels for diesel particulate is that exposure accounts for a person moving from location to location, proximity to the emission source, and whether the exposure occurs in an enclosed environment.

(1) Occupational Exposures

Diesel particulate exposures have been measured for a number of occupational groups over various years but generally for more recent years (1980s and later) rather than earlier years. Occupational exposures had a wide range varying from 2 to 1,280 ug/m^3 for a variety of occupational groups including miners, railroad workers, firefighters, air port crew, public transit workers, truck mechanics, utility linemen, utility winch truck operators, fork lift operators, construction workers, truck dock workers, short-haul truck drivers, and long-haul truck drivers. These individual studies are discussed in the Diesel HAD. As discussed in the Diesel HAD, the National Institute of Occupational Safety and Health (NIOSH) has estimated a total of 1,400,000 workers are occupationally exposed to diesel exhaust from on-road and nonroad equipment.

Many measured or estimated occupational exposures are for on-road diesel engines although some (especially the higher ones) are for occupational groups (*e.g.*, fork lift operators, construction workers, or mine workers) who would be exposed to nonroad diesel exhaust. Sometimes, as is the case for the nonroad engines, there are only estimates of exposure based on the length of employment or similar factors rather than a ug/m^3 level. Estimates for exposures to diesel PM for diesel fork lift operators have been made that range from 7 to 403 ug/m^3 as reported in the Diesel HAD. In addition, the Northeast States for Coordinated Air Use Management (NESCAUM) is presently measuring occupational exposures to particulate and elemental carbon near the operation of various diesel non-road equipment. Exposure groups include agricultural farm operators, grounds maintenance personnel (lawn and garden equipment), heavy equipment operators conducting multiple job tasks at a construction site, and a saw mill crew at a lumber yard. Samples will be obtained in the breathing zone of workers. Some initial results are expected in late 2003.

(2) General Ambient Exposures

Currently, personal exposure monitors for PM cannot differentiate diesel from other PM. Thus, we use modeling to estimate exposures. Specifically, exposures for the general population are estimated by first conducting dispersion modeling of both on-road and non-road diesel emissions, described above, and then by conducting exposure modeling. The most comprehensive modeling for cumulative exposures to diesel PM is the NATA. This assessment calculates exposures of the national population as a whole to a variety of air toxics, including diesel PM. As discussed previously, the ambient levels are calculated using the ASPEN dispersion model. The preponderance of modeled diesel PM concentrations are within a factor of 2 of diesel PM concentrations estimated from elemental carbon measurements.[38] This comparison adds credence to the modeled ASPEN results and associated exposure assessment.

The modeled ambient concentrations are used as inputs into the Hazardous Air Pollution Exposure Model (HAPEM4) to calculate exposure levels. Average exposures calculated nationwide are 1.44 ug/m^3 with levels of 1.64 ug/m^3 for urban counties and 0.55 ug/m^3 for rural counties. Again, nonroad diesels account for over half of this modeled exposure.

(3) Ambient Exposures—Microenvironments

One common microenvironment for diesel exposure is beside freeways. Although freeway locations are associated mostly with on-road rather than nonroad diesels, there are many similarities between on-road and nonroad diesel emissions as discussed in the Diesel HAD. The California Air Resources Board (CARB) measured elemental carbon near the Long Beach Freeway in 1993. Levels measured ranged from 0.4 to 4.0 ug/m^3 (with one value as high as 7.5 ug/m^3) above background levels. Microenvironments associated with nonroad engines would include construction zones. PM and elemental carbon samples are being collected by NESCAUM in the immediate area of the nonroad engine operations (such as at the edge or fence line of the construction zone). Besides PM and elemental carbon levels, various toxics such as benzene, 1,3-butadiene, formaldehyde, and acetaldehyde will be sampled. Some initial results should be available in late 2003 and will be especially useful since they focus on those microenvironments affected by nonroad diesels.

Also, EPA is funding research in Fresno to measure indoor and outdoor PM component concentrations in the homes of over 100 asthmatic children. Some of these homes are located near

[38] U.S. EPA (2002). Diesel PM model-to-measurement comparison. Prepared by ICF Consulting for EPA, Office of Transportation and Air Quality. Report No. EPA420–D–02–004.

agricultural, construction, and utility nonroad equipment operations. This work will measure infiltration of elemental carbon and other PM components to indoor environments. The project also evaluates lung function changes in the asthmatic children during fluctuations in exposure concentrations and compositions. This information may allow an evaluation of adverse health effects associated with exposures to elemental carbon and other PM components from on-road and nonroad sources. Some initial results may be available in late 2003.

b. Gaseous Air Toxics

Nonroad diesel engine emissions contain several substances known or suspected as human or animal carcinogens, or that have noncancer health effects. These other compounds include benzene,1,3-butadiene, formaldehyde, acetaldehyde, acrolein, dioxin, and polycyclic organic matter (POM). For some of these pollutants, nonroad diesel engine emissions are believed to account for a significant proportion of total nation-wide emissions. All of these compounds were identified as national or regional ''risk'' drivers in the 1996 NATA. That is, these compounds pose a significant portion of the total inhalation cancer risk to a significant portion of the population. Mobile sources contribute significantly to total emissions of these air toxics. As discussed later in this section, this proposed rulemaking will result in significant reductions of these emissions.

Benzene: Nonroad diesel engines accounted for about 3 percent of ambient benzene emissions in 1996. Of ambient benzene levels due to mobile sources, 5 percent in urban and 3 percent in rural areas came from nonroad diesel.

The EPA's IRIS database lists benzene as a known human carcinogen (causing leukemia at high, prolonged air exposures) by all routes of exposure, and exposure is associated with additional health effects including genetic changes in humans and animals and increased proliferation of bone marrow cells in mice.[39] [40] [41] [42] EPA states in its IRIS database that the data indicate a causal relationship between benzene exposure and acute lymphocytic leukemia and suggest a relationship between benzene exposure and chronic non-lymphocytic leukemia and chronic lymphocytic leukemia. Respiration is the major source of human exposure and at least half of this exposure is attributable to gasoline vapors and automotive emissions. A number of adverse noncancer health effects including blood disorders, such as preleukemia and aplastic anemia, have also been associated with low-dose, long-term exposure to benzene.[43] [44]

1,3-Butadiene: Nonroad diesel engines accounted for about 1.5 percent of ambient butadiene emissions in 1996. Of ambient butadiene levels due to mobile sources, 4 percent in urban and 2 percent in rural areas came from nonroad diesel.

EPA earlier identified 1,3-butadiene as a probable human carcinogen in its IRIS database and recently redesignated it as a known human carcinogen (but with a lower carcinogenic potency than previously used).[45] The specific mechanisms of 1,3-butadiene-induced carcinogenesis are unknown, however, it is virtually certain that the carcinogenic effects are mediated by genotoxic metabolites of 1,3-butadiene. Animal data suggest that females may be more sensitive than males for cancer effects; nevertheless, there are insufficient data from which to draw any conclusions on potentially sensitive subpopulations. 1,3-Butadiene also causes a variety of reproductive and developmental effects in mice; no human data on these effects are available. The most sensitive effect was ovarian atrophy observed in a lifetime bioassay of female mice.[46]

Formaldehyde: Nonroad diesel engines accounted for about 22 percent of ambient formaldehyde emissions in 1996. Of ambient formaldehyde levels due to mobile sources, 37 percent in urban and 27 percent in rural areas came form nonroad diesel. These figures are for tailpipe emissions of formaldehyde. Formaldehyde in the ambient air comes not only from tailpipe (of direct) emissions but is also formed from photochemical reactions of hydrocarbons.

EPA has classified formaldehyde as a probable human carcinogen based on evidence in humans and in rats, mice, hamsters, and monkeys.[47] Epidemiological studies in occupationally exposed workers suggest that long-term inhalation of formaldehyde may be associated with tumors of the nasopharyngeal cavity (generally the area at the back of the mouth near the nose), nasal cavity, and sinus.[48] Formaldehyde exposure also causes a range of noncancer health effects, including irritation of the eyes (tearing of the eyes and increased blinking) and mucous membranes. Sensitive individuals may experience these adverse effects at lower concentrations than the general population and in persons with bronchial asthma, the upper respiratory irritation caused by formaldehyde can precipitate an acute asthmatic attack. The agency is currently conducting a reassessment of risk from inhalation exposure to formaldehyde.

Acetaldehyde: Nonroad diesel engines accounted for about 34 percent of acetaldehyde emissions in 1996. Of ambient acetaldehyde levels due to mobile sources, 24 percent in urban and 17 percent in rural areas came form nonroad diesel. Also, acetaldehyde can be formed photochemically in the atmosphere. Counting both direct emissions and photochemically formed acetaldehyde, mobile sources were responsible for the major portion of acetaldehyde in the ambient air according to the National-Scale Air Toxics Assessment for 1996.

Acetaldehyde is classified in EPA's IRIS database as a probable human carcinogen and is considered moderately toxic by the inhalation, oral, and intravenous routes.[49] The primary acute effect of exposure to acetaldehyde vapors is irritation of the eyes, skin, and

[39] U.S. EPA (2000). Integrated Risk Information System File for Benzene. This material is available electronically at *http://www.epa.gov/iris/subst/0276.htm.*

[40] International Agency for Research on Cancer, IARC monographs on the evaluation of carcinogenic risk of chemicals to humans, Volume 29, Some industrial chemicals and dyestuffs, International Agency for Research on Cancer, World Health Organization, Lyon, France, p. 345–389, 1982.

[41] Irons, R.D., W.S. Stillman, D.B. Colagiovanni, and V.A. Henry, Synergistic action of the benzene metabolite hydroquinone on myelopoietic stimulating activity of granulocyte/macrophage colony-stimulating factor *in vitro,* Proc. Natl. Acad. Sci. 89:3691–3695, 1992.

[42] U.S. EPA (1998). Carcinogenic Effects of Benzene: An Update, National Center for Environmental Assessment, Washington, DC. 1998.

[43] Aksoy, M. (1989). Hematotoxicity and carcinogenicity of benzene. Environ. Health Perspect. 82: 193–197.

[44] Goldstein, B.D. (1988). Benzene toxicity. Occupational medicine. State of the Art Reviews. 3: 541–554.

[45] U.S. EPA (2002). Health Assessment of 1,3-Butadiene. Office of Research and Development, National Center for Environmental Assessment, Washington Office, Washington, DC. Report No. EPA/600/P–98/001F.

[46] Bevan, C; Stadler, JC; Elliot, GS; *et al.* (1996) Subchronic toxicity of 4-vinylcyclohexene in rats and mice by inhalation. Fundam. Appl. Toxicol. 32:1–10.

[47] U.S. EPA (1987). Assessment of Health Risks to Garment Workers and Certain Home Residents from Exposure to Formaldehyde, Office of Pesticides and Toxic Substances, April 1987.

[48] Blair, A., P.A. Stewart, R.N. Hoover, *et al.* (1986). Mortality among industrial workers exposed to formaldehyde. J. Natl. Cancer Inst. 76(6): 1071–1084.

[49] U.S. EPA (1988). Integrated Risk Information System File of Acetaldehyde. This material is available electronically at *http://www.epa.gov/iris/subst/0290.htm.*

respiratory tract. At high concentrations, irritation and pulmonary effects can occur, which could facilitate the uptake of other contaminants. Some asthmatics have been shown to be a sensitive subpopulation to decrements in FEV1 upon acetaldehyde inhalation.[50] The agency is currently conducting a reassessment of risk from inhalation exposure to acetaldehyde.

Acrolein: Nonroad diesel engines accounted for about 17.5 percent of acrolein emissions in 1996. Of ambient acrolein levels due to mobile sources, 28 percent in urban and 18 percent in rural areas came form nonroad diesel.

Acrolein is extremely toxic to humans when inhaled, with acute exposure resulting in upper respiratory tract irritation and congestion. The Agency has developed a reference concentration for inhalation (RfC) of acrolein of 0.02 micrograms/m^3.[51]

Although no information is available on its carcinogenic effects in humans, based on laboratory animal data, EPA considers acrolein a possible human carcinogen.

Polycyclic Organic Matter (POM): POM is generally defined as a large class of chemicals consisting of organic compounds having multiple benzene rings and a boiling point greater than 100 degrees C. Polycyclic aromatic hydrocarbons (PAHs) are a chemical class that is a subset of POM. POM are naturally occurring substances that are byproducts of the incomplete combustion of fossil fuels and plant and animal biomass (*e.g.*, forest fires). They occur as byproducts from steel and coke productions and waste incineration. They also are a component of diesel particulate emissions. Many of the compounds included in the class of compounds known as POM are classified by EPA as probable human carcinogens based on animal data. In particular, EPA frequently obtains data on 7 of the POM compounds, which we analyzed separately as a class in the 1996 NATA. Nonroad diesel engines account for less than 1 percent of these 7 POM compounds with total mobile sources responsible for only 4 percent of the total; most of the 7 POMs come from area sources. For total POM compounds, mobile sources as a whole are responsible for only 1 percent. The mobile source emission numbers used to derive these inventories are based on only particulate phase POM and do not include the semi-volatile phase POM levels. Were those additional POMs included (which is now being done), these inventory numbers would be substantially higher.

Even though mobile sources are responsible for only a small portion of total POM emissions, the particulate reductions from today's action will reduce these emissions.

Dioxins: Recent studies have confirmed that dioxins are formed by and emitted from diesels (both heavy-duty diesel trucks and non-road diesels although in very small amounts) and are estimated to account for about 1 percent of total dioxin emissions in 1995. Recently EPA issued a draft assessment designating one dioxin compound, 2,3,7,8-tetrachlorodibenzo-p-dioxin as a human carcinogen and the complex mixtures of dioxin-like compounds as likely to be carcinogenic to humans using the draft 1996 carcinogen risk assessment guidelines. EPA is working on its final assessment for dioxin.[52] An interagency review group is evaluating EPA's designation of dioxin as a likely human carcinogen. Reductions from today's nonroad proposal will have minimal impact on overall dioxin emissions.

3. Ozone

a. What Are the Health Effects of Ozone Pollution?

Ground-level ozone pollution (sometimes called ''smog'') is formed by the reaction of volatile organic compounds (VOC) and nitrogen oxides (NO_X) in the atmosphere in the presence of heat and sunlight. These two pollutants, often referred to as ozone precursors, are emitted by many types of pollution sources, including on-road and off-road motor vehicles and engines, power plants and industrial facilities, and smaller ''area'' sources.

Ozone can irritate the respiratory system, causing coughing, throat irritation, and/or uncomfortable sensation in the chest.[53] [54] Ozone can reduce lung function and make it more difficult to breathe deeply, and breathing may become more rapid and shallow than normal, thereby limiting a person's normal activity. Ozone also can aggravate asthma, leading to more asthma attacks that require a doctor's attention and/or the use of additional medication. In addition, ozone can inflame and damage the lining of the lungs, which may lead to permanent changes in lung tissue, irreversible reductions in lung function, and a lower quality of life if the inflammation occurs repeatedly over a long time period (months, years, a lifetime). People who are of particular concern with respect to ozone exposures include children and adults who are active outdoors. Those people particularly susceptible to ozone effects are people with respiratory disease, such as asthma, and people with unusual sensitivity to ozone, and children. Beyond its human health effects, ozone has been shown to injure plants, which has the effect of reducing crop yields and reducing productivity in forest ecosystems.[55] [56]

The 8-hour ozone standard, established by EPA in 1997, is based on well-documented science demonstrating that more people are experiencing adverse health effects at lower levels of exertion, over longer periods, and at lower ozone concentrations than addressed by the one-hour ozone standard. (*See, e.g.*, 62 FR 38861–62, July 18, 1997). The 8-hour standard addresses ozone exposures of concern for the general population and populations most at risk, including children active outdoors, outdoor workers, and individuals with pre-existing respiratory disease, such as asthma.

There has been new research that suggests additional serious health effects beyond those that had been known when the 8-hour ozone health standard was set. Since 1997, over 1,700 new health and welfare studies relating to ozone have been published in peer-reviewed journals.[57] Many of these studies have investigated the impact of ozone exposure on such health effects as changes in lung structure and biochemistry, inflammation of the

[50] Myou, S.; Fujimura, M.; Nishi K.; Ohka, T.; and Matsuda, T. (1993) Aerosolized acetaldehyde induces histamine-mediated bronchoconstriction in asthmatics. Am Rev Respir Dis 148(4 Pt 1): 940–3.

[51] U.S. EPA (1993). Environmental Protection Agency, Integrated Risk Information System (IRIS), National Center for Environmental Assessment, Cincinnati, OH.

[52] U.S. EPA (June 2000) Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds, External Review Draft, EPA/600/P–00/001Ag. This material is available electronically at *http://www.epa.gov/ncea/dioxin.htm.*

[53] U.S. EPA (1996). Air Quality Criteria for Ozone and Related Photochemical Oxidants, EPA/600/P–93/004aF. Docket No. A–99–06. Document Nos. II–A–15 to 17.

[54] U.S. EPA. (1996). Review of National Ambient Air Quality Standards for Ozone, Assessment of Scientific and Technical Information, OAQPS Staff Paper, EPA–452/R–96–007. Docket No. A–99–06. Document No. II–A–22.

[55] U.S. EPA (1996). Air Quality Criteria for Ozone and Related Photochemical Oxidants, EPA/600/P–93/004aF. Docket No. A–99–06. Document Nos. II–A–15 to 17.

[56] U.S. EPA. (1996). Review of National Ambient Air Quality Standards for Ozone, Assessment of Scientific and Technical Information, OAQPS Staff Paper, EPA–452/R–96–007. Docket No. A–99–06. Document No. II–A–22.

[57] New Ozone Health and Environmental Effects References, Published Since Completion of the Previous Ozone AQCD, National Center for Environmental Assessment, Office of Research and Development, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711 (7/2002) Docket No. A–2001–11. Document No. IV–A–19.

lungs, exacerbation and causation of asthma, respiratory illness-related school absence, hospital and emergency room visits for asthma and other respiratory causes, and premature mortality. EPA is currently in the process of evaluating these and other studies as part of the ongoing review of the air quality criteria and NAAQS for ozone. A revised Air Quality Criteria Document for Ozone and Other Photochemical Oxidants will be prepared in consultation with EPA's Clean Air Science Advisory Committee (CASAC). Key new health information falls into four general areas: development of new-onset asthma, hospital admissions for young children, school absence rate, and premature mortality.

Aggravation of existing asthma resulting from short-term ambient ozone exposure was reported prior to the 1997 decision and has been observed in studies published subsequently.[58 59] In particular, a relationship between long-term ambient ozone concentrations and the incidence of new-onset asthma in adult males (but not in females) was reported by McDonnell *et al.* (1999).[60] Subsequently, an additional study suggests that incidence of new diagnoses of asthma in children is associated with heavy exercise in communities with high concentrations (*i.e.*, mean 8-hour concentration of 59.6 ppb) of ozone.[61] This relationship was documented in children who played 3 or more sports and thus had higher exposures and was not documented in those children who played one or two sports. The larger effect of high activity sports than low activity sports and an independent effect of time spent outdoors also in the higher ozone communities strengthened the inference that exposure to ozone may modify the effect of sports on the development of asthma in some children.

Previous studies have shown relationships between ozone and hospital admissions in the general population. A study in Toronto reported a significant relationship between 1-hour maximum ozone concentrations and respiratory hospital admissions in children under the age of two.[62] Given the relative vulnerability of children in this age category, we are particularly concerned about the findings.

Increased respiratory disease that are serious enough to cause school absences have been associated with 1-hour daily maximum and 8-hour average ozone concentrations in studies conducted in Nevada[63] in kindergarten to 6th grade and in Southern California in grades 4 through 6.[64] These studies suggest that higher ambient ozone levels may result in increased school absenteeism.

The air pollutant most clearly associated with premature mortality is PM, with dozens of studies reporting such an association. However, repeated ozone exposure is a possible contributing factor for premature mortality, causing an inflammatory response in the lungs which may predispose elderly and other sensitive individuals to become more susceptible to other stressors, such as PM.[65 66 67] Although the findings have been mixed, the findings of three recent analyses suggest that ozone exposure is associated with increased mortality. Although the National Morbidity, Mortality, and Air Pollution Study (NMMAPS) did not report an effect of ozone on total mortality across the full year, the investigators who conducted the NMMAPS study did observe an effect after limiting the analysis to summer when ozone levels are highest.[68 69] Similarly, other studies have shown associations between ozone and mortality.[70 71] Specifically, Toulomi *et al.* (1997) found that 1-hour maximum ozone levels were associated with daily numbers of deaths in 4 cities (London, Athens, Barcelona, and Paris), and a quantitatively similar effect was found in a group of four additional cities (Amsterdam, Basel, Geneva, and Zurich).

In all, the new studies that have become available since the 8-hour ozone standard was adopted in 1997 continue to demonstrate the harmful effects of ozone on public health, and the need to attain and maintain the NAAQS.

b. Current and projected 8-hour ozone levels

As shown earlier (Figure II–1), unhealthy ozone concentrations exceeding the level of the 8-hour standard (*i.e.*, not requisite to protect the public health with an adequate margin of safety) occur over wide geographic areas, including most of the nation's major population centers. These monitored areas include much of the eastern half of the U.S. and large areas of California.

Based upon data from 1999–2001, there are 291 counties where 111 million people live that are measuring values that violate the 8-hour ozone NAAQS.[72] An additional 37 million people live in 155 counties that have air quality measurements within 10 percent of the level of the standard. These areas, though currently not violating the standard, will also benefit from the additional emission reductions from this rule.

From our air quality modeling for this proposal, we anticipate that without emission reductions beyond those

[58] Thurston, G.D., M.L. Lippman, M.B. Scott, and J.M. Fine. 1997. Summertime Haze Air Pollution and Children with Asthma. American Journal of Respiratory Critical Care Medicine, 155: 654–660.

[59] Ostro, B, M. Lipsett, J. Mann, H. Braxton-Owens, and M. White (2001) Air pollution and exacerbation of asthma in African-American children in Los Angeles. Epidemiology 12(2): 200–208.

[60] McDonnell, W.F., D.E. Abbey, N. Nishino and M.D. Lebowitz. 1999. ''Long-term ambient ozone concentration and the incidence of asthma in nonsmoking adults: the ahsmog study.'' Environmental Research. 80(2 Pt 1): 110–121.

[61] McConnell, R.; Berhane, K.; Gilliland, F.; London, S.J.; Islam, T.; Gauderman, W.J.; Avol, E.; Margolis, H.G.; Peters, J.M. (2002) Asthma in exercising children exposed to ozone: a cohort study. Lancet 359: 386–391.

[62] Burnett, R.T.; Smith_Doiron, M.; Stieb, D.; Raizenne, M.E.; Brook, J.R.; Dales, R.E.; Leech, J.A.; Cakmak, S.; Krewski, D. (2001) Association between ozone and hospitalization for acute respiratory diseases in children less than 2 years of age. Am. J. Epidemiol. 153: 444–452.

[63] Chen, L.; Jennison, B.L.; Yang, W.; Omaye, S.T. (2000) Elementary school absenteeism and air pollution. Inhalation Toxicol. 12: 997–1016.

[64] Gilliland, FD, K Berhane, EB Rappaport, DC Thomas, E Avol, WJ Gauderman, SJ London, HG Margolis, R McConnell, KT Islam, JM Peters (2001) The effects of ambient air pollution on school absenteeism due to respiratory illnesses Epidemiology 12:43–54.

[65] Samet JM, Zeger SL, Dominici F, Curriero F, Coursac I, Dockery DW, Schwartz J, Zanobetti A. 2000. The National Morbidity, Mortality and Air Pollution Study: Part II: Morbidity, Mortality and Air Pollution in the United States. Research Report No. 94, Part II. Health Effects Institute, Cambridge MA, June 2000. (Docket Number A–2000–01, Document Nos. IV–A–208 and 209).

[66] Devlin, R.B.; Folinsbee, L.J.; Biscardi, F.; Hatch, G.; Becker, S.; Madden, M.C.; Robbins, M.; Koren, H. S. (1997) Inflammation and cell damage induced by repeated exposure of humans to ozone. Inhalation Toxicol. 9: 211–235.

[67] Koren HS, Devlin RB, Graham DE, Mann R, McGee MP, Horstman DH, Kozumbo WJ, Becker S, House DE, McDonnell SF, Bromberg, PA. 1989. Ozone-induced inflammation in the lower airways of human subjects. Am. Rev. Respir. Dies. 139: 407–415.

[68] Samet JM, Zeger SL, Dominici F, Curriero F, Coursac I, Dockery DW, Schwartz J, Zanobetti A. 2000. The National Morbidity, Mortality and Air Pollution Study: Part II: Morbidity, Mortality and Air Pollution in the United States. Research Report No. 94, Part II. Health Effects Institute, Cambridge MA, June 2000. (Docket Number A–2000–01, Documents No. IV–A–208 and 209).

[69] Samet JM, Zeger SL, Dominici F, Curriero F, Coursac I, Zeger, S. Fine Particulate Air Pollution and Mortality in 20 U.S. Cities, 1987—1994. The New England Journal of Medicine. Vol. 343, No. 24, December 14, 2000. P. 1742–1749.

[70] Thurston, G.D.; Ito, K. (2001) Epidemiological studies of acute ozone exposures and mortality. J. Exposure Anal. Environ. Epidemiol. 11: 286–294.

[71] Touloumi, G.; Katsouyanni, K.; Zmirou, D.; Schwartz, J.; Spix, C.; Ponce de Leon, A.; Tobias, A.; Quennel, P.; Rabczenko, D.; Bacharova, L.; Bisanti, L.; Vonk, J.M.; Ponka, A. (1997) Short-term effects of ambient oxidant exposure on mortality: a combined analysis within the APHEA project. Am. J. Epidemiol. 146: 177–185.

[72] Additional counties may have levels above the NAAQS but do not currently have monitors.

already required under promulgated regulation and approved SIPs, ozone nonattainment will likely persist into the future. With reductions from programs already in place, the number of counties violating the ozone 8-hour standard is expected to decrease in 2020 to 30 counties where 43 million people are projected to live. Thereafter, exposure to unhealthy levels of ozone is expected to begin to increase again. In 2030 the number of counties violating the ozone 8-hour NAAQS is projected to increase to 32 counties where 47 million people are projected to live. In addition, in 2030, 82 counties where 44 million people are projected to live will be within 10 percent of violating the ozone 8-hour NAAQS.

EPA is still developing the implementation process for bringing the nation's air into attainment with the ozone 8-hour NAAQS. EPA's current plans call for designating ozone 8-hour nonattainment areas in April 2004. EPA is planning to propose that States submit SIPs that address how areas will attain the 8-hour ozone standard within three years after nonattainment designation regardless of their classification. EPA is also planning to propose that certain SIP components, such as those related to reasonably available control technology (RACT) and reasonable further progress (RFP) be submitted within 2 years after designation. We therefore anticipate that States will submit their attainment demonstration SIPs by April 2007. Section 172(a)(2) of the Clean Air Act requires that SIP revisions for areas that may be covered only under subpart 1 of part D, title I of the Act demonstrate that the nonattainment areas will attain the ozone 8-hour standard as expeditiously as practicable but no later than five years from the date that the area was designated nonattainment. However, based on the severity of the air quality problem and the availability and feasibility of control measures, the Administrator may extend the attainment date ''for a period of no greater than 10 years from the date of designation as nonattainment.'' Based on these provisions, we expect that most or all areas covered under subpart 1 will attain the ozone standard in the 2007 to 2014 time frame. For areas covered under subpart 2, the maximum attainment dates provided under the Act range from 3 to 20 years after designation, depending on an area's classification. Thus, we anticipate that areas covered by subpart 2 will attain in the 2007 to 2014 time period.

Since the emission reductions expected from this proposal would begin during the same time period, the projected reductions in nonroad emissions would be extremely important to States in their effort to meet the new NAAQS. It is our expectation that States will be relying on such nonroad reductions in order to help them attain and maintain the 8-hour NAAQS. Furthermore, since the nonroad emission reductions will continue to grow in the years beyond 2014, they will also be important for maintenance of the NAAQS for areas with attainment dates of 2014 and earlier.

Using air quality modeling of the impacts of emission reductions, we have made estimates of the change in future ozone levels that would result from the proposed rule.[73] That modeling shows that this rule would produce nationwide air quality improvements in ozone levels. On a population-weighted basis, the average change in future year design values would be a decrease of 1.6 ppb in 2020, and 2.6 ppb in 2030. Within areas predicted to violate the NAAQS in the projected base case, the average decrease would be somewhat higher: 1.9 ppb in 2020 and 3.0 ppb in 2030.[74]

The model predictions of whether specific counties will violate the NAAQS or not is uncertain, especially for counties with design values falling very close to the standard. This makes us more confident in our prediction of average air quality changes than in our prediction of the exact numbers of counties projected as exceeding the NAAQS. Furthermore, actions by States to meet their SIP obligations will change the number of counties violating the NAAQS in the time frame we are modeling for this rule. If State actions resulted in an increase in the number of areas that are very close to, but still above, the NAAQS, then this rule might bring many of those counties down sufficiently to eliminate remaining violations. In addition, if State actions brought several counties we project to be very close to the standard in the future down sufficiently to eliminate violations, then the air quality improvements from this proposal might serve more to assist these areas in maintaining the standards than in changing their status. Bearing this in mind, our modeling indicates that, out of 32 counties predicted to violate the NAAQS, the proposal would reduce the number of violating counties by 2 in 2020 and by 4 in 2030, without consideration of new State or Federal programs.

C. Other Environmental Effects

The following section presents information on five categories of public welfare and environmental impacts related to nonroad heavy-duty vehicle emissions: visibility impairment, acid deposition, eutrophication of water bodies, plant damage from ozone, and water pollution resulting from deposition of toxic air pollutants with resulting effects on fish and wildlife.

1. Visibility

a. Visibility is Impaired by Fine PM and Precursor Emissions From Nonroad Engines Subject to this Proposed Rule

Visibility can be defined as the degree to which the atmosphere is transparent to visible light.[75] Fine particles with significant light-extinction efficiencies include organic matter, sulfates, nitrates, elemental carbon (soot), and soil. Size and chemical composition of particles strongly affects their ability to scatter or absorb light. Sulfates contribute to visibility impairment especially on the haziest days across the U.S., accounting in the rural Eastern U.S. for more than 60 percent of annual average light extinction on the best days and up to 86 percent of average light extinction on the haziest days. Nitrates and elemental carbon each typically contribute 1 to 6 percent of average light extinction on haziest days in rural Eastern U.S. locations.[76]

Visibility is important because it directly affects people's enjoyment of daily activities in all parts of the country. Individuals value good visibility for the well-being it provides them directly, both in where they live and work, and in places where they enjoy recreational opportunities.

[73] These results are ozone changes projected for the preliminary control option used for our modeling, as discussed in the Draft RIA in section 3.6. The proposal differs from the modeled control case based on updated information; however, we believe that the net results would approximate future emissions, although we anticipate the ozone changes might be slightly different.

[74] This is in spite of the fact that NO_X reductions can at certain times in some areas cause ozone levels to increase. Such ''disbenefits'' are predicted in our modeling, but these results make clear that the overall effect of the proposed rule is positive. *See* the draft RIA for more information.

[75] National Research Council, 1993. Protecting Visibility in National Parks and Wilderness Areas. National Academy of Sciences Committee on Haze in National Parks and Wilderness Areas. National Academy Press, Washington, DC. This document is available on the Internet at *http://www.nap.edu/books/0309048443/html/*. *See also* U.S. EPA Air Quality Criteria Document for Particulate Matter (1996) (available on the Internet at *http://cfpub.epa.gov/ncea/cfm/partmatt.cfm*) and Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information. These documents can be found in Docket A–99–06, Documents No. II-A–23 and IV-A–130–32.

[76] U.S. EPA Trends Report 2001. This document is available on the Internet at *http://www.epa.gov/airtrends/*.

Visibility is also highly valued in significant natural areas such as national parks and wilderness areas, because of the special emphasis given to protecting these lands now and for future generations.

To quantify changes in visibility, we compute a light-extinction coefficient, which shows the total fraction of light that is decreased per unit distance. Visibility can be described in terms of visual range or light extinction and is reported using an indicator called deciview.[77] In addition to limiting the distance that one can see, the scattering and absorption of light caused by air pollution can also degrade the color, clarity, and contrast of scenes.

In addition, visibility impairment can be described by its impact over various periods of time, by its source, and the physical conditions in various regions of the country. Visibility impairment can be said to have a time dimension in that it might relate to short-term excursions or to longer periods (*e.g.*, worst 20 percent of days and annual average levels). Anthropogenic contributions account for about one-third of the average extinction coefficient in the rural West and more than 80 percent in the rural East. In the Eastern U.S., reduced visibility is mainly attributable to secondarily formed particles, particularly those less than a few micrometers in diameter, such as sulfates. While secondarily formed particles still account for a significant amount in the West, primary emissions contribute a larger percentage of the total particulate load than in the East. Because of significant differences related to visibility conditions in the Eastern and Western U.S., we present information about visibility by region.

Furthermore, it is important to note that even in those areas with relatively low concentrations of anthropogenic fine particles, such as the Colorado Plateau, small increases in anthropogenic fine particulate concentrations can lead to significant decreases in visual range. This is one of the reasons mandatory Federal Class I areas have been given special consideration under the Clean Air Act.[78]

b. Visibility Impairment Where People Live, Work and Recreate

The secondary PM NAAQS is designed to protect against adverse welfare effects which includes visibility impairment. In 1997, EPA established the secondary $PM_{2.5}$ NAAQS as equal to the primary (health-based) NAAQS of 15 ug/m3 (based on a 3-year average of the annual mean) and 65 ug/m^3 (based on a 3-year average of the 98th percentile of the 24-hour average value) (62 FR 38669, July 18, 1997). EPA concluded that $PM_{2.5}$ causes adverse effects on visibility in various locations, depending on PM concentrations and factors such as chemical composition and average relative humidity. In 1997, EPA demonstrated that visibility impairment is an important effect on public welfare and that unacceptable visibility impairment is experienced throughout the U.S., in multi-state regions, urban areas, and remote federal Class I areas. In many cities having annual mean $PM_{2.5}$ concentrations exceeding annual standard, improvements in annual average visibility resulting from the attainment of the annual $PM_{2.5}$ standard are expected to be perceptible to the general population. Based on annual mean monitored $PM_{2.5}$ data, many cities in the Northeast, Midwest, and Southeast as well as Los Angeles would be expected to experience perceptible improvements in visibility if the $PM_{2.5}$ annual standard were attained.

The updated monitoring data and air quality modeling, summarized above and presented in detail in the draft RIA, confirm that the visibility situation identified during the NAAQS review in 1997 is still likely to exist, and it will continue to persist when these proposed standards for nonroad diesel engines take effect. Thus, the determination in the NAAQS rulemaking about broad visibility impairment and related benefits from NAAQS compliance are still relevant.

Furthermore, in setting the $PM_{2.5}$ NAAQS, EPA acknowledged that levels of fine particles below the NAAQS may also contribute to unacceptable visibility impairment and regional haze problems in some areas, and section 169 of the Act provides additional authorities to remedy existing impairment and prevent future impairment in the 156 national parks, forests and wilderness areas labeled as mandatory Federal Class I areas (62 FR 38680–81, July 18, 1997).

In making determinations about the level of protection afforded by the secondary PM NAAQS, EPA considered how the section 169 regional haze program and the secondary NAAQS would function together.[79] Regional strategies are expected to improve visibility in many urban and non-Class I areas as well.

Fine particles may remain suspended for days or weeks and travel hundreds to thousands of kilometers, and thus fine particles emitted or created in one county may contribute to ambient concentrations in a neighboring region.[80]

The 1999–2001 $PM_{2.5}$ monitored values indicate that at least 74 million people live in areas where long-term ambient fine PM levels are at or above 15 μg/m^3.[81] Thus, at least these populations (plus those who travel to those areas) are experiencing significant visibility impairment, and emissions of PM and its precursors from nonroad diesel engines contribute to this impairment.[82]

Because of the importance of chemical composition and size to visibility, we used EPA's Regional Modeling System for Aerosols and Deposition (REMSAD)[83] model to project visibility conditions in 2020 and 2030 in terms of deciview, accounting for the chemical composition of the particles and transport of precursors. Our projections included anticipated emissions from the nonroad diesel engines subject to this proposed rule as well as all other sources.

Based on this modeling, we predict that in 2030, 85 million people (25

[77] Visual range can be defined as the maximum distance at which one can identify a black object against the horizon sky. It is typically described in miles or kilometers. Light extinction is the sum of light scattering and absorption by particles and gases in the atmosphere. It is typically expressed in terms of inverse megameters (Mm^{-1}), with larger values representing worse visibility. The deciview metric describes perceived visual changes in a linear fashion over its entire range, analogous to the decibel scale for sound. A deciview of 0 represents pristine conditions. Under many scenic conditions, a change of 1 deciview is considered perceptible by the average person.

[78] The Clean Air Act designates 156 national parks and wilderness areas as mandatory Federal Class I areas for visibility protection.

[79] U.S. EPA Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information OAQPS Staff Paper. EPA–452/R–96–013. 1996. Docket Number A–99–06, Documents Nos. II-A–18, 19, 20, and 23. The particulate matter air quality criteria documents are also available at *http://www.epa.gov/ncea/partmatt.htm.*

[80] Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment for Scientific and Technical Information, OAQPS Staff Paper, EPA–452/R–96–013, July, 1996, at IV–7. This document is available from Docket A–99–06, Document II–A–23.

[81] U.S. EPA Air Quality Data Analysis 1999–2001. Technical Support Document for Regulatory Actions. March 2003.

[82] These populations would also be exposed to PM concentrations associated with the adverse health impacts discussed above.

[83] Additional information about the Regional Modeling System for Aerosols and Deposition (REMSAD) and our modeling protocols can be found in our Regulatory Impact Analysis: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, document EPA420-R–00–026, December 2000. Docket No. A–2000–01, Document No. A-II–13. This document is also available at *http://www.epa.gov/otaq/disel.htm#documents.*

percent of the future population) would be living in areas with visibility degradation where fine PM levels are above 15 μg/m3 annually.[84] Thus, at least a quarter of the population would experience visibility impairment in areas where they live, work and recreate.

As shown in Table I.C–1, accounting for the different visibility impact of the chemical constituents of the $PM_{2.5}$, in 2030 we expect visibility in the East to be about 20.5 deciviews (or visual range of 50 kilometers) on average, with poorer visibility in urban areas, compared to the average Eastern visibility conditions without man-made pollution of 9.5 deciviews (or visual range of 150 kilometers). Likewise, we expect visibility in the West to be about 8.8 deciviews (or visual range of 162 kilometers) on average in 2030, with poorer visibility in urban areas, compared to the average Western visibility conditions without man-made pollution of 5.3 deciviews (or visual range of 230 kilometers). Thus, the emissions from these nonroad diesel sources, especially SOx emissions that become sulfates in the atmosphere, contribute to future visibility impairment summarized in the table.

Control of nonroad land-based engines emissions, as shown in Table I.C–1, will improve visibility across the nation. Taken together with other programs, reductions from this proposal will help to improve visibility. Control of these emissions in and around areas with PM levels above the annual $PM_{2.5}$ NAAQS will likely improve visibility in other locations such as mandatory Federal Class I areas. Specifically, for a preliminary control option described in the draft RIA chapter 3.6 that is similar to our proposal, we expect on average for visibility to improve to about 0.33 deciviews in the East and 0.35 deciviews in the West. The improvement from our proposal is likely to be similar but slightly smaller than what was modeled due to the differences in emission reductions between the proposal and the modeled scenario.

TABLE I.C–1—SUMMARY OF MODELED 2030 NATIONAL VISIBILITY CONDITIONS

[Average annual deciviews]

Regions [a]	Predicted 2030 visibility baseline	Predicted 2030 visibility with rule controls [b]	Change in annual average deciviews
Eastern U.S.	20.54	20.21	0.33
Urban	21.94	21.61	0.33
Rural	19.98	19.65	0.33
Western U.S.	8.83	8.58	0.25
Urban	9.78	9.43	0.35
Rural	8.61	8.38	0.23

Notes:

[a] Eastern and Western Regions are separated by 100 degrees north longitude. Background visibility conditions differ by region. Natural background is 9.5 deciviews in the East and 5.3 in the West.

[b] The results illustrate the type of visibility improvements for the preliminary control option, as discussed in the Draft RIA. The proposal differs based on updated information; however, we believe that the net results would approximate future PM emissions, although we anticipate the visibility improvements would be slightly smaller.

c. Visibility Impairment in Mandatory Federal Class I Areas

The Clean Air Act establishes special goals for improving visibility in many national parks, wilderness areas, and international parks. In the 1990 Clean Air Act amendments, Congress provided additional emphasis on regional haze issues (*see* CAA section 169B). In 1999, EPA finalized a rule that calls for States to establish goals and emission reduction strategies for improving visibility in all 156 mandatory Federal Class I areas. In that rule, EPA established a ''natural visibility'' goal, and also encouraged the States to work together in developing and implementing their air quality plans. The regional haze program is focused on long-term emissions decreases from the entire regional emissions inventory comprised of major and minor stationary sources, area sources and mobile sources. The regional haze program is designed to improve visibility and air quality in our most treasured natural areas from these broad sources. At the same time, control strategies designed to improve visibility in the national parks and wilderness areas are expected to improve visibility over broad geographic areas. For mobile sources, there is a need for a Federal role in reduction of those emissions, especially because mobile source engines are regulated primarily at the Federal level.

Because of evidence that fine particles are frequently transported hundreds of miles, all 50 states, including those that do not have mandatory Federal Class I areas, participate in planning, analysis, and, in many cases, emission control programs under the regional haze regulations. Virtually all of the 156 mandatory Federal Class I areas experience impaired visibility, requiring all States with those areas to prepare emission control programs to address it. Even though a given State may not have any mandatory Federal Class I areas, pollution that occurs in that State may contribute to impairment in such Class I areas elsewhere. The rule encourages states to work together to determine whether or how much emissions from sources in a given state affect visibility in a downwind mandatory Federal Class I area.

The regional haze program also calls for states to establish goals for improving visibility in national parks and wilderness areas to improve visibility on the haziest 20 percent of days and to ensure that no degradation occurs on the clearest 20 percent of days (64 FR 35722, July 1, 1999). The rule requires states to develop long-term strategies including enforceable measures designed to meet reasonable progress goals toward natural visibility conditions. Under the regional haze

[84] Technical Memorandum, EPA Air Docket A–99–06, Eric O. Ginsburg, Senior Program Advisor, Emissions Monitoring and Analysis Division, OAQPS, Summary of Absolute Modeled and Model-Adjusted Estimates of Fine Particulate Matter for Selected Years, December 6, 2000, Table P–2. Docket Number 2000–01, Document Number II-B–14.

program, States can take credit for improvements in air quality achieved as a result of other Clean Air Act programs, including national mobile source programs.[85]

In the PM air quality modeling described above, we also modeled visibility conditions in the mandatory Federal Class I areas, and we summarize the results by region in Table I.C–2. The information shows that these areas also are predicted to have high annual average deciview levels in the future. Emissions from nonroad land-based diesel engines and locomotive and marine engines contributed significantly to these levels, because these diesel engines represent a sizeable portion of the total inventory of anthropogenic emissions related to $PM_{2.5}$ (as shown in the tables above.). Furthermore, numerous types of nonroad engines may operate in or near mandatory Federal Class I areas (*e.g.*, mining, construction, and agricultural equipment). As summarized in the table, we expect visibility improvements in mandatory Federal Class I areas from the reductions of emissions from nonroad diesel engines subject to this proposed rule.

TABLE I.C–2—SUMMARY OF MODELED 2030 VISIBILITY CONDITIONS IN MANDATORY FEDERAL CLASS I AREAS

[Annual average deciview]

Region [a]	Predicted 2030 visibility baseline [b]	Predicted 2030 visibility with rule control [c]	Change in annual average deciviews
Eastern:			
Southeast	21.62	21.38	0.24
Northeast/Midwest	18.56	18.32	0.24
Western:			
Southwest	7.03	6.82	0.21
California	9.56	9.26	0.3
Rocky Mountain	8.55	8.34	0.21
Northwest	12.18	11.94	0.24
National Class I Area Average	11.8	11.56	0.24

Notes:

[a] Regions are depicted in Figure VI–5 in the Regulatory Support Document. Background visibility conditions differ by region: Eastern natural background is 9.5 deciviews (or visual range of 150 kilometers) and in the West natural background is 5.3 deciviews (or visual range of 230 kilometers).

[b] The results average visibility conditions for mandatory Federal Class I areas in the regions.

[c] The results illustrate the type of visibility improvements for the preliminary control option, as discussed in the draft RIA. The proposal differs based on updated information; however, we believe that the net results would approximate future PM emissions, although we anticipate the improvements would be slightly smaller.

2. Acid Deposition

Acid deposition, or acid rain as it is commonly known, occurs when SO_2 and NO_X react in the atmosphere with water, oxygen, and oxidants to form various acidic compounds that later fall to earth in the form of precipitation or dry deposition of acidic particles.[86] It contributes to damage of trees at high elevations and in extreme cases may cause lakes and streams to become so acidic that they cannot support aquatic life. In addition, acid deposition accelerates the decay of building materials and paints, including irreplaceable buildings, statues, and sculptures that are part of our nation's cultural heritage. To reduce damage to automotive paint caused by acid rain and acidic dry deposition, some manufacturers use acid-resistant paints, at an average cost of $5 per vehicle—a total of $80–85 million per year when applied to all new cars and trucks sold in the U.S.

Acid deposition primarily affects bodies of water that rest atop soil with a limited ability to neutralize acidic compounds. The National Surface Water Survey (NSWS) investigated the effects of acidic deposition in over 1,000 lakes larger than 10 acres and in thousands of miles of streams. It found that acid deposition was the primary cause of acidity in 75 percent of the acidic lakes and about 50 percent of the acidic streams, and that the areas most sensitive to acid rain were the Adirondacks, the mid-Appalachian highlands, the upper Midwest and the high elevation West. The NSWS found that approximately 580 streams in the Mid-Atlantic Coastal Plain are acidic primarily due to acidic deposition. Hundreds of the lakes in the Adirondacks surveyed in the NSWS have acidity levels incompatible with the survival of sensitive fish species. Many of the over 1,350 acidic streams in the Mid-Atlantic Highlands (mid-Appalachia) region have already experienced trout losses due to increased stream acidity. Emissions from U.S. sources contribute to acidic deposition in eastern Canada, where the Canadian government has estimated that 14,000 lakes are acidic. Acid deposition also has been implicated in contributing to degradation of high-elevation spruce forests that populate the ridges of the Appalachian Mountains from Maine to Georgia. This area includes national parks such as the Shenandoah and Great Smoky Mountain National Parks.

A study of emissions trends and acidity of water bodies in the Eastern U.S. by the General Accounting Office (GAO) found that from 1992 to 1999 sulfates declined in 92 percent of a representative sample of lakes, and nitrate levels increased in 48 percent of the lakes sampled.[87] The decrease in sulfates is consistent with emissions

[85] In a recent case, *American Corn Growers Association* v. *EPA,* 291 F. 3d 1 (D.C. Cir 2002), the court vacated the Best Available Retrofit Technology (BART) provisions of the Regional Haze rule, but the court denied industry's challenge to EPA's requirement that states' SIPs provide for reasonable progress towards achieving natural visibility conditions in national parks and wilderness areas and the ''no degradation'' requirement. Industry did not challenge requirements to improve visibility on the haziest 20 percent of days. A copy of this decision can be found in Docket A–2000–01, Document IV-A–113.

[86] Much of the information in this subsection was excerpted from the EPA document, Human Health Benefits from Sulfate Reduction, written under title IV of the 1990 Clean Air Act Amendments, U.S. EPA, Office of Air and Radiation, Acid Rain Division, Washington, DC 20460, November 1995. Available in Docket A–2000–01, Document No. II–A–32.

[87] Acid Rain: Emissions Trends and Effects in the Eastern United States, U.S. General Accounting Office, March, 2000 (GOA/RCED–00–47). Available in Docket A–99–06, Document No. IV–G–159.

trends, but the increase in nitrates is inconsistent with the stable levels of nitrogen emissions and deposition. The study suggests that the vegetation and land surrounding these lakes have lost some of their previous capacity to use nitrogen, thus allowing more of the nitrogen to flow into the lakes and increase their acidity. Recovery of acidified lakes is expected to take a number of years, even where soil and vegetation have not been ''nitrogen saturated,'' as EPA called the phenomenon in a 1995 study.[88] This situation places a premium on reductions of SO_x and especially NO_X from all sources, including nonroad diesel engines, in order to reduce the extent and severity of nitrogen saturation and acidification of lakes in the Adirondacks and throughout the U.S.

The SO_X and NO_X reductions from today's action will help reduce acid rain and acid deposition, thereby helping to reduce acidity levels in lakes and streams throughout the country and help accelerate the recovery of acidified lakes and streams and the revival of ecosystems adversely affected by acid deposition. Reduced acid deposition levels will also help reduce stress on forests, thereby accelerating reforestation efforts and improving timber production. Deterioration of our historic buildings and monuments, and of buildings, vehicles, and other structures exposed to acid rain and dry acid deposition also will be reduced, and the costs borne to prevent acid-related damage may also decline. While the reduction in sulfur and nitrogen acid deposition will be roughly proportional to the reduction in SO_X and NO_X emissions, respectively, the precise impact of today's action will differ across different areas.

3. Eutrophication and Nitrification

Eutrophication is the accelerated production of organic matter, particularly algae, in a water body. This increased growth can cause numerous adverse ecological effects and economic impacts, including nuisance algal blooms, dieback of underwater plants due to reduced light penetration, and toxic plankton blooms. Algal and plankton blooms can also reduce the level of dissolved oxygen, which can also adversely affect fish and shellfish populations.

In 1999, NOAA published the results of a five year national assessment of the severity and extent of estuarine eutrophication. An estuary is defined as the inland arm of the sea that meets the mouth of a river. The 138 estuaries characterized in the study represent more than 90 percent of total estuarine water surface area and the total number of U.S. estuaries. The study found that estuaries with moderate to high eutrophication conditions represented 65 percent of the estuarine surface area. Eutrophication is of particular concern in coastal areas with poor or stratified circulation patterns, such as the Chesapeake Bay, Long Island Sound, or the Gulf of Mexico. In such areas, the ''overproduced'' algae tends to sink to the bottom and decay, using all or most of the available oxygen and thereby reducing or eliminating populations of bottom-feeder fish and shellfish, distorting the normal population balance between different aquatic organisms, and in extreme cases causing dramatic fish kills.

Severe and persistent eutrophication often directly impacts human activities. For example, losses in the nation's fishery resources may be directly caused by fish kills associated with low dissolved oxygen and toxic blooms. Declines in tourism occur when low dissolved oxygen causes noxious smells and floating mats of algal blooms create unfavorable aesthetic conditions. Risks to human health increase when the toxins from algal blooms accumulate in edible fish and shellfish, and when toxins become airborne, causing respiratory problems due to inhalation. According to the NOAA report, more than half of the nation's estuaries have moderate to high expressions of at least one of these symptoms—an indication that eutrophication is well developed in more than half of U.S. estuaries.

In recent decades, human activities have greatly accelerated nutrient inputs, such as nitrogen and phosphorous, causing excessive growth of algae and leading to degraded water quality and associated impairments of freshwater and estuarine resources for human uses.[89] Since 1970, eutrophic conditions worsened in 48 estuaries and improved in 14. In 26 systems, there was no trend in overall eutrophication conditions since 1970.[90] On the New England coast, for example, the number of red and brown tides and shellfish problems from nuisance and toxic plankton blooms have increased over the past two decades, a development thought to be linked to increased nitrogen loadings in coastal waters. Long-term monitoring in the U.S., Europe, and other developed regions of the world shows a substantial rise of nitrogen levels in surface waters, which are highly correlated with human-generated inputs of nitrogen to their watersheds.

Between 1992 and 1997, experts surveyed by National Oceanic and Atmospheric Administration (NOAA) most frequently recommended that control strategies be developed for agriculture, wastewater treatment, urban runoff, and atmospheric deposition.[91] In its Third Report to Congress on the Great Waters, EPA reported that atmospheric deposition contributes from 2 to 38 percent of the nitrogen load to certain coastal waters.[92] A review of peer reviewed literature in 1995 on the subject of air deposition suggests a typical contribution of 20 percent or higher.[93] Human-caused nitrogen loading to the Long Island Sound from the atmosphere was estimated at 14 percent by a collaboration of Federal and State air and water agencies in 1997.[94] The National Exposure Research Laboratory, U.S. EPA, estimated based on prior studies that 20 to 35 percent of the nitrogen loading to the Chesapeake Bay is attributable to atmospheric deposition.[95] The mobile source portion of atmospheric NO_X contribution to the Chesapeake Bay was modeled at about 30 percent of total air deposition.[96]

Deposition of nitrogen from nonroad diesel engines contributes to elevated nitrogen levels in waterbodies. The proposed standards for nonroad diesel

[88] Acid Deposition Standard Feasibility Study: Report to Congress, EPA 430R–95–001a, October, 1995.

[89] Deposition of Air Pollutants to the Great Waters, Third Report to Congress, June, 2000. Available in Docket A–99–06, Document No. IV–A–06.

[90] Deposition of Air Pollutants to the Great Waters, Third Report to Congress, June, 2000. Great Waters are defined as the Great Lakes, the Chesapeake Bay, Lake Champlain, and coastal waters. The first report to Congress was delivered in May, 1994; the second report to Congress in June, 1997. Available in Docket A–99–06, Document No. IV–A–06.

[91] Bricker, Suzanne B., *et al.*, National Estuarine Eutrophication Assessment, Effects of Nutrient Enrichment in the Nation's Estuaries, National Ocean Service, National Oceanic and Atmospheric Administration, September, 1999. Available in Docket A–99–06, Document No. IV–G–145.

[92] Deposition of Air Pollutants to the Great Waters, Third Report to Congress, June, 2000. Available in Docket A–99–06, Document No. IV–A–06.

[93] Valigura, Richard, *et al.*, Airsheds and Watersheds II: A Shared Resources Workshop, Air Subcommittee of the Chesapeake Bay Program, March, 1997. Available in Docket A–99–06, Document No. IV–G–144.

[94] The Impact of Atmospheric Nitrogen Deposition on Long Island Sound, The Long Island Sound Study, September, 1997.

[95] Dennis, Robin L., Using the Regional Acid Deposition Model to Determine the Nitrogen Deposition Airshed of the Chesapeake Bay Watershed, SETAC Technical Publications Series, 1997.

[96] Dennis, Robin L., Using the Regional Acid Deposition Model to Determine the Nitrogen Deposition Airshed of the Chesapeake Bay Watershed, SETAC Technical Publications Series, 1997.

engines will reduce total NO_X emissions by 831,000 tons in 2030. The NO_X reductions will reduce the airborne nitrogen deposition that contributes to eutrophication of watersheds, particularly in aquatic systems where atmospheric deposition of nitrogen represents a significant portion of total nitrogen loadings.

4. Polycyclic Organic Matter Deposition

EPA's Great Waters Program has identified 15 pollutants whose deposition to water bodies has contributed to the overall contamination loadings to the these Great Waters.[97] One of these 15 pollutants, a group known as polycyclic organic matter (POM), are compounds that are mainly adhered to the particles emitted by mobile sources and later fall to earth in the form of precipitation or dry deposition of particles. The mobile source contribution of the 7 most toxic POM is at least 62 tons/year and represents only those POM that adhere to mobile source particulate emissions.[98] The majority of these emissions are produced by diesel engines.

The PM reductions from this proposed action will help reduce not only the PM emissions from nonroad diesel engines but also the deposition of the POM adhering to the particles, thereby helping to reduce health effects of POM in lakes and streams, accelerate the recovery of affected lakes and streams, and revive the ecosystems adversely affected.

5. Plant Damage From Ozone

Ground-level ozone can also cause adverse welfare effects. Specifically, ozone enters the leaves of plants where it interferes with cellular metabolic processes. This interference can be manifest either as visible foliar injury from cell injury or death, and/or as decreased plant growth and yield due to a reduced ability to produce food. With fewer resources, the plant reallocates existing resources away from root storage, growth and reproduction toward leaf repair and maintenance. Plants that are stressed in these ways become more susceptible to disease, insect attack, harsh weather and other environmental stresses. Because not all plants are equally sensitive to ozone, ozone pollution can also exert a selective pressure that leads to changes in plant community composition.

Since plants are at the center of the food web in many ecosystems, changes to the plant community can affect associated organisms and ecosystems (including the suitability of habitats that support threatened or endangered species and below ground organisms living in the root zone). Given the range of plant sensitivities and the fact that numerous other environmental factors modify plant uptake and response to ozone, it is not possible to identify threshold values above which ozone is toxic and below which it is safe for all plants. However, in general, the science suggests that ozone concentrations of 0.10 ppm or greater can be phytotoxic to a large number of plant species, and can produce acute foliar injury responses, crop yield loss and reduced biomass production. Ozone concentrations below 0.10 ppm (0.05 to 0.09 ppm) can produce these effects in more sensitive plant species, and have the potential over a longer duration of creating chronic stress on vegetation that can lead to effects of concern such as reduced plant growth and yield, shifts in competitive advantages in mixed populations, and decreased vigor leading to diminished resistance to pests, pathogens, and injury from other environmental stresses.

Studies indicate that these effects described here are still occurring in the field under ambient levels of ozone. The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production (*e.g.*, soybean) and visible injury to some leaf crops (*e.g.*, lettuce, spinach, tobacco) and visible injury to ornamental plants (*i.e.*, grass, flowers, shrubs), while other types of welfare loss may not be fully quantifiable in economic terms (*e.g.*, reduced aesthetic value of trees growing in Class I areas).

As discussed above, nonroad diesel engine emissions of VOCs and NO_X contribute to ozone. This proposed rule would reduce ozone and, therefore, help to reduce crop damage and stress from ozone on vegetation. *See* the draft RIA for a more detailed discussion of the science of these effects.

D. Other Criteria Pollutants Affected by This NPRM

The standards being proposed today would also help reduce levels of other pollutants for which NAAQS have been established: carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). Currently every area in the United States has been designated to be in attainment with the NO_2 NAAQS. As of November 4, 2002, there were 24 areas designated as non-attainment with the SO_2 standard, and 14 designated CO non-attainment areas.

The current primary NAAQS for CO are 35 parts per million for the one-hour average and 9 parts per million for the eight-hour average. These values are not to be exceeded more than once per year. Over 22 million people currently live in the 14 non-attainment areas for the CO NAAQS. *See* the draft RIA for a detailed discussion of the emission benefits of this proposed rule.

Carbon monoxide is a colorless, odorless gas produced through the incomplete combustion of carbon-based fuels. Carbon monoxide enters the bloodstream through the lungs and reduces the delivery of oxygen to the body's organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Healthy individuals also are affected, but only at higher CO levels. Exposure to elevated CO levels is associated with impairment of visual perception, work capacity, manual dexterity, learning ability and performance of complex tasks.

Land-based nonroad engines contributed about one percent of CO from mobile sources in 1996. EPA previously determined that the category of nonroad diesel engines cause or contribute to ambient CO and ozone in more than one non-attainment area (65 FR 76790, December 7, 2000). In that action EPA found that nonroad engines contribute to CO non-attainment in areas such as Los Angeles, Phoenix, Spokane, Anchorage, and Las Vegas. Nonroad land-based diesel engines emitted 927,500 tons of CO in 1996 (1% of mobile source CO).

E. Emissions From Nonroad Diesel Engines

Emissions from nonroad diesel engines will continue to be a significant part of the emissions inventory in the coming years. In the absence of new emission standards, we expect overall emissions from nonroad diesel engines subject to this proposal to generally decline across the nation for the next 10 to 15 years, depending on the pollutant.[99] Although nonroad diesel engine emissions will decline during this period, this trend will not be enough to adequately reduce the large amount of emissions that these engines contribute. For example, the declines are insufficient to prevent significant

[97] Deposition of Air Pollutants to the Great Waters-Third Report to Congress, June, 2000, Office of Air Quality Planning and Standards Deposition of Air Pollutants to the Great Waters-Second Report to Congress, Office of Air Quality Planning and Standards, June 1997, EPA–453/R–97–011. Available in Docket A–99–06, Document No. IV–A–06.

[98] The 1996 National Toxics Inventory, Office of Air Quality Planning and Standards, October 1999.

[99] As defined here, nonroad diesel engines include land-based, locomotive, commercial marine vessel, and recreational marine engines.

contributions to nonattainment of $PM_{2.5}$ and ozone NAAQS, or to prevent widespread exposure to significant concentrations of nonroad engine air toxics. In addition, after the 2010 to 2015 time period we project that this trend reverses and emissions rise into the future in the absence of additional regulation of these engines. (This phenomenon is further described later in this section.) The initial downward trend occurs as the nonroad fleet becomes increasingly dominated over time by engines that comply with existing emission regulations. The upturn in emissions beginning around 2015 results as growth in the nonroad sector overtakes the effect of the existing emission standards.

The engine and fuel standards in this proposal will affect fine particulate matter ($PM_{2.5}$), oxides of nitrogen (NO_X), sulfur oxides (SO_2), volatile organic hydrocarbons (VOC), and air toxics. For locomotive, commercial marine vessel (CMV), and recreational marine vessel (RMV) engines, the proposed fuel standards will affect $PM_{2.5}$ and SO_2. CO is not specifically targeted in this proposal but its reductions are discussed in the draft RIA.[100]

Each sub-section within section II discusses the emissions of a pollutant that the proposal addresses.[101] This is followed by a discussion of the expected emission reductions associated with the proposed standards for land-based nonroad diesel engines.[102] The tables and figures illustrate the Agency's projection of future emissions from nonroad diesel engines for each pollutant.[103] The baseline case represents future emissions from land-based nonroad diesel engines with current standards. The controlled case estimates the future emissions of these engines based on the proposed standards in this notice.

1. $PM_{2.5}$

As described earlier in this section of the preamble, the Agency believes that reductions of diesel $PM_{2.5}$ emissions are needed as part of the Nation's progress toward clean air and to reach attainment of the NAAQS for $PM_{2.5}$. The nonroad engines controlled by this proposal are the major sources of nonroad diesel emissions. Table II.E–1 shows that the PM2.5 emissions from land-based nonroad diesels amount to increasingly large percentages of total manmade diesel $PM_{2.5}$ in the years 1996, 2020 and 2030.[104] [105]

TABLE II.E–1—BASE-CASE NATIONAL (48 STATE) DIESEL $PM_{2.5}$

(Short tons)

Year	Total diesel $PM_{2.5}$	Nonroad land-based diesel $PM_{2.5}$	Nonroad land-based percent of total diesel $PM_{2.5}$ (percent)
1996	414,000	177,000	43
2020	206,000	124,000	60
2030	220,000	140,000	64

The contribution of land-based nonroad CI engines to PM2.5 inventories can be significant, especially in densely populated urban areas.[106] As illustrated in Table II.E.-2, our city-specific analysis of selected metropolitan areas for 1996 and 2020 shows that the land-based nonroad diesel engine contribution to total $PM_{2.5}$ ranges up to 18 percent in 1996 and 19 percent in 2020.[107]

TABLE II.E–2—BASELINE LAND-BASED NONROAD DIESEL PERCENT CONTRIBUTION TO $PM_{2.5}$ INVENTORIES IN SELECTED URBAN AREAS IN 1996 AND 2020

MSA, State	Land-Based Nonroad $PM_{2.5}$ Contribution to Total $PM_{2.5}$[a] in 1996	Land-Based Nonroad $PM_{2.5}$ Contribution to Total $PM_{2.5}$[a] in 2020
Atlanta, GA	7	6
Boston, MA	18	18
Chicago, IL	8	7
Dallas-Ft. Worth, TX	13	10
Indianapolis, IN	15	13
Minneapolis-St. Paul, MN	10	8
New York, NY	13	12
Orlando, FL	14	12
Sacramento, CA	7	7
San Diego, CA	9	7
Denver, CO	11	8
El Paso, TX	15	19
Las Vegas, NV	15	12
Phoenix-Mesa, AZ	15	12
Seattle, WA	7	7
National Average[b]	8	6

[a] Includes only direct exhaust diesel emissions; see Section II.C for a discussion of secondary fine PM levels.

[b] This is a 48 state national average.

Emissions of $PM_{2.5}$ from land-based nonroad diesel engines based on a 50 state inventory are shown in Table II.E–3, along with our estimates of the reductions in 2020 and 2030 we expect would result from our proposal for a $PM_{2.5}$ exhaust emission standard and changes in the sulfur level in nonroad diesel fuel. For comparison purposes, $PM_{2.5}$ emissions based on lowering nonroad diesel fuel sulfur levels to about 340 ppm in-use[108] (500 ppm maximum) without any other controls are shown, along with the estimated emissions with the proposed $PM_{2.5}$ standard and a sulfur level of 11 ppm in-use (15 ppm maximum). Figure II.E–1 shows our estimate of $PM_{2.5}$ emissions between 2000 and 2030 both without

[100] We are proposing only a few minor adjustments of a technical nature to current CO standards.

[101] The estimates of baseline emissions and emissions reductions from the proposed rule reported here for nonroad land-based, recreational marine, locomotive, and commercial marine vessel diesel engines are based on 50 state emissions inventory estimates. However, 50 state emissions inventory data are not available for other emission sources. Thus, emissions estimates for other sources are based on a 48 state inventory that excludes Alaska and Hawaii. The 48 state inventory was done for air quality modeling that EPA uses to analyze regional ozone transport, of which Alaska and Hawaii are not a part. In cases where land-based nonroad diesel engine emissions are summed or compared with other emissions sources, we use a 48 state emissions inventory.

[102] For the purpose of this proposal, land-based nonroad diesel engines include engines used in equipment modeled by the draft NONROAD emissions model, except for recreational marine engines. Recreational marine diesel engines are not subject to the exhaust emission standards contained in this proposal but would be affected by the fuel sulfur requirements applicable to locomotive and commercial marine vessel engines.

[103] The air quality modeling results described in sections II.B and II.C use a slightly different emissions inventory based on earlier, preliminary modeling assumptions. Chapter 3 of the draft RIA and the technical support documents fully describe this inventory, as well as the differences between it and the inventory reflecting the proposal.

[104] Nitrate and sulfate secondary fine particulate as described in section II.B and are not included in the values reported here or elsewhere, but are discussed in the Regulatory Impact Analysis, chapter X.

[105] As a function of the available national inventories from other sources, we are only able to present a 48-state inventory. Wherever possible we present a 50-state inventory.

[106] Construction, industrial, and commercial nonroad diesel equipment comprise most of the land-based nonroad emissions inventory. These types of equipment are more concentrated in urban areas where construction projects, manufacturing, and commercial operations are prevalent. For more information, please refer to the report, ''Geographic Allocation of State Level Nonroad Engine Population Data to the County Level,'' NR–014b, EPA 420–P–02–009.

[107] We selected these cities to show a collection of typical cities spread across the United States in order to compare typical urban inventories with national average ones.

[108] This value (340 ppm) represents the average in-use sulfur concentration of fuel produced to meet a 500 ppm sulfur standard. In practice, off-highway equipment will sometimes be refueled with diesel fuel meeting the more stringent highway standard of 15 ppm. Therefore, the actual average in-use sulfur level of the fuel used by off-highway equipment will be somewhat lower than 340 ppm. The emission benefits shown here reflect this lower in-use sulfur level.

and with the proposed $PM_{2.5}$ standard (along with an assumed sulfur level of 11 ppm in-use, 15 ppm maximum). By 2030, we estimate that $PM_{2.5}$ emissions from this source would be reduced by 86 percent in that year.

TABLE II.E–3.—ESTIMATED NATIONAL (50 STATE) REDUCTIONS IN $PM_{2.5}$ EMISSIONS FROM NONROAD LAND-BASED, LOCOMOTIVE, COMMERCIAL MARINE, AND RECREATIONAL MARINE DIESEL ENGINES

Year	$PM_{2.5}$* without rule [short tons]	$PM_{2.5}$ with 500 ppm fuel sulfur (340 in-use) and no other controls [short tons]	$PM_{2.5}$ reductions with 500 ppm fuel sulfur (340 in-use) and no other controls [short tons]	$PM_{2.5}$ with rule (15 ppm sulfur level, 11 in-use) [short tons]	$PM_{2.5}$ reductions with rule (15 ppm sulfur level, 11 in-use) [short tons]
2020	186,000	163,000	100,000	23,000	86,000
2030	205,000	178,000	77,000	27,000	127,000

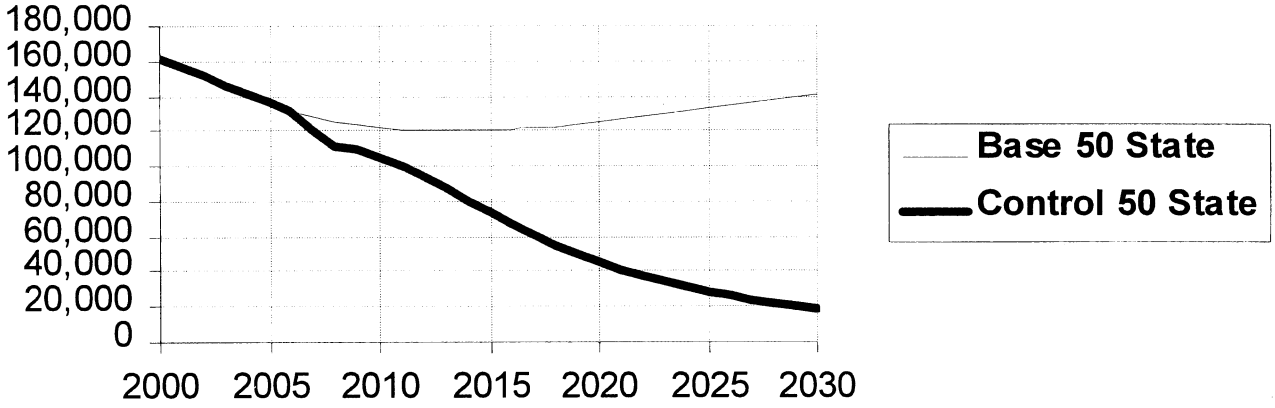


Figure II.E-1: Estimated Reductions in PM2.5 Emissions From Land-Based Nonroad Diesel Engines (tons/year)

Nonroad diesel engines used in locomotives, commercial marine vessels, and recreational marine vessels are not affected by the emission standards of this proposal. $PM_{2.5}$ emissions from these engines would be reduced by the reductions in diesel fuel sulfur for these types of engines from an in-use average of between 2,300 and 2,400 ppm today to an in-use average of about 340 ppm (500 ppm maximum) in 2007. The estimated reductions in $PM_{2.5}$ emissions from these engines based on the proposed change in diesel fuel sulfur are about 6,000 tons in 2020 and 7,000 tons in 2030.[109] For more information on proposed fuel sulfur reductions, please *see* chapter 7 of the draft RIA.

2. NO_X

Table II.E–4 shows the 50 state estimated tonnage of NO_X emissions for 2020 and 2030 without the proposed rule and the estimated tonnage of emissions eliminated with the proposed rule in place. These results are shown graphically in Figure II.E–2. By 2030, we estimate that NO_X emissions from these engines will be reduced by 67 percent in that year.

TABLE II.E.–4.—ESTIMATED NATIONAL (50 STATE) REDUCTIONS IN NO_X EMISSIONS FROM NONROAD LAND-BASED DIESEL ENGINES

Calendar year	NO_X without rule [short tons]	NO_X with rule [short tons]	NO_X reductions with rule [short tons]
2020	1,147,000	640,000	507,000
2030	1,239,000	412,000	827,000

[109] These reductions are based on a 50 state emissions inventory estimate.

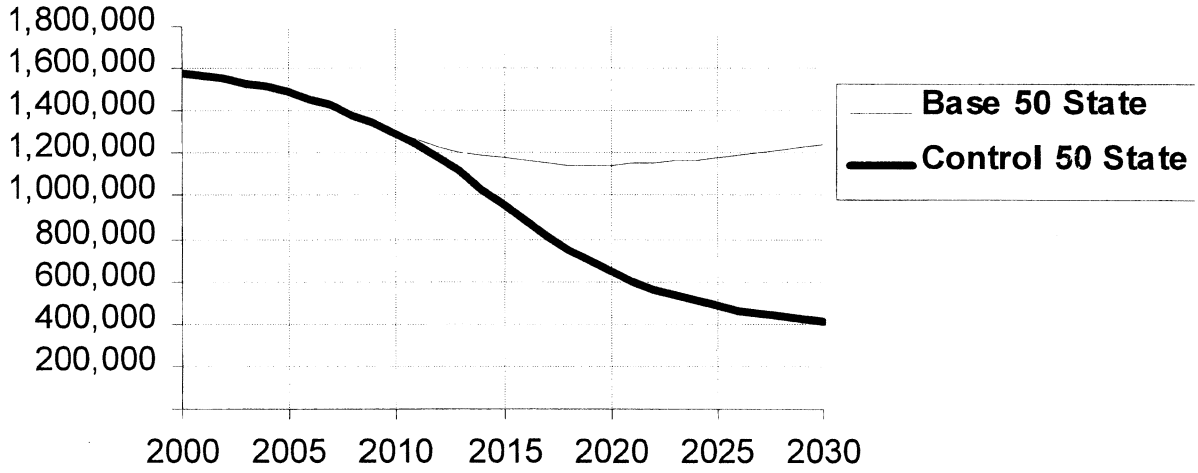


Figure II.E-2: Estimated Reductions in NOx Emissions From Land-Based Nonroad Diesel Engines (tons/year)

Table E.II–5 shows that the engines affected by the proposal emit a significant portion of total NO_X emissions in 1996 and 2020, especially in cities. This is not surprising given the high density of these engines operating in urban areas.[110] We selected a variety of cities from across the nation and found that these engines contribute up to 14 percent of the total NO_X inventories in 1996 and as much as 20 percent to total NO_X inventories in 2020.[111]

TABLE II.E–5—BASELINE LAND-BASED NONROAD DIESEL PERCENT CONTRIBUTION TO NO_X INVENTORIES IN SELECTED URBAN AREAS IN 2020

MSA, State	Land-based NR NO_X as percentage of total NO_X in 1996	Land-based NR NO_X as percentage of total NO_X in 2020
Atlanta, GA	5	7
Boston, MA	14	19
Chicago, IL	6	7
Dallas-Fort Worth, TX	10	13
Indianapolis, IN	8	12
Minneapolis-St. Paul, MN	6	6
New York, NY	11	20
Orlando, FL	10	13
Sacramento, CA	10	19
San Diego, CA	9	14
Denver, CO	8	8
El Paso, TX	8	15
Las Vegas, NV–AZ	11	12
Phoenix-Mesa, AZ	9	11
Seattle, WA	8	11
National Average[a]	6	7

[a] This is a 48 state national average.

3. SO_2

We estimate that land-based nonroad, CMV, RMV, and locomotive diesel engines emitted about 227,000 tons of SO_2 in 1996, accounting for about 30 percent of the SO_2 from mobile sources (based on a 48 state inventory). With no reduction in diesel fuel sulfur levels, we estimate that these emissions will continue to increase, accounting for about 60 percent of mobile source SO_2 emissions by 2030.

As part of this proposal, sulfur levels in fuel would be significantly reduced, leading to large reductions in nonroad diesel SO_2 emissions. By 2007, the sulfur in diesel fuel used by all nonroad diesel engines would be reduced from the current average in-use level of between 2,300 and 2,400 ppm to an average in-use level of about 340 ppm with a maximum level of 500 ppm. By 2010, the sulfur in diesel fuel used by land-based nonroad engines would be

[110] Construction, industrial, and commercial nonroad diesel equipment comprise most of the land-based nonroad emissions inventory. These types of equipment are more concentrated in urban areas where construction projects, manufacturing, and commercial operations are prevalent. For more information, please refer to the report, ''Geographic Allocation of State Level Nonroad Engine Population Data to the County Level,'' NR–014b, EPA 420–P–02–009.

[111] We selected these cities to show a collection of typical cities spread across the United States in order to compare typical urban inventories with national average ones.

reduced to an average in-use level of 11 ppm with a maximum level of 15 ppm. The sulfur in diesel fuel used by locomotives, CMVs, and RMVs would remain at an average in-use level of about 340 ppm. Figure II.E–3 shows the estimated reductions from these sulfur changes. For more information on this topic, please *see* chapter 7 of the RIA.[112]

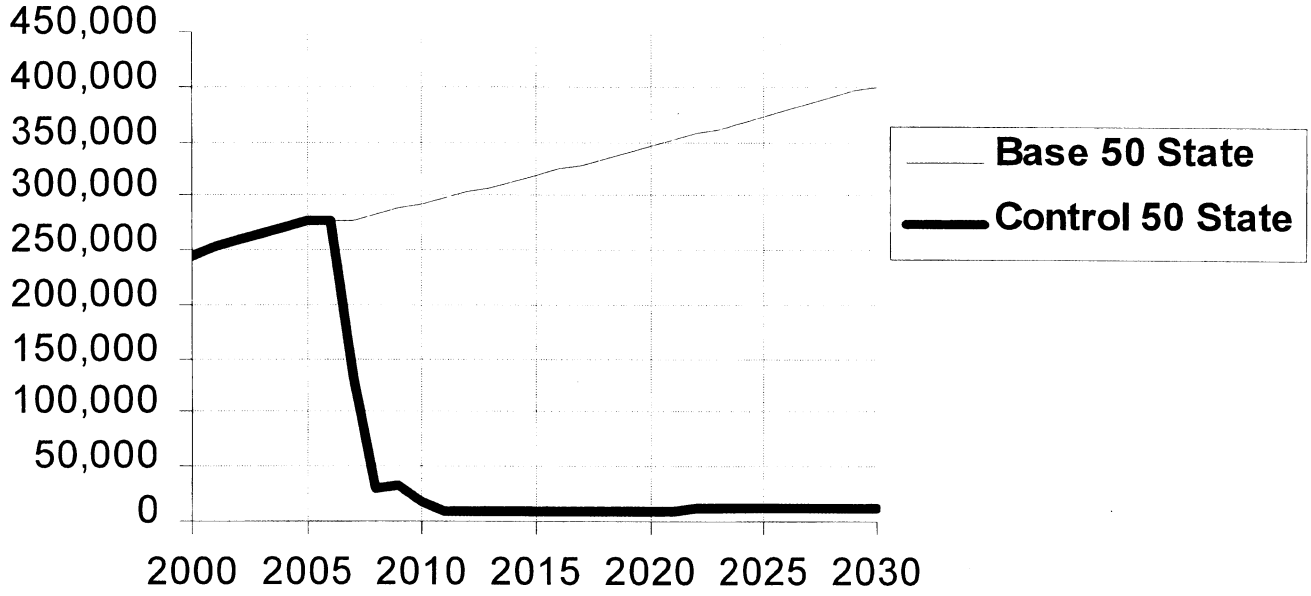


Figure II.E-3: Estimated SO_2 Reductions From Reducing Diesel Sulfur For Land-Based Nonroad Engines, CMVs, RMVs, and Locomotives (tons/year)

Table II.E–6 shows 50 state estimates of total SO_2 emissions without the proposed rule and how SO_2 emissions would be reduced by the diesel fuel sulfur reductions in 2020 and 2030.

Lowering diesel fuel sulfur to a maximum of 500 ppm (340 ppm in-use) for CMV, locomotive and land-based nonroad engines would result in a reduction of about 360,000 tons/year of SO_2 in 2030. Lowering diesel fuel sulfur to a maximum of 500 ppm (340 ppm in-use) for CMV and locomotive engines and a maximum of 15 ppm (11 ppm in-use) for land-based nonroad engines would result in a reduction of about 390,000 tons of SO_2 in 2030.

TABLE II.E–6—ESTIMATED NATIONAL (50 STATE) EMISSIONS OF LAND-BASED NONROAD, LOCOMOTIVE, COMMERCIAL MARINE VESSEL, AND RECREATIONAL MARINE VESSEL

[SO_2 Emissions From Lowering Diesel Fuel Sulfur Levels]

Year	Total SO_2 emissions at 2400 ppm sulfur without proposed rule [short tons]	500 ppm sulfur (340 ppm in-use) locomotives, CMVs, RMVs[a] [short tons]	500 ppm sulfur (340 in-use) land-based nonroad [short tons]	15 ppm sulfur (11 ppm in-use) land-based nonroad [short tons]
1996	229,000	.....	.....	.....
2020	345,000	9,000	26,000	1,000
2030	401,000	10,000	30,000	1,000

Notes:
[a] CMV = commercial marine vessels, RMV = Recreational marine vessels.

4. VOC and Air Toxics

Based on a 48 state emissions inventory, we estimate that land-based nonroad diesel engines emitted over 221 thousand tons of VOC in 1996. Between 1996 and 2030, we estimate that land-based nonroad diesel engines will contribute about 2 to 3 percent to mobile source VOC emissions. Without further controls, land-based nonroad diesel engines will emit over 97

[112] Under this proposal, the introduction of 340 ppm (approximate average in-use level, 500 ppm maximum) sulfur diesel fuel for all nonroad diesel engines would take place in June of 2007. The introduction of 11 ppm sulfur diesel fuel (average in-use, 15 ppm maximum) for land-based nonroad engines would take place in June 2010.

thousand tons/year of VOC in 2020 and 2030 nationally.[113]

Tables II.E–7 shows our projection of the reductions in 2020 and 2030 for VOC emissions that we expect from implementing the proposed NMHC standards. This estimate is based on a 50 state emissions inventory. By 2030, VOC reductions would be reduced by 30 percent.

TABLE II.E–7—ESTIMATED NATIONAL (50 STATE) REDUCTIONS IN VOC EMISSIONS FROM NONROAD LAND-BASED DIESEL ENGINES

Calendar year	VOC without rule [short tons]	VOC with rule [short tons]	VOC reductions with rule [short tons]
2020	97,000	79,000	18,000
2030	98,000	68,000	30,000

Air toxics pollutants are in VOCs and are included in the total land-based nonroad diesel VOC emissions estimate. We base these numbers on the assumption that air toxic emissions are a constant fraction of hydrocarbon exhaust emissions.

Although we are not proposing any specific gaseous air toxics standards, air toxics emissions would nonetheless be reduced through NMHC standards included in the proposed rule. By 2030, we estimate that emissions of air toxics pollutants, such as benzene, formaldehyde, acetaldehyde, 1,3-butadiene, and acrolein, would be reduced by 30 percent from land-based nonroad diesel engines. For specific air toxics reductions please see chapter 3 of the RIA. In section II.B.2 we discuss the health effects of these pollutants.

III. Nonroad Engine Standards

In this section we describe the nonroad diesel emission standards we are proposing in order to address the serious air quality problems discussed in section II. Specifically, we discuss:

- The Clean Air Act and why we are proposing new emission standards.
- The technology opportunity for nonroad diesel emissions control.
- Our proposed engine standards, and our proposed schedule for implementing them.
- Proposals for supplemental test procedures and standards to help control emissions during transient operating modes and engine start-up.
- Proposals to help ensure robust emissions control in use.
- The feasibility of the proposed standards (in conjunction with the proposed low-sulfur nonroad diesel fuel requirement discussed in section IV).
- How diesel fuel sulfur affects an engine's ability to meet the proposed standards.
- Plans for a future reassessment of the technology needed to comply with proposed standards for engines below 75 hp.

Additional proposed provisions for engine and equipment manufacturers are discussed in detail in section VII. Briefly, these include changes to our engine manufacturer averaging, banking, and trading (ABT) program, changes to our transition program for equipment manufacturers, special provisions to aid small businesses in implementing our requirements, and an incentive program to encourage innovative technologies and the early introduction of new technologies.

We welcome comment on all facets of this discussion, including the levels and timing of the proposed emissions standards and our assessment of technological feasibility, as well as on the supporting analyses contained in the Draft Regulatory Impact Analysis (RIA). We also request comment on the timing of the proposed diesel fuel standard in conjunction with these proposed emission standards. We ask that commenters provide any technical information that supports the points made in their comments.

A. Why Are We Setting New Engine Standards?

1. The Clean Air Act and Air Quality

We believe that Agency action is needed to address the air quality problems discussed in section II. We are therefore proposing new engine standards and related provisions under sections 213(a)(3) and (4) of the Clean Air Act which, among other things, direct us to establish (and from time to time revise) emission standards for new nonroad diesel engines. Because emissions from these engines contribute greatly to a number of serious air pollution problems, especially the health and welfare effects of ozone, PM, and air toxics, we believe that the air quality need for stringent nonroad diesel standards is well established. This, and our belief that a significant degree of emission reduction from these engines is achievable through the application of diesel emission control technology that will be available in the lead time provided (giving appropriate consideration to cost, noise, safety, and energy factors as required by the Act), along with coordinated reductions in nonroad diesel fuel sulfur levels, leads us to believe that these new emission standards are warranted and appropriate.

We also believe that the proposed engine standards are consistent with the Clean Air Act section 213 requirements on availability of technology and appropriate lead time. The basis for our conclusion is described in this section and in the Draft RIA.

2. The Technology Opportunity for Nonroad Diesel Engines

Substantial progress has been made in recent years in controlling diesel exhaust emissions through the use of robust, high-efficiency catalytic devices placed in the exhaust system. Particularly promising are the catalytic soot filter or particulate trap for PM and hydrocarbon control, and the NO_X adsorber. These technologies are expected to be applied to highway heavy-duty diesel engines (HDDEs) beginning in 2007 to meet stringent new standards for these engines. The final EPA rule establishing those standards contains extensive discussion of how these devices work, how effective they are at reducing emissions, and what their limitations are, particularly their dependence on very-low sulfur diesel fuel to function properly (66 FR 5002, January 18, 2001; *see* especially section III of the preamble starting at 5035). Reviews of ongoing progress in the development of these technologies have recently been performed by EPA and by

[113] VOC emissions remain about the same in 2030 as 2020 because while nonroad diesel emission factors decrease and newer engines continue to be introduced into the fleet, the engine/equipment population continues to increase. The increase in engine/equipment population offsets the effect of decreasing emission factors.

an independent review panel.[114 115] These reviews found that significant progress has been made since the final rule was published, reinforcing our confidence that the highway engine standards can be met. (Our consideration of these highway engine standards is consistent with the requirement in Clean Air Act section 213(a)(3) that EPA consider nonroad engine standards equivalent in stringency to those adopted for comparable highway engines regulated under section 202 of the Act.)

Although there are important differences, nonroad diesel engines operate fundamentally like heavy-duty highway diesel engines. In fact, many nonroad engine designs are derived from highway engine platforms. We believe that, given the availability of nonroad diesel fuel meeting our proposed 15 ppm maximum sulfur requirement and adequate development lead time, nonroad diesel engines can be designed to successfully employ the same high-efficiency exhaust emission control technologies now being developed for highway use. Indeed, some nonroad diesel applications, such as in underground mining, have pioneered the use of similar technologies for many years. These technologies, the experience gained with them in nonroad applications, the issues involved in transferring technology from highway to nonroad applications, and the appropriate standards and test procedures for this nonroad Tier 4 program are discussed in detail in the remainder of this section.

B. What Engine Standards Are We Proposing?

1. Exhaust Emissions Standards

The PM, NO_X, and NMHC emissions standards being proposed for nonroad diesel engines are summarized in Figures III.B–1 and 2. We are also making minor adjustments to CO standards as discussed in section III.B.1.f. All of these standards would apply to covered nonroad engines over the useful life periods specified in our regulations, except where temporary in-use compliance margins would apply as discussed in section VII.J.[116] We are not proposing changes to the current useful life periods because we do not have any relevant new information that would lead us to propose changes. However, we do ask for comment on whether or not changes are warranted and, if so, on what the useful life periods should be. The testing requirements by which compliance with the standards would be measured are discussed in section III.C. In addition we are proposing new ''not-to-exceed'' (NTE) emission standards and associated test procedures to help ensure robust control of emissions in use. These standards are discussed as part of a broader outline of proposed NTE provisions in sections III.D and VII.G.

FIGURE III.B–1—PROPOSED PM STANDARDS (G/BHP-HR) AND SCHEDULE

Engine Power	Model Year					
	2008	2009	2010	2011	2012	2013
hp < 25 (kW < 19)	[a] 0.30	.....	.....	.....	.....	.....
25 ≤ hp < 75 (19 ≤ kW < 56)	[b] 0.22	.....	.....	.....	.....	0.02
75 ≤ hp < 175 (56 ≤ kW < 130)	.....	.....	.....	.....	0.01	.....
175 ≤ hp ≤ 750 (130 ≤ kW ≤ 560)	.....	.....	.....	0.01	.....	.....
hp > 750 (kW > 560)	.....	.....	.....	[c] 0.01	.....	.....

Notes:
[a] For air-cooled, hand-startable, direct injection engines under 11 hp, a manufacturer may instead delay implementation until 2010 and demonstrate compliance with a less stringent PM standard of 0.45 g/bhp-hr, subject also to additional provisions discussed in Section III.B.1.d.i.
[b] A manufacturer has the option of skipping the 0.22 g/bhp-hr PM standard for all 50–75 hp engines; the 0.02 g/bhp-hr PM standard would then take effect one year earlier for all 50–75 hp engines (in 2012).
[c] 50% of a manufacturer's U.S.-directed production must meet the 0.01 g/bhp-hr PM standard in this model year. In 2014, 100% must comply.

FIGURE III.B–2—PROPOSED NO_X AND NMHC STANDARDS AND SCHEDULE

Engine Power	Standard (g/bhp-hr)	
	NO_X	NMHC
25 ≤ hp < 75 (19 ≤ kW < 56)	3.5 NMHC+NO_X [a]	
75 ≤ hp < 175 (56 ≤ kW < 130)	0.30	0.14
175 ≤ hp ≤ 750 (130 ≤ kW ≤ 560)	0.30	0.14
hp > 750 (kW > 560)	0.30	0.14

Engine Power	Phase-in Schedule			
	2011	2012	2013	2014
25 ≤ hp < 75 (19 ≤ kW < 56)	.....	.....	100%	.....
75 ≤ hp < 175 (56 ≤ kW < 130)	.....	[b] 50%	[b] 50%	[b] 100%
175 ≤ hp ≤ 750 (130 ≤ kW ≤ 560)	50%	50%	50%	100%
hp > 750 (kW > 560)	50%	50%	50%	100%

Notes:
Percentages are U.S.-directed production required to comply with the Tier 4 standards in the indicated model year.
[a] This is the existing Tier 3 combined NMHC+NO_X standard level for the 50–75 hp engines in this category; in 2013 it would apply to the 25–50 hp engines as well.

[114] ''Highway Diesel Progress Review'', U.S. EPA, June 2002. EPA420-R–02–016. (*www.epa.gov/air/caaac/dieselreview.pdf*).

[115] ''Meeting Technology Challenges For the 2007 Heavy-Duty Highway Diesel Rule'', Final Report of the Clean Diesel Independent Review Subcommittee, Clean Air Act Advisory Committee, October 30, 2002. (*www.epa.gov/air/caaac/diesel/finalcdirpreport103002.pdf*).

[116] The useful life for engines ≥50 hp is 8,000 hours or 10 years, whichever occurs first. For engines <25 hp, and for 25–50 hp engines that operate at constant speed at or above 3000 rpm, it is 3000 hours or 5 years. For other 25–50 hp engines, it is 5,000 hours or 7 years.

[b] Manufacturers may use banked Tier 2 NMHC+NO_X credits to demonstrate compliance with the proposed 75–175 hp engine NO_X standard in this model year. Alternatively, manufacturers may forego this special banked credit option and instead meet an alternative phase-in requirement in 2012, 2013, and part of 2014. See Section III.B.1.b.

The proposed long-term 0.01 and 0.02 g/bhp-hr Tier 4 PM standards for >75 hp and 25–75 hp engines, respectively, combined with the fuel change and proposed new requirements to ensure robust control in the field, represent a reduction of over 95% from in-use levels expected with Tier 2/Tier 3 engines.[117] The proposed 0.30 g/bhp-hr Tier 4 NO_X standard for >75 hp engines represents a NO_X reduction of about 90% from in-use levels expected with Tier 3 engines. The basis for the proposed standard levels is presented in Section III.E.

a. Standards Timing

The timing of the Tier 4 NO_X, PM, and NMHC standards is closely tied to the proposed timing of fuel quality changes discussed in section IV, in keeping with the systems approach we are taking for this program. The earliest Tier 4 standards would take effect in model year 2008, in conjunction with the introduction of 500 ppm maximum sulfur nonroad diesel fuel in mid-2007. This fuel change serves a dual environmental purpose. First, it provides a large immediate reduction in PM emissions for the existing fleet of engines in the field. Second, its widespread availability by the end of 2007 aids engine designers in employing emission controls capable of achieving the proposed standards for model year 2008 and later engines; this is because the performance and durability of such technologies as exhaust gas recirculation (EGR) and diesel oxidation catalysts is improved by lower sulfur fuel.[118] The reduction of sulfur in nonroad diesel fuel will also provide sizeable economic benefits to machine operators as it will extend oil change intervals and reduce wear and corrosion (*see* section V).

We are not, however, proposing new 2008 standards for engines at or above 100 hp because these engines are subject to existing Tier 3 NMHC+NO_X standards (Tier 2 for engines above 750 hp) in 2006 or 2007. Setting new 2008 standards would provide only one or two years before another round of design changes would have to be made for Tier 4. Engines between 50–100 hp also have a Tier 3 NMHC+NO_X standard, but it takes effect in 2008, providing an opportunity to coordinate with Tier 4 to provide the desired pull-ahead of PM control. We believe that we can accomplish this PM pull-ahead without hampering manufacturers' Tier 3 compliance efforts by providing two Tier 4 compliance options for 50–75 hp engines. This reflects the splitting of the current 50–100 hp category of engines to match the new rated power[119] categories shown in Figures III.B–1 and 2. We are proposing to provide manufacturers with the option to skip the Tier 4 2008 PM standard (*see* Figure III-B.1) and instead to focus design efforts on introducing PM filters for these engines one year earlier, in 2012. This option would ensure that a manufacturer's Tier 3 NMHC+NO_X compliance plans are not complicated by having to meet a new Tier 4 PM standard in the same timeframe, if that were to become a concern for a manufacturer.

We are concerned that this optional approach for 50–75 hp engines might be abused by equipment manufacturers whose engine suppliers opt not to meet the PM pull-ahead standard in 2008, but who then switch engine suppliers to avoid PM filter-equipped engines in 2012. We are therefore proposing that an equipment manufacturer making a product with engines not meeting the pull-ahead standard in any of the years 2008–2011, must use engines in that product in 2012 meeting the 0.02 g/bhp-hr PM standard; that is, from the same engine manufacturer or from another engine manufacturer choosing the same compliance option. This restriction would not apply if the 2008–2011 engines at issue are being produced under the equipment manufacturer flexibility provisions discussed in section VII.B. Also, we would not prohibit an equipment manufacturer who is using non-pull-ahead engines in 2008–2011 from making use of available equipment manufacturer flexibility provisions in 2012 or later. That is, they could continue to use Tier 3 engines in 2012 that are purchased under these provisions; they would, however, still be subject to the above-described restriction on switching manufacturers. We solicit comment on whether this restriction should have a numerical basis (*e.g.*, the ''no switch'' restriction in 2012 applies to the same percentage of 50–75 hp machines produced with non-pull-ahead engines in 2008–2011) to avoid further abuse by equipment manufacturers who redefine their product models to dodge the requirement, and on other suggestions for dealing with this concern.

Note that we are not proposing the optional 2008 PM standard for engines between 75 and 100 hp, even though they, like the 50–75 hp engines, are subject to a 2008 Tier 3 standard. This is because we believe that these larger engines, proposed to be grouped into a new 75–175 hp category, would be subject to stringent new PM and NO_X standards beginning in 2012, and adding a 2008 PM component to this program for a quarter of this 75–175 hp range would complicate manufacturers' efforts to comply in 2012 for the overall category.

We view the 2008 portion of the Tier 4 program as highly important because it provides substantial PM and NO_X emissions reductions during the several years prior to 2011. Initiating Tier 4 in 2008 also fits well with the lead time, stability, cost, and technology availability considerations of the overall program.[120] Initiating the Tier 4 standards in 2008 would provide three to four years of stability after the start of Tier 2 for engines under 50 hp. As mentioned above, it also coincides with the start date of Tier 3 NO_X+NMHC standards for engines between 50 and 75 hp and so introduces no stability issues for these engines. As the Agency expects to finalize this rule in early 2004, the 2008 start date provides almost 4 years of lead time to accomplish redesign and testing. The evolutionary character of the 2008 standards, based as they are on proven technologies, and the fact that some certified engines already meet these standards as discussed in Section

[117] Note that we are grouping all standards proposed in this rule under the general designation of ''Tier 4 standards'', including those proposed to take effect in 2008. As a result, there are no ''Tier 3'' standards in the multi-tier nonroad program for engines below 50 hp or above 750 hp.

[118] ''Nonroad Diesel Emissions Standards Staff Technical Paper'', EPA420–R–01–052, October 2001.

[119] The term rated power is used in this document to mean the maximum power of an engine. *See* section VII.L for more information about how the maximum power of an engine is determined.

[120] Section 213(b) of the Clean Air Act does not specify a minimum lead time period, nor does it mandate a set minimum period of stability for the standards (differing in these respects from the comparable provision section (202(a)(3)(C)) applicable to highway engines). However, in considering the amount of lead time and stability provided, EPA takes into consideration the need to avoid disruptions in the engine and equipment manufacturing industries caused by redesign mandates that are too frequent or too soon after a final rulemaking. These are appropriate factors to consider in determining ''the lead time necessary to permit the development and application of the requisite technology'', and are part of taking cost into consideration, as required under section 213 (b).

III.E leads us to conclude that this will provide adequate lead time.

The second fuel change, to 15 ppm maximum sulfur in mid-2010, and the related engine standards that begin to phase-in in the 2011 model year, provide the large majority of the environmental benefits of the program. These standards are also timed to provide adequate lead time for manufacturers, and to phase in over time to allow for the orderly transfer of technology from the highway sector. We believe that the high-efficiency exhaust emission technologies being developed to meet our 2007 emission standards for heavy-duty highway diesel engines can be adapted to nonroad diesel applications. The engines for which we believe this adaptation from highway applications will be most straightforward are those in the over 175 hp power range, and thus under our proposal these engines would be subject to new standards requiring high-efficiency exhaust emission controls as soon as the 15 ppm sulfur diesel fuel is widely available, that is, in the 2011 model year. Engines between 75 and 175 hp would be subject to the new standards in the following model year, 2012, reflecting the greater effort involved in adapting highway technologies to these engines. Lastly, engines between 25 and 75 hp would be subject to the new PM standard in 2013, reflecting the even greater challenge of adapting PM filter technology to these engines which typically do not have highway counterparts. There are additional phase-in provisions discussed in Section III.B.1.b aimed at further drawing from the highway technology experience.

In addition to addressing technology transfer, this approach reflects the need to distribute the workload for engine and equipment redesign over three model years, as was provided for in Tier 3. Overall, this approach provides 4 to 6 years of real world experience with the new technology in the highway sector, involving millions of engines (in addition to the several additional years provided by demonstration fleets already on the road), before the new standards take effect.

b. Phase-In of NO_X and NMHC Standards

Because the Tier 4 NO_X emissions control technology, like PM control technology, is expected to be derived from technology first introduced in highway HDDEs, we believe that the implementation of the Tier 4 NO_X standard should follow the pattern we adopted for the highway program. This will help to ensure a focused, orderly development of robust high-efficiency NO_X control in the nonroad sector and will also help to ensure that manufacturers are able to take maximum advantage of the highway engine development program, with resulting cost savings. The heavy-duty highway rule allows for a gradual phase-in of the NO_X and NMHC requirements over multiple model years: 50 percent of each manufacturer's U.S.-directed production volume must meet the new standard in 2007–2009, and 100 percent must do so by 2010. We also provided flexibility for highway engine manufacturers to meet that program's environmental goals by allowing somewhat less-efficient NO_X controls on more than 50% of their production before 2010 via emissions averaging. Similarly, we are proposing to phase in the NO_X standards for nonroad diesels over 2011–2013 as indicated in Figure III.B–2, based on compliance with the Tier 4 standards for 50% of a manufacturer's U.S.-directed production in each power category at or above 75 hp in each phase-in model year.

With a NO_X phase-in, all manufacturers are able to introduce their new technologies on a limited number of engines, thereby gaining valuable experience with the technology prior to implementing it on their entire product line. In tandem with the equipment manufacturer transition program discussed in section VII.B, the phase-in ensures timely progress to the Tier 4 standards levels while providing a great degree of implementation flexibility for the industry.

We are proposing this ''percent of production phase-in'' to take maximum advantage of the highway program technology development. It adds a new dimension of implementation flexibility to the staggered ''phase-in by power category'' used in the nonroad program for Tiers 1, 2 and 3 which, though structured to facilitate technology development and transfer, is more aimed at spreading the redesign workload. Because the Tier 4 program would involve substantial challenges in addressing both technology development and redesign workload, we believe that incorporating both of these phase-in mechanisms into the proposed program is warranted, resulting in the coordinated phase-in plan shown in Figure III.B–2. Note that this results in our proposing that new NO_X requirements for 75–175 hp engines be deferred for the first year of the 2011–2013 general phase-in, in effect creating a 50–50% phase-in in 2012–2013 for this category. This then staggers the Tier 4 start years by power category as in past tiers: 2011 for engines at or above 175 hp, 2012 for 75–175 hp engines, and 2013 for 25–75 hp engines (for which no NO_X adsorber-based standard and thus no percentage phase-in is being proposed), while still providing a production-based phase-in for advanced NO_X control technologies.

We believe that the 75–175 hp category of engines and equipment may involve added workload challenges for the industry to develop and transfer technology. We note that this category, though spanning only 100 hp, represents a great diversity of applications, and comprises a disproportionate number of the total nonroad engine and machine models. Some of these engines, though having characteristics comparable to many highway engines such as turbocharging and electronic fuel control, are not directly derived from highway engine platforms and so are likely to require more development work than larger engines to transfer emission control technology from the highway sector. Furthermore, the engine and equipment manufacturers have greatly varying market profiles in this category, from focused one- or two-product offerings to very diverse product lines with a great many models. We are interested in providing useful flexibility for a wide range of companies in implementing the Tier 4 standards, while keeping a priority on bringing PM emissions control into this diverse power category as quickly as possible.

We are therefore proposing two compliance flexibility provisions just for this category. First, we propose to allow manufacturers to use NMHC+NO_X credits generated by Tier 2 engines over 50 hp (in addition to any other allowable credits) to demonstrate compliance with the Tier 4 requirement for 75–175 hp engines in 2012, 2013, and 2014 only. This would not otherwise be allowed, for reasons explained in section VII.A. These Tier 2 credits would be subject to the power rating conversion already established in our ABT program, and to the 20% credit adjustment we are proposing for use of NMHC+NO_X credits as NO_X credits. (*See* section VII.A.)

Second, we realize that some manufacturers, especially those with limited product offerings, may not have sufficient banked credits available to them to benefit from this special flexibility, and so we are also proposing an alternative flexibility provision. A manufacturer may optionally forego the Tier 2 banked credit use provision described above, and instead demonstrate compliance with a reduced phase-in requirement for NO_X and NMHC. Use of credits other than banked Tier 2 credits would still be allowed, in

accordance with the other ABT program provisions. In no case could the phase-in compliance demonstration drop below 25% in each of 2012, 2013, and the first 9 months of 2014, except as allowed under the ''good faith projection deficit'' provision discussed in Section VII.D. Full compliance (100% phase-in) with the Tier 4 standards would need to be demonstrated in the last 3 months of 2014 and thereafter.

In addition, a manufacturer using this reduced phase-in option would not be allowed to generate credits from engines in this power category in 2012, 2013, and the first 9 months of 2014, except for use in averaging within this power category only (no banking or trading, or averaging with engines in other power categories). This restriction would apply throughout this period even if the reduced phase-in option is exercised during only a portion of this period. We believe that this ABT restriction is important to avoid potential abuse of the added flexibility allowance, considering that larger engine categories will be required to demonstrate substantially greater compliance levels with the 0.30 g/bhp-hr NO_X standard several years earlier than engines built under this option. The restriction should be no burden to manufacturers, as only those using the option would be subject to it, and the production of credit-generating engines would be contrary to the option's purpose.

We are proposing to phase in the Tier 4 NMHC standard with the NO_X standard, as is being done in the highway program. Engines certified to the new NO_X requirement would be expected to certify to the NMHC standard as well. The ''phase-out'' engines (the 50 percent not certified to the new Tier 4 NO_X and NMHC standards) would continue to be certified to the applicable Tier 3 NMHC+NO_X standard. As discussed in section III.E, we believe that the NMHC standard is readily achievable through the application of PM traps to meet the PM standard, which for most engines does not involve a phase-in. However, in the highway program we chose to phase in the NMHC standard with the NO_X standard for administrative reasons, to simplify the phase-in under the percent-of-production approach taken there, thus avoiding subjecting the ''phase-out'' engines to separate standards for NMHC and NMHC+NO_X. The same reasoning applies here because, as in the highway program, the previous-tier standards are combined NMHC+NO_X standards.

Because of the tremendous variety of engine sizes represented in the nonroad diesel sector, we are proposing that the 50 percent phase-in requirement be met separately in each of the three power categories for which a phase-in is proposed (75–175 hp, 175–750 hp, and >750 hp).[121] For example, a manufacturer that produces 1000 engines for the 2011 U.S. market in the 175 to 750 hp range would have to demonstrate compliance to the proposed NO_X and NMHC standards on at least 500 of these engines, regardless of how many complying engines the manufacturer produces in other hp categories. (Note, however, that we would allow averaging of emissions across these engine category cutpoints through the use of power-weighted ABT program credits, as provided for in the existing nonroad diesel engine program.) We believe that this restriction reflects the availability of emissions control technology, and is needed to avoid erosion of environmental benefits that might occur if a manufacturer with a diverse product offering were to meet the phase-in with relatively low cost smaller engines, thereby delaying compliance on larger engines with much higher lifetime emissions potential. Even so, the horsepower ranges for these power categories are fairly broad, so this restriction allows ample freedom to manufacturers to structure compliance plans in the most cost-effective manner. We could as well choose to handle this concern by weighting complying engines by horsepower, as we do in the ABT program, but we believe that creating a simple phase-in structure based simply on counting engines, as we did in the highway HDDE rule, avoids unnecessary complexity and functional overlap with ABT.

c. Rationale for Restructured Horsepower Categories

We are proposing to regroup the power categories in the proposed Tier 4 program compared to the previous tiers of standards.[122] We are doing so because this will more closely match the degree of challenge involved in transferring advanced emissions control technology from highway engines to nonroad engines. For a variety of reasons, highway engines have in the past been equipped with new emission control technologies some years before nonroad engines. As a result, the nonroad engine platforms that are directly derived from highway engine designs in turn become the lead application point for the migration of emission control technologies into the nonroad sector. Smaller and larger nonroad engines, as well as similar-sized engines that cannot directly use a highway base engine (such as farm tractor engines that are structurally part of the tractor chassis), may then employ these technologies after additional lead time for needed adaptation. This progression has been reflected in EPA standards-setting activity to date, especially in implementation schedules, in which the earliest standards are applied to engines in the most ''highway-like'' power categories.

Although there is not an abrupt power cutpoint above and below which the highway-derived nonroad engine families do and do not exist, we believe that 75 hp is a more appropriate cutpoint for this purpose than either of the closest previously adopted power category cutpoints of 50 or 100 hp. These two cutpoints were first adopted in a 1994 final rule that chose them in order to establish categories for a staggered implementation schedule designed to spread out development costs (59 FR 31306, June 17, 1994). Nonroad diesels produced today with rated power above 75 hp (up to several hundred hp) are mostly variants of nonroad engine platforms with four or more cylinders and per-cylinder displacements of one liter or more. These in turn are derived from or are similar to heavy-duty highway engine platforms. Even where nonroad engine models above 75 hp are not so directly derived from highway models, they typically share many common characteristics such as displacements of one liter per cylinder or more, direct injection fueling, turbocharging, and, increasingly, electronic fuel injection. These common features provide key building blocks in transferring high-efficiency exhaust emission control technology from highway to similar nonroad diesel engines. We have discussed this matter with relevant engine manufacturers, and we are confident based on these discussions that 75 hp represents an industry consensus on the appropriate cutpoint for this purpose. We invite comment on the 75 hp cutpoint.

We are therefore proposing to regroup power ratings using the 75 hp cutpoint. Some have expressed that this may somewhat complicate the transition from tier to tier and efforts to harmonize with the European Union's nonroad diesel program (which currently uses

[121] Note proposed exceptions to the 50 percent requirements during the phase-in model years discussed in sections VII.D and VII.E. These deal with differences between a manufacturer's actual and projected production levels, and with incentives for early or very low emission engine introductions.

[122] The Tier 1 / 2 / 3 programs make use of 9 categories divided by horsepower: <11, 11–25, 25–50, 50–100, 100–175, 175–300, 300–600, 600–750, and >750 hp.

power cutpoints corresponding to 50 and 100 hp). However, we believe that it provides substantial long-term benefits for the environment (for example, by linking NO_X standard-setting to an engine technology-based 75 hp cutpoint). We will continue working with key entities to advance harmonization as this rule is developed.

We are also proposing to consolidate some power categories that were created in the past to allow for variations in standards levels and timing appropriate for Tiers 1, 2 and 3, and that remain in effect for those tiers, but which under this proposal are no longer distinct from each other with respect to standards levels and timing. These consolidations are: (1) The less than 11 hp and 11–25 hp categories into a single category of less than 25 hp, (2) the 75–100 hp portion of the 50–100 hp category and the 100–175 hp category into a single category of 75–175 hp, and (3) the 175–300 hp, 300–600 hp, and 600–750 hp categories into a single category of 175–750 hp. The result is the 5 power bands shown in Figures III.B–1 and 2 instead of the former 9. This will also help to facilitate use of equipment manufacturer transition flexibility allowances which can be applied only within each power band, as discussed in section VII.B. We ask for comment on this regrouping, especially with regard to the appropriate power cutpoint for the engine families that are similar to highway engine families. Again, most useful in this regard would be information showing how highway and nonroad engines in this range do or do not share common design bases.

d. PM Standards for Smaller Engines

i. <25 hp

We believe that standards based on the use of PM filters should not be proposed at this time for the very small diesel engines below 25 hp. Although this technology could be adapted to these engines, the cost of doing so with known technology could be unacceptably high, relative to the cost of producing the engines themselves. Based on past experience, we expect that advancements in reducing these costs will occur over time. We plan to reassess the appropriate long-term standards in a technology review as discussed in section III.G. For the nearer-term, we believe that other proven PM-reducing technologies such as diesel oxidation catalysts and engine optimization can be applied to engines under 25 hp for very cost-efficient PM control, as discussed in sections III.E and V.A. When implemented, the PM standard proposed in Figure III.B–1 for these engines, along with the proposed transient test cycle, will yield an in-use PM reduction of over 50% for these engines, and large reductions in toxic hydrocarbons as well. Achieving these emission reductions is very important, considering the fact that many of these smaller engines operate in populated areas and in equipment without closed cabs— in mowers, portable electric power generators, small skid steer loaders, and the like. We invite comment on this proposed approach to controlling harmful emissions from very small nonroad diesel engines.

It is our assessment that achieving low PM emission levels is especially challenging for one subclass of small engines: the air-cooled, direct injection engines under 11 hp that are startable by hand, such as with a crank or recoil starter. These typically one-cylinder engines find utility in applications such as plate compactors, where compactness and simplicity are needed, but where the ruggedness typical of a diesel engine is also essential. There are a number of considerations in the design, manufacture, and marketing of these engines that combine to make them difficult to optimize for low emissions. These include the air-cooled engine's need for relatively loose design fit tolerances to accommodate thermal expansion variability (which can lead to increased soluble organic PM), small cylinder displacement and bore sizes that limit use of some combustion chamber design strategies and increase the propensity for PM-producing fuel impingement on cylinder walls, the difficulty in obtaining components for small engines with machining tolerances tight enough to yield consistent emissions performance, and cost reduction pressures caused by competition from cheaper gasoline engines in some of the same applications.

As a result, we are proposing an alternative compliance option that allows manufacturers of these engines to delay Tier 4 compliance until 2010, and in that year to certify them to a PM standard of 0.45 g/hp-hr, rather than to the 0.30 g/hp-hr PM standard applicable to the other engines in this power category beginning in 2008. Engines certified under this alternative compliance requirement would not be allowed to generate credits as part of the ABT program, although credit use by these engines would still be allowed. We believe that this ABT restriction is important to avoid potential abuse of this option, and is a reasonable means of dealing with the concern as it would apply only to those air-cooled, hand-startable, direct injection engines under 11 hp that are certified under this special compliance option, and the production of credit-generating engines would be contrary to the option's purpose. Furthermore, because the proposed 2010 Tier 4 implementation year for these engines is the same year that 15 ppm sulfur nonroad diesel fuel would become available, we are also proposing that certification testing and any subsequent compliance testing on engines certified under this option may be conducted using the 7–15 ppm sulfur test fuel discussed in section VII.H. Although this is one year earlier than would be otherwise allowable, we believe it would have a minimal impact on the proposed program's environmental benefit considering the extremely small contribution these engines make to emissions inventories, and the fact that these engines would generally operate in the field on higher sulfur fuels for at most a few months.

ii. 25–75 hp

We believe that the proposed 0.22 g/bhp-hr PM standard for 25–75 hp engines in 2008 is warranted because the Tier 2 PM standards that take effect in 2004 for these engines, 0.45 and 0.30 g/bhp-hr for 25–50 and 50–75 hp engines, respectively, do not represent the maximum achievable reduction using technology which will be available by 2008. However, as discussed in section III.B.1.a, filter-based technology for these engines is not expected to be available on a widespread basis until the 2013 model year. The proposed 2008 PM standard for these engines should maximize reduction of PM emissions based on technology available in that year. We believe that the 2008 standards are feasible for these engines, based on the same engine or oxidation catalyst technologies feasible for engines under 25 hp in 2008, following the proposed introduction of nonroad diesel fuel with sulfur levels reduced below 500 ppm. We expect in-use PM reductions for these engines of over 50%, and large reductions in toxic hydrocarbons as well over the five model years this standard would be in effect (2008–2012). These engines will constitute a large portion of the in-use population of nonroad diesel engines for many years after 2008.

We request comment on our proposal to implement Tier 4 PM standards for 25–75 hp engines in the two phases just noted: a non-PM filter based standard in 2008 and a filter-based standard in 2013. In addition, we request comment on whether it would be better not to set a Tier 4 PM standard in 2008 so that engine designers could instead focus

their efforts on meeting a PM-filter based standard for these engines earlier, say in 2012. (It should be noted that the proposed rule would provide this as an option for a subgroup of these engines (50–75 hp). *See* Figure III.B–1 note b.) We would assume that under this approach the proposed new NO_X+NMHC standard for 25–50 hp engines in this category would also start in 2012, to avoid requiring two design changes in two years. Any comments in support of this approach should, if possible, include information to support a conclusion that the earlier start date for a PM filter-based standard would be technologically feasible.

We believe that the proposed 2008 PM standards for engines under 75 hp can be met either through engine optimization, by the use of diesel oxidation catalysts, or by some combination thereof, as discussed in section III.E. For engines that comply through the use of oxidation catalysts, NMHC emissions are expected to be very low because properly designed oxidation catalysts are effective at oxidizing gaseous hydrocarbons as well as the soluble organic fraction of diesel exhaust PM. Engines complying with the proposed 2008 PM standard without the use of oxidation catalysts would, on the other hand, be expected to emit NMHC at about the same levels as Tier 2 engines. Recognizing that NMHC emissions from diesel engines can include a number of toxic compounds, and that there are many of these small diesel engines operating in populated areas, we are interested in comment on the appropriateness of setting a more stringent NMHC standard for these engines in 2008 to better control these emissions. We expect that doing so would likely result in more widespread use of oxidation catalysts (rather than engine optimization) for these engines. We would not, however, expect this to lead to a more stringent PM standard than the one we are proposing, based on the feasibility discussion in section III.E.

e. Engines Above 750 hp

For engines above 750 hp, additional lead time to fully implement Tier 4 is warranted due to the relatively long product design cycles typical of these high-cost, low-sales volume engines and machines. The long product design cycle issue is the primary reason we did not set Tier 3 standards for these engines in the 1998 rule and are not proposing to do so now. Instead, we are proposing that these engines move from the Tier 2 standards, which take effect in 2006, to Tier 4 standards beginning in 2011, five years later. Moreover, we are proposing that the Tier 4 PM standard be phased in for these engines on the same 50–50–50–100% schedule as the NO_X and NMHC phase-in schedule, rather than all at once in 2011 as for engines between 175 and 750 hp. (*See* Figure III.B–1.) This would provide engine manufacturers with up to 8 years of design stability to address concerns associated with product design cycles and low sales volumes typical of this category. The engine manufacturer ABT program adds additional flexibility. Even longer stability periods could exist for equipment manufacturers using these engines because they have their own transition flexibility provisions available on top of the engine standard phase-in. This is especially significant because many of these large machines are built by manufacturers who build their own engines, or who work closely with their engine suppliers, and can thus create a long-term product plan making coordinated use of engine and equipment flexibility provisions.

We think that, taken together, these provisions appropriately balance the need for expeditious emission reductions with issues relating to lead time, technology development, and cost for these engines and machines. Even so, some engine and equipment manufacturers have expressed concerns to us that, though not challenging the Tier 4 program endpoint (high-efficiency PM and NO_X exhaust emission controls), in their estimation our proposed program implementation provisions do not adequately address their timing concerns. In particular, they have expressed a view that they need until 2012 (one additional year) before they could begin to phase in Tier 4 standards for this category. They have also expressed the view that mobile machinery such as mine haul trucks and dozers (as differentiated from equipment such as nonroad diesel generators that also use engines in this hp range) present unique challenges that could require more time to resolve than would be afforded by the proposed 2014 phase-in completion date.

Although we believe that the implementation schedule and flexibility provisions we are proposing will enable the manufacturers to meet these challenges, we acknowledge the manufacturers' concerns and ask for comment on this issue. Specifically, we request comment on whether this category, or some subset of it defined by hp or application, should have a later phase-in start date, a later phase-in end date, adjusted standards, additional equipment manufacturer flexibility provisions, or some combination of these. Technical information backing the commenter's view would be most helpful in this regard.

As with the NO_X/NMHC phase-in for all engines at or above 75 hp, we are proposing that the PM phase-in for engines above 750 hp would have to be met on the same engines as the Tier 4 NO_X and NMHC standards during the phase-in years. That is, engines certified to the Tier 4 NO_X and NMHC requirements would be expected to certify to the Tier 4 PM standard as well.

f. CO Standards

We are proposing minor changes in CO standards for some engines solely for the purpose of helping to consolidate power categories. These amount to a change for engines under 11 hp from 6.0 to 4.9 g/bhp-hr in 2008 to match the existing Tier 2 CO standard for 11–25 hp engines, and a change for engines at or above 25 hp but below 50 hp from 4.1 to 3.7 g/bhp-hr to match the existing Tier 3 CO standard for 50–75 hp engines, also in 2008. These minor proposed changes are not expected to add a notable compliance burden. Nevertheless, we expect that the use of high-efficiency exhaust emission controls will yield a substantial reduction in CO emissions, as discussed in Chapter 4 of the draft RIA.

These minor adjustments to the CO standard are based solely on our desire to simplify the administrative process for the engine manufacturers which arises from the reduction in the number of the engine power categories we have proposed for Tier 4. We are not exercising our authority to revise the CO standard for nonroad diesel engines for the purpose of improving air quality at this time, and therefore the minor adjustments we have proposed today, though feasible, are not based on a detailed evaluation of the capabilities of advanced exhaust aftertreatment technology to reduce CO levels.

g. Exclusion of Marine Engines

These proposed emission standards would apply to engines in the same applications covered by EPA's existing nonroad diesel engine standards, at 40 CFR part 89, except that they would not apply to marine diesel engines. Marine diesel engines below 50 hp were included in our 1998 rule that set nonroad diesel emission standards (63 FR 56968, October 23, 1998). In that rule, we expected that the engine modifications needed to achieve those standards (*e.g.*, in-cylinder controls) for marine engines would not need to be different from those for land-based engines of this size.

The standards for diesel engines below 50 hp being proposed in this action are likely to require PM filters or diesel oxidation catalysts on many or all engines, and transferring this technology to the marine diesel engines of any size raises unique issues. For example, many marine diesel engines have water-jacketed exhaust which may result in different exhaust temperatures and which could affect aftertreatment efficiency. The modified marine engine designs would also have to meet Coast Guard requirements. These and other conditions may require separate design efforts for marine diesel engines. Therefore, we believe it is more appropriate to consider more stringent standards for marine diesel engines below 50 hp in a future action. It should be noted, however, that the existing Tier 2 standards will continue to apply to marine diesel engines under 50 hp until that future action is completed.

2. Crankcase Emissions Control

Crankcase emissions are the pollutants that are emitted in the gases that are vented from an engine's crankcase. These gases are also referred to as ''blowby gases'' because they result from engine exhaust from the combustion chamber ''blowing by'' the piston rings into the crankcase. These gases are often vented to prevent high pressures from occurring in the crankcase. Our existing emission standards require control of crankcase emissions from all nonroad diesel engines except turbocharged engines. The most common way to eliminate crankcase emissions has been to vent the blowby gases into the engine air intake system, so that the gases can be recombusted. Following the precedent we set for heavy-duty highway diesel engines in an earlier rulemaking, we made the exception for turbocharged nonroad diesel engines because of concerns about fouling that could occur by routing the diesel particulates (including engine oil) into the turbocharger and aftercooler. Our concerns are now alleviated by newly developed closed crankcase filtration systems, specifically designed for turbocharged diesel engines. These new systems are already required in parts of Europe for new highway diesel engines under the EURO III emission standards, and are expected to be used in meeting new U.S. EPA crankcase emission control standards for heavy-duty highway diesel engines beginning in 2007 (*see* section III.C.1.c of the preamble to the 2007 heavy-duty highway final rule).

We are therefore proposing to eliminate the exception for turbocharged nonroad diesel engines starting in the same model year that Tier 4 exhaust emission standards first apply in each power category. This is 2008 for engines below 75 hp, except for 50–75 hp engines for which a manufacturer opts to skip the 2008 PM standard. The crankcase requirement applies to ''phase-in'' engines above 750 hp under the 50% phase-in requirement for 2011–2013, but not to the ''phase-out'' engines in that power category during those years. This is an environmentally significant proposal since many nonroad machine models use turbocharged engines, and a single engine can emit over 100 pounds of NO_X, NMHC, and PM from the crankcase over the lifetime of the engine. We also note that the cost of control is small (*see* section V).

Our existing regulatory requirement for controlling crankcase emissions from naturally-aspirated nonroad engines allows manufacturers to route the crankcase gases into the exhaust stream instead of the engine air intake system, provided they keep the combined total of the crankcase emissions and the exhaust emissions below the applicable exhaust emission standards. We are proposing to extend this allowance to the turbocharged engines as well. We are also proposing to give manufacturers the option to measure crankcase emissions instead of completely eliminating them, and adding the measured emissions to exhaust emissions in assessing compliance with exhaust emissions standards. This allowance was adopted for highway HDDEs in 2001 (*see* section VI.A.3 of the preamble to the 2007 heavy-duty highway final rule). As in the highway program, manufacturers choosing to use this allowance rather than to seal the crankcase would need to modify their exhaust deterioration factors or to develop separate deterioration factors to account for increases in crankcase emissions as the engine ages. Manufacturers would also be responsible for ensuring that crankcase emissions would be readily measurable in use.

C. What Test Procedure Changes Are Being Proposed?

We are proposing a number of changes to the certification test procedures by which compliance with emission standards is determined. Two of these are particularly significant: The addition of a supplemental transient emissions test and the addition of a cold start testing component to the proposed transient emissions test. These are discussed briefly in this section, and in more detail in section VII.F. Other proposed changes are also discussed in section VII.F and deal with:

- Adoption of an improved smoke testing procedure, with associated standards levels and exemptions.
- Addition of a steady-state test cycle for transportation refrigeration units.
- Test procedure changes intended to improve testing precision, especially with regards to sampling methods.
- A clarification to existing EPA defeat device regulations.

1. Supplemental Transient Test

In the 1998 final rule that set new emission standards for nonroad diesel engines, we expressed a concern that the steady-state test cycles used to demonstrate compliance with emission standards did not adequately reflect transient operation, and, because most nonroad engines are used in applications that are largely transient in nature, would therefore not yield adequate control in use (63 FR 56984, October 23, 1998). Although we were not prepared to adopt a transient test at that time, we announced our intention in that final rule to move forward with the development of such a test. This development has progressed steadily since that time, and has resulted in the creation of a Nonroad Transient Composite (NRTC) test cycle, which we are now proposing to adopt in our nonroad diesel program, to supplement the existing steady-state tests. We expect that this proposed requirement will significantly reduce real world emissions from nonroad diesel equipment. Instead of sampling engine operation at the few isolated operating points of steady-state emission tests, proper transient testing can capture emissions from the broad range of engine speed and load combinations that the engine may attain in use, as well as emissions resulting from the change in speed or load itself, such as those induced by turbocharger lag.

The proposed NRTC cycle will capture transient emissions over much of the typical nonroad engine operating range, and thus help ensure effective control of all regulated pollutants. In keeping with our goal to maximize the harmonization of emissions control programs as much as possible, we have developed this cycle in collaboration with nonroad engine manufacturers and regulatory bodies in the United States, Europe, and Japan over the last several years.[123] Further, the NRTC cycle has been introduced as a work item for

[123] Letter from Jed Mandel of the Engine Manufacturers Association to Chet France of U.S. EPA, Office of Transportation and Air Quality, Docket A–2001–28.

possible adoption as a potential global technical regulation under the 1998 Agreement for Working Party 29 at the United Nations.[124]

The Agency is proposing that emission standards be met on both the current steady-state duty cycles and the new transient duty cycles. The transient testing would begin in the model year that the trap-based Tier 4 PM standards and/or adsorber-based Tier 4 NO_X standards first apply. This would be 2011 for engines at or above 175 hp, 2012 for 75–175 hp engines (2012 for 50–75 hp engines made by a manufacturer choosing the optional approach described in footnote b of Figure III.B–1), and 2013 for engines under 75 hp. *See also* Table VII.F.–1. In addition, any engines for which a manufacturer claims credit under the incentive program for early-introduction engines (*see* section VII.E) would have to be certified to that program's standards under the NRTC cycle and, in turn, the 2011 or later model year engines that use these engine count-based credits would not need to demonstrate compliance under the NRTC cycle.

Although we intend that transient emissions control be an integral part of Tier 4 design considerations, we do not believe it appropriate to mandate compliance with the transient test for the engines under 75 hp subject to proposed PM standards in 2008. We recognize that transient emissions testing, though routine in highway engine programs, involves a fair amount of new laboratory equipment and expertise in the nonroad engine certification process. As with the transfer of advanced emission control technology itself, we believe that the transient test requirement should be implemented first for larger engines more likely to be made by engine manufacturers who also have highway engine markets. We do not believe that the smaller engines should be the lead power categories in implementing the new transient test, especially because many manufacturers of these engines do not make highway engines and are not as experienced or well-equipped as their large-engine counterparts for conducting transient cycle testing.

Engines below 25 hp involve an additional consideration for timing of the transient test requirement because we are not proposing PM-filter based standards for them. We propose that testing on the NRTC cycle not be required for these engines until the 2013 model year, the last year in which engines in higher power categories are required to use this test. We are concerned that manufacturers not view this proposed deferral of the transient test requirement as a structured second level of required control for these engines. To address this concern and because we wish to encourage the demonstration of transient emission control as early as possible, we are proposing to allow manufacturers to optionally certify engines below 25 hp under the NRTC cycle beginning in the 2008 model year, and to extend this option to 25–75 hp engines subject to engines meeting the transitional PM standard in 2008. (*See also* the discussion in section VII.F.1 on this issue.) We request comment on this proposed approach and on whether it would be better to deal with this concern by requiring compliance under the transient test when the Tier 4 standards begin in 2008.

In applying the NRTC test requirement coincident with the start of PM filter-based standards, we do not mean to imply that control of PM from filter-equipped engines is the only or even the primary concern being addressed by transient testing. In fact, we believe that advanced NO_X emission controls may be more sensitive to transient operation than PM filters. It is, however, our intent that the control of emissions during transient operation be an integral part of Tier 4 engine design considerations, and we therefore have proposed that transient testing be applied with the PM filter-based Tier 4 PM standards, because these standards precede or accompany the earliest Tier 4 NO_X or NMHC standards in every power category. Even so, we request comment on whether the ''phase-out'' engines above 75 hp (those engines for which compliance with the Tier 4 NO_X standard is not required during the phase-in period) should be exempted from the requirement to meet the applicable NMHC+NO_X standard using the transient test. Although our interest in ensuring transient emissions control as quickly as possible in the Tier 4 program, and in avoiding test program complexity, would argue against this approach, we are also interested in not diverting engine designers from the challenging task of redesigning engines to meet the proposed 0.30 g/bhp-hr Tier 4 NO_X standard before and during the phase-in years by having to deal with transient control under an NMHC+NO_X standard that is being phased out.

We are in fact not proposing to apply the transient test to phase-out engines above 750 hp that are carried over from pre-2011 Tier 2 engine designs. Unlike phase-out engines at or below 750 hp, these engines are not subject to a Tier 4 PM standard in 2011. They would thus be Tier 2 engine designs and we do not believe that subjecting them to transient testing would be appropriate. On the other hand, engines in any power category certified to an average NO_X standard under the ''split family'' provision described in section VII.A would all be subject to the transient test requirement, as they would clearly have to be substantially redesigned to achieve Tier 4 compliance, regardless of whether or not they use high-efficiency exhaust emission controls.

The Agency is proposing that engine manufacturers may certify constant-speed engines using EPA's Constant Speed Variable Load (CSVL) transient duty cycle[125] as an alternative to testing these engines under the NRTC provisions. The CSVL transient cycle more closely matches the speed and load operating characteristics of many constant-speed nonroad diesel applications than EPA's proposed NRTC cycle.[126] However, the manufacturer would be obligated to ensure that such engines would be used only in constant-speed applications. A more detailed discussion of the proposed NRTC and CSVL supplemental transient test cycles and associated provisions is contained in section VII.F of this preamble and in chapter 4 of the Draft RIA.

2. Cold Start Testing

In the field, the typical nonroad diesel machine will be started and will warm to a point of heat-stable operation at least once a workday. Such ''cold start'' conditions may also occur at other times over the course of the workday, after a lunch break for example. During these periods of cold start operation, the engine may be emitting at a higher rate than when the engine is running efficiently at its stabilized operating temperature. This may be especially the case for emission control designs employing catalytic devices in the exhaust system, which require heating to a ''light-off'' temperature to begin working. EPA's highway engine and vehicle programs, which have resulted in increasingly widespread use of such catalytic devices, have recognized and dealt with this concern for several years,

[124] Informal Document No. 2, ISO—45th GRPE, ''Proposal for a Charter for the Working Group on a New Test Protocol for Exhaust Emissions from Nonroad Mobile Machinery,'' 13–17 January 2003, Docket A–2001–28.

[125] Memoranda from Kent Helmer to Cleophas Jackson, ''Speed and Load Operating Schedule for the Constant Speed Variable Load (CSVL) transient test cycle'' and ''CSVL Cycle Construction''; and Southwest Research Institute—Final Report, all in Docket A–2001–28.

[126] Memorandum from Kent Helmer to Cleophas Jackson, ''Brake-specific Emissions Impact of Nonroad Diesel Engine Testing Over the NRTC, AWQ, and AW1 duty cycles'', Docket A–2001–28.

typically by repeating transient tests in both the ''cold'' and ''hot'' conditions, and weighting emission results in some fashion to create a combined result for evaluation against emission standards.

We believe that our proposed move to supplemental transient testing, combined with our proposed Tier 4 standards that will bring about the use of catalytic devices in nonroad diesel engines, makes it imperative that we also propose to include such a cold start test as part of the transient test procedure requirement. We propose to weight the cold start emission test results as one-tenth of the total with hot-start emissions accounting for the other nine-tenths. The one-tenth weighting factor is derived from a review of the present nonroad equipment population. For more detailed information on this proposal, refer to section VII.F of this preamble and chapter 4 of the Draft RIA. EPA requests comment on this approach to ensuring control of cold start emissions.

D. What Is Being Done To Help Ensure Robust Control in Use?

EPA's goal is to ensure real-world emissions control over the broad range of in-use operation that can occur, rather than just controlling emissions over prescribed test cycles executed under restricted laboratory conditions. An important tool for achieving this in-use emissions control is the setting of Not-To-Exceed (NTE) emission standards, which, in this notice, the Agency is proposing to adopt for new nonroad engines. EPA is also considering two additional means of in-use emissions control that will be proposed in separate notices. These are (1) a manufacturer-run in-use emissions test program and (2) on-board diagnostics (OBD) requirements for new nonroad diesel engines. When implemented, all three of these will help assure that in-use emissions control is achieved.

1. Not-to-Exceed Requirements

EPA proposes to adopt not-to-exceed (NTE) emission standards for all new nonroad diesel engines subject to the Tier 4 emissions standards beginning in 2011 proposed in section III. B. of this proposal. EPA already has similar NTE standards set for highway heavy-duty diesel engines, compression ignition marine engines, and nonroad spark-ignition engines.

To help ensure that nonroad diesel emissions are controlled over the wide range of speed and load combinations commonly experienced in-use, EPA is proposing to apply NTE limits and related test procedures. The NTE approach establishes an area (the ''NTE zone'') under the torque curve of an engine where emissions must not exceed a specified value for any of the regulated pollutants. The NTE standard would apply under any conditions that could reasonably be expected to be seen by that engine in normal vehicle operation and use, within certain broad ranges of real ambient conditions. The NTE requirements would help to ensure emission benefits over the full range of in-use operating conditions. EPA believes that basing the emissions standards on a set of distinct steady state and transient cycles and using the NTE zone to help ensure in-use control creates a comprehensive program. In addition, the NTE requirements would also be an effective element of an in-use testing program. The test procedure is very flexible so it can represent most in-use operation and ambient conditions. Therefore, the NTE approach takes all of the benefits of a numerical standard and test procedure and expands it to cover a broad range of conditions. Also, with the NTE approach, in-use testing and compliance become much easier since emissions may be sampled during normal vehicle use. A standard that relies on laboratory testing over a very specific driving schedule makes it harder to perform in-use testing, especially for engines, since the engines would have to be removed from the vehicle. Testing during normal vehicle use, using an objective numerical standard, makes enforcement easier and provides more certainty of what is occurring in use versus a fixed laboratory procedure.

In today's notice, we are proposing an NTE standard which is based on the approach taken for the 2007 highway heavy-duty diesel engines. In addition, we are requesting comment on an alternative NTE standard approach which, while different from the highway NTE standard approach, is designed to achieve the same environmental objectives. Both of these approaches are described below.

a. NTE Standards We Are Proposing

The Agency proposes to adopt for new Tier 4 non-road diesel engines similar NTE specifications as those finalized as part of the heavy-duty highway diesel engine rulemaking (*See* 66 FR 5001, January 18, 2001). These specifications for the highway diesel engines are contained in 40 CFR part 86.007–11 and 40 CFR part 86.1370–2007.

Our NTE proposal for nonroad contains the same basic provisions as the highway NTE. The proposed nonroad NTE standard establishes an area (the ''NTE control area'') under the torque curve of an engine where emissions must not exceed a specified value for any of the regulated pollutants.[127] This NTE control area is defined in the same manner as the highway NTE control areas, and is therefore a subset of the engine's possible speed and load operating range. The NTE standard would apply under any engine operating conditions that could reasonably be expected to be seen by that engine in normal vehicle/equipment operation and use which occurs within the NTE control zone and which also occurs during the wide range of real ambient conditions specified for the NTE. The NTE standard applies to emissions sampled during a time duration as small as 30 seconds. The NTE standard requirements for nonroad diesel engines are summarized below and specified in the proposed regulations at 40 CFR 1309.101 and 40 CFR 1039.515. These requirements would take effect as early as 2011, as shown in shown in Table III.D–1. The NTE standard would apply to engines at the time of certification as well as in use throughout the useful life of the engine.

TABLE III.D–1.—NTE STANDARD IMPLEMENTATION SCHEDULE

Power category	NTE Implementation model year [a]
<25 hp	2013
25–75 hp	[b] 2013

[127] Torque is a measure of rotational force. The torque curve for an engine is determined by an engine ''mapping'' procedure specified in the Code of Federal Regulations. The intent of the mapping procedure is to determine the maximum available torque at all engine speeds. The torque curve is merely a graphical representation of the maximum torque across all engine speeds.

TABLE III.D–1.—NTE STANDARD IMPLEMENTATION SCHEDULE—Continued

Power category	NTE Implementation model year [a]
75–175 hp	2012
175–750 hp	2011
>750 hp	[c] 2011

Notes:
[a] The NTE applies for each power category once Tier 4 standards were implemented, such that all engines in a given power category are required to meet NTE standards.
[b] The NTE standard would apply in 2012 for any engines in the 50–75 hp range who choose not to comply with the proposed 2008 transitional PM standard.
[c] The NTE standard only applies to the 50 percent of the engines in the >750 hp category which are complying with the proposed Tier 4 standard. Beginning in 2014 the NTE standard would apply to all nonroad engines >750 hp when the remaining 50 percent of the engines must comply with the Tier 4 standard.

The NTE test procedure can be run in nonroad equipment during field operation or in an emissions testing laboratory using an appropriate dynamometer. The test itself does not involve a specific operating cycle of any specific length, rather it involves nonroad equipment operation of any type which could reasonably be expected to occur in normal nonroad equipment operation that could occur within the bounds of the NTE control area. The nonroad equipment (or engine) is operated under conditions that may reasonably be expected to be encountered in normal vehicle operation and use, including operation under steady-state or transient conditions and under varying ambient conditions. Emissions are averaged over a minimum time of thirty seconds and then compared to the applicable emission standard. The NTE standard applies over a wide range of ambient conditions, including up to an altitude of 5,500 feet above-sea level at ambient temperatures as high as 86 deg. F, and at sea-level up to ambient temperatures as high as 100 deg. F. The specific temperature and altitude conditions under which the NTE applies, as well as the proposed methodology for correcting emissions results for temperature and/or humidity are specified in the proposed regulations.

In addition, as with the 2007 highway NTE standard, we are proposing a transition period during which a manufacturer could apply for an NTE deficiency for a nonroad diesel engine family. The NTE deficiency provisions would allow the Administrator to accept a nonroad diesel engine as compliant with the NTE standards even though some specific requirements are not fully met. We are proposing these NTE deficiency provisions because we believe that, despite the best efforts of manufacturers, for the first few model years it is possible some manufacturers may have technical problems that are limited in nature but can not be remedied in time to meet production schedules. We are not limiting the number of NTE deficiencies a manufacturer can apply for during the first 3 model years for which the NTE applies. For the fourth through the seventh model year after which the NTE standards are implemented, a manufacturer could apply for no more than three NTE deficiencies per engine family. No deficiency may be applied for or granted after the seventh model year. The NTE deficiency provision will only be considered for failures to meet the NTE requirements. EPA will not consider an application for a deficiency for failure to meet the FTP or supplemental transient standards.

The NTE standards we are proposing are a function of FTP emission standards contained in this proposal and described in section III.B. As with the NTE standards we have established for the 2007 highway rule, we are proposing an NTE standard which is determined as a multiple of the engine families underlying FTP emission standard. In addition, as with the 2007 highway standard, the multiple is either 1.25 or 1.5, depending on the value of the FTP standard (or the engine families FEL). These multipliers are based on EPA's assessment of the technological feasibility of the NTE standard, and our assessment that as the underlying FTP standard becomes more stringent, the NTE multiplier should increase (from 1.25 to 1.5). The proposed standard or FEL thresholds for the 1.25x multiplier and the 1.5x multiplier are specified for each regulated emission in Table III.D–2.

TABLE III.D–2.—THRESHOLDS FOR APPLYING NTE STANDARD OF 1.25xFTP STANDARD VS. 1.5X FTP STANDARD

Emission	Apply 1.25xNTE when . . .	Apply 1.5xNTE when . . .
NO_X	NO_X std or FEL ≥1.5 g/bhp-hr	NO_X std or FEL <1.5 g/bhp-hr
NMHC	NO_X std or FEL ≥1.5 g/bhp-hr	NO_X std or FEL <1.5 g/bhp-hr
NO_X+NMHC	NMHC+NO_X std or FEL ≥1.6 g/bhp-hr	NMHC+NO_X std or FEL <1.6 g/bhp-hr
>PM	PM std or FEL ≥0.05 g/bhp-hr	PM std or FEL <0.05 g/bhp-hr
CO	All stds or FELs	No stds or FELs

For example, beginning in 2011, the proposed NTE standard for engines meeting a FTP PM standard of 0.01 g/bhp-hr and a FTP NO_X standard of 0.30 g/bhp-hr would be 0.02 g/bhp-hr PM and 0.45 g/bhp-hr NO_X.

In addition, the nonroad NTE proposal specifies a number of additional engine operating conditions which are not subject to the NTE standard. Specifically: The NTE does not apply during engine start-up conditions; the NTE does not apply during very cold engine intake conditions defined in the proposed regulations for EGR equipped engines during which the engine may require an engine protection strategy; and, finally, for engines equipped with an exhaust emission control device (such as a CDPF or a NO_X adsorber), the NTE does not apply during warm-up conditions for the exhaust emission control device, specifically the NTE does not apply

with the exhaust gas temperature on the outlet side of the exhaust emission control device is less than 250 degrees Celsius.

b. Comment Request on an Alternative NTE Approach

In addition the Agency requests comment on the following set of NTE specifications as an alternative to those NTE provisions proposed. This alternative NTE would use the same numeric standard values as under the proposed NTE standards discussed in section III.D.1a, however, the test procedure itself is quite different, as described below. The Agency believes that these alternative specifications and the range of operation covered by the standard would provide for similar, if not more robust nonroad engine compliance compared to the application of the proposed NTE specifications to nonroad engines. These alternative provisions have been developed to emphasize compliance over all engine operation, including engine operation that would not be covered under the proposed NTE approach. In addition these specifications were developed specifically to simplify on-vehicle testing for NTE compliance. The NTE control area would include all engine operation. The averaging intervals over which NTE standards must be met are different than the 30-second minimum set in the proposal. They are variable in time but are constant as a function of work. Emissions would be measured over a constant averaging work interval, determined as ten percent (10%) of the total work performed by the engine over a specified period of time (*e.g.*, a minimum of six hours of operation). This 10% window of work ''moves'' through data at one percent (1%) increments so as to always return about ninety (90) individual data points for direct comparison to the NTE standards.

Comments should address the potential exclusive use of these alternative provisions for nonroad diesel engine NTE compliance. For more detailed information on these alternative NTE provisions, refer to Preamble section VIIG ''Not-to-Exceed Requirements'' and chapter 4 of the draft RIA of this proposal.

2. Plans for a Future In-Use Testing and Onboard Diagnostics

In addition to the proposals in this notice, EPA is currently reviewing several related regulatory provisions concerning control of emissions from nonroad diesel engines. They are not included in this proposal, as EPA believes these aspects of an effective emission control program would benefit from further evaluation and development prior to their proposal. EPA intends to explore these provisions further in the coming months and publish a separate notice of proposed rulemaking dealing with these issues. In particular, there are two issues which will be discussed: (1) A manufacturer-run in-use emissions testing program; and (2) OBD requirements for nonroad diesel engines. The Agency believes that it is appropriate to proceed with the current rulemaking, expecting that these two issues will be proposed in the near future. EPA expects these programs would be adopted in advance of the effective date of the engine emissions standards. This will allow us to gather information and work with interested parties in a separate process regarding these issues. EPA will work with all parties involved, including states, environmental organizations and manufacturers, to develop robust, creative, environmentally protective and cost-effective proposals addressing these issues.

a. Plans for a Future Manufacturer-Run In-Use Test Program

It is critical that nonroad diesel engines meet the applicable emission standards throughout their useful lives, to sustain those emission benefits over the broadest range of in-use operating conditions. The Agency believes that a manufacturer-run in-use testing program that is designed to generate data on in-use emissions of nonroad diesel engines can be used by EPA and the engine manufacturers to ensure that emissions standards are met throughout the useful life of the engines, under conditions normally experienced in-use. An effective program can be designed to monitor for NTE compliance and to help ensure overall compliance with emission standards.

The Agency expects to pattern the manufacturer-run in-use testing requirements for nonroad diesel engines after a program that is being developed for heavy-duty highway vehicles. In this latter program, EPA is committed to incorporating a two-year pilot program. The pilot program will allow the Agency and manufacturers to gain the necessary experience with the in-use testing protocols and generation of in-use test data using portable emission measurement devices prior to fully implementing program. A similar pilot program is expected to be part of any manufacturer-run in-use NTE test program for nonroad engines.

The Agency plans to promulgate the in-use testing requirements for heavy-duty highway vehicles in the December 2004 time frame. EPA anticipates proposing a manufacturer-run in-use testing program for nonroad diesel engines by 2005 or earlier. As mentioned above, the nonroad diesel engine program is expected to be patterned after the heavy-duty highway program.

b. Onboard Diagnostics

Today's notice does not propose to require onboard diagnostic (OBD) systems for non-road diesel vehicles and engines. However, EPA has committed to creating OBD requirements for heavy-duty highway engines/vehicles over 14,000 lbs GVWR and will develop OBD requirements for nonoad in conjunction with or following the highway OBD development. The Agency will propose nonroad diesel OBD requirements, along with heavy-duty highway OBD requirements, because OBD is necessary for maintaining and ensuring compliance with emission standards over the lifetime of engines. We will gather further information and coordinate with the heavy-duty highway and nonroad diesel industry and other stakeholders to develop proposed OBD system requirements.

E. Are the Proposed New Standards Feasible?

Prior to 1990, diesel engines could be broadly grouped into two categories; indirect-injection (IDI) diesel engines that were relatively inexpensive while providing somewhat better fuel economy compared to gasoline engines, and direct-injection (DI) diesel engines that were substantially more expensive but which offered better fuel economy. The majority of diesel engines fell into the first category, especially in the case of passenger cars, smaller heavy-duty trucks and most nonroad engines below 200 horsepower.

Diesel engine technology has changed rapidly since the early 1990s with the widespread use of electronics, onboard computers and the rise to preeminence of turbocharged direct-injection diesel engines. While some IDI engines remain, especially in the low horsepower portion of the nonroad market, most new diesel engines (including higher horsepower nonroad diesel engines) are turbocharged and direct-injected. Today's diesel engine has significantly improved, compared to historic engines with regard to issues of most concern to the user including noise, vibration, visible smoke emissions, startability, and performance. At the same time environmental benefits have also been realized with lower NO_X emissions, lower PM emissions, and improving fuel economy. These changes have been most pronounced for smaller

diesel engines applied in passenger cars and light-heavy trucks. Acceptance of the technology by the public, especially in Europe, has lead to a rapid increase in diesel use for smaller vehicles with diesel sales for passenger cars exceeding 50 percent in some countries.

At the end of the 1990s continuing concern regarding the serious risk to public health and welfare from diesel emissions and the emergence of new emission control technologies enabled by low sulfur fuels led policy makers to set new future diesel fuel specifications and to set challenging new diesel emission standards for highway vehicles. In the United States, the EPA has set stringent new diesel emission standards for heavy-duty highway engines which will go into effect in 2007. These new standards are predicated on the use of Catalyzed Diesel Particulate Filters (CDPFs) which when used with less than 15ppm sulfur diesel fuel can reduce PM emissions by well over 90%, and on the use of NO_X adsorber catalyst technology which when used with less than 15 ppm diesel fuel can reduce NO_X emissions by more than 90%. When these technologies are fully implemented, the resulting diesel engine emissions will be 98% lower than the levels common to these diesel engines before 1990.

EPA has been conducting an ongoing technology progress review to measure industry progress to develop and introduce the needed clean fuel and clean engine technologies by 2007. The first in what will be a series of reports was published by EPA in June of 2002.[128] In the report, we concluded that technology developments by industry were progressing rapidly and that the necessary catalyzed diesel particulate filter and NO_X adsorber technologies would be available for use by 2007.

Nonroad diesel engines are fundamentally similar to highway diesel engines. As noted above in section III.B, in many cases, virtually identical engines are certified and sold for use in highway vehicles and nonroad equipment. Thus, emission control technologies developed for diesel engines can in general be applied to both highway and nonroad engines giving appropriate considerations to unique aspects of each application.

Today, we are proposing to set stringent new standards for a broad category of nonroad diesel engines. At the same time we are proposing to dramatically lower the sulfur level in nonroad diesel fuel ultimately to 15 ppm. We believe these standards are feasible given the availability of the clean 15 ppm sulfur fuel and the rapid progress to develop the needed emission control technologies. We acknowledge that these standards will be challenging for industry to meet in part due to differences in operating conditions and duty cycles for nonroad diesel engines. Also, we recognize that transferring and effectively applying these technologies, which have largely been developed for highway engines, will require additional lead time. We have given consideration to these issues in determining the appropriate timing and emission levels for the standards proposed today.

The following sections will discuss how these technologies work, issues specific to the application of these technologies to new nonroad engines, and why we believe that the emission standards proposed here are feasible. A more in-depth discussion of these technologies can be found in the draft RIA associated with this proposal, in the final RIA for the HD2007 emission standards and in the recently completed 2002 Highway Diesel Progress Review.[129] The following discussion summarizes the more detailed discussion found in the Draft RIA.

1. Technologies To Control NO_X and PM Emissions From Mobile Source Diesel Engines

Present mobile source rules control the emissions of non-methane hydrocarbons (NMHC), oxides of nitrogen (NO_X), carbon monoxide (CO), air toxics and particulate matter (PM) from diesel engines. Of these, PM and NO_X emissions are typically the most difficult to control. CO and NMHC emissions are inherently low from diesel engines and under most conditions can be controlled to low levels without difficulty. NMHC emissions also serve as a proxy for some of the air toxic emissions from these engines, since many air toxics are a component of NMHC and are typically reduced in proportion to NMHC reductions. Most diesel engine emission control technologies are designed to reduce PM and NO_X emissions without increasing CO and NMHC emissions above the already low diesel levels. Technologies to control PM and NO_X emissions are described below separately. We also discuss the potential for these technologies to decrease CO and NMHC emissions as well as their potential to reduce emissions of air toxics.

a. PM Control Technologies

Particulate matter from diesel engines is made of three components;

- Solid carbon soot,
- Volatile and semi-volatile organic matter, and
- Sulfate.

The formation of the solid carbon soot portion of PM is inherent in diesel engines due to the heterogenous distribution of fuel and air in a diesel combustion system. Diesel combustion is designed to allow for overall lean (excess oxygen) combustion giving good efficiencies and low CO and HC emissions with a small region of rich (excess fuel) combustion within the fuel injection plume. It is within this excess fuel region of the combustion that PM is formed when high temperatures and a lack of oxygen cause the fuel to pyrolize, forming soot. Much of the soot formed in the engine is burned during the combustion process as the soot is mixed with oxygen in the cylinder at high temperatures. Any soot that is not fully burned before the exhaust valve is opened will be emitted form the engine as diesel PM.

The soot portion of PM emissions can be reduced by increasing the availability of oxygen within the cylinder for soot oxidation during combustion. Oxygen can be made more available by either increasing the oxygen content in-cylinder or by increasing the mixing of the fuel and oxygen in-cylinder. A number of technologies exist that can influence oxygen content and in-cylinder mixing including, improved fuel injection systems, air management systems, and combustion system designs.[130] Many of these PM reducing technologies offer better control of combustion in general, and better utilization of fuel allowing for

[128] Highway Diesel Progress Review, United States Environmental Protection Agency, June 2002, EPA 420-R–02–016. Copy available in EPA Air Docket A–2001–28.

[129] Highway Diesel Progress Review, United States Environmental Protection Agency, June 2002, EPA 420–R–02–016. Copy available in EPA Air Docket A–2001–28.

[130] The most effective means to reduce the soot portion of diesel PM engine-out is to operate the diesel engine with a homogenous method of operation rather than the typical heterogenous operation. In homogenous combustion, also called premixed combustion, the fuel is dispersed evenly with the air throughout the combustion system. This means there are no fuel rich/oxygen deprived regions of the system where fuel can be pyrolized rather than burned. Gasoline engines are typically premixed combustion engines. Homogenous combustion is possible with a diesel engine under certain circumstances, and is used in limited portions of engine operation by some engine manufacturers. Unfortunately, homogenous diesel combustion is not possible for most operation in today's diesel engine. We believe that more manufacturers will utilize this means to control diesel emissions within the limitations of the technology. A more in-depth discussion of homogenous diesel combustion can be found in the draft RIA.

improvements in fuel efficiency concurrent with reductions in PM emissions. Improvements in combustion technologies and refinements of these systems is an ongoing effort for highway engines and for some nonroad engines where emission standards or high fuel use encourage their introduction. The application of better combustion system technologies across the broad range of nonroad engines in order to meet the new emission standards proposed here offers an opportunity for significant reductions in engine-out PM emissions and possibly for reductions in fuel consumption. The soot portion of PM can be reduced further with aftertreatment technologies as discussed later in this section.

The volatile and semi-volatile organic material in diesel PM is often simply referred to as the soluble organic fraction (SOF) in reference to a test method used to measure its level. SOF is primarily composed of engine oil which passes through the engine with no or only partial oxidation and which condenses in the atmosphere to form PM. The SOF portion of diesel PM can be reduced through reductions in engine oil consumption and through oxidation of the SOF catalytically in the exhaust.

The sulfate portion of diesel PM is formed from sulfur present in diesel fuel and engine lubricating oil that oxidizes to form sulfuric acid (H_2SO_4) and then condenses in the atmosphere to form sulfate PM. Approximately two percent of the sulfur that enters a diesel engine from the fuel is emitted directly from the engine as sulfate PM.[131] The balance of the sulfur content is emitted from the engine as SO_2. Oxidation catalyst technologies applied to control the SOF and soot portions of diesel PM can inadvertently oxidize SO_2 in the exhaust to form sulfate PM. The oxidation of SO_2 by oxidation catalysts to form sulfate PM is often called sulfate make. Without low sulfur diesel fuel, oxidation catalyst technology to control diesel PM is limited by the formation of sulfate PM in the exhaust as discussed in more detail in Section III.F below.

There are two common forms of exhaust aftertreatment designed to reduce diesel PM, the diesel oxidation catalyst (DOC) and the diesel particulate filter (DPF). DOCs reduce diesel PM by oxidizing a small fraction of the soot emissions and a significant portion of the SOF emissions. Total DOC effectiveness to reduce PM emissions is normally limited to approximately 30 percent because the SOF portion of diesel PM for modern diesel engines is typically less than 30 percent and because the DOC increases sulfate emissions reducing the overall effectiveness of the catalyst. Limiting fuel sulfur levels to 15 ppm, as we have proposed today, allows DOCs to be designed for maximum effectiveness (nearly 100% control of SOF with highly active catalyst technologies) since their control effectiveness is not reduced by sulfate make (*i.e.*, there sulfate make rate is high but because the sulfur level in the fuel is low the resulting PM emissions are well controlled). A reduction in diesel fuel sulfur to 500 ppm as we are proposing today, is also directionally helpful for the application of DOCs. While 500 ppm sulfur fuel will not make the full range of highly active catalyst technologies available to manufacturers, it will decrease the amount of sulfate make and may allow for slightly more active (*i.e.*, effective) catalysts to be used. We believe that this is an additional benefit of the proposed 500 ppm sulfur fuel program. DOCs are also very effective at reducing the air toxic emissions from diesel engines. Test data shows that emissions of toxics such as polycyclic aromatic hydrocarbons (PAHs) can be reduced by more than 80 percent with a DOC.[132] DOCs also significantly reduce (by more than 80 percent) the already low HC and CO emissions of diesel engines.[133] DOCs are ineffective at controlling the solid carbon soot portion of PM. Therefore, even with 15 ppm sulfur fuel DOCs would not be able to achieve the level of PM control needed to meet the standard proposed today.

DPFs control diesel PM by capturing the soot portion of PM in a filter media, typically a ceramic wall flow substrate, and then by oxidizing (burning) it in the oxygen-rich atmosphere of diesel exhaust. The SOF portion of diesel PM can be controlled through the addition of catalytic materials to the DPF to form a catalyzed diesel particulate filter (CDPF).[134] The catalytic material is also very effective to promote soot burning. This burning off of collected PM is referred to as ''regeneration.'' In aggregate over an extended period of operation, the PM must be regenerated at a rate equal to or greater that its accumulation rate, or the DPF will clog. For a non-catalyzed DPF the soot can regenerate only at very high temperatures, in excess of 600°C, a temperature range which is infrequently realized in normal diesel engine operation (for many engines exhaust temperatures may never reach 600°C). With the addition of a catalytic coating to make a CDPF, the temperature necessary to ensure regeneration is decreased significantly to approximately 250°C, a temperature within the normal operating range for most diesel engines.[135]

However, the catalytic materials that most effectively promote soot and SOF oxidation are significantly impacted by sulfur in diesel fuel. Sulfur both degrades catalyst oxidation efficiency (*i.e.* poisons the catalyst) and forms sulfate PM. Both catalyst poisoning by sulfur and increases in PM emissions due to sulfate make influence our decision to limit the sulfur level of diesel fuel to 15 ppm as discussed in greater detail in section III.F.

Filter regeneration is affected by catalytic materials used to promote oxidation, sulfur in diesel fuel, engine-out soot rates, and exhaust temperatures. At higher exhaust temperatures soot oxidation occurs at a higher rate. Catalytic materials accelerate soot oxidation at a single exhaust temperature compared to non-catalyst DPFs, but even with catalytic materials increasing the exhaust temperature further accelerates soot oxidation.

Having applied 15 ppm sulfur diesel fuel and the best catalyst technology to promote low temperature oxidation (regeneration), the regeneration balance of soot oxidation equal to or greater than soot accumulation over aggregate operation simplifies to: are the exhaust temperatures high enough on aggregate to oxidize the engine-out PM rate?[136] The answer is yes, for most highway applications and many nonroad applications, as demonstrated by the widespread success of retrofit CDPF systems for nonroad equipment and the

[131] Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling—Compression-Ignition, EPA420-P–02–016, NR–009B. Copy available in EPA Air Docket A–2001–28.

[132] ''Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-Duty Engines to Achieve Low Emission Levels'', Manufacturers of Emission Controls Association, June 1999. Air Docket A–2001–28.

[133] ''Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-Duty Engines to Achieve Low Emission Levels'', Manufacturers of Emission Controls Association, June 1999. Air Docket A–2001–28.

[134] With regard to gaseous emissions such as NMHCs and CO, the CDPF works in the same manner with similar effectiveness as the DOC (*i.e.*, NMHC and CO emissions are reduced by more than 80 percent).

[135] Engelhard DPX catalyzed diesel particulate filter retrofit verification, *www.epa.gov/otaq/retrofit/techlist-engelhard.htm,* a copy of this information is available in Air Docket A–2001–28.

[136] If the question was asked, ''without 15 ppm sulfur fuel and the best catalyst technology, are the exhaust temperatures high enough on aggregate to oxidize the engine-out PM rate?'' the answer would be no, for all but a very few nonroad or highway diesel engines.

use of both retrofit and original equipment CDPF systems for highway vehicles.[137] [138] [139] However, it is possible that for some nonroad applications the engine-out PM rate may exceed the soot oxidation rate, even with low sulfur diesel fuel and the best catalyst technologies. Should this occur, successful regeneration requires that either engine-out PM rates be decreased or exhaust temperatures be increased, both feasible strategies. In fact, we expect both to occur as highway based technologies are transferred to nonroad engines. As discussed earlier, engine technologies to lower PM emissions while improving fuel consumption are continuously being developed and refined. As these technologies are applied to nonroad engines driven by both new emission standards and market pressures for better products, engine-out PM rates will decrease. Similarly, techniques to raise exhaust temperatures periodically in order to initiate soot oxidation in a PM filter have been developed for highway diesel vehicles as typified by the PSA system used on more than 400,000 vehicles in Europe.[140] [141]

During our 2002 Highway Diesel Progress Review, we investigated the plans of highway engine manufacturers to use CDPF systems to comply with the HD2007 emission standards for PM. We learned that all diesel engine manufacturers intend to comply through the application of CDPF system technology. We also learned that the manufacturers are developing means to raise the exhaust temperature, if necessary, to ensure that CDPF regeneration occurs.[142] These technologies include modifications to fuel injection strategies, modifications to EGR strategies, and modifications to turbocharger control strategies. These systems are based upon the technologies used by the engine manufacturers to comply with the 2004 highway emission standards. In general, the systems anticipated to be used by highway manufacturers to meet the 2004 emission standards are the same technologies that engine manufacturers have indicated to EPA that they will use to comply with the Tier 3 nonroad regulations (*e.g.*, electronic fuel systems).[143] In a manner similar to highway engine manufacturers, we expect nonroad engine manufacturers to adapt their Tier 3 emission control technologies to provide back-up regeneration systems for CDPF technologies in order to comply with the standards we are proposing today. We have estimated costs for such systems in our cost analysis.

Emission levels from CDPFs are determined by a number of factors. Filtering efficiencies for solid particle emissions like soot are determined by the characteristics of the PM filter, including wall thickness and pore size. Filtering efficiencies for diesel soot can be 99 percent with the appropriate filter design.[144] Given an appropriate PM filter design the contribution of the soot portion of PM to the total PM emissions are negligible (less than 0.001 g/bhp-hr). This level of soot emission control is not dependent on engine test cycle or operating conditions due to the mechanical filtration characteristics of the particulate filter.

Control of the SOF portion of diesel soot is accomplished on a CDPF through catalytic oxidation. The SOF portion of diesel PM consists of primarily gas phase hydrocarbons in engine exhaust due to the high temperatures and only forms particulate in the environment when it condenses. Catalytic materials applied to CDPFs can oxidize a substantial fraction of the SOF in diesel PM just as the SOF portion would be oxidized by a DOC. However, we believe that for engines with very high SOF emissions the emission rate may be higher than can be handled by a conventionally sized catalyst resulting in higher than zero SOF emissions. If a manufacturer's base engine technology has high oil consumption rates, and therefore high engine-out SOF emissions (*i.e.*, higher than 0.04 g/bhp-hr), compliance with the 0.01 g/bhp-hr emission standard proposed today may require additional technology beyond the application of a CDPF system alone.[145]

Modern highway diesel engines have controlled SOF emission rates in order to comply with the existing 0.1 g/bhp-hr emission standards. For modern highway diesel engines, the SOF portion of PM is typically on a small fraction of the total PM emissions (less than 0.02 g/bhp-hr). This level of SOF control is accomplished by controlling oil consumption through the use of engine modifications (*e.g.*, piston ring design, the use of 4-valve heads, the use of valve stem seals, etc.).[146] Nonroad diesel engines may similarly need to control engine-out SOF emissions in order to comply with the standard proposed today. The means to control engine-out SOF emissions are well known and have additional benefits, as they decrease oil consumption reducing operating costs. With good engine-out SOF control (*i.e.*, engine-out SOF < 0.02 g/bhp-hr) and the application of catalytic material to the DPF, SOF emissions from CDPF equipped nonroad engines will contribute only a very small fraction of the total tailpipe PM emissions (less than 0.004 g/bhp-hr). Alternatively, it may be less expensive or more practical for some applications to ensure that the SOF control realized by the CDPF is in excess of 90 percent, thereby allowing for higher engine-out SOF emission levels.

The best means to reduce sulfate emissions from diesel engines is by reducing the sulfur content of diesel fuel and lubricating oils. This is one of the reasons that we have proposed today to limit nonroad diesel fuel sulfur levels to be 15ppm or less. The catalytic material on the CDPF is crucial to

[137] "Particulate Traps for Construction Machines, Properties and Field Experience," 2000, SAE 2000–01–1923.

[138] Letter from Dr. Barry Cooper, Johnson Matthey, to Don Kopinski, U.S. EPA. Copy available in EPA Air Docket A–2001–28.

[139] EPA Recognizes Green Diesel Technology Vehicles at Washington Ceremony, Press Release from International Truck and Engine Company, July 27, 2001. Copy available in EPA Air Docket A–2001–28.

[140] There is one important distinction between the current PSA system and the kind of system that we project industry will use to comply with the Tier 4 standards. The PSA system incorporates a cerium fuel additive to help promote soot oxidation. The additive serves a similar function to a catalyst to promote soot oxidation at lower temperatures. Even with the use of the fuel additive passive regeneration is not realized on the PSA system and an active regeneration is conducted periodically involving late cycle fuel injection and oxidation of the fuel on an up-front diesel oxidation catalyst to raise exhaust temperatures. This form of supplemental heating to ensure infrequent but periodic PM filter regeneration has proven to be robust and reliable for more than 400,000 PSA vehicles. Our 2002 progress review found that other manufacturers will be introducing similar systems in the next few years without the use of a fuel additive.

[141] Nino, S. and Lagarrigue, M. "French Perspective on Diesel Engines and Emissions," presentation at the 2002 Diesel Engine Emission Reduction workshop in San Diego, California, Air Docket A–2001–28.

[142] Highway Diesel Progress Review, United States Environmental Protection Agency, June 2002, EPA 420-R–02–016. Copy available in EPA Air Docket A–2001–28.

[143] "Nonroad Diesel Emissions Standards Staff Technical Paper", EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[144] Miller, R. *et. al*, "Design, Development and Performance of a Composite Diesel Particulate Filter," March 2002, SAE 2002–01–0323.

[145] SOF oxidation efficiency is typically better than 80 percent and can be better than 90 percent. Given a base engine SOF rate of 0.04 g/bhp-hr and an 80 percent SOF reduction a tailpipe emission of 0.008 can be estimated from SOF alone. This level may be too high to comply with a 0.01 g/bhp-hr standard once the other constituents of diesel PM (soot and sulfate) are added. In this case, SOF emissions will need to be reduced engine-out or SOF control greater than 90 percent will need to be realized by the CDPF.

[146] Hori, S. and Narusawa, K. "Fuel Composition Effects on SOF and PAH Exhaust Emissions from DI Diesel Engines," SAE 980507.

ensuring robust regeneration and high SOF oxidation; however, it can also oxidize the sulfate in the exhaust with high efficiency. The result is that the predominant form of PM emissions from CDPF equipped diesel engines is sulfate PM. Even with 15ppm sulfur diesel fuel a CDPF equipped diesel engine can have total PM emissions including sulfate emissions as high as 0.009 g/bhp-hr over some representative operating cycles using conventional diesel engine oils.[147] Although this level of emissions will allow for compliance with our proposed PM emissions standard of 0.01 g/bhp-hr, we believe that there is room for reductions from this level in order to provide engine manufacturers with additional compliance margin. During our 2002 Highway Progress Review, we learned that a number of engine lubricating oil companies are working to reduce the sulfur content in engine lubricating oils. Any reduction in the sulfur level of engine lubricating oils will be beneficial. Similarly, as discussed above, we expect engine manufacturers to reduce engine oil consumption in order to reduce SOF emissions and secondarily to reduce sulfate PM emissions. While we believe that sulfate PM emissions will be the single largest source of the total PM from diesel engines, we believe with the combination of technology, and the appropriate control of engine-out PM, that sulfate and total PM emissions will be low enough to allow compliance with a 0.01 g/bhp-hr standard, except in the case of small engines with higher fuel consumption rates as described later in this section.

CDPFs have been shown to be very effective at reducing PM mass by reducing dramatically the soot and SOF portions of diesel PM. In addition, recent data show that they are also very effective at reducing the overall number of emitted particles when operated on low sulfur fuel. Hawker, *et. al.*, found that a CDPF reduced particle count by over 95 percent, including some of the smallest measurable particles (< 50 nm), at most of the tested conditions. The lowest observed efficiency in reducing particle number was 86 percent. No generation of particles by the CDPF was observed under any tested conditions.[148] Kittelson, *et al.*, confirmed that ultrafine particles can be reduced by a factor of ten by oxidizing volatile organics, and by an additional factor of ten by reducing sulfur in the fuel. Catalyzed PM traps efficiently oxidize nearly all of the volatile organic PM precursors (*i.e.* SOF), and the reduction of diesel fuel sulfur levels to 15ppm or less will substantially reduce the number of ultrafine PM emitted from diesel engines. The combination of CDPFs with low sulfur fuel is expected to result in very large reductions in both PM mass and the number of ultrafine particles.

As described here, the range of technologies available to reduce PM emissions is broad, extending from improvements to existing combustion system technologies to oxidation catalyst technologies to complete CDPF systems. The CDPF technology along with 15ppm or less sulfur diesel fuel is the system that we believe will allow engine manufacturers to comply with the 0.01 g/bhp-hr PM standard that we have proposed for a wide range of nonroad diesel engines. While it may be possible to apply CDPFs across the full range of nonroad diesel engine sizes, the complexity of full diesel particulate filter systems makes application to the smallest range of diesel engines difficult to accurately forecast at this time. As described in the following sections, the Agency has given consideration to the engineering complexity, cost and packaging of these systems in setting emission standards for various nonroad engine power categories.

b. NO_X Control Technologies

Oxides of nitrogen (NO and NO_2, collectively called NO_X) are formed at high temperatures during the combustion process from nitrogen and oxygen present in the intake air. The NO_X formation rate is exponentially related to peak cylinder temperatures and is also strongly related to nitrogen and oxygen content (partial pressures). NO_X control technologies for diesel engines have focused on reducing emissions by lowering the peak cylinder temperatures and by decreasing the oxygen content of the intake air. A number of technologies have been developed to accomplish these objectives including fuel injection timing retard, fuel injection rate control, charge air cooling, exhaust gas recirculation (EGR) and cooled EGR. The use of these technologies can result in significant reductions in NO_X emissions, but are limited due to practical and physical constraints of heterogeneous diesel combustion.[149] [150]

EPA is investigating strategies to address these limitations of heterogenous diesel combustion in a research program. This concept consists of higher intake charge boost levels using a low-pressure loop cooled EGR system, combined with a proprietary fuel injection and combustion system to control engine-out NO_X.[151] The results from prototype laboratory research engines show NO_X control consistent with the standards proposed today. The technology must still overcome the limitations of increased PM emissions at low NO_X levels as well as other practical considerations of performance and durability. EPA intends to continue investigating this technology, but at this time cannot project that this technology would be generally available for use in compliance with the proposed standards.

A new form of diesel engine combustion, commonly referred to as homogenous diesel combustion or premixed diesel combustion, can give very low NO_X emissions over a limited range of diesel engine operation. In the regions of diesel engine operation over which this combustion technology is feasible (light load conditions), NO_X emissions can be reduced enough to comply with the 0.3 g/bhp-hr NO_X emission standard that we have proposed today.[152] Some engine manufacturers are today producing engines which utilize this technology over a narrow range of engine operation.[153] Unfortunately, it is not possible today to apply this technology over the full range of diesel engine operation. We do believe that more engine manufacturers will utilize this alternative combustion approach in the limited range over which it is effective, but will have to rely on conventional heterogenous diesel combustion for the bulk of engine operation. Therefore, we believe that catalytic NO_X emission control technologies will be required in order to realize the NO_X emission standards proposed today. Catalytic emission control technologies can extend the reduction of NO_X emissions

[147] *See* Table III.F.1 below.

[148] Hawker, P., *et al.*, Effect of a Continuously Regenerating Diesel Particulate Filter on Non-Regulated Emissions and Particle Size Distribution, SAE 980189.

[149] Flynn, P. *et al*, ''Minimum Engine Flame Temperature Impacts on Diesel and Spark-Ignition Engine NO_X Production,'' SAE 2000–01–1177, March 2000.

[150] Dickey, D. *et al*, ''NO_X Control in Heavy-Duty Diesel Engines—What is the Limit?,'' SAE 980174, February 1998.

[151] Gray, Charles ''Assessing New Diesel Technologies,'' November 2002, MIT Light Duty Diesel Workshop, available on MIT's website or in Air Docket A–2001–28. *http://web.mit.edu/chrisng/www/dieselworkshop_files/Charles%20Gray.PDF.*

[152] Stanglmaier, Rudolf and Roberts, Charles ''Homogenous Charge Compression Ignition (HCCI): Benefits, Compromises, and Future Engine Applications''. SAE 1999–01–3682.

[153] Kimura, Shuji, *et al.*, ''Ultra-Clean Combustion Technology Combining a Low-Temperature and Premixed Combustion Concept for Meeting Future Emission Standards'', SAE 2001–01–0200.

by an additional 90 percent or more over conventional ''engine-out'' control technologies alone.

NO_X emissions from gasoline-powered vehicles are controlled to extremely low levels through the use of the three-way catalyst technology first introduced in the 1970s. Three-way-catalyst technology is very efficient in the stoichiometric conditions found in the exhaust of properly controlled gasoline-powered vehicles. Today, an advancement upon this well-developed three-way catalyst technology, the NO_X adsorber, has shown that it too can make possible extremely low NO_X emissions from lean-burn engines such as diesel engines.[154] The potential of the NO_X adsorber catalyst is limited only by its need for careful integration with the engine and engine control system (as was done for three-way catalyst equipped passenger cars in the 1980s and 1990s) and by poisoning of the catalyst from sulfur in the fuel. The Agency set stringent new NO_X standards for highway diesel engines beginning in 2007 predicated upon the use of the NO_X adsorber catalyst enabled by significant reductions in fuel sulfur levels (15 ppm sulfur or less). In today's action, we are proposing similarly stringent NO_X emission standards for nonroad engines again using technology enabled by a reduction in fuel sulfur levels.

NO_X adsorbers work to control NO_X emissions by storing NO_X on the surface of the catalyst during the lean engine operation typical of diesel engines. The adsorber then undergoes subsequent brief rich regeneration events where the NO_X is released and reduced across precious metal catalysts. The NO_X storage period can be as short as 15 seconds and as along as 10 minutes depending upon engine-out NO_X emission rates and exhaust temperature. A number of methods have been developed to accomplish the necessary brief rich exhaust conditions necessary to regenerate the NO_X adsorber technology including late-cycle fuel injection, also called post injection, in exhaust fuel injection, and dual bed technologies with off-line regeneration.[155] [156] [157] This method for NO_X control has been shown to be highly effective when applied to diesel engines but has a number of technical challenges associated with it. Primary among these is sulfur poisoning of the catalyst as described in section III.F below. In the HD2007 RIA we identified four issues related to NO_X adsorber performance: performance of the catalyst across a broad range of exhaust temperatures, thermal durability of the catalyst when regenerated to remove sulfur (desulfated), management of sulfur poisoning, and system integration on a vehicle. In the HD 2007 RIA, we provided a description of the technology paths that we believed manufacturers would use to address these challenges. We are conducting an ongoing review of industry's progress to overcome these challenges and have updated our analysis of the progress to address these issues in the draft RIA associated with today's NPRM.

One of the areas that we have identified as needing improvement for the NO_X adsorber catalyst is performance at low and high exhaust temperatures. NO_X adsorber performance is limited at very high temperatures (due to thermal release of NO_X under lean conditions) and very low temperatures (due to poor catalytic activity for NO oxidation under lean conditions and low activity for NO_X reduction under rich conditions) as described extensively in the draft RIA. Our review of highway HD2007 technologies showed that significant progress has been made to broaden the temperature range of effective NO_X control of the NO_X adsorber catalysts (the temperature ''window'' of the catalyst). Every catalyst development company that we visited was able to show us new catalyst formulations with improved performance at both high and low temperatures. Similarly, many of the engine manufacturers we visited showed us data indicating that the improvements in catalyst formulations corresponded to improvements in emission reductions over the regulated test cycles. It is clear from the data presented to EPA that the progress with regard to NO_X adsorber performance has been both substantial and broadly realized by most technology developers. The importance of this temperature window to nonroad engine manufacturers is discussed in more detail later in this section.

Long term durability has been the greatest concern for the NO_X adsorber catalyst. We have concluded as described briefly in III.F below and in some detail in the draft RIA, that in order for NO_X adsorbers to effectively control NO_X emission throughout the life of a nonroad diesel engine the fuel sulfur level will have to be maintained at or below 15 ppm, that the NO_X adsorber catalyst thermal durability will need to improve in order to allow for sulfur regeneration events (since adsorber thermal degradation, ''sintering,'' is associated with each desulfation event, the number of desulfation events should be minimized), and that system improvements will have to be made in order to allow for appropriate management of sulfur poisoning. It is in this area of durability that NO_X adsorbers had the greatest need for improvement, and it is here where some of the most impressive ongoing strides in technology development have been made. During our ongoing review, we have learned that catalyst companies are making significant improvements in the thermal durability of the catalyst materials used in NO_X adsorbers. Similarly, the substrate manufacturers are developing new materials that address the problem of NO_X storage material migration into the substrate.[158] The net gain from these simultaneous improvements are NO_X adsorber catalysts which can be desulfated (go through a sulfur regeneration process) with significantly lower levels of thermal damage to the catalyst function. In addition, engine manufacturers and emission control technology vendors are developing new strategies to accomplish desulfation that allow for improved sulfur management while minimizing the damage due to sulfur poisoning. It was clear in our review that the total system improvements being made when coupled with changes to catalytic materials and catalyst substrates are delivering significantly improved catalyst durability to the NO_X adsorber technology.

Practical application of the NO_X adsorber catalyst in a vehicle was an issue during the HD2007 rulemaking and similarly there are issues regarding the application of NO_X adsorbers to nonroad equipment. Although there is considerable evidence that NO_X adsorbers are highly effective and that durability issues can be addressed, some worry that the application of the NO_X adsorber systems to vehicles and nonroad equipment will be impractical due to packaging constraints and the

[154] NO_X adsorber catalysts are also called, NO_X storage catalysts (NSCs), NO_X storage and reduction catalysts (NSRs), and NO_X traps.

[155] Johnson, T. ''Diesel Emission Control in Review—the Last 12 Months,'' SAE 2003–01–0039.

[156] Koichiro Nakatani, Shinya Hirota, Shinichi Takeshima, Kazuhiro Itoh, Toshiaki Tanaka, and Kazuhiko Dohmae, ''Simultaneous PM and NO_X Reduction System for Diesel Engines.'', SAE 2002–01–0957, SAE Congress March 2002.

[157] Schenk, C., McDonald, J. and Olson, B. ''High Efficiency NO_X and PM Exhaust Emission Control for Heavy-Duty On-Highway Diesel Engines,'' SAE 2001–01–1351.

[158] Some NO_X storage materials can interact with the catalyst substrate especially at elevated temperatures making the storage material unavailable for NO_X storage and weakening the substrate.

potential for high fuel consumption. Our review of progress has left us more certain than ever that practical system solutions can be applied to control emissions using NO_X adsorbers. We have tested a diesel passenger car (one of the most difficult packaging situations) with a complete NO_X adsorber and particulate filter system that demonstrated both exceptional emission control and very low fuel consumption.[159] Heavy-duty engine manufacturers have shared with us their improvements in system design and means to regenerate NO_X while minimizing fuel consumption.[160] Our own in-house testing program at the National Vehicle and Fuel Emissions Laboratory (NVFEL) is developing a number of novel ideas to reduce the total system package size while maintaining high levels of emission control and low fuel consumption rates as discussed more fully in the draft RIA. Similarly, a number of Department of Energy (DOE), Advanced Petroleum Based Fuel—Diesel Emission Control (APBF–DEC) program NO_X adsorber projects are working to address the system integration challenges for a diesel passenger car, a large sport utility vehicle and for a heavy heavy-duty truck.[161] By citing these numerous examples, we are not intending to imply that the challenge of integrating and packaging advanced emission control technologies is easy. Rather, we believe these examples show that even though significant challenges exist, they can be overcome through careful design and integration efforts. Nonroad equipment manufacturers have addressed similar challenges in the past when they have added additional customer features (*e.g.*, packaged an air-conditioning system) or in accommodating other emission control technologies (*e.g.*, charge air cooling systems).

All of the issues described above and highlighted first during the HD2007 rulemaking are likely to be concerns to nonroad engine and nonroad equipment manufacturers. We believe the challenge to overcome these issues will be significant for nonroad engines and equipment. Yet, we have documented substantial progress by industry in the last year to overcome these challenges, and we continue to believe based on the progress we have observed that the NO_X adsorber catalyst technology will be mature enough for application to many diesel engines by 2007. In the case of NO_X adsorber temperature window, which could be especially challenging for nonroad engines, we have performed an analysis summarized below in section III.E.2 and documented in the draft RIA, that leads us to conclude the technology can be successfully applied to nonroad engines provided there is some additional lead time for further engine and catalyst system technology development. Similarly, we acknowledge that the diverse nature and sheer number of different nonroad equipment types makes the challenge of packaging advanced emission control technologies more difficult. Therefore, we have included a number of equipment manufacturer flexibilities in the program proposed today in order to allow equipment manufacturers to manage the engineering resource challenges imposed by these regulations.

Another NO_X catalyst based emission control technology is selective catalytic reduction (SCR). SCR catalysts require a reductant, ammonia, to reduce NO_X emissions. Because of the significant safety concerns with handling and storing ammonia, most SCR systems make ammonia within the catalyst system from urea. Such systems are commonly called urea SCR systems. (Throughout this document the term SCR and urea SCR may be used interchangeably and should be considered as referring to the same urea based catalyst system.) With the appropriate control system to meter urea in proportion to engine-out NO_X emissions, urea SCR catalysts can reduce NO_X emissions by over 90 percent for a significant fraction of the diesel engine operating range.[162] Although EPA has not done an extensive analysis to evaluate its effectiveness, we believe it may be possible to reduce NO_X emissions with a urea SCR catalyst to levels consistent with compliance with the proposed NO_X standards.

However, we have significant concerns regarding a technology that requires extensive user intervention in order to function properly and the lack of the urea delivery infrastructure necessary to support this technology. Urea SCR systems consume urea in proportion to the engine-out NO_X rate. The urea consumption rate can be on the order of five percent of the engine fuel consumption rate. Therefore, unless the urea tank is prohibitively large, the urea must be replenished frequently. Most urea systems are designed to be replenished every time fuel is added or at most every few times that fuel is added. Today, there is not a system in place to deliver or dispense automotive grade urea to diesel fueling stations. One study conducted for the National Renewable Energy Laboratory (NREL), estimated that if urea were to be distributed to every diesel fuel station in the United States, the cost would be more than $30 per gallon.[163]

We are not aware of a proven mechanism that ensures that the user will replenish the urea supply as necessary to maintain emissions performance. Further, we believe given the additional cost for urea, that there will be significant disincentives for the end-user to appropriately replenish the urea because the cost of urea could be avoided without equipment performance loss. *See NRDC* v. *EPA,* 655 F. 2d 318, 332 (D.C. Cir. 1981) (referring to ''behavioral barriers to periodic restoration of a filter by a [vehicle] owner'' as a valid basis for EPA considering a technology unavailable). Due to the lack of an infrastructure to deliver the needed urea, and the lack of a track record of successful ways to ensure urea use, we have concluded that the urea SCR technology is not likely to be available for general use in the time frame of the proposed standards. Therefore, we have not based the feasibility or cost analysis of this emission control program on the use or availability of the urea SCR technology. However, we would not preclude its use for compliance with the emission standards provided that a manufacturer could demonstrate satisfactorily to the Agency that urea would be used under all conditions. We believe that only a few unique applications will be able to be controlled in a manner such that urea use can be assured, and therefore believe it is inappropriate to base a national emission control program on a technology which can serve effectively only in a few niche applications.

This section has described a number of technologies that can reduce

[159] McDonald, J and Bunker, B. ''Testing of the Toyota Avensis DPNR at U.S. EPA–NVFEL,'' SAE 2002–01–2877.

[160] Hakim, N. ''NO_X Adsorbers for Heavy Duty Truck Engines—Testing and Simulation,'' presentation at Motor Fuels: Effects on Energy Efficiency and Emissions in the Transportation Sector Joint Meeting of Research Program Sponsored by the USA Dept. of Energy, Clean Air for Europe and Japan Clean Air, October 9–10, 2002. Copy available in EPA Air Docket A–2001–28.

[161] Details with quarterly updates on the APBF-DEC programs can be found on the DOE website at the following location *http://www.ott.doe.gov/apbf.shtml.*

[162] ''Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-Duty Engines to Achieve Low Emission Levels'', Manufacturers of Emissions Controls Association, June 1999 Air Docket A–2001–28.

[163] Fable, S. *et al,* ''Subcontractor Report—Selective Catalytic Reduction Infrastructure Study,'' AD Little under contract to National Renewable Energy Laboratory, July 2002, NREL/SR–5040–32689. Copy available in EPA Air Docket A–2001–28.

emissions from diesel engines. The following section describes the challenges to applying these diesel engine technologies to engines and equipment designed for nonroad applications.

2. Can These Technologies Be Applied to Nonroad Engines and Equipment?

The emission standards and the introduction dates for those standards, as described earlier in this section, are premised on the transfer of diesel engine technologies being or already developed to meet light-duty and heavy-duty vehicle standards that begin in 2007. The standards that we are proposing today for engines ≥75 horsepower will begin to go into effect four years later. This time lag between equivalent highway and nonroad diesel engine standards is necessary in order to allow time for engine and equipment manufacturers to further develop these highway technologies for nonroad engines and to align this program with nonroad Tier 3 emission standards that begin to go into effect in 2006.

As discussed previously, the test procedures and regulations for the HD2007 highway engines include a transient test procedure, a broad steady-state procedure, and NTE provisions that require compliant engines to emit at or below 1.5 times the regulated emission levels under virtually all conditions. An engine designed to comply with the 2007 highway emission standards would comply with the equivalent nonroad emission standards proposed today if it were to be tested over the transient and steady-state nonroad emission test procedures proposed today, which cover the same regions and types of engine operation. Said in another way, a highway diesel engine produced in 2007 could be certified in compliance with the transient and steady-state standards proposed today for nonroad diesel engines several years in advance of the date when these standards would go into effect. However, that engine, while compliant with certain of the nonroad emission standards proposed today, would not necessarily be designed to address the various durability and performance requirements of many nonroad equipment manufacturers. We expect that the engine manufacturers will need additional time to further develop the necessary emission control systems to address some of the nonroad issues described below as well as to develop the appropriate calibrations for engine rated speed and torque characteristics required by the diverse range of nonroad equipment. Furthermore, not all nonroad engine manufacturers produce highway diesel engines or produce nonroad engines that are developed from highway products. Therefore, there is a need for lead time between the Tier 3 emission standards which go into effect in 2006–2008 and the Tier 4 emission standards. We believe the technologies developed to comply with the Tier 3 emission standards such as improved air handling systems and electronic fuel systems will form an essential technology baseline which manufacturers will need to initiate and control the various regeneration functions required of the catalyst based technologies for Tier 4. The Agency has given consideration to all of these issues in setting the emission standards and the timing of those standards as proposed today.

This section describes some of the challenges to applying advanced emission control technologies to nonroad engines and equipment, and why we believe that technologies developed for highway diesel engines can be further refined to address these issues in a timely manner for nonroad engines consistent with the emission standards proposed today. This section paraphrases a more in-depth analysis in the draft RIA.

a. Nonroad Operating Conditions and Exhaust Temperatures

Nonroad equipment is highly diverse in design, application, and typical operating conditions. This variety of operating conditions affects emission control systems through the resulting variety in the torque and speed demands (*i.e.* power demands). This wide range in what constitutes typical nonroad operation makes the design and implementation of advanced emission control technologies more difficult. The primary concern for catalyst based emission control technologies is exhaust temperature. In general, exhaust temperature increases with engine power and can vary dramatically as engine power demands vary.

For most catalytic emission control technologies there is a minimum temperature below which the chemical reactions necessary for emission control do not occur. The temperature above which substantial catalytic activity is realized is often called the light-off temperature. For gasoline engines, the light-off temperature is typically only important in determining cold start emissions. Once gasoline vehicle exhaust temperatures exceed the light-off temperature, the catalyst is ''lit-off'' and remains fully functional under all operating conditions. Diesel exhaust is significantly cooler than gasoline exhaust due to the diesel engine's higher thermal efficiency and its operation under predominantly lean conditions. Absent control action taken by an electronic engine control system, diesel exhaust may fall below the light-off temperature of catalyst technology even when the vehicle is fully warmed up.

The relationship between the exhaust temperature of a nonroad diesel engine and light-off temperature is an important factor for both CDPF and NO_X adsorber technologies. For the CDPF technology, exhaust temperature determines the rate of filter regeneration and if too low causes a need for supplemental means to ensure proper filter regeneration. In the case of the CDPF, it is the aggregate soot regeneration rate that is important, not the regeneration rate at any particular moment in time. A CDPF controls PM emissions under all conditions and can function properly (*i.e.*, not plug) even when exhaust temperatures are low for an extended time and the regeneration rate is lower than the soot accumulation rate, provided that occasionally exhaust temperatures and thus the soot regeneration rate are increased enough to regenerate the CDPF. A CDPF can passively (without supplemental heat addition) regenerate if exhaust temperatures remain above 250°C for more than 30 percent of engine operation.[164] Similarly, there is a minimum temperature (*e.g.*, 200°C) for NO_X adsorbers below which NO_X regeneration is not readily possible and a maximum temperature (*e.g.*, 500°C) above which NO_X adsorbers are unable to effectively store NO_X. These minimum and maximum temperatures define a characteristic temperature window of the NO_X adsorber catalyst. When the exhaust temperature is within the temperature window (above the minimum and below the maximum) the catalyst is highly effective. When exhaust temperatures fall outside this window of operation, NO_X adsorber effectiveness is diminished. Therefore, there is a need to match diesel exhaust temperatures to conditions for effective catalyst operation under the various operating conditions of nonroad engines.

Although the range of products for highway vehicles is not as diverse as for nonroad equipment, the need to match exhaust temperatures to catalyst characteristics is still present. This is a significant concern for highway engine

[164] Engelhard DPX catalyzed diesel particulate filter retrofit verification, *www.epa.gov/otaq/retrofit/techlist-engelhard.htm*, a copy of this information is available in Air Docket A–2001–28.

manufacturers and has been a focus of our ongoing diesel engine progress review. There we have learned that substantial progress is being made to broaden the operating temperature window of catalyst technologies while at the same time engine systems are being designed to better control exhaust temperatures. Highway diesel engine manufacturers are working to address this need through modifications to engine design, modifications to engine control strategies and modifications to exhaust system designs. Engine design changes, including the ability for multiple late fuel injections and the ability to control total air flow into the engine, give controls engineers additional flexibility to change exhaust temperature characteristics. Modifications to the exhaust system, including the use of insulated exhaust manifolds and exhaust tubing, can help to preserve the temperature of the exhaust gases. New engine control strategies designed to take advantage of engine and exhaust system modifications can then be used to manage exhaust temperatures across a broad range of engine operation. The technology solutions being developed for highway engines to better manage exhaust temperature are built upon the same emission control technologies (*i.e.*, advanced air handling systems and electronic fuel injection systems) that we expect nonroad engine manufacturers to use in order to comply with the Tier 3 emission standards.

Matching the operating temperature window of the broad range of nonroad equipment may be somewhat more challenging for nonroad engines than for many highway diesel engines simply because of the diversity in equipment design and equipment use. Nonetheless, the problem has been successfully solved in highway applications facing low temperature performance situations as difficult to address as any encountered by nonroad applications. The most challenging temperature regime for highway engines are encountered at very light-loads as typified by congested urban driving. Under congested urban driving conditions exhaust temperatures may be too low for effective NO_X reduction with a NO_X adsorber catalyst. Similarly, exhaust temperatures may be too low to ensure passive CDPF regeneration. To address these concerns, light-duty diesel engine manufacturers have developed active temperature management strategies that provide effective emissions control even under these difficult light-load conditions. Toyota has shown with their prototype DPNR vehicles that changes to EGR and fuel injection strategies can realize an increase in exhaust temperatures of more than 100°F under even very light-load conditions allowing the NO_X adsorber catalyst to function under these normally cold exhaust conditions.[165] Similarly, PSA has demonstrated effective CDPF regeneration under demanding light-load taxi cab conditions with current production technologies.[166] Both of these are examples of technology paths available to nonroad engine manufacturers to increase temperatures under light-load conditions.

We are not aware of any nonroad equipment in-use operating cycles which would be more demanding of low temperature performance than passenger car urban driving. Both the Toyota and PSA systems are designed to function even with extended idle operation as would be typified by a taxi waiting to pick up a fare. By actively managing exhaust temperatures engine manufacturers can ensure highly effective catalyst based emission control performance (*i.e.*, compliance with the emission standards) and reliable filter regeneration (failsafe operation) across a wide range of engine operation as would be typified by the broad range of in-use nonroad duty cycles and the new nonroad transient test proposed today.

The systems described here from Toyota and PSA are examples of highly integrated engine and exhaust emission control systems based upon active engine management designed to facilitate catalyst function. Because these systems are based upon the same engine control technologies likely to be used to comply with the Tier 3 standards and because they allow great flexibility to trade-off engine control and catalyst control approaches depending on operating mode and need, we believe most nonroad engine manufacturers will use similar approaches to comply with the emission standards proposed today. However, there are other technologies available that are designed to be added to existing engines without the need for extensive integration and engine management strategies. One example of such a system is an active DPF system developed by Deutz for use on a wide range on nonroad equipment. The Deutz system has been sold as an OEM retrofit technology that does not require changes to the base engine technology. The system is electronically controlled and uses supplemental in-exhaust fuel injection to raise exhaust temperatures periodically to regenerate the DPF. Deutz has sold over 2,000 of these units and reports that the systems have been reliable and effective. Some manufacturers may choose to use this approach for compliance with the PM standard proposed today, especially in the case of engines which may be able to comply with the proposed NO_X standards with engine-out emission control technologies (*i.e.*, engines rated between 25 and 75 horsepower).

High temperature operating regimes such as a heavy heavy-duty diesel truck at full payload driving up a grade are also challenging for the NO_X catalyst technology. Although less common, similar high temperature conditions of full engine load operation can be imagined for nonroad equipment. However, because highway engines typically have higher power density (defined as rated power divided by engine displacement), the highest operating conditions would be expected to be encountered with highway vehicles. High exhaust temperatures (in excess of 500°C) are challenging for the NO_X adsorber catalyst technology because the stored NO_X emissions can be released thermally without going through a reduction step, leading to increased NO_X emissions. In the absence of a reductant (normally provided by the standard NO_X regeneration function) the thermally released NO_X is emitted from the exhaust system without treatment. To address this issue, NO_X storage catalyst technologies with higher levels of thermal stability are being developed, but these technologies trade-off improved high temperature performance for even greater sensitivity to fuel sulfur. Beyond catalyst improvements, the exhaust temperature from the engine can be controlled prior to the NO_X adsorber catalyst simply through heat loss in the exhaust system (*i.e.* by locating the catalyst further from the engine). Another approach being considered for GDI vehicle applications which operate at much higher temperatures than would be encountered by a diesel engine is to use a relatively simple exhaust layout design to increase heat loss at high temperatures while still providing acceptable low temperature

[165] Sasaki, S., Ito, T., and Iguchi, S., ''Smoke-less Rich Combustion by Low Temperature Oxidation in Diesel Engines,'' 9th Aachener Kolloquim Fahrzeug—und Motorentechnik 2000. Copy available in EPA Air Docket A–2001–28.

[166] Jeuland, N., *et al,* ''Performances and Durability of DPF (Diesel Particulate Filter) Tested on a Fleet of Peugeot 607 Taxis First and Second Test Phases Results,'' October 2002, SAE 2002–01–2790.

performance.[167] Additionally, exhaust temperatures well in excess of 500°C are not frequently experienced by nonroad engines. Higher exhaust temperatures would be expected from naturally aspirated engines due to their lower air flow (for the same power/heat input, naturally aspirated engines have less air to heat up and thus the exhaust reaches a higher temperature). Today, less than ten percent of nonroad diesel engines with rated power greater than 100 horsepower are naturally aspirated and we have projected that an even greater percentage of nonroad engines meeting the Tier 3 emission standards will be turbocharged.

We have conducted an analysis of various nonroad equipment operating cycles and various nonroad engine power density levels to better understand the matching of nonroad engine exhaust temperatures, catalyst installation locations and catalyst technologies. This analysis, documented in the draft RIA, showed that for many engine power density levels and equipment operating cycles, exhaust temperatures are quite well matched to catalyst temperature window characteristics. In particular, the nonroad transient cycle (NRTC), the cycle we are proposing to use for certification, was shown to be well matched to the NO_X adsorber characteristics with estimated performance in excess of 90 percent for a turbocharged diesel engine tested under a range of power density levels. The analysis also indicated that the exhaust temperatures experienced over the NRTC are better matched to the NO_X adsorber catalyst temperature window than the temperatures that would be expected over the highway FTP test cycle. This suggests that compliance with the proposed NRTC will be somewhat easier, using similar technology, than complying with the highway 2007 emission standards on the FTP.

For engines with low power density (*e.g.*, <25 hp per liter of engine displacement) the analysis showed that, absent actions to increase exhaust temperatures (*e.g.*, increased use of EGR a light loads), compliance with the NRTC cycle will be more difficult than for engines with higher power density levels. Specifically, the analysis predicted 92% control for the high power density engine and 86% control for the low power density engine.

Note that this analysis approach is only effective to predict differences in performance, but not effective to predict absolute performance. The same analysis approach predicted 83% control for the high power density engine on the heavy-duty FTP, although testing at EPA has shown for this engine (a different example of this same engine) greater than 90% NO_X control.[168] Nevertheless, the analysis suggests that additional attention must be made to designing system for low power density applications, and that technology changes may be necessary to ensure adequate performance (*e.g.*, the use of EGR or other control methods to raise exhaust temperatures). One change, which is occurring independent of EPA's regulation, is increasing power density for nonroad engines. EPA has documented in the draft RIA a clear trend of certified engine ratings that indicates manufacturers are increasing engine power without increasing engine displacement. Engine manufacturers are motivated to increase engine power density because engine pricing is largely done on a power basis, while the cost of manufacturing is more closely related to engine displacement. Therefore, increasing engine power levels without increasing displacement may increase the sale price of the engine more than it increases the cost of manufacturing. Increasing power density typically results in higher exhaust temperatures and, in this case, better matching to catalyst operating requirements. Alternatively, nonroad engine manufacturers can apply the same temperature management strategies previously described for highway engines.

The analysis also suggests that the temperature challenge for nonroad equipment will be greater with regard to the NTE provisions of this proposal than for the nonroad transient test (NRTC) provisions. In fact as discussed previously, the NRTC cycle appears to be a better match to the characteristics of the NO_X adsorber catalyst than the FTP cycle used for heavy-duty highway truck certification. This is due to the higher average engine load experienced over the NRTC and thus the higher average temperature. Therefore, we believe that complying with the NO_X standard over the transient test cycle proposed today for nonroad engines will not be significantly more difficult than complying with the HD2007 NO_X emission standard over the FTP. The analysis also shows that many nonroad engines may operate in-use in a way different from the NRTC (*i.e.* even the NRTC is not an all-encompassing test; no single test realistically could be), and that NTE standards are therefore needed to assure that nonroad engine emissions are controlled for the full range of possible in-use operating conditions.[169] The technical challenge of controlling NO_X emissions, even under these diverse conditions, is no more difficult on a per engine basis than for highway diesel engines which must comply with similar NTE test provisions. This is because both highway and nonroad engine manufacturers must address control at the same high load and low load conditions (minimum power from both are the same, 0 hp, and maximum power is typically higher for highway engines, due to higher power density). Also, both engine manufacturers must be able to respond to changes in user demanded torque (transient conditions) that are similarly unpredictable. However, given the sheer number of different nonroad equipment types and engine ratings, this represents a real challenge for the nonroad industry which is one of the primary considerations given by the Agency in determining the appropriate timing for the emission standards proposed today.

We believe, based on our analysis of nonroad engines and equipment operating characteristics, that in-use some nonroad engines will experience conditions that require the use of temperature management strategies in order to effectively use the NO_X adsorber and CDPF systems needed to meet the proposed standards. We have assumed in our cost analysis that all nonroad engines complying with a PM standard of 0.02 g/bhp-hr or lower will have an active means to control temperature (*i.e.* we have costed a backup regeneration system, although some applications likely may not need one). We have made this assumption believing that manufacturers will not be able to accurately predict in-use conditions for every piece of equipment and will thus choose to provide the technologies on a back-up basis. As explained earlier, the technologies necessary to accomplish this temperature management are enhancements of the Tier 3 emission control technologies that will form the

[167] Damson, B., ''Exhaust Cooling for NO_X-Traps for Lean Spark-Ignition Engines,'' SAE 2002–01–0737.

[168] Schenk, C., McDonald, J. and Olson, B. ''High Efficiency NO_X and PM Exhaust Emission Control for Heavy-Duty On-Highway Diesel Engines,'' SAE 2001–01–1351.

[169] The fact that developing compliant engines for the NTE provisions may be more difficult than developing for the transient test cycle does not diminish the value of the transient test as a means to evaluate the overall effectiveness of the emission control system under transient conditions. There is no doubt that controlling average emissions under transient conditions will be an important part of the emission control system and that evaluating overall performance under transient conditions is needed.

baseline for Tier 4 engines, and the control strategies being developed for highway diesel engines. We do not believe that there are any nonroad engine applications above 25 horsepower for which these highway engine approaches will not work. However, given the diversity in nonroad equipment design and application, we believe that additional time will be needed in order to match the engine performance characteristics to the full range of nonroad equipment.

We believe that given the timing of the emissions standards proposed today, and the availability and continuing development of technologies to address temperature management for highway engines which technologies are transferrable to all nonroad engines with greater than 25 hp power rating, that nonroad engines can be designed to meet the proposed standards in the lead time provided in this proposal.

b. Nonroad Operating Conditions and Durability

Nonroad equipment is designed to be used in a wide range of tasks in some of the harshest operating environments imaginable, from mining equipment to crop cultivation and harvesting to excavation and loading. In the normal course of equipment operation the engine and its associated hardware will experience levels of vibration, impacts, and dust that may exceed conditions typical of highway diesel vehicles.

Specific efforts to design for the nonroad operating conditions will be required in order to ensure that the benefits of these new emission control technologies are realized for the life of nonroad equipment. Much of the engineering knowledge and experience to address these issues already exists with the nonroad equipment manufacturers. Vibration and impact issues are fundamentally mechanical durability concerns (rather than issues of technical feasibility of achieving emissions reductions) for any component mounted on a piece of equipment (*e.g.*, an engine coolant overflow tank). Equipment manufacturers must design mounting hardware such as flanges, brackets, and bolts to support the new component without failure. Further, the catalyst substrate material itself must be able to withstand the conditions encountered on nonroad equipment without itself cracking or failing. There is a large body of real world testing with retrofit emission control technologies that demonstrates the durability of the catalyst components themselves even in the harshest of nonroad equipment applications.

Deutz, a nonroad engine manufacturer, sold approximately 2,000 diesel particulate filter systems for nonroad equipment in the period from 1994 through 2000. Many of these systems were sold for use in mining equipment. No other applications are likely to be more demanding than this. Mining equipment is exposed to extraordinarily high levels of vibration, experiences impacts with the mine walls and face, and high levels of dust. Yet in meetings with the Agency, Deutz shared their experience that no system had failed due to mechanical failure of the catalyst or catalyst housing.[170] The Deutz system utilized a conventional cordierite PM filter substrate as is commonly used for heavy-duty highway truck CDPF systems. The canning and mounting of the system was a Deutz design. Deutz was able to design the catalyst housing and mounting in such a way as to protect the catalyst from the harsh environment as evidenced by its excellent record of reliable function.

Other nonroad equipment manufacturers have also offered OEM diesel particulate filter systems in order to comply with requirements of some mining and tunneling worksite standards. Liebherr, a nonroad engine and equipment manufacturer, offers diesel particulate filter systems as an OEM option on its range of construction machine models. As of January 2000, 340 Liebherr machines have been fitted with PM filter systems.[171] We believe that this experience shows that appropriate design considerations, as are necessary with any component on a piece of nonroad equipment, will be adequate to address concerns with the vibration and impact conditions which can occur in some nonroad applications. This experience applies equally well to the NO_X adsorber catalyst technologies as the mechanical properties of DOCs, CDPFs, and NO_X adsorbers are all similar. We do not believe that any new or fundamentally different solutions will need to be invented in order to address the vibration and impact constraints for nonroad equipment. Our cost analysis includes the hardware costs for mounting and shrouding the aftertreatment equipment as well as the engineering cost for equipment redesign.

Certain nonroad applications, including some forms of harvesting equipment and mining equipment, may have specific limits on maximum surface temperature for equipment components in order to ensure that the components do not serve as ignition sources for flammable dust particles (*e.g.* coal dust or fine crop dust). Some have suggested that these design constraints might limit the equipment manufacturers ability to install advanced diesel catalyst technologies such as NO_X adsorbers and CDPFs. This concern seems to be largely based upon anecdotal experience with gasoline catalyst technologies where under certain circumstances catalyst temperatures can exceed 1,000°C and without appropriate design considerations could conceivably serve as an ignition source. We do not believe that these concerns are justified in the case of either the NO_X adsorber catalyst or the CDPF technology. Catalyst temperatures for NO_X adsorbers and CDPFs should not exceed the maximum exhaust manifold temperatures already commonly experienced by diesel engines (i.e, catalyst temperatures are expected to be below 800°C).[172] CDPF temperatures are not expected to exceed approximately 700°C in normal use and are expected to only reach the 650°C temperature during periods of active regeneration. Similarly, NO_X adsorber catalyst temperatures are not expected to exceed 700°C and again only during periods of active sulfur regeneration as described in Section III.F below. Under conditions where diesel exhaust temperatures are naturally as high as 650°C, no supplemental heat addition from the emission control system will be necessary and therefore exhaust temperatures will not exceed their natural level. When natural exhaust temperatures are too low for effective emission system function then supplemental heating as described earlier may be necessary but would not be expected to produce temperatures higher than the maximum levels normally encountered in diesel exhaust. Furthermore, even if it were necessary to raise exhaust temperatures to a higher level in order to promote effective emission control, there are technologies available to isolate the higher exhaust

[170] ''Summary of Conference Call between U.S. EPA and Deutz Corporation on September 19, 2002 regarding Deutz Diesel Particulate Filter System'', EPA Memorandum to Air Docket A–2001–28.

[171] ''Particulate Traps for Construction Machines: Properties and Field Experience'' J. Czerwinski *et. al.*, Society of Automotive Engineers Technical Paper 2000–01–1923.

[172] The hottest surface on a diesel engine is typically the exhaust manifold which connects the engines exhaust ports to the inlet of the turbocharger. The hot exhaust gases leave the engine at a very high temperature (800°C at high power conditions) and then pass through the turbocharger where the gases expand driving the turbocharger providing work. The process of extracting work from the hot gases cools the exhaust gases. The exhaust leaving the turbocharger and entering the catalyst and the remaining pieces of the exhaust system is cooler (as much as 200°C at very high loads) than in the exhaust manifold.

temperatures from flammable materials such as dust. One approach would be the use of air-gapped exhaust systems (*i.e.*, an exhaust pipe inside another concentric exhaust pipe separated by an air-gap) that serve to insulate the inner high temperature surface from the outer surface which could come into contact with the dust. The use of such a system may be additionally desirable in order to maintain higher exhaust temperatures inside the catalyst in order to promote better catalyst function. Another technology to control surface temperature already used by some nonroad equipment manufacturers is water cooled exhaust systems.[173] This approach is similar to the air-gapped system but uses engine coolant water to actively cool the exhaust system. We do not believe that flammable dust concerns will prevent the use of either a NO_X adsorber or a CDPF because catalyst temperatures are not expected to be unacceptably high and because remediation technologies exist to address these concerns. In fact, exhaust emission control technologies (*i.e.*, aftertreatment) have already been applied on both an OEM basis and for retrofit to nonroad equipment for use in potentially explosive environments. Many of these applications must undergo Underwriters Laboratory (UL) approval before they can be used.[174]

Nonroad engines greater than 750 hp are unique in that they do not have direct highway equivalents. However, this does not mean that unique catalyst based emission control technologies need to be developed separately for these larger applications. Rather, larger engines can, and do in retrofit applications today, use multiple catalyst systems in a parallel configuration. As an example, a highway 12 liter displacement in-line six cylinder engine might use a single 18 liter CDPF, while a nonroad 24 liter displacement V12 cylinder (a vee engine has two rows of cylinders set at an angle to each other) engine would use two 18 liter CDPFs, one for each bank of the vee engine. Using two smaller catalysts in place of one larger catalyst can be easier to package and may allow for close coupling of the catalyst technology to the turbocharger exhaust outlet to improve temperature management in some applications. Today, many passenger cars and light-duty trucks with V6 or V8 engines use individual catalysts for each engine bank to improve packaging and better manage temperatures.

We agree that nonroad equipment must be designed to address durable performance for a wide range of operating conditions and applications that would not commonly be experienced by highway vehicles. We believe further as demonstrated by retrofit experiences around the world that technical solutions exist which allow catalyst-based emission control technologies to be applied to nonroad equipment.

3. Are the Standards Proposed for Engines of 75 hp or Higher Feasible?

There are three primary test provisions and associated standards in the Tier 4 program we are proposing today. These are the proposed Nonroad Transient Cycle (NRTC), the existing ISO C1 steady-state cycle, and the proposed highway based Not-To-Exceed (NTE) provisions. A nonroad diesel engine meeting the proposed standards for each of these three test cycles would be lawful for use in any kind of nonroad equipment. Additionally, we have alternative optional test cycles including the proposed Constant Speed Variable Load (CSVL) cycle, the existing ISO-D2 steady-state cycle and the proposed Transportation Refrigeration Unit (TRU) cycle which a manufacturer can choose to use for certification provided that the manufacturer can demonstrate to the Agency that the engine will only be used in a limited range of nonroad equipment with specifically defined operating conditions. Compliance on the proposed transient test cycles includes weighting the results from a cold start and hot start test with the cold start emissions weighted at 1/10 and hot start emissions weighted at 9/10. A complete discussion of these various test cycles can be found in chapter 4.2 and 4.3 of the draft RIA.

The standards proposed today for nonroad engines with rated power greater than or equal to 75 horsepower are based upon the technologies and standards for highway diesel engines which go into effect in 2007. As explained above, we believe these technologies, namely NO_X adsorbers and catalyzed diesel particulate filters enabled by 15 ppm sulfur diesel fuel, can be applied to nonroad diesel engines in a similar manner as for highway diesel engines. We acknowledge that there are additional constraints on nonroad diesel engines which must be considered in setting these standards, and we have addressed those issues by allowing for additional lead time or slightly less stringent standards for nonroad diesel engines in comparison to highway diesel engines (and likewise have made appropriate cost estimates to account for the technology and engineering needed to address these constraints).

We have proposed a PM standard for engines in this category of 0.01 g/bhp-hr based upon the emissions reductions possible through the application of a CDPF and 15 ppm sulfur diesel fuel. This is the same emissions level as for highway diesel engines in the HD2007 program. While baseline soot (the solid carbon fraction of PM) emission levels may be somewhat higher for some nonroad engines when compared to highway engines, these emissions are virtually eliminated (reduced by 99 percent) by the CDPF technology. As discussed previously, the baseline (engine-out) SOF emissions levels may also need to be reduced through the application of modern piston ring pack designs and valve stem seals. With application of the CDPF technology, the SOF portion of diesel PM is predicted to be all but eliminated. The primary emissions from a CDPF equipped engine are sulfate PM emissions formed from sulfur in diesel fuel. The emissions rate for sulfate PM is determined primarily by the sulfur level of the diesel fuel and the rate of fuel consumption. With the 15 ppm sulfur diesel fuel the PM emissions level from a CDPF equipped nonroad diesel engine will be similar to the emissions rate of a comparable highway diesel engine. Therefore, the 0.01 g/bhp-hr emission level is feasible for nonroad engines tested on the NRTC cycle and on the steady-state cycles, C1 and D2. Put another way, control of PM using CDPF technology is essentially independent of duty cycle given active catalyst technology (for reliable regeneration and SOF oxidation), adequate control of temperature (for reliable regeneration) and low sulfur diesel fuel (for reliable regeneration and low PM emissions).

The most challenging PM emissions control conditions for a CDPF are encountered under high engine load operation where high exhaust temperatures promote conversion of sulfur in diesel fuel to sulfate PM emissions. Under these high load conditions, soot and SOF oxidation rates will be very high and control of those portions of PM emissions will be highly effective. Sulfate PM emissions, however, will be higher than for other operating conditions. In a worst case scenario, where all of the sulfur is

[173] "Engine Technology and Application Aspects for Earthmoving Machines and Mobile Cranes, Dr. E. Brucker, Liebherr Machines Bulle, SA, AVL International Commercial Powertrain Conference, October 2001. Copy available in EPA Air Docket A–2001–28, Docket Item # II–A–12.

[174] Phone conversation with Manufacturers of Emission Control Association (MECA), 9 April, 2003 confirming the use of emission control technologies on nonroad equipment used in coal mines, refineries, and other locations where explosion proofing may be required.

converted to sulfate, it could be perhaps as high as 0.02 g/bhp-hr.[175] This level of PM emissions would comply with our proposed NTE provisions once consideration is given to the 1.5 times multiplier on the emission standard for NTE test conditions.[176] Since this estimate is made at a worst case condition (assuming 100% conversion of sulfur to sulfate), we feel confident that the PM NTE provisions of this proposal can be met.

Under contract from the California Air Resources Board, two nonroad diesel engines were recently tested for PM emissions performance with the application of a CDPF over a number of transient and steady-state test cycles.[177] The first engine is a 1999 Caterpillar 3408 (480 hp, 18 liter displacement) nonroad diesel engine certified to the Tier 1 standards. The engine was tested with and without a CDPF on 12 ppm sulfur diesel fuel. The transient emission results for this engine are summarized in Table III.E–1 below. The steady-state emission results are summarized in Table III.1–2. The test results confirm the excellent PM control performance realized by a CDPF with low sulfur diesel fuel across a wide range of nonroad operating cycles in spite of the relatively high engine-out PM emissions from this Tier 1 engine. We would expect engine-out PM emissions to be lower for production Tier 3 compliant diesel engines that will form the technology baseline for Tier 4 engines meeting the proposed standard. The engine demonstrated PM emissions of 0.009 g/bhp-hr on the proposed Nonroad Transient Cycle (NRTC) from an engine-out level of 0.256 g/bhp-hr, a reduction of 0.247 g/bhp-hr. The engine also demonstrated excellent PM performance on the existing steady-state ISO C1 cycle with PM emissions of 0.010 g/bhp-hr from an engine-out level of 0.127, a reduction of 0.107 g/bhp-hr. Thus this engine would be compliant with the proposed PM emission standard for ≥75 hp variable speed nonroad engines.

When tested on the proposed optional constant speed variable load cycle (CSVL) (a test to which this engine would not be subject to under this proposal) the engine-out PM emission levels were 0.407 g/bhp-hr and were reduced to 0.016 g/bhp-hr (a reduction of 0.391 g/bhp-hr) with the addition of the PM filter. As tested this engine would not be compliant with the proposed optional CSVL standard, but this is not surprising given that this Tier 1 engine was designed for variable speed engine operation and not for single speed operation. We have great confidence given the substantial PM reduction realized in this testing over the proposed CSVL cycle with a CDPF that a properly designed nonroad diesel engine will be able to meet the standard of 0.01 g/bhp-hr.

TABLE III.E-1 -- TRANSIENT PM EMISSIONS FOR A TIER 1 NR DIESEL ENGINE WITH A CDPF

1999 (Tier 1) Caterpillar 3408 (480hp, 18l)

Test Cycle	PM [g/bhp-hr]		Reduction
	Engine Out	w/ CDPF	%
Proposed Nonroad TransientCycle (NRTC)	0.256	0.009	96%
Proposed Constant Speed Variable Load Cycle (CSVL)	0.407	0.016	96%
On-Highway U.S. FTP Transient Cycle (FTP)	0.239	0.019	92%
Agricultural Tractor Cycle (AGT)	0.181	0.009	95%
Backhoe Loader Cycle (BHL)	0.372	0.022	94%
Crawler Tractor Dozer Cycle (CRT)	0.160	0.014	91%
Composite Excavator Duty Cycle (CEX)	0.079	0.009	88%
Skid Steer Loader Typical No. 1 (SST)	0.307	0.016	95%
Skid Steer Loader Typical No. 2 (SS2)	0.242	0.013	95%
Skid Steer Loader Highly Transient Speed (SSS)	0.242	0.008	97%
Skid Steer Loader Highly Transient Torque (SSQ)	0.351	0.004	99%
Arc Welder Typical No.1 (AWT)	0.510	0.018	96%
Arc Welder Typical No.2 (AW2)	0.589	0.031	95%
Arc Welder Highly Transient Speed (AWS)	0.424	0.019	96%
Rubber-Tired Loader Typical No.1 (RTL)	0.233	0.010	96%
Rubber-Tired Loader Typical No.2 (RT2)	0.236	0.011	96%
Rubber-Tired Loader Highly Transient Speed (RTS)	0.255	0.008	97%
Rubber-Tired Loader Highly Transient Torque (RTQ)	0.294	0.009	97%

Table III.E–1 also shows results over a large number of additional test cycles developed from real world in-use test data to represent typical operating cycles for different nonroad equipment applications (*see* chapter 4.2 of the draft RIA for information on these test cycles). These test cycles are not used for regulatory purposes, although the information from these cycles was used in developing the proposed NRTC. The results show that the CDPF technology is highly effective to control in-use PM emissions over any number of disparate operating conditions. Remembering that the base Tier 1 engine was not designed to meet a transient PM standard, the CDPF emissions demonstrated here

[175] An estimate of the maximum sulfate PM emissions rate can be made by assuming a fuel consumption rate (*e.g.*, 0.5 lbm/bhp-hr), the fuel sulfur level (*e.g.*, 15 ppm) and the sulfur to sulfate conversion (*e.g.*, 100% maximum) resulting in a calculated sulfate PM emissions rate of 0.02 g/bhp-hr. This represents a worst case analysis (100% sulfur conversion with 15 ppm sulfur fuel). In-use emissions would be significantly lower.

[176] The PM standard is expressed to two significant digits 0.01 g/bhp-hr, so when the 1.5 NTE multiplier is applied, the NTE limit becomes 0.015 which is rounded to two significant figures as 0.02 g/bhp-hr.

[177] Application of Diesel Particulate Filters to Three Nonroad Engines—Interim Report, January 2003. Copy available in EPA Air Docket A–2001–28.

show that very low emission levels are possible even when engine-out emissions are exceedingly high (*e.g.*, a reduction of 0.558 g/bhp-hr is demonstrated on the AW2 cycle).

The results summarized in the two tables are also indicative of the feasibility of the proposed NTE provisions of this rulemaking. In spite of the Tier 1 baseline of this engine, there are only three test results with emissions higher than the permissible limit for the proposed NTE. The first in Table III.E–1 shows PM emissions of 0.031 over the AW2 cycle but from a very high baseline level of nearly 0.6 g/bhp-hr. We believe that simple improvements to the engine-out PM emissions as needed to comply with the Tier 2 emission standard would reduce these emission below the 0.02 level required by the standard. There are two other test points in Table III.E–2 which are above the proposed NTE emission level, both at 10 percent engine load. However, both are outside the NTE zone which excludes emissions for engine loads below 30 percent. It is important to note that although the engine would not be constrained to meet the NTE under these conditions, the resulting reductions at both points are still substantial in excess of 96 percent.

TABLE III.E–2—STEADY-STATE PM EMISSIONS FROM A TIER 1 NR DIESEL ENGINE W/CDPF

1999 (Tier 1) Caterpillar 3408 (480hp, 181)				
Engine speed %	Engine load %	PM ([g/bhp-hr]		Reduction %
		Engine out	w/CDPF	
100	100	0.059	0.10	83
100	75	0.103	0.009	91
100	50	0.247	0.012	95
100	25	0.247	0.000	100
100	10	0.925	0.031	97
60	100	0.028	0.011	61
60	75	0.138	0.009	93
60	50	0.180	0.010	95
60	25	0.370	0.007	98
60	10	0.801	0.018	98
91	82	0.091	0.006	93
80	63	0.195	0.008	96
63	40	0.240	0.008	97
0	0	.....	.....	.....
	(1)	0.127	0.011	91

ISO C1 Composite.

The second engine tested was a prototype engine developed at Southwest Research Institute (SwRI) under contract to EPA.[178] The engine, dubbed Deere Development Engine 4045 (DDE–4045) because the prototype engine was based on a John Deere 4045 production engine, was also tested with a CDPF from a different manufacturer on the same 12 ppm diesel fuel. The engine is very much a prototype and experienced a number of part failures during testing, including to the turbocharger actuator. Nevertheless, the transient emission results summarized in Table III.E–3 and the steady-state results summarized in Table III.E–4 show that substantial PM reductions are realized on this engine as well. The emission levels on the NRTC and the ISO C1 cycle would be compliant with the proposed PM standard of 0.01 g/bhp-hr once the appropriate rounding convention was applied.[179] It is also interesting to note that the highway FTP transient emissions are higher than for either of the proposed nonroad transient tests. This suggests that developing PM compliant engines on the proposed nonroad transient cycles may not be substantially different from developing compliant technologies for highway engines. Our analysis of exhaust temperature characteristics for NO_X adsorber catalysts discussed in the preceding section, noted a similar trend for NO_X technologies (*i.e.*, that the exhaust temperature characteristics of the NRTC may be better matched catalyst technologies than the HD FTP).

[178] ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[179] The rounding procedures in ASTM E29–90 are applied to the emission standard, therefore, the emission results are rounded to the same number of significant digits as the specified standard, *i.e.*, 0.014 g/bhp-hr is rounded to 0.01 g/bhp-hr, while 0.015 g/bhp-hr would be rounded to 0.02 g/bhp-hr.

TABLE III.E-3 -- TRANSIENT PM EMISSIONS FOR A PROTOTYPE NR DIESEL ENGINE WITH A CDPF

EPA Prototype Tier 3 DDE-4045 (108hp, 4.5l)			
Test Cycle	PM [g/bhp-hr]		Reduction
	Engine Out	w/ CDPF	%
Proposed Nonroad TransientCycle (NRTC)	0.143	0.013	91%
Proposed Constant Speed Variable Load Cycle (CSVL)	0.218	0.018	92%
On-Highway U.S. FTP Transient Cycle (FTP)	0.185	0.023	88%
Agricultural Tractor Cycle (AGT)	0.134	0.008	94%
Backhoe Loader Cycle (BHL)	0.396	0.021	95%
Crawler Tractor Dozer Cycle (CRT)	0.314	0.008	97%
Composite Excavator Duty Cycle (CEX)	0.176	0.009	95%
Skid Steer Loader Typical No. 1 (SST)	0.288	0.012	96%
Skid Steer Loader Typical No. 2 (SS2)	0.641	0.013	98%
Skid Steer Loader Highly Transient Speed (SSS)	0.298	0.011	96%
Skid Steer Loader Highly Transient Torque (SSQ)	0.536	0.014	97%
Arc Welder Typical No.1 (AWT)	0.290	0.018	94%
Arc Welder Typical No.2 (AW2)	0.349	0.019	95%
Arc Welder Highly Transient Speed (AWS)	0.274	0.019	93%
Rubber-Tired Loader Typical No.1 (RTL)	0.761	0.014	98%
Rubber-Tired Loader Typical No.2 (RT2)	0.603	0.012	98%
Rubber-Tired Loader Highly Transient Speed (RTS)	0.721	0.010	99%
Rubber-Tired Loader Highly Transient Torque (RTQ)	0.725	0.009	99%

As with the results from the Caterpillar engine, the two low-load (10 percent load) steady-state emissions points have some of the highest brake specific emission rates. These rates are not high enough, however, to preclude compliance with the steady-state emission cycle, are not within the proposed NTE zone, and still show substantial PM reduction levels.

TABLE III.E-4 -- STEADY-STATE PM EMISSIONS FOR A PROTOTYPE NR DIESEL ENGINE W/CDPF

EPA Prototype Tier 3 DDE-4045 (108hp, 4.5l)				
Engine Speed	Engine Load	PM [g/bhp-hr]		Reduction
%	%	Engine Out	w/ CDPF	%
100	100	0.178	0.012	93%
100	75	0.116	0.006	95%
100	50	0.126	0.006	96%
100	25	0.218	0.013	94%
100	10	0.470	0.029	94%
60	100	0.045	0.007	84%
60	75	0.062	0.014	78%
60	50	0.090	0.009	90%
60	25	0.146	0.019	87%
60	10	0.258	0.046	82%
91	82	0.094	0.004	95%
80	63	0.099	0.006	94%
63	40	0.136	0.011	92%
0	0	--	--	--
	ISO C1 Composite	0.129	0.010	92%

While the resulting PM emission levels for nonroad diesel engines are similar to the levels for highway diesel engines, the challenge of ensuring soot regeneration of the CDPF may be more difficult for some nonroad equipment types. As explained earlier, effective regeneration occurs when the aggregate soot rate into the CDPF over an extended period is less than or equal to the soot oxidation rate over the same period. Because the baseline PM soot rate into the CDPF level may be higher for some nonroad engines and because the average exhaust temperature may be lower for some operating cycles, additional engine and aftertreatment system development will be needed for some nonroad engines. These additional developments include improved thermal management and improved active back-up systems which can periodically raise exhaust temperatures in order to initiate regeneration. We expect these systems to be evolutionary advancements based primarily on the core technologies used by nonroad manufacturers to comply with the Tier 3 emission standards with enhancements from the highway technologies developed to comply with the HD2007 standards. The implementation dates for the standards proposed today were selected in part based upon the time we believe will be necessary to transfer and further develop these highway technologies to nonroad diesel engines and equipment.

We are proposing a NO_X standard of 0.3 g/bhp-hr for engines in this category based upon the emission reductions possible from the application of NO_X adsorber catalysts and the expected emission levels for Tier 3 compliant engines which form the baseline technology for Tier 4 engines. The Tier 3 emission standards are a combined NO_X+NMHC standard of 3.0 g/bhp-hr for engines greater than 100 hp and less than 750 horsepower. For engines less than 100 hp but greater than 50 horsepower the Tier 3 NO_X+NMHC emission standard is 3.5 g/bhp-hr. For engines greater than 750 horsepower there is no Tier 3 NO_X+NMHC standard. We believe that in the time-frame of the Tier 4 emission standards proposed today, all engines of 75 horsepower or higher can be developed to control NO_X emissions to engine-out levels of 3.0 g/bhp-hr or lower. This means that all engines will need to apply Tier 3 emission control technologies (*i.e.*, turbochargers, charge-air-coolers, electronic fuel systems, and for some manufacturers EGR systems) to get to this baseline level, even those engines without a Tier 3 standard (*i.e.*, >750hp engines). As discussed in more detail in the draft RIA, our analysis of the NRTC and the ISO C1 cycles indicates that the NO_X adsorber catalyst can provide a 90 percent or greater NO_X reduction level on the cycles. The proposed standard of 0.3 g/bhp-hr reflects a baseline emissions level of 3.0 g/bhp-hr and a 90 percent or greater reduction of NO_X emissions through the application of the NO_X adsorber catalyst. The additional lead time available to nonroad engine manufacturers and the substantial learning that will be realized from the introduction of these same technologies to highway diesel engines, plus the lack of any fundamental technical impediment, makes us confident that the proposed NO_X standards can be met.

The proposed standard is 50 percent higher than the corresponding HD2007 standard of 0.2 g/bhp-hr because of the higher baseline NO_X emissions for Tier 3 engines. The higher baseline (engine-out) NO_X level is due primarily to a lack of ram-air for improved charge-air cooling for nonroad diesel engines when compared to highway diesel engines compliant with the 2004 highway emission standards. Although nonroad engine manufacturers may be able to lower engine-out NO_X emissions below the levels required for Tier 3, we continue to expect that the lack of ram air will limit nonroad engine-out NO_X performance, and therefore we have accounted for that difference by proposing this higher NO_X emissions level.

We believe that the NO_X adsorber technology developed for highway engines can be applied with equal effectiveness to nonroad diesel engines with additional developments in engine thermal management (as discussed in section III.E.2 above) to address the more widely varied nonroad operating cycles. In fact, as discussed previously, the NO_X adsorber catalyst temperature window is particularly well matched to transient operating conditions as typified by the NRTC.

Compliance with the NTE provisions proposed today will be challenging for the nonroad engine industry due to the diversity of nonroad products and operating cycles. However, the technical challenge is reduced somewhat by the 1.5 multiplier used to calculate the NTE standard. Controlling NO_X emissions under NTE conditions is fundamentally similar for both highway and nonroad engines. The range of control is the same and the amount of reduction required is also the same. We know of no technical impediment that would prevent achieving the NTE standard under the full range of operating conditions.

The proposed NO_X standard is phased in over a number of years in a manner similar to the HD2007 NO_X phase-in. In the early years of the program half of the engines produced by a manufacturer must be certified to the new emission standard while the remaining engines can continue to be sold at the previous standard. We provided this phase-in period for highway engines in the HD2007 rulemaking to allow manufacturers to focus resources on the portion of their products best suited to NO_X catalysts first and then to apply the learning to the remainder of their products three years later.[180] Provisions of the averaging program in the HD2007 rulemaking allow manufacturers to alternatively comply with some engine families at an ''averaged'' standard that is approximately halfway between the old and new NO_X standards. In fact, we have learned from a number of engine manufacturers that they are likely to employ this strategy for some fraction of their new highway engines in 2007. The averaging provisions that we have proposed today for Tier 4 would also allow for compliance with the proposed Tier 4 NO_X standard with a single engine product during the transitional NO_X phase-in period. This provision allows manufacturers to transfer the same highway NO_X technologies to nonroad engines and to comply with an appropriately stringent standard. We believe as with the HD2007 rule that this provision is necessary in order to manage resource requirements to develop the necessary technologies and that this provision provides significant additional flexibility for manufacturers to comply with the proposed NO_X standards. Similarly, we have proposed a modified phase-in schedule for the greater than 750 horsepower engines in part because of the lack of a Tier 3 standard for those engine and the extra work required to develop a full Tier 4 emission control system from a Tier 2 baseline.

Meeting the proposed NMHC standard under the lean operating conditions typical of the biggest portion of NO_X adsorber operation should not present any special challenges to nonroad diesel engine manufacturers. Since CDPFs and NO_X adsorbers contain platinum and other precious metals to oxidize NO to NO_2, they are also very efficient oxidizers of hydrocarbons. NMHC reductions of greater than 95 percent have been shown over transient

[180] Control of Air Pollution from New Motor Vehicles: Heavy-duty Engine and Vehicle Standards and Highway Diesel Sulfur Control Requirements; Final Rule, 66 FR 5002, January 18, 2001.

and steady-state test procedures.[181] Given that typical engine-out NMHC is expected to be in the 0.40 g/bhp-hr range or lower for engines meeting the Tier 3 standards, this level of NMHC reduction will mean that under lean conditions emission levels will be well below the standard.

The NO_X regeneration strategies for the NO_X adsorber technology may prove difficult to control precisely, leading to a possible increase in NMHC emissions under the rich operating conditions required for NO_X regeneration. Even with precise control of the regeneration cycle, NMHC slip may prove to be a difficult problem due to the need to regenerate the NO_X adsorber under net rich conditions (excess fuel) rather than the stoichiometric (fuel and air precisely balanced) operating conditions typical of a gasoline three-way catalyst. It seems possible therefore, that in order to meet the NMHC standards we have proposed, an additional clean up catalyst may be required. A diesel oxidation catalyst, like those applied historically for NMHC and partial PM control, can reduce NMHC emissions (including toxic HCs) by more than 90 percent.[182] This amount of additional control along with optimized NO_X regeneration strategies will ensure very low NMHC emissions. Our cost analysis described in section V includes the cost for the application of a clean-up DOC catalyst for all engines which must comply with the 0.3 g/bhp-hr NO_X standard.

Test results from a prototype integrated NO_X/PM and NMHC control system for diesel engines documented in the draft RIA show that NMHC emissions can be controlled below 0.14 g/bhp-hr under transient and steady-state test conditions for highway diesel engines while simultaneously controlling NO_X emissions below 0.2 g/bhp-hr and PM emissions below 0.01 g/bhp-hr. Since the slip of hydrocarbon emissions are predominantly a function of the NO_X regeneration event and not engine transient events, the level of control demonstrated in this testing is expected to be the same for other operating conditions as represented by the proposed NRTC cycle and the NTE provisions of this rulemaking. Based on our engineering judgement and experience testing integrated NO_X adsorber and PM filter systems with DOC clean-up catalyst technologies, we can conclude that the 0.14 g/bhp-hr NMHC standard will be feasible in the Tier 4 time frame.

The proposed standards include a cold start provision with the transient test procedures. This means that the results of a cold start transient test will be weighted with the emissions of a hot start test in order to calculate the emissions for compliance against the proposed standards. The proposed weightings are 1/10 cold start and 9/10 for the hot start as described more fully in chapter 4.2 of the draft RIA. Because exhaust temperatures are so important to catalyst performance the cold start provision is an important tool to ensure that the emissions realized in use are consistent with the expectations of this program and represents an additional technical challenge for NO_X control and to a lesser extent CO and NMHC control. PM control with a CDPF is not expected to be significantly impacted by cold-start provisions. NO_X control in the period before temperatures exceed the catalyst light-off temperature are reduced significantly. As a result, exhaust stack NO_X emissions will be higher over the cold start portion of the test. However, we believe that this increase in NO_X emissions will not be high enough to preclude compliance with the proposed NO_X standard once the 1/10 weighting is applied.

There are a number of technologies available to the engine manufacturer to promote rapid warmup of the exhaust and emission control system. These include retarding injection timing, increasing EGR, and potentially late cycle injection all of which are technologies we expect manufacturers to apply as part of the normal operation of the NO_X adsorber catalyst system. These are the same technologies we expect highway engine manufacturers to use in order to comply with the highway cold start FTP provision which weights cold start emissions more heavily with a 1/7 weighting. As a result, we expect the transfer of highway technology to be well matched to accomplish this control need for nonroad engines as well. Using these technologies we expect nonroad engine manufacturers to be able to comply with the proposed NO_X, NMHC and CO emissions including the cold start provisions of the transient test procedure.

We did not set new Tier 3 emission standards for >750 hp nonroad engines in the 1998 Tier ⅔ rulemaking because of the long lead time we believed appropriate, given the long product redesign cycles typical of these large engines and their low sales volumes. The Tier 2 standards set in that rulemaking for >750 hp engines do not go into effect until 2006. We reasoned in the Tier ⅔ rule that the uncertainties involved in setting a Tier 3 standard for >750hp nonroad engines that wouldn't go into effect before 2010 would be too large. Therefore, we deferred setting new standards for these engines at that time. Given new technology enabled by low sulfur diesel fuel, we believe that it is now appropriate to project the technologies which will be available for these engines in the future (*i.e.*, CDPFs and NO_X adsorbers) and to set new standards accordingly.

Although we have proposed a unique phase-in schedule for >750hp engines as explained in section III.B, we do not doubt that these engines, like engines <750hp, can be developed to meet the standards proposed today. These large engines are fundamentally similar to other nonroad engines. The project emissions control mechanisms are the same. Retrofits of PM filter systems have been applied to large locomotives and other similar size engines. We are unaware of any fundamental difference in technology function that would lead us to conclude that the proposed standards are inappropriate for engines >750hp. However, given the need to apply both new engine-out control technologies (*i.e.*, Tier 3 type technologies) in addition to the new catalyst based technologies in order to comply with the proposed standards, and given the low sales volumes for these engines, we do believe it is appropriate to have a different phase-in structure for these engines. We invite comment supported by data on this issue, particularly if a commenter believes there are fundamental technology differences which would make alternate standards more appropriate for >750hp nonroad engines.

The standards that we have proposed today for nonroad engines with rated horsepower levels ≥75 horsepower are based upon the same emission control technologies, clean 15ppm or lower sulfur diesel fuel, and relative levels of emission control effectiveness as the HD 2007 emission standards. We have given consideration to the diversity of nonroad equipment for which these technologies must be developed and the timing of the Tier 3 emissions standards in determining the appropriate timing for the Tier 4 standards we have proposed today. Based upon the availability of the emission control technologies, the proven effectiveness of the technologies to control diesel emissions to these levels, the technology

[181] "The Impact of Sulfur in Diesel Fuel on Catalyst Emission Control Technology," report by the Manufacturers of Emission Controls Association, March 15, 1999, pp. 9 & 11. Copy available in EPA Air Docket A–2001–28.

[182] "Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-Duty Engines to Achieve Low Emission Levels", Manufacturers of Emissions Controls Association, June 1999. Copy available in EPA Air Docket A–2001–28.

paths identified here to address constraints specific to nonroad equipment, and the additional lead time afforded by the timing of the standards, we have concluded that the proposed standards are feasible.

4. Are the Standards Proposed for Engines ≥25 hp and <75 hp Feasible?

As discussed in section III.B, our proposal for standards for engines between 25 and 75 hp consists of a 2008 transitional standard and long-term 2013 standards. The proposed transitional standard is a 0.22 g/bhp-hr PM standard. The 2013 standards consist of a 0.02 g/bhp-hr PM standard and a 3.5 g/bhp-hr NMHC+NO_X standard. As discussed in section III.B, the transitional standard is optional for 50–75 hp engines, as the proposed 2008 implementation date is the same as the effective date of the Tier 3 standards. Manufacturers may decide, at their option, not to undertake the 2008 transitional PM standard, in which case their implementation date for the 0.02 g/bhp-hr PM standard begins in 2012.

In addition, we have proposed a minor revision to the CO standard for the 25–50 hp engines beginning in 2008 to align these engines with the 50–75 hp engines. This proposed CO standard is 3.7 g/bhp-hr.

The remainder of this section discusses:

- What makes the 25–75 hp category unique;
- What engine technology is used today, and will be used for applicable Tier 2 and Tier 3 standards;
- Why the proposed standards are technologically feasible; and,
- Why EPA has not proposed more stringent NO_X standards at this time for these engines.

a. What makes the 25—75 hp category unique?

As discussed in section III.B.1.d, many of the nonroad diesel engines ≥75 hp are either a direct derivative of highway heavy-duty diesel engines, or share a number of common traits with highway diesel engines. These include similarities in displacement, aspiration, fuel systems, and electronic controls. Table III.E–3 contains a summary of a number of key engine parameters from the 2001 engines certified for sale in the U.S.[183]

TABLE III.E–3: SUMMARY OF MODEL YEAR 2001 KEY ENGINE PARAMETERS BY POWER CATEGORY

Engine Parameter	Percent of 2001 U.S. Production [a]			
	0–25 hp	25–75 hp	75–100 hp	>100 hp
IDI Fuel System	83%	47%	4%	<0.1%
DI Fuel System	17%	53%	96%	>99%
Turbocharged	0%	7%	62%	91%
1 or 2 Cylinder Engines	47%	3%	0%	0%
Electronic fuel systems (estimated)	not available today	limited available today	availability today	commonly available today

Notes:
[a] Based on sales weighting of 2001 engine certification data.

As can be seen in Table III.E–3, the engines in the 25–75 hp category have a number of technology differences from the larger engines. These include a higher percentage of indirect-injection fuel systems, and a low fraction of turbocharged engines. (The distinction in the <25 hp category is quite different, with no turbocharged engines, nearly one-half of the engines have two cylinders or less, and a significant majority of the engines have indirect-injection fuel systems.)

The distinction is particularly marked with respect to electronically controlled fuel systems. These are commonly available in the ≥ 75 hp power categories, but, based on the available certification data as well as our discussions with engine manufacturers, we believe there are very limited numbers, if any, in the 25–75 hp category (and no electronic fuel systems in the less than 25 hp category). The research and development work being performed today for the heavy-duty highway market is targeted at engines which are 4-cylinders or more, direct-injection, electronically controlled, turbocharged, and with per-cylinder displacements greater than 0.5 liters. As discussed in more detail below, as well as in section III.E.5 (regarding the <25 hp category), these engine distinctions are important from a technology perspective and warrant a different set of standards for the 25–75 hp category (as well as for the <25 hp category).

b. What Engine Technology Is Used Today, and Will Be Used for the Applicable Tier 2 and Tier 3 Standards?

In the 1998 nonroad diesel rulemaking, we established Tier 1 and Tier 2 standards for engines in the 25–50 hp category. Tier 1 standards were implemented in 1999, and the Tier 2 standards take effect in 2004. The 1998 rule also established Tier 2 and Tier 3 standards for engines between 50 and 75 hp. The Tier 2 standards take effect in 2004, and the Tier 3 standards take effect in 2008. The Tier 1 standards for engines between 50 and 75 hp took effect in 1998. Therefore, all engines in the 25–75 hp range have been meeting Tier 1 standards for the past several years, and the data presented in Table III.E–3 represent performance of Tier 1 technology for this power range.

As discussed in section III.E.4.a, engines in the 25–75 hp category use either indirect injection (IDI) or direct injection (DI) fuel systems. The IDI system injects fuel into a pre-chamber rather than directly into the combustion chamber as in the DI system.[184] This difference in fuel systems results in substantially different emission characteristics, as well as differences in several important operating parameters. In general, the IDI engine has lower engine-out PM and NO_X emissions, while the DI engine has better fuel efficiency and lower heat rejection.[185]

We expect a significant shift in the engine technology which will be used in this power category as a result of the upcoming Tier 2 and Tier 3 standards, in particular for the 50–75 hp engines. In the 50–75 hp category, the 2008 Tier

[183] Data in Table III.E–3 is derived from a combination of the publically available certification data for model year 2001 engines, as well as the manufacturers reported estimates of 2001 production targets, which is not public information.

[184] *See* for example ''Diesel-engine Management'' published by Robert Bosch GmbH, 1999, second edition, pages 6–8 for a more detailed discussion of the differences between IDI and DI engines.

[185] *See* chapter 14, section 4 of ''Turbocharging the Internal Combustion Engine'', N. Watson and M.S. Janota, published by John Wiley and Sons, 1982.

3 standards will likely result in the significant use of turbocharging and electronic fuel systems, as well as the introduction of both cooled and uncooled exhaust gas recirculation by some engine manufacturers and possibly the use of charge-air-cooling.[186] In addition, we have heard from some engine manufacturers that the engine technology used to meet Tier 3 for engines in the 50–75 hp range will also be made available on those engines in the 25–50 hp range which are built on the same engine platform. For the Tier 2 standards for the 25–50 hp products, a large number of engines meet these standards today, and therefore we expect to see only moderate changes in these engines, including the potential additional use of turbocharging on some models.[187]

c. Are the Proposed Standards for 25–75 hp Engines Technologically Feasible?

This section will discuss the technical feasibility of both the proposed 2008 PM standard and the 2013 standards. For an explanation and discussion of the proposed implementation dates, please refer to section III.B of this this proposal.

i. 2008 PM Standards.[188] As just discussed in section III.E.4.b, engines in the 25–50 hp category must meet Tier 1 NMHC+NO_X and PM standards today. We have examined the model year 2002 engine certification data for engines in the 25–50 hp category. These data indicate that over 10 percent of the engine families meet the proposed 2008 0.22 g/bhp-hr PM standard and 5.6 g/bhp-hr NMHC+NO_X standard (unchanged from Tier 2 in 2008) today. These include a variety of engine families using a mix of engine technologies (IDI and DI, turbocharged and naturally aspirated) tested on a variety of certification test cycles.[189] Five engine families are more than 20 percent below the proposed 0.22 g/bhp-hr PM standard, and an additional 24 engine families are within 30 percent of the proposed 2008 PM standards while meeting the NMHC+NO_X standard. A detailed discussion of these data is contained in the draft RIA. Unfortunately, similar data do not exist for engines between 50 and 75 hp. There is no Tier 1 PM standard for engines in this power range, and therefore engine manufacturers are not required to report PM emission levels until Tier 2 starts in 2004. However, in general, the 50–75 hp engines are more technologically advanced than the smaller horsepower engines and would be expected to perform as well as, if not better than, the engines in the 25–50 hp range.

The model year 2002 engines in this power range use well known engine-out emission control technologies, such as optimized combustion chamber design and fuel injection timing control strategies, to comply with the existing standards. These data have a two-fold significance. First, they indicate that a number of engines in this power range can already achieve the proposed 2008 standard for PM using only engine-out technology, and that other engines should be able to achieve the standard making improvements just to engine-out performance. Despite being certified to the same emission standards with similar engine technology, the emission levels from these engines vary widely. Figure III.E–1 is a graph of the model year 2002 HC+NO_X and PM data for engines in the 25–50 hp range. As can be seen in the figure, the emission levels cover a wide range. Figure III.E–1 highlights a specific example of this wide range: engines using naturally aspirated DI technology and tested on the 8-mode test cycle. Even for this subset of DI engines achieving approximately the same HC+NO_X level of ~6.5 g/bhp-hr, the PM rates vary from approximately 0.2 to more than 0.5 g/bhp-hr. There is limited information available to indicate why for these small diesel engines with similar technology operating at approximately the same HC+NO_X level the PM emission rates cover such a broad range. We are therefore not predicating the proposed 2008 PM standard on the combination of diesel oxidation catalysts and the lowest engine-out emissions being achieved today, because it is uncertain whether or not additional engine-out improvements would lower all engines to the proposed 2008 PM standard. Instead, we believe there are two likely means by which companies can comply with the proposed 2008 PM standard. First, some engine manufacturers can comply with this standard using known engine-out techniques (*e.g.*, optimizing combustion chamber designs, fuel-injection strategies). However, based on the available data it is unclear whether engine-out techniques will work in all cases. Therefore, we believe some engine companies will choose to use a combination of engine-out techniques and diesel oxidation catalysts, as discussed below.

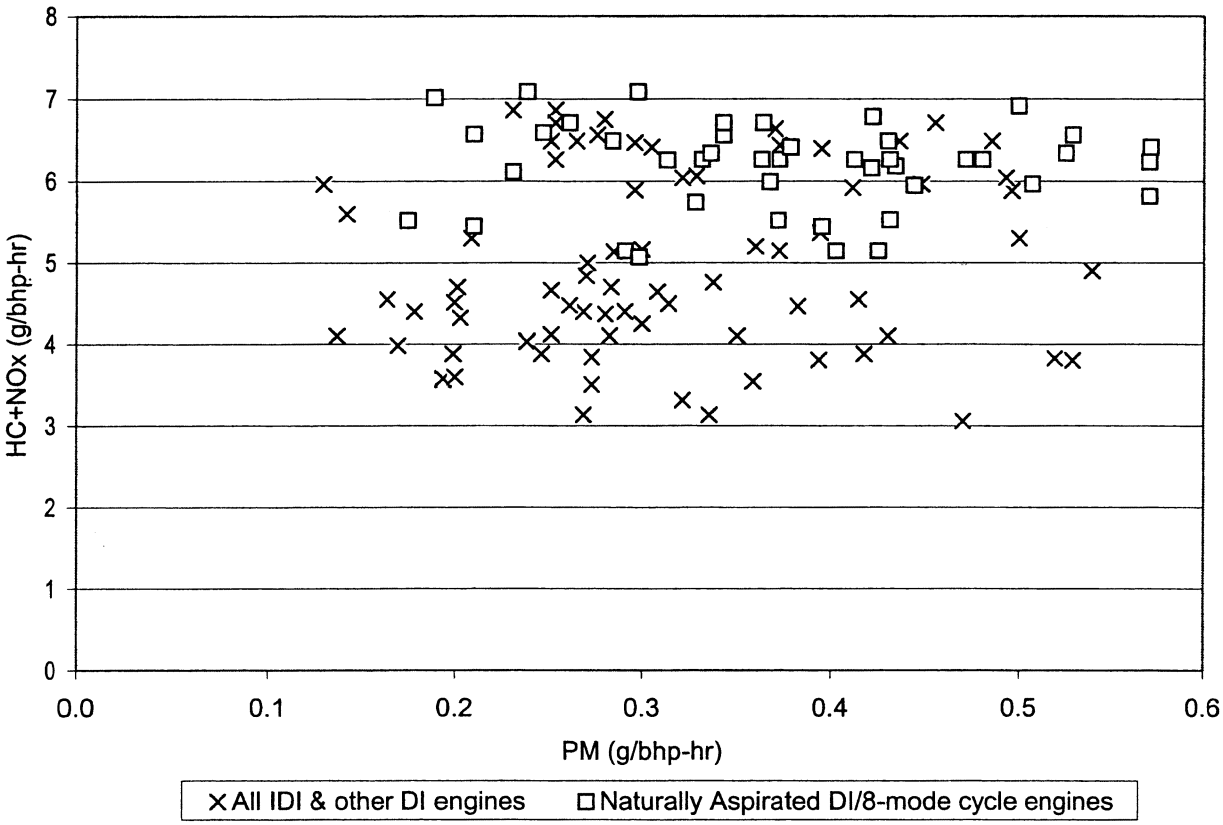
[186] *See* section 2.2 through 2.3 in ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[187] *See* Table 3–2 in ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[188] As discussed in section III.B., manufacturers can choose, at their option, to pull-ahead the 2013 PM standard for the 50–75 hp engines to 2012, in which case they do not need to comply with the transitional 2008 PM standard.

[189] The Tier 1 standards for this power category must be demonstrated on one of a variety of different engine test cycles. The appropriate test cycle is selected by the engine manufacturer based on the intended in-use application of the engine.

FIGURE III.E-1 -- EMISSION CERTIFICATION DATA FOR 25-50 HP MODEL YEAR 2002 ENGINES



For those engines which do not already meet the proposed 2008 Tier 4 PM standard, a number of engine-out technologies are available to achieve the standards by 2008. In our recent Staff Technical Paper on the feasibility of the Tier 2 and Tier 3 standards, we projected that in order to comply with the Tier 3 standards, engines greater than 50 hp would rely on some combination of a number of technologies, including electronic fuel systems such as electronic rotary pumps or common-rail fuel systems.[190] In addition to enabling the Tier 3 NMHC+NO_X standards, electronic fuel systems with high injection pressure and the capability to perform pilot-injection and rate-shaping, have the potential to substantially reduce PM emissions.[191] Even for mechanical fuel systems, increased injection pressures can reduce PM emissions substantially.[192] As discussed above, we are projecting that the Tier 3 engine technologies used in engines between 50 and 75 hp, such as turbocharging and electronic fuel systems, will make their way into engines in the 25–50 hp range. However, we do not believe this technology will be required to achieve the proposed 2008 PM standard. As demonstrated by the 2002 certification data, engine-out techniques such as optimized combustion chamber design, fuel injection pressure increases and fuel injection timing can be used to achieve the proposed standards for many of the engines in the 25–75 hp category without the need to add turbocharging or electronic fuel systems.

For those engines which are not able to achieve the proposed standards with known engine-out techniques, we project that diesel oxidation catalysts can be used to achieve the proposed standards. DOCs are passive flow-through emission control devices which are typically coated with a precious metal or a base-metal washcoat. DOCs have been proven to be durable in use on both light-duty and heavy-duty diesel applications. In addition, DOCs have already been used to control carbon monoxide on some nonroad applications.[193]

Certain DOC formulations can be sensitive to diesel fuel sulfur level, and depending on the level of emission reduction necessary, sulfur in diesel fuel can be an impediment to PM reductions. As discussed in section III.E.1.a, precious metal oxidation catalysts can oxidize the sulfur in the fuel and form particulate sulfates. However, even with today's high sulfur nonroad fuel, some manufacturers have demonstrated that a properly formulated DOC can be used to achieve the existing Tier 2 PM standards for larger engines (*i.e.*, the 0.15 g/bhp-hr standard).[194] However, given the high level of sulfur in nonroad fuel today, the use of DOCs

[190] *See* section 2.2 through 2.3 in "Nonroad Diesel Emission Standards—Staff Technical Paper", EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[191] Ikegami, M., K. Nakatani, S. Tanaka, K. Yamane: "Fuel Injection Rate Shaping and Its Effect on Exhaust Emissions in a Direct-Injection Diesel Engine Using a Spool Acceleration Type Injection System", SAE paper 970347, 1997. Dickey D.W., T.W. Ryan III, A.C. Matheaus: "NO_X Control in Heavy-Duty Engines—What is the Limit?", SAE paper 980174, 1998. Uchida N, K. Shimokawa, Y. Kudo, M. Shimoda: "Combustion Optimization by Means of Common Rail Injection System for Heavy-Duty Diesel Engines", SAE paper 982679, 1998.

[192] "Effects of Injection Pressure and Nozzle Geometry on DI Diesel Emissions and Performance," Pierpont, D., and Reitz, R., SAE Paper 950604, 1995.

[193] EPA Memorandum "Documentation of the Availability of Diesel Oxidation Catalysts on Current Production Nonroad Diesel Equipment", William Charmley. Copy available in EPA Air Docket A–2001–28.

[194] *See* Table 2–4 in "Nonroad Diesel Emission Standards—Staff Technical Paper", EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

as a PM reduction technology is severely limited. Data presented by one engine manufacturer regarding the existing Tier 2 PM standard shows that while a DOC can be used to meet the current standard even when tested on 2,000 ppm sulfur fuel, lowering the fuel sulfur level to 380 ppm enabled the DOC to reduce PM by 50 percent from the 2,000 ppm sulfur fuel.[195] Without the availability of 500 ppm sulfur fuel in 2008, DOCs would be of limited use for nonroad engine manufacturers and would not provide the emissions necessary to meet the proposed standards for most engine manufacturers. With the availability of 500 ppm sulfur fuel, DOC's can be designed to provide PM reductions on the order of 20 to 50%, while suppressing particulate sulfate reduction. These levels of reductions have been seen on transient duty cycles as well as highway and nonroad steady-state duty cycles.[196] As discussed in section VII of this preamble, the 2008 PM standard must be met on the existing nonroad steady-state cycle, the supplemental standards (nonroad transient cycle and NTE) are not implemented until 2013 for this power category. As discussed above, 24 engine families in the 25–50 hp range are within 30 percent of the proposed 2008 PM standard and are at or below the 2008 NMHC+NO_X standard for this power range, indicating that use of DOCs should readily achieve the incremental improvement necessary to meet the proposed 2008 PM standard.

Based on the existence of a number of engine families which already comply with the proposed 0.22 g/bhp-hr PM standard (and the 2008 NMHC+NO_X standard), and the availability of well known PM reduction technologies such as engine-out improvements and diesel oxidation catalysts, we project the proposed 0.22 g/bhp-hr PM standards is technologically feasible by model year 2008. All of these are conventional technologies which have been used on both highway and nonroad diesel engines in the past. As such, we do not expect there to be any negative impacts with respect to noise or safety. In addition, PM reduction technologies such as improved combustion through the use of higher pressure fuel injection systems have the potential to improve fuel efficiency. DOCs are not predicted to have any substantial impact on fuel efficiency.

As discussed in section III.B, we have also proposed a minor change in the CO standard for the 25–50 hp engines, in order to align it with the standard for the 50–75 hp engines. As discussed in section III.B., this small change in the CO standard is intended to simplify EPA's regulations as part of our decision to propose a reduction in the number of engine power categories for Tier 4. The current CO standard for this category is 4.1 g/bhp-hr, and the proposed standard is 3.7 g/bhp-hr (*i.e.*, the current standard for engines in the 50–75 hp range). The model year 2002 certification data shows that more than 95 percent of the engine families in the 25–50 hp engine range meet the proposed CO standard today. In addition, a recent EPA test program run by a contractor on two nonroad diesel engines in this power range showed that CO emissions were well below the proposed standards not only when tested on the existing steady-state 8-mode test procedure, but also when tested on the nonroad transient duty cycle we are proposing in today's action.[197] Finally, DOCs typically reduce CO emissions on the order of 50 percent or more, on both transient and steady-state conditions.[198] Given that more than 95 percent of the engines in this category meet the proposed standard today, and the ready availability of technology which can easily achieve the proposed standard, we project this CO standard will be achievable by model year 2008.

ii. 2013 Standards

For engines in the 25–50 range, we are proposing standards commencing in 2013 of 3.5 g/bhp-hr for NMHC+NO_X and 0.02 g/bhp-hr for PM. For the 50–75 hp engines, we are proposing a 0.02 g/bhp-hr PM standard which will be implemented in 2013, and for those manufacturers who choose to pull-ahead the standard one-year, 2012 (manufacturers who choose to pull-ahead the 2013 standard for engine in the 50–75 range do not need to comply with the transitional 2008 PM standard).

PM Standard

Sections III.E.1 through III.E.3 have already discussed catalyzed diesel particulate filters, including explanations of how CDPFs reduce PM emissions, and how to apply CDPFs to nonroad engines. We concluded there that CDPFs can be used to achieve the proposed PM standard for engines ≥75 hp. As also discussed in section III.E.2.a, PM filters will require active back-up regeneration systems for many nonroad applications above and below 75 hp because low temperature operation is an issue across allpower categories. A number of secondary technologies are likely required to enable proper regeneration, including possibly electronic fuel systems such as common rail systems which are capable of multiple post-injections which can be used to raise exhaust gas temperatures to aid in filter regeneration.

Particulate filter technology, with the requisite trap regeneration technology, can also be applied to engines in the 25 to 75 hp range. The fundamentals of how a filter is able to reduce PM emissions as described in section III.E.1. are not a function of engine power, and CDPF's are just as effective at capturing soot emissions and oxidizing SOF on smaller engines as on larger engines. As discussed in more detail below, particulate sulfate generation rates are slightly higher for the smaller engines, however, we have addressed this issue in our proposal. The PM filter regeneration systems described in section III.E.1 and 2 are also applicable to engines in this size range and are therefore likewise feasible. There are specific trap regeneration technologies which we believe engine manufacturers in the 25–75 hp category may prefer over others. Specifically, an electronically-controlled secondary fuel injection system (*i.e.*, a system which injects fuel into the exhaust upstream of a PM filter). Such a system has been commercially used successfully by at least one nonroad engine manufacturer, and other systems have been tested by technology companies.[199]

We are, however, proposing a slightly higher PM standard (0.02 g/bhp-hr rather than 0.01) for these engines. As discussed in section III.E.1.a, with the

[195] *See* Table 2–4 in ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[196] ''Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-duty Engines to Achieve Low Emission Levels: Interim Report Number 1—Oxidation Catalyst Technology, copy available in EPA Air Docket A–2001–28. ''Reduction of Diesel Exhaust Emissions by Using Oxidation Catalysts,'' Zelenka et al., SAE Paper 90211, 1990. See Table 2–4 in ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001, copy available in EPA Air Docket A–2001–28.

[197] *See* Tables 6, 8, and 14 of ''Nonroad Emission Study of Catalyzed Particulate Filter Equipped Small Diesel Engines' Southwest Research Institute, September 2001. Copy available in EPA Air Docket A–2001–28.

[198] ''Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-duty Engines to Achieve Low Emission Levels: Interim Report Number 1—Oxidation Catalyst Technology and ''Reduction of Diesel Exhaust Emissions by Using Oxidation Catalysts'', P. Zelenka *et al.,* Society of Automotive Engineers paper 902111, October 1990.

[199] ''The Optimized Deutz Service Diesel Particulate Filter System II'', H. Houben *et al.,* SAE Technical Paper 942264, 1994 and ''Development of a Full-Flow Burner DPF System for Heavy Duty Diesel Engines, P. Zelenka *et al.,* SAE Technical Paper 2002–01–2787, 2002.

use of a CDPF, the PM emissions emitted by the filter are primarily derived from the fuel sulfur. The smaller power category engines tend to have higher fuel consumption than larger engines. This occurs for a number of reasons. First, the lower power categories include a high fraction of IDI engines which by their nature consume approximately 15 percent more fuel than a DI engine. Second, as engine displacements get smaller, the engine's combustion chamber surface-to-volume ratio increases. This leads to higher heat-transfer losses and therefor lower efficiency and higher fuel consumption. In addition, frictional losses are a higher percentage of total power for the smaller displacement engines which also results in higher fuel consumption. Because of the higher fuel consumption rate, we expect a higher particulate sulfate level, and therefore we have proposed a 0.02 g/bhp-hr standard.

Test data confirm that this proposed standard is achievable. In 2001, EPA completed a test program run by a contractor on two small nonroad diesel engines (a 25 hp IDI engine and a 50 hp IDI engine) which demonstrated the proposed 0.02 g/bhp-hr standard can be achieved with the use of a CDPF.[200] This test program included testing on the existing 8-mode steady-state test cycle as well as the nonroad transient cycle proposed in today's action. The 0.02g/bhp-hr level was achieved on each engine over both test cycles. One of the engines was also tested on the proposed constant speed, variable load transient cycle with a particulate filter, and this engine also met the proposed 0.02 g/bhp-hr PM standard.[201] This test program also demonstrates why EPA has proposed a slightly higher PM standard for the 25–75 hp category (0.02 g/bhp-hr vs 0.01). The data from the test program described above showed fuel consumption rates over the 8-mode test procedure between 0.4 and 0.5 lbs/bhp-hr, while typical values for a modern turbocharged DI engine with 4-valves per cylinder in the ≥75 hp categories are on the order of 0.3 to 0.35 lbs/hp–hr. However, the data is less conclusive with respect to the proposed NTE standard. The test program at SwRI included a number of individual steady-state emission points which are within the proposed NTE control zone for nonroad diesel engines. For most of these points, the emissions were well below the proposed NTE standard for both engines. However, both engines included as a test point the maximum torque test point, and in each case the emissions were above the proposed NTE standard. For one engine, the engine-out emissions were 1.2 g/bhp-hr PM and when equipped with a CDPF the emissions were 0.05 g/bhp-hr. While this is more than a 95 percent reduction in PM, 0.05 is above our proposed NTE standard of 0.03 g/bhp-hr. The second test engine at the maximum torque mode produced an engine-out PM value of 0.35 g/bhp-hr, and when equipped with a CDPF the results were 0.04g/bhp-hr. While this is nearly a 90 percent reduction in PM, the engines do not meet the proposed NTE standard. We believe these results are a combination of high engine-out PM emissions as well as high exhaust gas temperature. While a CDPF is very effective at reducing PM emissions, it is not 100 percent effective. These engines would likely require additional engine-out PM reductions at the maximum torque mode in order to comply with the proposed NTE standard. In addition, the peak torque mode is one of the highest exhaust gas temperature mode, and therefore one of the highest particulate-sulfate generating modes when equipped with a CDPF. More careful management of the engine-out temperature at this mode, such as by altering the engines air-fuel ratio, may be necessary to lower the engine-out temperature and comply with the proposed NTE standard.

NMHC+NO_X Standard

We have proposed a 3.5 g/bhp-hr NMHC+NO_X standard for engines in the 25–50 hp range for 2013. This will align the NMHC+NO_X standard for engines in this power range with the Tier 3 standard for engines in the 50–75 hp range which are implemented in 2008. EPA's recent Staff Technical paper which reviewed the technological feasibility of the Tier 3 standards contains a detailed discussion of a number of technologies which are capable of achieving a 3.5 g/bhp-hr standard. These include cooled EGR, uncooled EGR, as well as advanced in-cylinder technologies relying on electronic fuel systems and turbocharging.[202] These technologies are capable of reducing NO_X emission by as much as 50 percent. Given the Tier 2 NMHC+NO_X standard of 5.6 g/bhp-hr, a 50 percent reduction would allow a Tier 2 engine to comply with the 3.5 g/bhp-hr NMHC+NO_X standard proposed in this action. In addition, because this NMHC+NO_X standard is concurrent with the 0.02 g/bhp-hr PM standards which we project will be achievable with the use of particulate filters, engine designers will have significant additional flexibility in reducing NO_X because the PM filter will eliminate the traditional concerns with the engine-out NO_X vs. PM trade-off. Our recent highway 2004 standard review rulemaking (*see* 65 FR 59896) demonstrated that a diesel engine with advanced electronic fuel injection technology as well as NO_X control technology such as cooled EGR is capable of complying with an NTE standard set at 1.25 times the laboratory based-standard FTP standard. We project that the same technology (electronic fuel systems and cooled EGR) are also capable for engine in the 25–75 hp range of complying with the proposed NTE standard of 4.4 g/bhp-hr NMHC+NO_X (1.25 x 3.5) in 2013. This is based on the broad NO_X reduction capability of cooled EGR technology, which is capable of reducing NO_X emissions across the engine operating map by at least 30 percent even under high load conditions.[203]

Based on the information available to EPA and presented here, and giving appropriate consideration to the lead time necessary to apply the technology as well, we have concluded the proposed 0.02 g/bhp–hr PM standard for engines in the 25–75 hp category and the 3.5 g/bhp–hr NMHC+NO_X standards for the 25–50 hp engines are achievable.

d. Why EPA has not Proposed More Stringent Tier 4 NO_X Standards

Today's notice proposes to revise the NMHC+NO_X standard for engines between 25 and 50 hp to a level of 3.5 g/bhp–hr beginning in 2013 (the same numeric level as the Tier 3 standards for engines in the 50–75 hp range). As discussed below, we believe this standard can be met using a variety of technologies, including but not limited to cooled EGR. Similar technologies will be used on engines in the 50–100 hp

[200] *See* Tables 6, 8, and 14 of ''Nonroad Emission Study of Catalyzed Particulate Filter Equipped Small Diesel Engines'' Southwest Research Institute, September 2001. Copy available in EPA Air Docket A–2001–28.

[201] *See* Tables 8 of ''Nonroad Emission Study of Catalyzed Particulate Filter Equipped Small Diesel Engines' Southwest Research Institute, September 2001. Copy available in EPA Air Docket A–2001–28. Note that the ''AWQ'' cycle specified in Table 8 is the same as the proposed constant speed, variable load cycle.

[202] *See* section 2.2 through 2.3 in ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[203] *See* section 8 of ''Control of Emissions of Air Pollution from 2004 and Later Model Year Heavy-Duty Highway Engines and Vehicles: Response to Comments'', EPA document EPA420–R–00–011, July 2000, and Chapter 3 of ''Regulatory Impact Analysis: Control of Emissions of Air Pollution from Highway Heavy-duty Engines'', EPA document EPA420–R–00–010, July 2000. Copies of both documents available in EPA docket A–2001–28.

range beginning in 2008. At this time, we are not proposing further reductions in the NO_X standards for engines between 25 and 75 hp.

As discussed in section III.B.1.d, engines ≥75 hp are similar to, or are direct derivatives of, highway HDDEs. As discussed in section III.E.1–III.E.3, NO_X adsorber technology is being developed today in order to comply with the 2007 highway heavy-duty standards. However, NO_X adsorber technologies will require additional development beyond what has occurred at this time in order to achieve the 2007 highway standards. Section III.E.1–III.E.3 also discuss the high degree of complexity and engine/aftertreatment integration which will be required in order for NO_X adsorbers to be applied successfully to nonroad diesel engines.

As discussed above, and as illustrated in Table III.E–3, engines <75 hp include a significant fraction of naturally aspirated engines and engines with indirect-injection fuel systems, and we are not predicting a significant shift away from IDI technology engines. Given the relatively unsophisticated level of technology used in this power category today, as well as our prediction that even in the 2011–13 time frame these engines will lag significantly behind the ≥75 hp engines, we believe it is appropriate not to propose NO_X adsorber based standards at this time. Rather, as discussed in section III.H, we have proposed to undertake a technology assessment in the 2007 time frame which would evaluate the status of emission control technologies for engines less than 75 hp, and such a review would revisit this issue. In addition, section VI of this proposal contains additional discussion regarding our analysis of applying NO_X adsorbers to engines in the 25–75 hp category. EPA invites further comment on the above discussion, and also solicits comment on the cost impacts of NO_X aftertreatment devices, including unit costs, on these engines.

5. Are the Standards Proposed for Engines <25 hp Feasible?

As discussed in section III.B, our proposal for standards for engines less than 25 hp is a new PM standard of 0.30 g/bhp–hr beginning in 2008. As discussed below, we are not proposing to set a new standard more stringent than the existing Tier 2 NMHC+NO_X standard for this power category at this time. This section describes:

- What makes the <25 hp category unique;
- Engine technology currently used in the <25 hp category;
- Why the proposed standards are technologically feasible; and,
- Why EPA has not proposed more stringent standards at this time.

a. What Makes the <25 hp Category Unique?

Nonroad engines less than 25 hp are the least sophisticated nonroad diesel engines from a technological perspective. All of the engines currently sold in this power category lack electronic fuel systems and turbochargers (*see* Table III.E–3). Nearly 50 percent of the products have two-cylinders or less, and 14 percent of the engines sold in this category are single-cylinder products, a number of these have no batteries and are crank-start machines, much like today's simple walk behind lawnmower engines. In addition, given what we know today and taking into account the Tier 2 standards which have not yet been implemented, we are not projecting any significant penetration of advanced engine technology, such as electronically controlled fuel systems, into this category in the next 5 to 10 years.

We have proposed a PM standard for engines in the <25 hp category which is higher than the standard proposed for engines in the 25–75 hp category (0.30 g/bhp–hr vs. 0.22 g/bhp–hr). We have done this for a number of reasons. First, the existing Tier 2 PM standards specifies standards which become numerically higher for the smaller power categories. Specifically, for engines >175 hp, the Tier 2 PM standard is 0.15 g/bhp–hr, which increases to 0.30 g/bhp–hr for engines in the 50–100hp range, 0.45 g/bhp–hr for engines in the 25–50hp range, and finally 0.60 g/bhp–hr for engines <25 hp. In the Tier 2 time frame, engines in the higher power categories are expected to use more sophisticated technologies such as turbocharging and high pressure electronically controlled fuel systems. These technologies are more capable of reducing PM emissions as compared to naturally aspirated engines with lower pressure mechanical fuel systems. To some extent this same trend is expected to continue in the 2008 time frame. As discussed above, we expect that many engines in the 25–75hp engine category will use turbocharging, and some engines will have electronic fuel systems. However, we are not predicting that any engines in the <25hp category will use either of these technologies. In addition, very small diesel engines present a number of unique challenges for reducing PM emissions. First, the smaller engines inherently have high combustion chamber surface-to-volume ratios. This results in higher heat loss, which results in a quenching of the oxidation process earlier than for larger engines, and therefore higher PM emission rates. In addition, the small diesel engines are more limited in the PM reduction which can be achieved by higher fuel injection pressures. Due to the very small size of the combustion chamber, high pressure injection (which is intended to improve fuel atomization and mixing, both of which lower PM emissions) will result in fuel impaction on the combustion chamber, which will not improve fuel atomization. The benefits of higher pressure fuel injection as a PM reduction technology therefore reaches a point of diminishing returns with higher and higher pressures, and this point of diminishing returns is reached much quicker for the smaller engines than for the larger engines. For these reasons we have proposed a 2008 PM standard for engines <25 hp which is higher than the proposed 2008 PM standard for engines in the 25–75 hp category.

b. What Engine Technology is Currently Used in the <25 hp category?

In the 1998 nonroad diesel rulemaking we established Tier 1 and Tier 2 standards for these products. Tier 1 was implemented in model year 2000, and Tier 2 will be implemented in model year 2005. As discussed in EPA's recent Staff Technical Paper, we project the Tier 2 standards will be met by basic engine-out emission optimization strategies.[204] We are not predicting that Tier 2 will require electronic fuel systems, EGR, or turbocharging. As discussed in the Staff Technical Paper, a large number of engines in this power category already meet the Tier 2 standards by a wide margin.[205]

Two basic types of engine fuel injection technologies are currently present in the less than 25 hp category, mechanical indirect injection (IDI) and mechanical direct injection (DI). As discussed in section III.D.4, the IDI system injects fuel into a pre-chamber rather than directly into the combustion chamber as in the DI system. This difference in fuel systems results in substantially different emission characteristics, as well as several important operating parameters. In general, as noted earlier, the IDI engine has lower engine-out PM and NO_X

[204] *See* section 3 of ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[205] *See* Table 3–2 in ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

emissions, while the DI engine has better fuel efficiency and lower heat rejection.

c. What Data Indicates That the Proposed Standards Are Feasible?

We project the proposed Tier 4 PM standard can be met by 2008 based on:

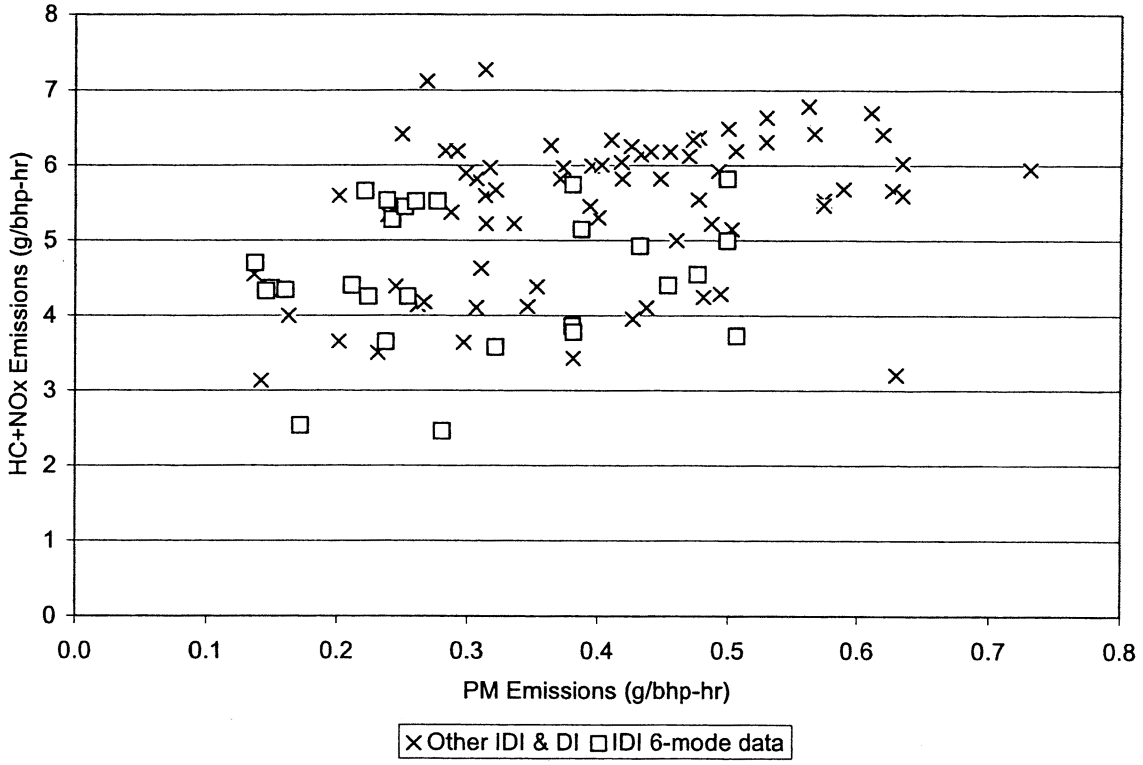
- The existence of a large number of engine families which meet the proposed standards today;
- The use of engine-out reduction techniques; and
- The use of diesel oxidation catalysts.

We have examined the recent model year (2002) engine certification data for nonroad diesel engines less than 25 hp. These data indicate that a number of engine families meet the proposed Tier 4 PM standard (and the 2008 NMHC+NO_X standard, unchanged from Tier 2) today. The current data indicates approximately 28% of the engine families are at or below the proposed PM standard today, while meeting the 2008 NMHC+NO_X standard. These include both IDI and DI engines, as well as a range of certification test cycles.[206] Many of the engine families are certified well below the proposed Tier 4 standard while meeting the 2008 NMHC+NO_X level. Specifically, 15 percent of the engine families exceed the proposed Tier 4 PM standard by more than 20 percent. The public certification data indicate that these engines do not use turbocharging, electronic fuel systems, exhaust gas recirculation, or aftertreatment technologies.

These model year 2002 engines use well known engine-out emission control technologies, such as combustion chamber design and fuel injection timing control strategies, to comply with the existing standards. As with 25–75 hp engines, these data have a two-fold significance. First, they indicate that a number of engines in this power category can already achieve the proposed 2008 standard for PM using only engine-out technology, and that other engines should be able to achieve the standard making improvements just to engine-out performance. Second, despite being certified to the same emission standards with similar engine technology, the emission levels from these engines vary widely. Figure III.E–2 is a graph of the model year 2002 HC+NO_X and PM data. As can be seen in the figure, the emission levels cover a wide range. Figure III.E–2 highlights a specific example of this wide range: engines using naturally aspirated IDI technology and tested on the 6-mode test cycle. Even for this subset of IDI engines achieving approximately the same HC+NO_X level of~4.5 g/bhp–hr, the PM rates vary from approximately 0.15 to 0.5 g/bhp–hr. (A more detailed discussion of this data is contained in the draft RIA.) There is limited information available to indicate why for these small diesel engines with similar technology operating at approximately the same HC+NO_X level the PM emission rates cover such a broad range. We are therefore not predicating the proposed 2008 PM standard on the combination of diesel oxidation catalysts and the lowest engine-out emissions being achieved today, because it is uncertain whether or not additional engine-out improvements would lower all engines to the proposed 2008 PM standard. Instead, we believe there are two likely means by which companies can comply with the proposed 2008 PM standard. First, some engine manufacturers can comply with this standard using known engine-out techniques (*e.g.*, optimizing combustion chamber designs, fuel-injection strategies). However, based on the available data it is unclear whether engine-out techniques will work in all cases. Therefore, we believe some engine companies will choose to use a combination of engine-out techniques and diesel oxidation catalysts, as discussed below.

[206] The Tier 1 and Tier 2 standards for this power category must be demonstrated on one of a variety of different engine test cycles. The appropriate test cycle is selected by the engine manufacturer based on the intended in-use applications(s) of the engine.

FIGURE III.E-2 -- EMISSION CERTIFICATION DATA FOR <25 HP MODEL YEAR 2002 ENGINES



PM emissions can be reduced through in-cylinder techniques for small nonroad diesel engines using similar techniques as used in larger nonroad and highway engines. As discussed in section III.E.1.a, there are a number of technologies which exist that can influence oxygen content and in-cylinder mixing (and thus lower PM emissions) including improved fuel injection systems and combustion system designs. For example, increased injection pressure can reduce PM emissions substantially.[207] The wide-range of emission characteristics present in the existing engine certification data is likely a result of differences in fuel systems and combustion chamber designs. For many of the engines which have higher emission levels, further optimization of the fuel system and combustion chamber can provide additional PM reductions.

Diesel oxidation catalysts (DOC) also offer the opportunity to reduce PM emissions from the engines in this power category. DOCs are passive flow through emission control devices which are typically coated with a precious metal or a base-metal wash-coat. DOCs have been proven to be durable in-use on both light-duty and heavy-duty diesel applications. In addition, DOCs have already been used to control carbon monoxide on some nonroad applications.[208] However, as discussed in section III.E.1.a., certain DOC formulations can be sensitive to diesel fuel sulfur level. Specifically, precious-metal based oxidation catalysts (which have the greatest potential for reducing PM) can oxidize the sulfur in the fuel and form particulate sulfates. Given the high level of sulfur in nonroad fuel today, the use of DOCs as a PM reduction technology is severely limited. Data presented by one engine manufacturer regarding the existing Tier 2 PM standard shows that while a DOC can be used to meet the current standard when tested on 2,000 ppm sulfur fuel, lowering the fuel sulfur level to 380 ppm enabled the DOC to reduce PM by 50 percent from the 2,000 ppm sulfur fuel.[209] Without the availability of 500 ppm sulfur fuel in 2008, DOCs would be of limited use for nonroad engine manufacturers and would not provide the emissions necessary to meet the proposed standards for most engine manufacturers. With the availability of 500 ppm sulfur fuel, DOC's can be designed to provide PM reductions on the order of 20 to 50%, while suppressing particulate sulfate reduction. These levels of reductions have been seen on transient duty cycles as well as highway and nonroad steady-state duty cycles.[210] As discussed in section III.D, we are proposing to apply supplemental test procedures and standards (nonroad transient test cycle

[207] "Effects of Injection Pressure and Nozzle Geometry on DI Diesel Emissions and Performance," Pierpont, D., and Reitz, R., SAE Paper 950604, 1995.

[208] EPA Memorandum "Documentation of the Availability of Diesel Oxidation Catalysts on Current Production Nonroad Diesel Equipment", William Charmley. Copy available in EPA Air Docket A–2001–28.

[209] *See* Table 2–4 in "Nonroad Diesel Emission Standards—Staff Technical Paper", EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

[210] "Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-duty Engines to Achieve Low Emission Levels: Interim Report Number 1—Oxidation Catalyst Technology, copy available in EPA Air Docket A–2001–28. "Reduction of Diesel Exhaust Emissions by Using Oxidation Catalysts," Zelenka et. al., SAE Paper 90211, 1990. *See* Table 2–4 in "Nonroad Diesel Emission Standards—Staff Technical Paper", EPA Publication EPA420–R–01–052, October 2001, copy available in EPA Air Docket A–2001–28.

and not-to-exceed requirements) to engines in the <25 hp category beginning in 2013. The supplemental test procedures and standards will apply not only to PM, but also to NMHC+NO_X. While we believe the engine technology necessary to comply with the supplemental test procedures and standards is the same as the technology necessary to comply with the 2008 standard, we are delaying the implementation of the supplemental test procedures and standards until 2013 in order to implement the supplemental requirements on the larger powered nonroad engines before the smallest power category (*see* section III.C. above). This will also provide engine manufacturers with additional time to install any emission testing equipment upgrades they may need in order to implement the new nonroad transient test cycle. Nevertheless, the technologies described above are capable of complying with both the proposed nonroad transient test cycle and the NTE standard. As just described, DOCs are capable of reducing PM emissions up to 50 percent during transient testing. With respect to feasibility under NTE testing, it has been demonstrated, as a result of a recent Agency action, that engines which rely on retarded injection timing as a primary NO_X control technology, which is also the primary technology that engines in the <25 hp category will likely use to comply with the Tier 2 NMHC+NO_X standard, are capable of complying with an NMHC+NO_X NTE standard of 1.25 x the FTP for engines with emission levels on the order of 4 g/bhp–hr NO_X. Specifically, as a result of federal consent decrees with a number of highway heavy-duty diesel engine manufactures, many highway engines certified to an FTP standard of 4 g/bhp–hr NO_X were also designed to comply with an NTE limit of 5 g/bhp–hr (*i.e.*, 1.25 x FTP standard).[211] The Tier 2 NMHC+NO_X standard for engines <25hp is 5.6 g/bhp–hr, therefore, in 2013 the proposed NTE standard is 7.0 g/bhp–hr NMHC+NO_X. Based on the experience which a number of highway diesel engine companies, we project that the proposed NTE standard for engines <25 hp can be achieved by 2013.

As discussed in section III.B, we have also proposed a minor change in the CO standard for the <11 hp engines, in order to align those standards with the standards for the 11–25 hp engines. As discussed in section III.B., the small change in the CO standard is intended to simplify EPA's regulations as part of our decision to propose a reduction in the number of engine power categories for Tier 4. The current CO standard for this category is 6.0 g/bhp–hr, and the proposed standard is 4.9 g/bhp–hr (*i.e.*, the current standard for engines in the 11–25 hp range). The model year 2002 certification data shows that more than 90 percent of the engine families in this power category meet the proposed standards today. In addition, DOCs typically reduce CO emissions on the order of 50 percent or more during both transient and steady-state operation.[212] Given that more than 90 percent of the engines in this category meet the proposed standard today, and the ready availability of technology which can easily achieve the proposed standard, we project this CO standard will be achievable by model year 2008.

Based on the existence of a number of engine families which already comply with the proposed Tier 4 PM standard (and the 2008 NMHC+NO_X standard), and the availability of PM reduction technologies such as improved fuel systems, combustion chamber improvements, and in particular diesel oxidation catalysts, we project the proposed 0.30 g/bhp–hr PM standards is technologically feasible by model year 2008. All of these are conventional technologies which have been used on both highway and nonroad diesel engines in the past. As such, we do not expect there to be any negative impacts with respect to noise or safety. In addition, PM reduction technologies such as improved combustion through the use of higher pressure fuel injection systems as well as DOCs are not predicted to have any substantial impact on fuel efficiency.

d. Why has EPA not Proposed More Stringent PM or NO_X Standards for Engines <25 hp?

Section III.E.4 contains a detailed discussion of why we don't believe it is appropriate at this time to revise the NO_X standards based on NO_X absorber technology for engines between 25 and 75 hp. These same arguments apply for engines below 25 hp. In addition, we have not proposed to revise the NO_X standard for <25 hp engines in this action, nor do we believe PM standards based on particulate filters are appropriate for this power category based on a number of factors, as discussed below.

In EPA's recent Staff Technical Paper regarding the feasibility of the Tier 3 NMHC+NO_X standards for engines greater than 50 hp, we projected that a number of engine technologies can be used to meet the Tier 3 standards, including cooled EGR or hot EGR, both with advanced electronic fuel systems, as well as with internal combustion techniques using advanced electronic fuel systems, advanced turbocharging systems (*e.g.*, waste-gated or variable geometry turbochargers), and possibly variable valve actuation.[213] In addition, we presumed the use of charge-air cooling In order to set more stringent NO_X standards for <25 hp engines without increasing PM emissions, the most logical list of technologies is turbocharging, electronically controlled hot or cooled EGR, an electronic fuel system, and possibly charge-air-cooling. No nonroad diesel engine <25 hp uses any combination of these technologies today. While we are able to postulate that some of this technology could be applied to the <25 hp engines, the application of some of the technology (such as turbocharging) is technologically uncertain. It is the combination of these two issues (the traditional NO_X-PM trade-off and the difficulties with turbocharging 1 and 2 cylinder engines) which is the primary reason we are not proposing to revise the NO_X standard for engines in this size range. NO_X reduction control technologies such as advancing fuel injection timing or using EGR will increase PM emissions. In order to reduce NO_X emissions and reduce or maintain current PM levels additional technologies must be used. Fundamental among these is the need to increase oxygen content, which can be achieved principally with turbocharging. However, turbocharging systems do not lend themselves to 1 and 2 cylinder products, which are approximately 50 percent of the engines in this power category. In addition, even if these technologies could be applied to engines in the < 25 hp category, the costs would be substantial relative to both the base engine cost and to the cost of the nonroad equipment itself . Therefore, for the reasons discussed above, we have not proposed to revise the NO_X standard for these engines at

[211] EPA Memorandum ''Summary of Model Year 1999 and 2000 Federal On-highway Heavy-duty Diesel Engine Families Certified as Compliant with Not-to-Exceed Requirements, Euro–3 Steady State Requirements, and Maximum Allowable Emission Limits Requirements'', copy available in EPA Air Docket A–2001–28.

[212] ''Demonstration of Advanced Emission Control Technologies Enabling Diesel-Powered Heavy-duty Engines to Achieve Low Emission Levels: Interim Report Number 1—Oxidation Catalyst Technology, and ''Reduction of Diesel Exhaust Emissions by Using Oxidation Catalysts'', P. Zelenka *et. al.,* Society of Automotive Engineers paper 902111, October 1990.

[213] *See* section 2.3.1 through 2.3.3 of ''Nonroad Diesel Emission Standards—Staff Technical Paper'', EPA Publication EPA420–R–01–052, October 2001. Copy available in EPA Air Docket A–2001–28.

this time. As discussed in section III.H, we have proposed that a technology assessment occur in 2007 which would evaluate the status of emission control technologies for engines less than 75 hp, and such a review would revisit this issue.

In addition, we have not proposed to apply particulate filter based standards for engines less than 25 hp. As discussed in sections III.E.1 through 4, there are two basic types of particulate filter systems we believe could be used by engine manufacturers. The first is a CDPF which uses post-injection from a common-rail electronic fuel injection system in order to ensure filter regeneration. The second type of system would use a CDPF with a stand-alone (*i.e.*, independent from the engine's fuel system) fuel injection system to ensure filter regeneration. In either case, an electronic control system is required, as well as the CDPF. Such systems are not being developed for engines of this size for either highway light-duty or heavy-duty diesel applications, and (as noted earlier) it is unclear whether the technology development which is being done for the highway market will transfer down to engines in this power category. In addition, based on currently available information, we believe the cost of these technologies are relatively high compared to the overall cost of the equipment. As discussed in section III.H, we have proposed that a technology assessment occur in 2007 which would evaluate the status of emission control technologies for engines less than 75 hp, and such a review would revisit this issue.

6. Meeting the Crankcase Emissions Requirements

The most common way to eliminate crankcase emissions has been to vent the blow-by gases into the engine air intake system, so that the gases can be recombusted. Prior to the HD2007 rulemaking, we have required that crankcase emissions be controlled only on naturally aspirated diesel engines. We had made an exception for turbocharged diesel engines (both highway and nonroad) because of concerns in the past about fouling that could occur by routing the diesel particulates (including engine oil) into the turbocharger and aftercooler. However, this is an environmentally significant exception since most nonroad equipment over 70hp use turbocharged engines, and a single engine can emit over 100 pounds of NO_X, NMHC, and PM from the crankcase over its lifetime.

Given the available means to control crankcase emissions, we eliminated this exception for highway engines in 2007 and are proposing to eliminate the exception for nonroad diesel engines as well. We anticipate that the diesel engine manufacturers will be able to control crankcase emissions through the use of closed crankcase filtration systems or by routing unfiltered blow-by gases directly into the exhaust system upstream of the emission control equipment. However, the proposed provision has been written such that if adequate control can be had without ''closing'' the crankcase then the crankcase can remain ''open.'' Compliance would be ensured by adding the emissions from the crankcase ventilation system to the emissions from the engine control system downstream of any emission control equipment. We propose to limit this provision for controlling emissions from open crankcases to turbocharged engines, which is the same as for heavy-duty highway diesel engines. We request comment on extending this provision to naturally aspirated engines, as we did for marine diesel engines in our 1999 final rule (64 FR 73300, December 29, 1999).

We expect that in order to meet the stringent tailpipe emission standards set here, that manufacturers will have to utilize closed crankcase approaches as described here. Closed crankcase filtration systems work by separating oil and particulate matter from the blow-by gases through single or dual stage filtration approaches, routing the blow-by gases into the engine's intake manifold and returning the filtered oil to the oil sump. Oil separation efficiencies in excess of 90 percent have been demonstrated with production ready prototypes of two stage filtration systems.[214] By eliminating 90 percent of the oil that would normally be vented to the atmosphere, the system works to reduce oil consumption and to eliminate concerns over fouling of the intake system when the gases are routed through the turbocharger. Hatz, a nonroad engine manufacturer, currently has closed crankcase systems on many of its turbocharged engines.

F. Why Do We Need 15ppm Sulfur Diesel Fuel?

As stated earlier, we strongly believe that fuel sulfur control is critical to ensuring the success of NO_X and PM aftertreatment technologies. In order to evaluate the effect of sulfur on diesel exhaust control technologies, we used three key factors to categorize the impact of sulfur in fuel on emission control function. These factors were efficiency, reliability, and fuel economy. Taken together these three factors lead us to believe that diesel fuel sulfur levels of 15 ppm will be required for the nonroad emission standards proposed here to be feasible. Brief summaries of these factors are provided below.

The *efficiency* of emission control technologies to reduce harmful pollutants is directly affected by sulfur in diesel fuel. Initial and long term conversion efficiencies for NO_X, NMHC, CO and diesel PM emissions are significantly reduced by catalyst poisoning and catalyst inhibition due to sulfur. NO_X conversion efficiencies with the NO_X adsorber technology in particular are dramatically reduced in a very short time due to sulfur poisoning of the NO_X storage bed. In addition, total PM control efficiency is negatively impacted by the formation of sulfate PM. As explained in the following sections, the CDPF, NO_X adsorber, and urea SCR catalyst technologies described here have the potential to make significant amounts of sulfate PM under operating conditions typical of many nonroad engines. We believe that the formation of sulfate PM will be in excess of the total PM standard, unless diesel fuel sulfur levels are at or below 15 ppm. Based on the strong negative impact of sulfur on emission control efficiencies for all of the technologies evaluated, we believe that 15 ppm represents an upper threshold of acceptable diesel fuel sulfur levels.

Reliability refers to the expectation that emission control technologies must continue to function as required under all operating conditions for the life of the engine. As discussed in the following sections, sulfur in diesel fuel can prevent proper operation of both NO_X and PM control technologies. This can lead to permanent loss in emission control effectiveness and even catastrophic failure of the systems. Sulfur in diesel fuel impacts reliability by decreasing catalyst efficiency (poisoning of the catalyst), increasing diesel particulate filter loading, and negatively impacting system regeneration functions. Among the most serious reliability concerns with sulfur levels greater than 15 ppm are those associated with failure to properly regenerate. In the case of the NO_X adsorber, failure to regenerate the stored sulfur (desulfate) will lead to rapid loss of NO_X emission control as a result of sulfur poisoning of the NO_X adsorber bed. In the case of the diesel particulate filter, sulfur in the fuel reduces the reliability of the regeneration function.

[214] Letter from Marty Barris, Donaldson Corporation, to Byron Bunker U.S. EPA, March 2000. Copy available in EPA Air Docket A–2001–28.

If regeneration does not occur, catastrophic failure of the filter could occur. It is only by the availability of low sulfur diesel fuels that these technologies become feasible.

Fuel economy impacts due to sulfur in diesel fuel affect both NO_X and PM control technologies. The NO_X adsorber sulfur regeneration cycle (desulfation cycle) can consume significant amounts of fuel unless fuel sulfur levels are very low. The larger the amount of sulfur in diesel fuel, the greater the adverse effect on fuel economy. As sulfur levels increase above 15 ppm, the adverse effect on fuel economy becomes more significant, increasing above one percent and doubling with each doubling of fuel sulfur level. Likewise, PM trap regeneration is inhibited by sulfur in diesel fuel. This leads to increased PM loading in the diesel particulate filter and increased work to pump exhaust across this restriction. With low sulfur diesel fuel, diesel particulate filter regeneration can be optimized to give a lower (on average) exhaust backpressure and thus better fuel economy. Thus, for both NO_X and PM technologies the lower the fuel sulfur level the lower the operating costs of the vehicle.

1. Catalyzed Diesel Particulate Filters and the Need for Low Sulfur Fuel

CDPFs function to control diesel PM through mechanical filtration of the solid PM (soot) from the diesel exhaust stream and then oxidation of the stored soot (trap regeneration) and oxidation of the SOF. Through oxidation in the catalyzed diesel particulate filter the stored PM is converted to CO_2 and released into the atmosphere. Failure to oxidize the stored PM leads to accumulation in the trap, eventually causing the trap to become so full that it severely restricts exhaust flow through the device, leading to trap or vehicle failure.

Uncatalyzed diesel particulate filters require exhaust temperatures in excess of 650°C in order for the collected PM to be oxidized by the oxygen available in diesel exhaust. That temperature threshold for oxidation of PM by exhaust oxygen can be decreased to 450°C through the use of base metal catalytic technologies. For a broad range of operating conditions typical of in-use diesel engine operation, diesel exhaust can be significantly cooler than 400°C. If oxidation of the trapped PM could be assured to occur at exhaust temperatures lower than 300°C, then diesel particulate filters would be expected to be more robust for most applications and operating regimes. Oxidation of PM (regeneration of the trap) at such low exhaust temperatures can occur by using oxidants which are more readily reduced than oxygen. One such oxidant is NO_2.

NO_2 can be produced in diesel exhaust through the oxidation of the nitrogen monoxide (NO), created in the engine combustion process, across a catalyst. The resulting NO_2-rich exhaust is highly oxidizing in nature and can oxidize trapped diesel PM at temperatures as cool as 250°C.[215] Some platinum group metals are known to be good catalysts to promote the oxidation of NO to NO_2. Therefore in order to promote more effective passive regeneration of the diesel particulate filters, significant amounts of platinum group metals (primarily platinum) are being used in the wash-coat formulations of advanced CDPFs. The use of platinum to promote the oxidation of NO to NO_2 introduces several system vulnerabilities affecting both the durability and the effectiveness of the CDPF when sulfur is present in diesel exhaust. (In essence, diesel engine exhaust temperatures are in a range necessitating use of precious metal catalysts in order to adequately regenerate the PM filter, but precious metal catalysts are in turn highly sensitive to sulfur in diesel fuel.) The two primary mechanisms by which sulfur in diesel fuel limits the robustness and effectiveness of CDPFs are inhibition of trap regeneration, through inhibition of the oxidation of NO to NO_2, and a dramatic loss in total PM control effectiveness due to the formation of sulfate PM. Unfortunately, these two mechanisms trade-off against one another in the design of CDPFs. Changes to improve the reliability of regeneration by increasing catalyst loadings lead to increased sulfate emissions and, thus, loss of PM control effectiveness. Conversely, changes to improve PM control by reducing the use of platinum group metals and, therefore, limiting ''sulfate make'' leads to less reliable regeneration. Even with an active regeneration system, reducing catalytic loading to reduce sulfate make unacceptably trades off regeneration effectiveness (*i.e.*, robustness). We believe the best means of achieving good PM emission control and reliable operation is to reduce sulfur in diesel fuel, as shown in the following subsections.

[215] Hawker, P. *et al,* ''Experience with a New Particulate Trap Technology in Europe,'' SAE 970182.

a. Inhibition of Trap Regeneration Due to Sulfur

The CDPF technology relies on the generation of a very strong oxidant, NO_2, to ensure that the carbon captured by the PM trap's filtering media is oxidized under the exhaust temperature range of normal operating conditions. This prevents plugging and failure of the PM trap. NO2 i_2 produced through the oxidation of NO in the exhaust across a platinum catalyst. This oxidation is inhibited by sulfur poisoning of the catalyst surface.[216] This inhibition limits the total amount of NO_2 available for oxidation of the trapped diesel PM, thereby raising the minimum exhaust temperature required to ensure trap regeneration. Without sufficient NO_2, the amount of PM trapped in the diesel particulate filter will continue to increase and can lead to excessive exhaust back pressure and low engine power.

The failure mechanisms experienced by diesel particulate filters due to low NO_2 availability vary significantly in severity and long term consequences. In the most fundamental sense, the failure is defined as an inability to oxidize the stored particulate at a rate fast enough to prevent net particulate accumulation over time. The excessive accumulation of PM over time blocks the passages through the filtering media, making it more restrictive to exhaust flow. In order to continue to force the exhaust through the now more restrictive filter, the exhaust pressure upstream of the filter must increase. This increase in exhaust pressure is commonly referred to as increasing ''exhaust backpressure'' on the engine.

The increase in exhaust backpressure represents increased work being done by the engine to force the exhaust gas through the increasingly restrictive particulate filter. Unless the filter is frequently cleansed of the trapped PM, this increased work can lead to reductions in engine performance and increases in fuel consumption. This loss in performance may be noted by the equipment operator in terms of sluggish engine response.

Full field test evaluations and retrofit applications of these catalytic trap technologies are occurring in parts of the United States and Europe where low sulfur diesel fuel is already available.[217] The experience gained in these field

[216] Hawker, P. et al, ''Experience with a New Particulate Trap Technology in Europe,'' SAE 970182.

[217] Through tax incentives 50 ppm cap sulfur fuel is widely available in the United Kingdom and 10 ppm sulfur fuel is available in Sweden and in certain European city centers.

tests helps to clarify the need for low sulfur diesel fuel. In Sweden and some European city centers where below 10 ppm diesel fuel sulfur is readily available, more than 3,000 catalyzed diesel particulate filters have been introduced into retrofit applications without a single failure. Given the large number of vehicles participating in these test programs, the diversity of the vehicle applications which included intercity trains, airport buses, mail trucks, city buses and garbage trucks, and the extended time periods of operation (some vehicles have been operating with traps for more than 5 years and in excess of 300,000 miles[218], there is a strong indication of the robustness of this technology on 10 ppm low sulfur diesel fuel. The field experience in areas where sulfur is capped at 50 ppm has been less definitive. In regions without extended periods of cold ambient conditions, such as the United Kingdom, field tests on 50 ppm cap low sulfur fuel have also been positive, matching the durability at 10 ppm, although sulfate PM emissions are much higher. However, field tests on 50 ppm fuel in Finland, where colder winter conditions are sometimes encountered (similar to many parts of the United States), showed a significant number of failures (10 percent) due to trap plugging. This 10 percent failure rate has been attributed to insufficient trap regeneration due to fuel sulfur in combination with low ambient temperatures.[219] Other possible reasons for the high failure rate in Finland when contrasted with the Swedish experience appear to be unlikely. The Finnish and Swedish fleets were substantially similar, with both fleets consisting of transit buses powered by Volvo and Scania engines in the 10 to 11 liter range. Further, the buses were operated in city areas and none of the vehicles were operated in northern extremes such as north of the Arctic Circle.[220] Given that the fleets in Sweden and Finland were substantially similar, and given that ambient conditions in Sweden are expected to be similar to those in Finland, we believe that the increased failure rates noted here are due to the higher fuel sulfur level in a 50 ppm cap fuel versus a 10 ppm cap fuel.[221]

Testing on an even higher fuel sulfur level of 200 ppm was conducted in Denmark on a fleet of 9 vehicles. In less than six months all of the vehicles in the Danish fleet had failed due to trap plugging.[222] The failure of some fraction of the traps to regenerate when operated on fuel with sulfur caps of 50 ppm and 200 ppm is believed to be primarily due to inhibition of the NO to NO_2 conversion as described here. Similarly the increasing frequency of failure with higher fuel sulfur levels is believed to be due to the further suppression of NO_2 formation when higher sulfur level diesel fuel is used. Since this loss in regeneration effectiveness is due to sulfur poisoning of the catalyst this real world experience would be expected to apply equally well to nonroad engines (*i.e.*, operation on lower sulfur diesel fuel, 15 ppm versus 50 ppm, will increase regeneration robustness).

As shown above, sulfur in diesel fuel inhibits NO oxidation leading to increased exhaust backpressure and reduced fuel economy. Therefore, we believe that, in order to ensure reliable and economical operation over a wide range of expected operating conditions, nonroad diesel fuel sulfur levels should be at or below 15 ppm.

b. Loss of PM Control Effectiveness

In addition to inhibiting the oxidation of NO to NO_2, the sulfur dioxide (SO_2) in the exhaust stream is itself oxidized to sulfur trioxide (SO_3) at very high conversion efficiencies by the precious metals in the catalyzed particulate filters. The SO_3 serves as a precursor to the formation of hydrated sulfuric acid (H_2SO_4+H_2O), or sulfate PM, as the exhaust leaves the vehicle tailpipe. Virtually all of the SO_3 is converted to sulfate under dilute exhaust conditions in the atmosphere as well in the dilution tunnel used in heavy-duty engine testing. Since virtually all sulfur present in diesel fuel is converted to SO_2, the precursor to SO_3, as part of the combustion process, the total sulfate PM is directly proportional to the amount of sulfur present in diesel fuel. Therefore, even though diesel particulate filters are very effective at trapping the carbon and the SOF portions of the total PM, the overall PM reduction efficiency of catalyzed diesel particulate filters drops off rapidly with increasing sulfur levels due to the formation of sulfate PM downstream of the CDPF.

SO_2 oxidation is promoted across a catalyst in a manner very similar to the oxidation of NO, except it is converted at higher rates, with peak conversion rates in excess of 50 percent. The SO_2 oxidation rate for a platinum based oxidation catalyst typical of the type which might be used in conjunction with, or as a washcoat on, a CDPF can vary significantly with exhaust temperature. At the low temperatures the oxidation rate is relatively low, perhaps no higher than ten percent. However at the higher temperatures that might be more typical of agricultural tractor use pulling a plow and the highway Supplemental Emission Test (also called the EURO III or 13 mode test), the oxidation rate may increase to 50 percent or more. These high levels of sulfate make across the catalyst are in contrast to the very low SO_2 oxidation rate typical of diesel exhaust (typically less than 2 percent). This variation in expected diesel exhaust temperatures means that there will be a corresponding range of sulfate production expected across a CDPF.

The U.S. Department of Energy in cooperation with industry conducted a study entitled DECSE to provide insight into the relationship between advanced emission control technologies and diesel fuel sulfur levels. Interim report number four of this program gives the total particulate matter emissions from a heavy-duty diesel engine operated with a diesel particulate filter on several different fuel sulfur levels. A straight line fit through this data is presented in Table III.F–1 below showing the expected total direct PM emissions from a diesel engine on the supplemental emission test cycle.[223] The SET test cycle, a 13 mode steady-state cycle, that this data was developed on is similar to the C1 eight mode steady-state nonroad test cycle. Both cycles include operation at full and intermediate load points at approximately rated speed conditions and torque peak speed conditions. As a

[218] Allansson, *et al.*, ''European Experience of High Mileage Durability of Continuously Regenerating Filter Technology,'' SAE 2000–01–0480.

[219] Letter from Dr. Barry Cooper, Johnson Matthey, to Don Kopinski, U.S. EPA. Copy available in EPA Air Docket A–2001–28.

[220] Telephone conversation between Dr. Barry Cooper, Johnson Matthey, and Todd Sherwood, EPA, Air Docket A–99–06.

[221] The average temperature in Helsinki, Finland, for the month of January is 21°F. The average temperature in Stockholm, Sweden, for the month of January is 26°F. The average temperature at the University of Michigan in Ann Arbor, Michigan, for the month of January is 24°F. The temperatures reported here are from *www.worldclimate.com* based upon the Global Historical Climatology Network (GHCN) produced jointly by the National Climatic Data Center and Carbon Dioxide Information Analysis Center at Oak Ridge National Laboratory (ORNL).

[222] Letter from Dr. Barry Cooper to Don Kopinski U.S. EPA. Copy available in EPA Air Docket A–2001–28.

[223] Note that direct emissions are those pollutants emitted directly from the engine or from the tailpipe depending on the context in which the term is used, and indirect emissions are those pollutants formed in the atmosphere through chemical reactions between direct emissions and other atmospheric constituents.

result, the sulfate make rate for the C1 cycle and the SET cycle would be expected to be similar. The data can be used to estimate the PM emissions from diesel engines operated on fuels with average fuel sulfur levels in this range.

TABLE III. F–1—ESTIMATED PM EMISSIONS FROM A DIESEL ENGINE AT THE INDICATED FUEL SULFUR LEVELS

Fuel sulfur [ppm]	Steady state emissions performance	
	Tailpipe PM[b] [g/bhp-hr]	PM increase relative to 3 ppm sulfur
3	0.003	
7[a]	0.006	100%
15[a]	0.009	200%
30	0.017	470%
150	0.071	2300%

Notes:

[a] The PM emissions at these sulfur levels are based on a straight-line fit to the DECSE data; PM emissions at other sulfur levels are actual DECSE data. (Diesel Emission Control Sulfur Effects (DECSE) Program—Phase II Interim Data Report No. 4, Diesel Particulate Filters-Final Report, January 2000. Table C1.) Although DECSE tested diesel particulate filters at these fuel sulfur levels, they do not conclude that the technology is feasible at all levels, but they do note that testing at 150 ppm is a moot point as the emission levels exceed the engine's baseline emission level.

[b] Total exhaust PM (soot, SOF, sulfate).

Table III.F–1 makes it clear that there are significant PM emission reductions possible with the application of catalyzed diesel particulate filters and low sulfur diesel fuel. At the observed sulfate PM conversion rates, the DECSE program results show that the 0.01 g/bhp-hr total PM standard is feasible for CDPF equipped engines operated on fuel with a sulfur level at or below 15 ppm. The results also show that diesel particulate filter control effectiveness is rapidly degraded at higher diesel fuel sulfur levels due to the high sulfate PM make observed with this technology. It is clear that PM reduction efficiencies are limited by sulfur in diesel fuel and that, in order to realize the PM emissions benefits sought in this rule, diesel fuel sulfur levels must be at or below 15 ppm.

c. Increased Maintenance Cost for Diesel Particulate Filters Due to Sulfur

In addition to the direct performance and durability concerns caused by sulfur in diesel fuel, it is also known that sulfur can lead to increased maintenance costs, shortened maintenance intervals, and poorer fuel economy for CDPFs. CDPFs are highly effective at capturing the inorganic ash produced from metallic additives in engine oil. This ash is accumulated in the filter and is not removed through oxidation, unlike the trapped soot PM. Periodically the ash must be removed by mechanical cleaning of the filter with compressed air or water. This maintenance step is anticipated to occur on intervals of well over 1,500 hours (depending on engine size). However, sulfur in diesel fuel increases this ash accumulation rate through the formation of metallic sulfates in the filter, which increases both the size and mass of the trapped ash. By increasing the ash accumulation rate, the sulfur shortens the time interval between the required maintenance of the filter and negatively impacts fuel economy.

2. Diesel NO_X Catalysts and the Need for Low Sulfur Fuel

NO_X adsorbers are damaged by sulfur in diesel fuel because the adsorption function itself is poisoned by the presence of sulfur. The resulting need to remove the stored sulfur (desulfate) leads to a need for extended high temperature operation which can deteriorate the NO_X adsorber. These limitations due to sulfur in the fuel affect the overall performance and feasibility of the NO_X adsorber technology.

a. Sulfur Poisoning (Sulfate Storage) on NO_X Adsorbers

The NO_X adsorber technology relies on the ability of the catalyst to store NO_X as a metallic nitrate (MNO_3) on the surface of the catalyst, or adsorber (storage) bed, during lean operation. Because of the similarities in chemical properties of SOx and NO_X, the SO_3 present in the exhaust is also stored by the catalyst surface as a sulfate (MSO_4). The sulfate compound that is formed is significantly more stable than the nitrate compound and is not released and reduced during the NO_X release and reduction step (NO_X regeneration step). Since the NO_X adsorber is essentially 100 percent effective at capturing SO_2 in the adsorber bed, the sulfur build up on the adsorber bed occurs rapidly. As a result, sulfate compounds quickly occupy all of the NO_X storage sites on the catalyst thereby rendering the catalyst ineffective for NO_X storage and subsequent NO_X reduction (poisoning the catalyst).

The stored sulfur compounds can be removed by exposing the catalyst to hot (over 650 °C) and rich (air-fuel ratio below the stoichiometric ratio of 14.5 to 1) conditions for a brief period.[224] Under these conditions, the stored sulfate is released and reduced in the catalyst.[225] While research to date on this procedure has been very favorable with regards to sulfur removal from the catalyst, it has revealed a related vulnerability of the NO_X adsorber catalyst. Under the high temperatures used for desulfation, the metals that make up the storage bed can change in physical structure. This leads to lower precious metal dispersion, or ''metal sintering,'' (a less even distribution of the catalyst sites) reducing the effectiveness of the catalyst.[226] This degradation of catalyst efficiency due to high temperatures is often referred to as thermal degradation. Thermal degradation is known to be a cumulative effect. That is, with each excursion to high temperature operation, some additional degradation of the catalyst occurs.

One of the best ways to limit thermal degradation is by limiting the accumulated number of desulfation events over the life of the vehicle. Since

[224] Dou, Danan and Bailey, Owen, ''Investigation of NO_X Adsorber Catalyst Deactivation,'' SAE 982594.

[225] Guyon, M. et al, ''Impact of Sulfur on NO_X Trap Catalyst Activity—Study of the Regeneration Conditions'', SAE 982607.

[226] Though it was favorable to decompose sulfate at 800 °C, performance of the NSR (NO_X Storage Reduction catalyst, *i.e.* NO_X Adsorber) catalyst decreased due to sintering of precious metal.—Asanuma, T. et al, ''Influence of Sulfur Concentration in Gasoline on NO_X Storage—Reduction Catalyst'', SAE 1999–01–3501.

the period of time between desulfation events is expected to be determined by the amount of sulfur accumulated on the catalyst (the higher the sulfur accumulation rate, the shorter the period between desulfation events) the desulfation frequency is expected to be proportional to the fuel sulfur level. In other words for each doubling in the average fuel sulfur level, the frequency and accumulated number of desulfation events are expected to double. We concluded in the HD2007 rulemaking, that this thermal degradation would be unacceptable high for fuel sulfur levels greater than 15 ppm. Some commenters to the HD2007 rule suggested that the NO_X adsorber technology could meet the HD2007 NO_X standard using diesel fuel with a 30 ppm average sulfur level. This would imply that the NO_X adsorber could tolerate as much as a four fold increase in desulfation frequency (when compared to an expected seven to 10 ppm average) without any increase in thermal degradation. That conclusion was inconsistent with our understanding of the technology at the time of the HD2007 rulemaking and remains inconsistent with our understanding of progress made by industry since that time. Diesel fuel sulfur levels must be at or below 15 ppm in order to limit the number and frequency of desulfation events. Limiting the number and frequency of desulfation events will limit thermal degradation and, thus, enable the NO_X adsorber technology to meet the NO_X standard.

This conclusion remains true for the highway NO_X adsorber catalyst technology that this proposal is based upon and will be equally true for nonroad engines applying the NO_X adsorber technology to comply with our proposed Tier 4 standards.

Nonroad and highway diesel engines are similarly durable and thus over their lifetimes consume a similar amount of diesel fuel. This means that both nonroad and highway diesel engines will have the same exposure to sulfur in diesel fuel and thus will require the same number of desulfation cycles over their lifetimes. This is true independent of the test cycle or in-use operation of the nonroad engine.

Sulfur in diesel fuel for NO_X adsorber equipped engines will also have an adverse effect on fuel economy. The desulfation event requires controlled operation under hot and net fuel rich exhaust conditions. These conditions, which are not part of a normal diesel engine operating cycle, can be created through the addition of excess fuel to the exhaust. This addition of excess fuel causes an increase in fuel consumption.

Future improvements in the NO_X adsorber technology, as we have observed in our ongoing diesel progress reviews, are expected and needed in order to meet the NO_X emission standards proposed today. Some of these improvements are likely to include improvements in the means and ease of removing stored sulfur from the catalyst bed. However because the stored sulfate species are inherently more stable than the stored nitrate compounds (from stored NO_X emissions) and so will always be stored preferentially to NO_X on the adsorber storage sites, we expect that a separate release and reduction cycle (desulfation cycle) will always be needed in order to remove the stored sulfur. Therefore, we believe that fuel with a sulfur level at or below 15 ppm sulfur will be necessary in order to control thermal degradation of the NO_X adsorber catalyst and to limit the fuel economy impact of sulfur in diesel fuel.

b. Sulfate Particulate Production and Sulfur Impacts on Effectiveness of NO_X Control Technologies

The NO_X adsorber technology relies on a platinum based oxidation function in order to ensure high NO_X control efficiencies. As discussed more fully in section III.F.1, platinum based oxidation catalysts form sulfate PM from sulfur in the exhaust gases significantly increasing PM emissions when sulfur is present in the exhaust stream. The NO_X adsorber technology relies on the oxidation function to convert NO to NO_2 over the catalyst bed. For the NO_X adsorber this is a fundamental step prior to the storage of NO_2 in the catalyst bed as a nitrate. Without this oxidation function the catalyst will only trap that small portion of NO_X emissions from a diesel engine which is NO2. This would reduce the NO_X adsorber effectiveness for NO_X reduction from in excess of 90 percent to something well below 20 percent. The NO_X adsorber relies on platinum to provide this oxidation function due to the need for high NO oxidation rates under the relatively cool exhaust temperatures typical of diesel engines. Because of this fundamental need for a precious metal catalytic oxidation function, the NO_X adsorber inherently forms sulfate PM when sulfur is present in diesel fuel, since sulfur in fuel invariably leads to sulfur in the exhaust stream.

The Compact-SCR technology, like the NO_X adsorber technology, uses an oxidation catalyst to promote the oxidation of NO to NO_2 at the low temperatures typical of much of diesel engine operation. By converting a portion of the NO_X emissions to NO_2 upstream of the ammonia SCR reduction catalyst, the overall NO_X reductions are improved significantly at low temperatures. Without this oxidation function, low temperature SCR NO_X effectiveness is dramatically reduced making compliance with the NO_X standard impossible. Therefore, future Compact-SCR systems would need to rely on a platinum oxidation catalyst in order to provide the required NO_X emission control. This use of an oxidation catalyst in order to enable good NO_X control means that Compact SCR systems will produce significant amounts of sulfate PM when operated on anything but the lowest fuel sulfur levels due to the oxidation of SO_2 to sulfate PM promoted by the oxidation catalyst.

Without the oxidation catalyst promoted conversion of NO to NO_2, neither of these NO_X control technologies can meet the proposed NO_X standard. Therefore, each of these technologies will require low sulfur diesel fuel to control the sulfate PM emissions inherent in the use of highly active oxidation catalysts. The NO_X adsorber technology may be able to limit its impact on sulfate PM emissions by releasing stored sulfur as SO_2 under rich operating conditions. The Compact-SCR technology, on the other hand, has no means to limit sulfate emissions other than through lower catalytic function or lowering sulfur in diesel fuel. The degree to which the NO_X emission control technologies increase the production of sulfate PM through oxidation of SO_2 to SO_3 varies somewhat from technology to technology, but it is expected to be similar in magnitude and environmental impact to that for the PM control technologies discussed previously, since both the NO_X and the PM control catalysts rely on precious metals to achieve the required NO to NO_2 oxidation reaction.

At fuel sulfur levels below 15 ppm this sulfate PM concern is greatly diminished. Without this low sulfur fuel, the NO_X control technologies are expected to create PM emissions well in excess of the PM standard regardless of the engine-out PM levels. Thus, we believe that diesel fuel sulfur levels will need to be at or below 15 ppm in order to apply the NO_X control technology.

G. Reassessment of Control Technology for Engines Less Than 75 hp in 2007

By structuring our program to benefit extensively from prior experience with core technologies in the highway sector, we believe that a nonroad diesel technology review of the extent being pursued for the heavy-duty highway

engine program will not be needed.[227] Indeed the results of that ongoing review have already had a very helpful impact in shaping this proposal. Nevertheless, there are some technology issues that will not be addressed in the highway program review. In particular we believe that a future review of particulate filter technology for engines under 75 hp may be warranted. Under our proposed schedule presented in section III.B, standards based on the performance of this technology will take effect in the 2013 model year for 25–75 hp engines (or in the 2012 model year for manufacturers opting to skip the transitional standards for 50–75 hp engines).

At this time we have not decided what the long-term PM standards should be for engines under 25 hp. No PM filter-based standards are being proposed for engines under 25 hp as part of this Tier 4 proposal. Likewise, we have not decided what the long-term NO_X standards should be for engines under 75 hp, and no NO_X adsorber-based standards are being proposed for engines under 75 hp. As part of the technology review, we plan to thoroughly evaluate progress made toward applying advanced PM and NO_X control technologies to these smaller engines.

We propose to conduct the technology review in 2007, and to conclude it by the end of that year, to give manufacturers lead time should an adjustment in the program be considered appropriate. We do not intend to include in the technology review a reassessment of PM filter technology needed to meet the optional 0.02 g/hp-hr PM standard for 50–75 hp engines in 2012. We assume that manufacturers would only choose this option if they had confidence that they could meet the 0.02 g/hp-hr standard in 2012, a year earlier than otherwise required.

We recognize the importance of harmonization of international standards and have worked diligently with our colleagues in Europe and Japan to achieve that objective. Harmonization of these standards will allow manufacturers continued access to world markets and lower the required research and development and tooling costs needed to meet different standards. We will continue to work with both governments and the manufacturers abroad and within the United States. We have incorporated feedback from the on-going dialogue and have continued to work through the international process as we have developed this proposal. The Commission has proposed amendments in December 2002 to EC Directive 97/68 which are currently being addressed in the European Council and Parliament. We believe that today's proposal and the European approach together provide the framework for additional harmonization. While not identical, manufacturers have expressed appreciation for the similarities which do exist and they represent a significant step toward mitigating the differences in design challenges that would otherwise exist. The limit values and test procedures provide a basis for common development which manufacturers can use on a global basis. The amendments would control fuel sulfur levels to enable aftertreatment, set nonroad mobile machine emissions limits that would be based on performance of diesel particulate traps. NO_X limits are being set to match the Agency's Tier 3 NO_X program. There are a few differences in approaches that we will continue to discuss with the EU. One difference is that the EC has chosen a leadtime for trap-based PM standards for engines in the 50–100 hp range which is one year earlier than we are proposing today. Another difference is the inclusion of a review of the availability of NO_X emission control technology for larger engines. The EC has also chosen not to set performance requirements that would require the use of PM traps for engines under 50 hp, while we are proposing performance-based standards that would likely require the use of PM traps for engines between 25–75 hp. The EC has again chosen not to set standards for engines below 19 kW (25 hp) and greater than 560 kW (750 hp). With respect to long term NO_X control, the Commission has chosen to have a technology review (which would also reassess issues related to PM) to address implementing potentially more stringent NO_X standards in the same timeframe as potential EPA standards.[228] For additional information about the harmonization effort and the results to date, please *see* chapter 2.4.2 of the SBREFA panel report. We request comment on opportunities to further enhance harmonization.

We expect that any changes to the level or timing of emission standards found appropriate in the 2007 review would be made as part of a rulemaking process, and that process would take additional time after the review is completed. If the 2007 review should determine that PM trap technology is feasible for engine under 25 hp, or that advanced NO_X control technology is feasible for engines under 75 hp, or that Tier 4 standards should be made more stringent in some other way, we would expect the rulemaking implementing such changes to provide for adequate lead time. Therefore, it would be premature for us to target 2013 or any specific model year for implementing such standards changes at this time. We solicit comment on the scope, timing, and need for a future reassessment of emissions control technology for nonroad diesel engines.

IV. Our Proposed Program for Controlling Nonroad, Locomotive and Marine Diesel Fuel Sulfur

We are proposing to reduce the sulfur content of nonroad, locomotive and marine (NRLM) diesel fuel to no more than 500 ppm beginning in 2007. We are also proposing to reduce the sulfur content of nonroad diesel fuel to no more than 15 ppm beginning in 2010. These provisions mirror controls on highway diesel fuel to 500 ppm in 1993[229] and 15 ppm in 2006.[230]

There are two reasons that we are proposing these standards. First, fuel sulfur significantly inhibits or impairs the function of the diesel exhaust emission control devices, which would generally be necessary to meet the proposed nonroad diesel engine emission standards. In conjunction with the proposed 15 ppm sulfur standard for nonroad diesel fuel we have concluded that this emission control technology will be available to achieve the reductions required by the stringent NO_X and PM emission standards proposed for model year 2011 and later nonroad diesel engines. Second, sulfur in diesel fuel is emitted from the engine as sulfate PM and sulfur dioxide, both of which cause adverse health and welfare impacts, as described in section II. above. Reducing the level of sulfur in diesel fuel to 500 ppm beginning in 2007 would achieve important emission reductions of these pollutants and provide significant public health and welfare benefits. The further reduction to 15 ppm in 2010 will expand upon these benefits.

In developing the proposed diesel fuel program, we identified several principles that we wanted the program to achieve:

[227] *See* ''Highway Diesel Progress Review'', U.S. EPA, June 2002. EPA420–R–02–016. (*www.epa.gov/air/caaac/dieselreview.pdf*).

[228] Commission of the European Communities, ''Proposal for a Directive of the European Parliament and of the Council amending Directive 97/68/EC'', section 3.9.

[229] 55 FR 34120 (August 21, 1990).

[230] 66 FR 5002 (January 18, 2001).

(1) Maintain the benefits and program integrity of the highway diesel fuel program;

(2) Achieve the greatest reduction in sulfate PM and sulfur dioxide emissions from nonroad, locomotive, and marine diesel engines as early as practicable;

(3) Provide for a smooth transition of the nonroad diesel fuel pool to 15 ppm sulfur;

(4) Ensure that 15 ppm sulfur diesel fuel is produced and distributed widely for use in all 2011 and later model year nonroad engines;

(5) Enable the efficient distribution of all diesel fuels; and

(6) Ensure that the program's requirements are enforceable and verifiable.

As described below, we believe the proposed fuel program achieves these principles.

The remainder of this section is organized as follows:

(A) The fuel standards proposed today,

(B) The design and structure of the fuel program,

(C) Special hardship provisions proposed for small refiners and refiners facing particularly difficult circumstances,

(D) Special provisions proposed for fuel sold in the State of Alaska and U.S. Territories,

(E) The affect of the proposed program on state diesel fuel control programs,

(F) The technological feasibility of the production and distribution of 500 ppm and 15 ppm sulfur nonroad, locomotive and marine diesel fuel,

(G) The impact of the program on other fuel properties and specialty fuels, and

(H) The need for some refiners to obtain air permits for their desulfurization equipment.

Analyses supporting the design of these provisions can be found in chapter V and VII of the Draft RIA for today's action. Section VIII of this preamble provides a discussion of the compliance and enforcement provisions affecting diesel fuel and additional explanation of various elements of the proposed program.

A. Proposed Nonroad, Locomotive and Marine Diesel Fuel Quality Standards

The following paragraphs describe the requirements, standards, and deadlines that apply to refiners, importers, and distributors of nonroad, locomotive and marine (NRLM) diesel fuel and the options available to all refiners.

1. What Fuel Is Covered by This Proposal?

The proposed standards generally cover all the diesel fuel that is used in mobile applications but is not already covered by the previous standards for highway diesel fuel. This fuel is defined primarily by the type of engine which it is used to power: nonroad, locomotive, and marine diesel engines. These fuels typically include:

(1) Any number 1 and 2 distillate fuels used, intended for use, or made available for use in nonroad, locomotive or marine diesel engines,

(2) Any number 1 distillate fuel (*e.g.*, kerosene) added to such number 2 diesel fuel, *e.g.*, to improve its cold flow properties, and

(3) Any other fuel used in or blended with diesel fuel for use in nonroad, locomotive, or marine diesel engines that has comparable chemical and physical characteristics.

Primary examples of fuels under (1) would be those meeting ASTM D975 or D396 specifications for grades number 1–D and number 2–D or ASTM DMX and DMA specifications, if used in the engines mentioned above. Primary examples under (3) would be certain specialty fuels grades such as JP–5, JP–8, and F76 if used in nonroad, locomotive, or marine equipment for which a national security exemption has not been approved (*See* section VIII.A.2) and non-distillate fuels such as biodiesel.

This proposal would not apply to:

(1) Number 1 distillate fuel used to power jet aircraft,

(2) Number 1 or number 2 distillate fuel used for other purposes, such as to power stationary diesel engines or for heating,

(3) Number 4 and 6 fuels (*e.g.*, bunker or residual fuels, IFO Heavy Fuel Oil Grades 30 and higher, ASTM DMB and DMC fuels), and

(4) Any fuel used to power equipment for which a national security exemption has been approved (*see* section VIII.A.2).

The proposed program would reduce the sulfur in all diesel fuel likely used in mobile off-highway equipment and achieve very significant short and long-term environmental benefits. States, not the Agency, have responsibility for any fuel sulfur specifications for heating oil, so this fuel would not be covered by this proposal.[231] However, we do propose a number of provisions, as described below, that would ensure that heating oil would not be used in nonroad, locomotive, or marine applications.

As in the recent highway diesel rule, in those cases where the same batch of kerosene is distributed for two purposes (*e.g.*, as kerosene to be used for heating and to improve the cold flow of number 2 nonroad diesel fuel), that batch of kerosene would have to meet the standards being proposed today for nonroad diesel fuel. However, an alternative compliance approach would be to produce and distribute two distinct kerosene fuels. In our example above, one batch would meet the proposed sulfur standards and could be blended into number 2 NRLM diesel fuel. The other batch would only have to meet any applicable specifications for heating oil.

2. Standards and Deadlines for Refiners, Importers, and Fuel Distributors

The proposed fuel program consists of a two-step program to reduce the sulfur content of nonroad diesel fuel. By doing so, the program would allow the refining industry to smoothly transition the sulfur content from its current uncontrolled levels down to the very stringent 15 ppm level. By beginning with an initial step down to 500 ppm, we can start to achieve significant emission reductions and associated health and welfare benefits from the current fleet of equipment as soon as possible. While we considered and are seeking comment on a one-step approach of going directly to 15 ppm in 2008, as discussed in section VI, we believe that on balance the advantages of the proposed two-step approach outweigh those of a single step.

The specific proposed deadlines for meeting the 500 and 15 ppm sulfur standards would not apply to refineries covered by special hardship provisions for small refiners. In addition, a different schedule would apply for any refineries approved under the proposed general hardship provisions. All of these hardship provisions are described below in section IV.C.

a. The First Step to 500 ppm

Under this proposal NRLM diesel fuel produced by refiners or imported into the U.S. would be required to meet a 500 ppm sulfur standard beginning June 1, 2007. Refiners and importers could comply by either producing such fuel at or below 500 ppm, or could comply by obtaining credits as discussed in Section B below.

We believe that the proposed level of 500 ppm is appropriate for several reasons. This 500 ppm level is consistent with current highway diesel fuel, a grade which may remain for

[231] For the purposes of this proposal, the term heating oil refers to any number 1 or number 2 distillate other than jet fuel and diesel fuel used in highway, nonroad, locomotive, or marine applications. For example, heating oil includes fuel which is suitable for use in furnaces, boilers, stationary diesel engines and similar applications and is commonly or commercially known or sold as heating oil, fuel oil, and other similar trade names.

highway purposes until 2010. As such, adopting the same 500 ppm level for NRLM helps to avoid any issues and costs associated with more grades of fuel in the distribution system during this initial step of the program. The reduction to 500 ppm is also significant environmentally. The 500 ppm level achieves approximately 90 percent of the sulfate PM and SO_2 benefits otherwise achievable by going all the way to 15 ppm. Yet, the costs would be roughly half that associated with full control down to 15 ppm. Because this first step is only to 500 ppm, it also allows for a short lead time for implementation, enabling the environmental benefits to begin accruing as soon as possible. After careful analysis of feasibility as discussed in section IV.F.5, we believe that the proposed start date of June 1, 2007, is the earliest that the 500 ppm step could take effect.

To allow for the enforcement of the proposed fuel standards while at the same time allowing for a smooth and orderly transition of diesel fuel in the distribution system to 500 ppm, we are proposing that parties downstream of the refineries be allowed time to turnover their NRLM tanks to 500 ppm. We are proposing that at the terminal level, NRLM diesel fuel would be required to meet the 500 ppm sulfur standard beginning August 1, 2007. At bulk plants, wholesale purchaser-consumers, and any retail stations carrying NRLM diesel, this fuel would have to meet the 500 ppm sulfur standard by October 1, 2007.[232] The only exceptions to these dates would be for high sulfur NRLM produced under the hardship and fuel credit provisions discussed below in sections IV.B. and C.[233]

This downstream turnover schedule is slightly more relaxed than for the second step to 15 ppm discussed below. This first step down to 500 ppm is designed to achieve the public health and welfare benefits from reduced emissions in the current fleet of engines. Since the sulfate PM and SO_3 benefits accrue as the fuel is desulfurized to any degree, mixing in the distribution system during the transition to 500 ppm would not reduce this benefit or cause any adverse consequences. Mixing in the distribution system would also not reduce the engine performance and durability benefits from the reduction in sulfur. As a result, the immediate turnover of the fuel pool downstream of the refinery gate is of less concern and a more relaxed schedule than described below for the second step is possible. We seek comment on this proposed schedule.

b. The Second Step to 15 ppm

In order to enable the application of high efficiency exhaust emission control technologies to nonroad diesel engines beginning with the 2011 model year, we are proposing that all nonroad diesel fuel produced or imported after June 1, 2010, would have to meet a 15 ppm sulfur cap. We are proposing that diesel fuel used for locomotive and marine diesel engines could continue to the meet the 500 ppm cap first applicable in 2007.

In order to allow for a smooth and orderly transition of diesel fuel in the distribution system to 15 ppm, we are proposing that parties downstream of the refineries be allowed some additional time to turnover their tanks to 15 ppm. We are proposing that at the terminal level, nonroad diesel fuel would be required to meet the 15 ppm sulfur standard beginning July 15, 2010. At bulk plants, wholesale purchaser-consumers, and any retail stations carrying nonroad diesel, this fuel would have to meet the 15 ppm sulfur standard by September 1, 2010. The proposed transition schedule for compliance with the 15 ppm standard at refineries, terminals, and secondary distributors is the same as that allowed under the recently promulgated highway diesel fuel program.

As with the 500 ppm standard, refiners and importers could comply with this standard by either physically producing 15 ppm fuel or by obtaining sulfur credits, as described below.

We are seriously considering bringing the sulfur level of locomotive and marine diesel fuel to 15 ppm as early as June 1, 2010, along with nonroad diesel fuel. As discussed in more detail in section VI and in chapter 12 of the draft RIA, there are several advantages associated with this alternative. First, it would provide important sulfate PM and SO_3 emission reductions and the estimated benefits from these reductions would outweigh the costs by a considerable margin. Second, it would simplify the fuel distribution system and the design of the fuel program proposed today. Third, it would help reduce the potential opportunity for misfueling of 2007 and later model year highway vehicles and 2011 and later model year nonroad equipment with higher sulfur fuel. Finally, it would allow refiners to coordinate plans to reduce the sulfur content of all of their nonroad diesel fuel at one time.

However, discussions with refiners have suggested there are advantages to leaving locomotive and marine diesel fuel at 500 ppm, at least in the near-term and until we set more stringent standards for those engines. The locomotive and marine diesel fuel markets could provide a market for off-spec product which is important for refiners, particularly during the transition to 15 ppm for highway and nonroad diesel fuel in 2010. Waiting just a year or two beyond 2010 would address the critical near term needs during the transition. Second, waiting just another year or two beyond 2010 is also projected to allow virtually all refiners to take advantage of the new lower cost technology.

In addition to seeking comment on whether to apply the 15 ppm standard to locomotive and marine diesel fuel in 2010, we also seek comment on other timing for doing so, and especially on how the Agency should coordinate a 15 ppm standard for locomotive and marine with the nonroad diesel fuel standard being proposed today. It is the Agency's intention to propose in the near future new emission standards for locomotive and marine engines that could require the use of high efficiency exhaust emission control technology, and thus, also require the use of 15 ppm sulfur diesel fuel. We anticipate that such engine standards would likely take effect in the 2011–13 time frame, requiring 15 ppm locomotive and marine diesel fuel in the 2010–12 time frame. We intend to publish an advanced notice of proposed rulemaking (ANPRM) for such a rule in the Spring of 2004 and complete action on a final rule by 2007.

c. Other Standard Provisions

We are proposing that the 500 ppm NRLM and 15 ppm nonroad diesel fuel standards would apply to the areas of Alaska served by the Federal Aid Highway System (FAHS). Rural areas, those outside the FAHS, would not be subject to either the 15 or 500 ppm standards. Market forces in these areas would be relied upon to provide 15 ppm diesel fuel for 2011 and later nonroad diesel engines used in these areas. This is consistent with the approach which is

[232] A bulk plant is a secondary distributor of refined petroleum products. They typically receive fuel from terminals and distribute fuel in bulk by truck to end users. Consequently, while for highway fuel, bulk plants often serve the role of a fuel distributor, delivering fuel to retail stations, for nonroad fuel, they often serve the role of the retailer, delivering fuel directly to the end-user.

[233] Furthermore, as discussed in subsection B, we propose that high sulfur nonroad diesel fuel which is produced after June 1, 2007 due to the small refiner and fuel credit provisions could be commingled with 500 ppm nonroad diesel fuel after it has been dyed to the IRS specifications. Thus, at some points in the distribution system, nonroad fuel higher than the 500 ppm standard would remain until it is precluded from production beginning June 1, 2010.

in the process of being developed by the State of Alaska for implementing the 2007 highway diesel fuel program. EPA can revisit this issue when it takes action on Alaska's plan for implementation of the highway sulfur requirements, allowing for coordination of the nonroad and highway fuel requirements. The specifics of our proposal for diesel fuel sold in Alaska are described in more detail in section IV.D.1. below. In addition, these proposed 500 and 15 ppm sulfur caps would not apply to diesel fuel sold in three Pacific U.S. territories, as described in more detail in section IV.D.2. below.

The early credits and other special provisions create the probability that high sulfur NRLM diesel fuel would be produced and sold after June 1, 2007, and that 500 ppm nonroad diesel fuel would be produced and sold after June 1, 2010. Under the proposal, fuel distributors would be responsible for ensuring the necessary product segregations and that statements on product transfer documents and fuel product labels are consistent with the corresponding fuel quality. The specific requirements for both fuel distributors and end-users are described in detail in section VIII.

d. Cetane Index or Aromatics Standard

Currently, in addition to containing no more than 500 ppm sulfur, EPA requires that highway diesel fuel meet a minimum cetane index level of 40 or, as an alternative contain no more than 35 volume percent aromatics. We are proposing today to extend this cetane index/aromatics content specification to NRLM diesel fuel. Extension of these content specifications would reduce NO_X and PM emissions from the current nonroad equipment fleet slightly, providing associated public health and welfare benefits.

Low diesel fuel cetane levels are associated with increases in NO_X and PM emissions in current nonroad diesel engines. Thus, we expect that this cetane index specification would lead to a reduction in these emissions from the existing fleet. Because the vast majority of current NRLM diesel fuel already meets this specification, the NO_X and PM emission reductions would be small. Also, the impact of cetane on NO_X and PM emissions appears to be very weak or nonexistent for diesel engines equipped with EGR. Thus, the positive emission impact of this specification would likely decrease over time as these engines gradually dominate the in-use fleet.

ASTM already applies a cetane number specification of 40 to NRLM diesel fuel, which in general is more stringent than the similar 40 cetane index specification. Because of this, the vast majority of current NRLM diesel fuel already meets the EPA cetane index/aromatics specification for highway diesel fuel. Thus, the proposed requirement would have an actual impact only on a limited number of refiners and there would be little overall cost associated with producing fuel to meet the proposed cetane/aromatic requirement. In fact, as discussed in section 5.9 of the draft RIA, complying with the sulfur standards proposed today is expected to result in a small cetane increase, leaving little or no further control to meet the standard.

In addition, we expect that if all NRLM fuel met the cetane index or aromatics specification as proposed, refiners would benefit from the ability to fungibly (mixed together) distribute highway and NRLM diesel fuels of like sulfur content. For that fraction of fuel that today does not meet this specification, the proposed requirement would eliminate the need to separately distribute fuels of different cetane/aromatics specifications that would otherwise need to occur. Requiring NRLM diesel fuel to meet this cetane index specification would thus give fuel distributors certainty in being able to combine shipments of highway and NRLM diesel fuels. Overall, we believe that the economic benefits from more efficient fuel distribution would likely exceed the cost of refining the small volume of NRLM diesel fuel that might not currently meet the cetane index or aromatics content specification.

We request comment on the costs and benefits of our proposal to extend the cetane index and alternative aromatics standard applicable to highway diesel fuel to NRLM diesel fuel.

B. Program Design and Structure

In addition to the proposed content standards and their timing, the program must be designed and structured carefully to achieve the overall principles of this proposed nonroad diesel fuel program. The health and welfare benefits and the need for widespread availability of 15 ppm highway diesel fuel must be maintained. This will only happen if the program is designed such that the amount of low sulfur fuel expected to be produced under the highway diesel program is in fact produced. Likewise, the benefits of the low sulfur diesel program proposed today will only be achieved if the program is designed such that the volume of diesel fuel consumed by NRLM engines is matched by the production and distribution of at least the same volume of diesel fuel produced to the appropriate low sulfur levels. At the same time, promoting the efficiency of the distribution system calls for fungible distribution of physically similar products, and minimizing the need for segregation of products in the distribution system.

1. Background

Prior to the highway diesel sulfur standard that took effect in 1993, most number 2 distillate fuel was produced to essentially the same specifications, shipped fungibly, and used interchangeably for highway diesel engines, nonroad diesel engines, locomotive and marine diesel engines and heating oil applications. Beginning in 1993, highway diesel fuel was required to meet a 500 ppm sulfur cap and was segregated from other distillate fuels as it left the refinery by the use of a visible level of dye solvent red 164 in all non-highway distillate.[234] At about the same time, the IRS similarly required non-highway diesel fuel to be dyed red to a much higher concentration prior to retail sale to distinguish it from highway diesel fuel for excise tax purposes. Dyed non-highway fuel is exempt from this tax. This splitting of the distillate pool necessitated changes in the distribution system to ship and store the now distinct products separately. In some parts of the country where the costs to segregate non-highway diesel fuel from highway diesel fuel could not be justified, both fuels have been produced to the highway specifications.[235]

This proposal would set new specifications for nonroad, locomotive, and marine diesel fuel. However, currently there is no grade of diesel fuel which is produced and marketed as a distinguishable grade for NRLM uses. It is typically produced and shipped fungibly with other distillate used for heating oil purposes, and it is all dyed red in accordance with EPA and IRS regulations. Therefore, in order to control the sulfur content of NRLM, but

[234] Non-highway distillate for the purposes of this proposal refers to all diesel fuel and distillate used for nonroad, locomotive, marine and heating oil purposes; in other words, all number 1 or number 2 distillate other than that used for highway purposes, and excluding jet fuels.

[235] Diesel fuel produced to highway specifications but used for non-highway purposes is referred to as ''spill-over.'' It leaves the refinery gate and is fungibly distributed as if it were highway diesel fuel, and is typically dyed at a point later in the distribution system. Once it is dyed it is no longer available for use in highway vehicles, and is not part of the supply of highway fuel. Based on the most recent EIA data, roughly 15 percent of fuel produced to highway specifications is spillover, representing nearly a third of non-highway consumption.

not heating oil, this proposal requires some means of distinguishing fuel used for the two purposes. This is similar to the situation faced in 1993 in the case of highway diesel fuel. The solution in 1993 for highway diesel fuel was to dye the non-highway distillate. As discussed below, a similar approach is proposed today to identify and distinguish heating oil from NRLM.

This proposal would control the sulfur level of NRLM diesel fuel to 500 ppm in 2007, the same level currently applicable to highway diesel fuel, and the same level as up to 20 percent of the highway diesel fuel pool from June 1, 2006, through December 31, 2009. Under the current provisions of the highway diesel rule, this 500 ppm nonroad diesel fuel would have to be dyed red at the refinery gate and distributed separately from 500 ppm highway diesel fuel.

Continuing to implement this dye provision would allow for simple enforcement of both the proposed NRLM standard and the more stringent highway standards during this timeframe. Clear, undyed diesel fuel would have to meet the 80/20 ratio of 15 ppm and 500 ppm applicable to highway fuel, and diesel fuel (dyed red) would have to meet the 500 ppm standard applicable to NRLM. Continuing the current dye provisions would therefore ensure that the intended benefits of both programs were achieved. However, maintaining this dye distinction would also require segregation of a new grade of diesel fuel, 500 ppm NRLM, throughout the entire distribution system. The costs of requiring segregation of two otherwise identical fuels throughout the entire distribution system could be quite substantial.[236]

In order to avoid adding unnecessary cost to the fuel distribution system, we are proposing that the current requirement that non-highway distillate fuels be dyed at the refinery gate be made voluntary effective June 1, 2006.[237] However, in its place we are proposing an alternate means for refiners to differentiate their highway diesel fuel from NRLM diesel fuel (see IV.B.3 below). Where it is feasible and cost effective to continue to dye and segregate their nonroad fuel, we propose that refiners and importers may continue this option.

Since 500 ppm highway and NRLM diesel fuel would physically be the same, without some means of differentiating highway diesel fuel from NRLM diesel fuel, it would be impossible to maintain the benefits and program integrity of the 2006 highway diesel fuel program. Pre-2007 model year highway vehicles are free to continue using 500 ppm fuel until 2010 as long as it is available. However, if a refiner produced all 500 ppm fuel, designating it as nonroad fuel, that refiner would have no obligation to produce any 15 ppm highway diesel fuel. Without an effective way of limiting the use in the highway market of 500 ppm diesel fuel produced as NRLM fuel (provided currently by the refinery gate dye requirement), much more 500 ppm fuel could, and likely would find its way into the highway market than would otherwise happen under the current highway program, displacing 15 ppm that would have otherwise been produced. This likely series of events would circumvent the 80/20 intent of the highway rule and sacrifice some of the resulting PM and SO_3 emission benefits of that program. Perhaps more importantly, if this occurred to any significant degree, it could also undermine the integrity of the highway program by failing to ensure adequate availability of 15 ppm fuel nationwide for the vehicles that need it.

2. Proposed Fuel Program Design and Structure

a. Program Beginning June 1, 2007

To avoid the costs associated with segregating 500 ppm NRLM diesel fuel from 500 ppm highway fuel, we propose that the existing requirement that NRLM diesel fuel be dyed leaving the refinery would be made voluntary. We propose that this change could occur as early as June 1, 2006. In its place we propose that a baseline volume percentage of non-highway diesel fuel would be established and enforced for each refinery and importer. The baseline percentage would be based on a historical average for a refinery or importer. The baseline percentage of non-highway diesel fuel would then be used to identify the amount of 500 ppm diesel fuel produced by that refinery or importer that is subject to the NRLM requirements and the amount of 500 ppm fuel is subject to the highway requirements. As detailed below, in conjunction with a marker to prevent the use of heating oil in nonroad equipment, the baseline percentage would effectively protect the benefits and integrity of the highway program, ensure that the benefits of the first step of NRLM diesel fuel to 500 ppm sulfur would be obtained, and would enable the efficient, fungible distribution of like grades of fuel. A discussion of this proposal follows, beginning with the introduction of a fuel marker for heating oil.

i. Use of A Marker to Differentiate Heating Oil From NRLM

If all NRLM diesel fuel were required to meet the 500 ppm standard beginning June 1, 2007, then heating oil and NRLM diesel fuel could be differentiated merely on the basis of their sulfur levels. However, this proposal would allow the limited production of high-sulfur NRLM fuel by small refiners, and by other refiners through the use of credits between 2007 and 2010 (*see* section IV.B.2.b). To ensure that the only high sulfur diesel fuel used in nonroad, locomotive, and marine diesel engines is high sulfur NRLM and not heating oil, it would be necessary for parties in the distribution system, and for EPA, to be able to distinguish heating oil from high-sulfur NRLM diesel fuel. One way of ensuring that these fuels remain segregated in the distribution system would be to require that either a dye or a marker be added to heating oil to distinguish it from NRLM diesel fuel during the period of 2007 through 2010.[238] There is no differentiation today between fuel used for NRLM uses and heating oil. Both are typically produced to the same sulfur specification today, and both are required to have the same red dye added prior to distribution and sale.[239] As a result, the dye or marker would have to be different from the current red dye requirement.

There are a number of types of dyes and markers. Visible dyes are most common, are inexpensive, and are easily detected. Invisible markers are beginning to see more use in branded fuels and are somewhat more expensive than visible markers. Such markers are detected either by the addition of a chemical reagent or by their fluorescence when subjected to near-infra-red or ultraviolet light. Some chemical-based detection methods are suitable for use in the field. Others must

[236] Under the highway program the potential exists to add a third grade of diesel fuel in an estimated 40% of the country, and we projected one-time tankage and distribution system costs of $1.05 billion to accomplish this. Using similar assumptions, to add a second 500 ppm grade nationwide would cost in excess of $2 billion. This assumes that the capability exists to add such new tankage.

[237] The IRS requirements concerning dyeing of non-highway fuel prior to sale to consumers are not changed by this rulemaking.

[238] A marker is an additive which is phosphorescent or has some other property which allows it to be easily detected, though not necessarily visible to the naked eye. A dye is intended to be visibly identified by the naked eye.

[239] There may be some exceptions where a refiner produces a unique grade of distillate fuel solely for heating oil purposes.

be conducted in the laboratory due to the complexity of the detection process or concerns regarding the toxicity of the reagents used to reveal the presence of the marker. Near-infra-red and ultra-violet flourescent markers can be easily detected in the field using a small device and after brief training of the operator. There are also more exotic markers available such as those based on immunoassay, and isotopic or molecular enhancement. Such markers typically need to be detected by laboratory analysis.

Using a second dye for segregation of heating oil based on visual identification raises certain challenges. Most dye colors that provide a strong visible trace in fuels are already in use for different fuel applications. More importantly, mixing two fuels containing different strong dyes can result in interference between the two dyes rendering identification of the presence of either dye difficult. Yet, the mixing of NRLM diesel fuel into heating oil for eventual sale as heating oil would be an acceptable and often an economically desirable practice. Furthermore, to avoid interfering with the IRS tax code, it would be advantageous to maintain the current red color. Based on these considerations, the best approach to prevent the use of heating oil as NRLM diesel fuel would appear to be requiring the addition to heating oil of either a dye that does not impart a significant color to diesel fuel or a marker that imparts no color at all. The dye or marker would be added at the refinery gate, just as visible evidence of the red dye is required today. Fuel containing the marker would be segregated from highway and NRLM diesel fuel and would be prohibited from use in highway, nonroad, locomotive, or marine application.

Effective in August 2002, the European Union (EU) enacted a marker requirement for diesel fuel that is taxed at a lower rate (which applies in all of the EU member states).[240] The marker selected by the EU is N-ethyl-N-[2-[1-(2-methylpropoxy)ethoxyl]-4-phenylazo]-benzeneamine.[241] This compound is also referred to as solvent yellow 124 or the Euromarker. We propose that beginning June 1, 2007, solvent yellow 124 must be added to heating oil in the U.S. We propose that it be added in a concentration of 6 milligrams per liter, the same treatment rate as required by the EU. This would ensure adequate detection in the distribution system even if diluted by a factor of 50. A level of 0.1 milligrams per liter would therefore be used as a threshold level to identify heating oil—below this level incidental contamination would be assumed to have occurred and the prohibition on use in highway, nonroad, locomotive, or marine applications would not apply. Despite its name, solvent yellow 124 does not impart a strong color to diesel fuel when used at the proposed concentration. Therefore, we do not expect that its use in diesel fuel containing the IRS-specified red dye would interfere with the use of the red dye by IRS to identify non-taxed fuels. We request comment on this assessment.

Solvent yellow 124 is chemically similar to other additives used in gasoline and diesel fuel, and has been registered by EPA as a fuel additive under 40 CFR part 79. Its products of combustion would not be anticipated to have an adverse impact on emission control devices, such as a catalytic converter. In addition, extensive evaluation and testing of solvent yellow 124 was conducted by the EC. This included combustion testing which showed no detectable difference between the emissions from marked and unmarked fuel. We understand that Norway specifically evaluated the use of distillate fuel containing solvent yellow 124 for heating purposes and determined that the presence of the Eurmarker did not cause an increase in harmful emissions from heating equipment. Based on the European experience with solvent yellow 124, we do not expect that there would be concerns regarding the compatibility of solvent yellow 124 in the U.S. fuel distribution system or for use in motor vehicle engines and other equipment such as in residential furnaces. We request comment on whether there are unique public health concern regarding the use of distillate fuel containing solvent yellow 124. The European Union intends to review the use of Solvent yellow 124 after December 2005, or earlier if any health and safety or environmental concerns about its use are raised. We intend to keep abreast of such activities and may initiate our own review of the use of solvent yellow 124 depending on the European Union's findings.

We also request comment on the extent to which jet fuel might become contaminated with solvent yellow 124 due to the presence of solvent yellow 124-containing fuels and jet fuel in the U.S. common carrier pipeline distribution system, and whether such contamination would raise concerns for the operation of jet engines. Due to safety concerns, jet fuel is held to very strict standards regarding the allowable presence of contaminants and additives. For example, the Department of Defense maintains a zero-tolerance for any contamination of jet fuel with the red dye required by the IRS (and EPA) which is chemically similar to solvent yellow 124. We are not aware that any testing has been done to date to assess whether solvent yellow 124 does raise similar concerns, and we request comment with any supporting data on this issue.

We do not believe that there any significant pathways for such contamination to take place other than by potential human error. In addition, the fact that the fuel distribution industry in the U.S. has been successful in managing contamination of jet fuel with red dye indicates that the potential contamination of jet fuel with solvent yellow 124 can also be successfully managed in the U.S. fuel distribution system. Therefore, we believe that our proposed use of solvent yellow 124 should not pose a significant risk to the maintenance of jet fuel purity. We request comment on this assessment.

Solvent yellow 124 is marketed by several manufactures and is in current wide-scale use in the European community. We anticipate that these manufactures would have sufficient lead-time to increase their production of solvent yellow 124 to supply the need for fuel marker that would result from this proposal. We request comment on whether there are product licencing or other concerns regarding the manufacture of solvent yellow 124 for use under this proposed rule.

We request comment on other potential markers that might be used to identify and segregate heating oil from NRLM fuel. In particular, we ask that as commenters raise potential concerns with the use of solvent yellow 124 that they also identify other possible markers that could overcome their concerns without raising others. One potential alternative we have identified is the Clir-Code® marker system manufactured by ISOTAG Technologies Inc. The Clir-Code® marker system has been used extensively in U.S. fuel and includes a field test that employs a hand-held near infra-red detector which does not require the use of any reagents. EPA deferred proposing the use of the Clir-Code® marker because we believe that the advantage of a simpler field test would not compensate for the increased

[240] The European Union marker legislation, 2001/574/EC, document C(2001) 1728, was published in the European Council Official Journal, L203 28.072001.

[241] Opinion on Selection of a Community-wide Mineral Oils Marking System, (''Euromarker''), European Union Scientific Committee for Toxicity, Ecotoxicity and the Environment plenary meeting, September 28, 1999.

treatment cost relative to the use of solvent yellow 124. We furthermore seek comment on whether more than one marker could be selected, but which could all be detected using the same detection method. In this manner refiners would not be dependent on a sole supplier for the marker. Additional discussion of the rationale for our selection of solvent yellow 124 and the feasibility of its use is contained in Chapter 5 of the Draft RIA.

Since marked heating oil would be a relatively small volume product in many parts of the country, we anticipate that it will not be carried everywhere as a separate fungible product. In places where it is not carried as a separate fungible grade we anticipate that most shipments of marked heating oil will be from refinery racks or other segregated shipments directly into end-user tankage. In these areas any distillate supplied from the fungible supply system for heating oil purposes will therefore likely be spillover from 500 ppm NRLM supply. Clearly, in those parts of the country with high demand for heating oil, particularly the Northeast and Pacific Northwest, we anticipate that marked heating oil will in fact be carried by the distribution system as a separate fungible product. To the extent this is the case, it is entirely possible that heating oil will no longer be produced to diesel fuel cetane or aromatic specifications, reducing production costs. The most difficult to desulfurize streams in a refinery are in fact those that are low in cetane and high in aromatics. Shifting these streams to a unique heating oil product can therefore reduce desulfurization costs, while still producing a high quality heating oil (though we have not reflected this in our cost analysis in section V.)

ii. Non-highway Distillate Baseline Cap

As discussed above, we are proposing use of a marker in heating oil to effectively distinguish uncontrolled heating oil from NRLM fuel, so that the NRLM standards can be enforced throughout the distribution system and at the end-user. However, in order to allow for the fungible distribution of highway diesel fuel and NRLM, and continue to have enforceable highway diesel fuel standards in the absence of a NRLM dye requirement, we are proposing that a non-highway distillate baseline percentage be established for each refinery and importer in the country. This non-highway baseline would be defined as the volume percentage of all diesel fuel and heating oil (number 1 and number 2) that a refinery or importer produced or imported during the specified baseline period that was dyed for non-highway purposes.

We propose that if a refiner chooses to fungibly distribute its NRLM and highway fuels, then under the first step of the nonroad program (June 1, 2007—June 1, 2010), the volume of diesel fuel represented by its non-highway baseline percentage would have to either meet the 500 ppm NRLM standard or be marked as heating oil. All the remaining production would have to meet the requirements of the highway fuel program (*i.e.*, 80 percent of this fuel would have to meet a 15 ppm sulfur cap). As we recognized in the highway rule, some variation in the production of highway and non-highway diesel fuel is normal from year to year. As a result, in any given year it may be possible that a refiner is unable to produce the amount of 15 ppm diesel fuel required to meet its highway requirement (80% of 100% minus the non-highway baseline) simply because of this normal variation. The provisions of the highway diesel rule already allow for a 5% shortfall in the production of 15 ppm fuel in a year as long as it is made up in the following year. We seek comment on whether any additional flexibility beyond that provided in the highway rule is appropriate to account for normal fluctuations in refinery output.

An example will help to explain the use of the baseline. Assume the baseline non-highway percentage has been established as discussed below and is 40%. That means 40% of the total diesel fuel production in the baseline years was non-highway fuel, dyed at the refinery gate. If the refinery then produced a total of 100,000,000 gallons of diesel fuel in 2008, 40,000,000 gallons would be its applicable non-highway baseline. If it then produced and marked 10,000,000 gallons as heating oil, 30,000,000 gallons of the remaining diesel fuel (dyed or undyed) would be subject to the NRLM standard of 500 ppm, and all the remaining diesel fuel, 60,000,000 gallons, would be considered highway diesel fuel and would have to meet the applicable 80/20 requirements.

We propose that a refiner, for each of its refineries, would need to choose either to continue to dye all of its NRLM fuel at the refinery gate, or to apply the non-highway baseline approach to all of its production. If a refinery's production could be split between these two options, the refiner could avoid the cap on NRLM imposed by the baseline percentage by dyeing additional volumes over its baseline, for example at their refinery rack or co-located terminal. The result could be a diversion of extra 500 ppm fuel to the highway market while the dyed 500 ppm fuel was used to serve the nonroad market, resulting in little or no production of 15 ppm highway diesel fuel. Therefore, the choice of whether to dye all of their 500 ppm NRLM fuel at the refinery gate, or comply with the non-highway distillate baseline would have to be made in advance. We propose that compliance with the baseline be determined on an annual basis. We therefore also propose that the decision of whether to dye NRLM 500 ppm fuel at the refinery gate or comply with the baseline could also be made on an annual basis.

This approach allows a refinery's production of 500 ppm NRLM fuel and heating oil to remain flexible in response to market demand, while ensuring that the proportion of fuel they produce in the future to highway and non-highway requirements remains consistent with their historical baseline production. Since the non-highway baseline is set as a percentage of production, the actual volume needed for compliance with this baseline would rise and fall with the refinery's total production of diesel fuel. In this way, it would provide refineries with flexibility similar to that under the 80/20 volume percentage provisions of the highway rule. If total production of diesel fuel decreased, the absolute volume of diesel fuel which had to be produced to highway or NRLM specifications would decrease. If total production increased, the amount of diesel fuel subject to the 80/20 highway and the NRLM standards would also increase. A refiner wishing not to be limited to this non-highway distillate baseline percentage of production could elect to segregate and dye its NRLM diesel fuel at the refinery gate.

Like the current dye requirement, this approach would focus compliance with the highway and NRLM requirements on the refinery or importer. Once undyed 500 ppm or 15 ppm diesel fuel was produced or imported and accounted for under the baseline percentage approach, it could be mixed and shipped fungibly, and sold to either the highway or the NRLM diesel fuel market by anyone further down the distribution system. This would provide a significant degree of market flexibility to refiners and distributors and enable the efficient distribution of diesel fuel. Compliance with the non-highway baseline would be enforced at the refinery gate in the same manner as the current 2006 highway provisions. With the marker for heating oil, compliance with the 15 ppm and 500 ppm standards could also be enforced through to the

end-user. But most importantly, this approach would maintain the health benefits and fuel availability needs of the highway diesel fuel program, because the overall volume of highway diesel fuel produced to the 15 ppm cap would be maintained.

iii. Setting the Non-highway Distillate Baseline

The purpose of the non-highway baseline is to identify a historical level of non-highway production occurring prior to implementation of the provisions of this proposal, for use as a baseline after such implementation. We propose to determine the non-highway baseline percentage for each refinery by averaging the volume of dyed diesel fuel and heating oil (number 1 and number 2, excluding jet fuel and exported fuel) that it produced or imported annually over the three year period from January 1, 2003, through December 31, 2005, and dividing that volume by the average of all diesel fuel and heating oil (number 1 and number 2, excluding jet fuel and exported fuel) it produced or imported annually over the same period (and then multiplied by 100).[242] By using a multi-year average, variations that might otherwise occur from year to year in a refinery's production will get averaged out. Importers would establish a separate baseline for each area of importation.[243]

Selecting a baseline period prior to finalization of the final rule would help to prevent the possibility of entities inappropriately adjusting their operations solely for the purpose of modifying their baseline. At the same time, setting a baseline period as close to the implementation date as possible helps to capture the most recent changes in the industry's production patterns. The proposed period of January 1, 2003, through December 31, 2005, is split roughly equally between production prior to the final rule and production after the final rule to appropriately balance these competing objectives. One advantage of ending the baseline period on December 31, 2005, is that it allows the opportunity for refiners to generate credit for the early production of 500 ppm NRLM fuel after that date, and at the same time avoid having to dye it at the refinery gate. The three year period serves to limit any potential actions to inappropriately adjust the baseline that a refinery might otherwise attempt. A refiner or importer would have to dye and sell a greater fraction of its fuel to the non-highway market over an extended period of time to significantly modify its baseline. The potential financial loss associated with this, particularly if other refineries or importers tried to do the same thing, would likely be prohibitive.

At the same time, we anticipate that a number of refiners may be changing their highway diesel production volumes as they comply with the highway diesel fuel standards in 2006. To the extent that a refiner planned to lower its highway production in 2006, a non-highway baseline set based on 2003–5 data would penalize them by forcing them to continue to meet the highway requirements for a greater volume, based on their pre-2006 production pattern. To avoid this situation, we propose that refiners would be allowed to set their non-highway baseline percentage using June 1, 2006, through May 31, 2007, as the baseline time period. By doing so the refinery's baseline would automatically take into account changes made for compliance with the 2006 highway standard. It would, however, preclude that refinery from participating in the early NRLM credit program prior to June 1, 2007, using the baseline approach, and would require them to continue dyeing their NRLM at the refinery gate until June 1, 2007, since that is the period during which the baseline was being established. Since the purpose of this option is to provide an opportunity to account for the physical changes refineries make in complying with the highway rule, we propose that this option would only apply to refiners and not importers.

Each refinery and importer would have to submit its application for a non-highway baseline to EPA by February 28, 2006, along with the supporting information. If the refinery elected to use the optional baseline period, we propose that the refinery would have to submit its application for a non-highway baseline to EPA by August 1, 2007. EPA would then approve these baselines by June 1, 2006, and any optional baselines by December 1, 2007. We propose that any refinery or importer which was not in operation for the full period of January 1, 2003, through December 31, 2005, would establish their baseline using data from the period they were in operation, as long as that period was greater than or equal to 12 months. The 12 months need not be continuous. Any refinery or importer unable to establish a baseline during this period would have to comply using the dye alternative. In the case of a new or restarted refinery or new importer, we propose to assign a non-highway baseline percentage reflecting the projected average production of non-highway fuel in 2004 for their region of the country. We propose to use the credit trading areas (CTAs) as defined in the highway Based on data from the Department of Energy's Energy Information Agency (EIA) on the current production of low and high sulfur diesel fuel and heating oil, and EIA and EPA projections of future fuel use, these PADD average non-highway baseline would be as shown in Table IV–1.

TABLE IV–1—NON-HIGHWAY BASELINE FOR NEW REFINERIES

PADD 1	PADD 2	PADD 3	PADD 4	Oregon and Washington	Alaska	Hawaii	California[244]
41%	20%	26%	13%	21%	68%	40%	0%

In discussions with various refiners, there was a strong interest in allowing refiners with multiple refineries and importers with multiple points of import to aggregate the baselines across all of their facilities nationwide. However, since the baselines determine how much of a refineries production must comply with the highway standards, allowing nationwide aggregation of the baselines would have the same impact as allowing nationwide

[242] Specialty fuels such as JP–5, JP–8 and F76 are in some instances also used in nonroad diesel equipment today. However, our expectation is that the majority of this fuel is today and will be in the future continue to be used in tactical military equipment that would be exempted from the provisions of this proposal. Consequently, we propose that these fuels would not be counted in either setting the baseline or in determining compliance with the baseline.

[243] The areas would be defined as the credit trading areas (CTAs) as defined in the highway rule.

[244] A value of zero is proposed for California, since we anticipate that all non-highway diesel fuel in California will be covered by the same State standards applicable to highway diesel fuel during this time period.

averaging, banking, and trading of credits under the highway rule. That approach was rejected in the highway rule due to the negative impact it would have on the nationwide availability of 15 ppm highway diesel fuel. For the same reason we are not proposing to allow nationwide aggregation of the non-highway baselines. However, in the highway rule, we do allow credit trading within certain credit trading areas (CTAs). We seek comment on allowing the aggregation of non-highway baselines within the same CTA and how such aggregation could be accomplished. We also seek comment on whether a trading program could be established that allowed for refiners with only one refinery within a CTA to benefit from similar flexibility, and whether some reasonable restrictions on refiners who aggregate baselines are needed to protect the integrity of the highway program.

EPA requests comments on the provisions described above for establishing the non-highway baseline percentage for each refinery and importer. We also request comment on any alternative provisions that could be used to accomplish the objectives discussed above.

iv. Diesel Sulfur Credit Banking, and Trading Provisions for 2007

This proposal includes provisions for refiners and importers to generate early credits for production of 500 ppm NRLM fuel prior to June 1, 2007. This will provide implementation flexibility at the start of the 500 ppm NRLM standard in 2007. These credits would be tradeable and could be used to delay compliance with either the 500 ppm NRLM standard in 2007 or the 15 ppm nonroad standard in 2010. The proposed banking and trading provisions would allow an individual refinery to purchase credits and delay compliance. This would allow for a somewhat smoother transition at the start of the program, with some refineries complying early, others on time, and others a little later. Nevertheless, on average the overall benefits of the program would be obtained or perhaps increased, and some environmental benefits could be achieved earlier than expected. Perhaps the most advantageous use of these credit provisions, however, might be for individual refineries to utilize available credits to permit the continued sale of otherwise off-spec product during the start up of the program when they are still adjusting their operations for consistent production to the new sulfur standards.

Credit Generation

We propose two ways to generate credits that can be used to allow for high sulfur NRLM fuel to be produced after June 1, 2007. First, we propose that a refinery or importer can generate credit for early production of NRLM diesel fuel to the 500 standard from June 1, 2006, through May 31, 2007. Credits would be calculated either using the non-highway baseline approach or by counting 500 ppm NRLM dyed at the refinery gate. Refiners that chose to establish their non-highway baseline using the June 1, 2006—May 31, 2007, baseline period would be precluded from generating any early credits using the non-highway baseline approach. Second, under the small refiner hardship provisions described below in subsection C, small refiners could generate credits for any production of NRLM fuel to the 500 ppm standard from June 1, 2007, through May 31, 2010. In either case, credits could be banked for future use, or traded to any other refinery or importer nationwide. For early credits and small refinery credits generated using the non-highway baseline approach, these credits would be calculated according to the following formula:

High-Sulfur NRLM credits [245] = (15 ppm production volume + 500 ppm production volume)—(100%–non-highway baseline percentage) * (total #1 and #2 distillate production excluding jet fuel and exported fuel).

Early credits or small refinery credits generated using the dye option would be calculated using the following formula: High-Sulfur NRLM credits = 500 ppm production volume dyed at the refinery gate.

If the excess production was 15 ppm fuel instead of 500 ppm fuel, the refiner would of course still have the option of using it to generate 500 ppm highway credits under the existing highway diesel provisions. Credit could not be earned under both programs.

Credit Use

There would be two ways in which refiners could use high-sulfur NRLM credits. First, we propose that these credits could be used during the period from June 1, 2007—May 31, 2010, to continue to produce high sulfur NRLM diesel fuel. Any high sulfur NRLM fuel produced, however, would have to be dyed red at the refinery gate, kept segregated from other fuels in the distribution system, and tracked through the use of unique codes on product transfer documents.

Only at the point in the distribution system where NRLM fuel has been dyed to IRS specifications for excise tax purposes (*e.g.*, after a terminal or bulk plant) do we propose that high sulfur and 500 ppm sulfur NRLM fuels could be commingled. Such commingling will not diminish the PM and SO_3 emission reductions or other benefits associated with the 500 ppm sulfur standard. However, in order to ensure that owners of nonroad equipment can be confident in knowing whether the fuel being purchased meets the 500 ppm cap, the PTD and labels for any commingled fuel will have to indicate that the sulfur level exceeds 500 ppm. This is particularly a concern for some 2008 and later model year equipment that may need to run on 500 ppm or lower sulfur fuel in order to achieve the emission benefits in-use of the standards proposed today, as discussed in section III.

In most cases we anticipate that the distribution costs associated with segregating such a small volume product will prevent high-sulfur NRLM from being carried in the fungible distribution system. As a result, we anticipate that only those refineries that have their own segregated distribution system could continue to produce solely high sulfur NRLM fuel after June 1, 2007. Since there are few refineries set up to accomplish this, our expectation is that the most likely manner in which refiners will be able to use high-sulfur NRLM credits will be through sales made directly from their on-site fuel rack or co-located terminal. Nevertheless, in order to have confidence that refiners are making the transition to 500 ppm for NRLM uses, we seek comment on whether caps on the use of credits would be necessary. In particular, we seek comment on placing a cap on the use of credits at 25 percent of its non-highway baseline, less marked heating oil, beginning June 1, 2008.

The second way in which refiners and importer could use high-sulfur NRLM credits is by banking them for use during the June 1, 2010—May 31, 2012, period. During this period they could continue producing 500 ppm fuel subject to the usage restrictions that apply during that period, as discussed in subsection B.2.b.ii below. This use of high-sulfur credits would provide a cost-effective environmental benefit, since credits generated from the reduction of sulfur levels from high sulfur to 500 ppm would be used to

[245] For the purposes of this proposal, the credits are labeled on the basis of their use in order to follow the convention used in the highway rule. A high-sulfur credit is generated through the production of one gallon of 500 ppm NRLM fuel and allows the production of one gallon of high sulfur NRLM fuel.

offset the much smaller increment of sulfur control from 500 ppm down to 15 ppm.

b. 2010

After June 1, 2010, the fuel standards situation is simplified considerably and the fuel program structure can therefore also be simplified. The need for the non-highway baseline percentage disappears, since all highway and nonroad diesel fuel must meet the same 15 ppm cap. Furthermore, the only high sulfur distillate remaining in the market should be heating oil, since we are proposing that high sulfur diesel fuel no longer be permitted to be used in any NRLM equipment. Heating oil would have to be kept segregated. Preventing its use in NRLM equipment could be enforced on the basis of sulfur level, avoiding the need for a unique marker to be added to heating oil.

After June 1, 2010, under this proposal locomotive and marine diesel fuel would be allowed to remain at the 500 ppm level. In addition, assuming we allowed the continued production and use of 500 ppm nonroad diesel fuel through the small refiner hardship provisions discussed in subsection C and fuel credit provisions, 500 ppm nonoad fuel would continue to exist in the distribution system as late as May 31, 2014. A refiner could produce 500 ppm diesel fuel without the use of credits for the intended use in locomotive and marine applications, but if this 500 ppm fuel later made its way into nonroad equipment, less 15 ppm nonroad fuel would be produced and the full benefits of the 15 ppm nonroad standard would not be achieved. If this happened to a large enough extent it could call into question the adequate supply of 15 ppm for nonroad purposes beginning in 2010. Thus, some method is needed to differentiate locomotive and marine 500 ppm diesel fuel from nonroad 500 ppm diesel fuel after June 1, 2010. EPA is proposing to use a marker for this purpose.

i. A Marker To Differentiate Locomotive and Marine Diesel From Nonroad Diesel

This proposal would allow the limited production of 500 ppm nonroad diesel fuel by small refiners and by other refiners through the use of credits between 2010 and 2014 (*see* section IV.B.3.b). This 500 ppm fuel could only be used in pre-2011 model year nonroad diesel engines, and would have to be segregated from 15 ppm nonroad diesel fuel and 500 ppm locomotive and marine diesel fuel. To ensure compliance with the proposed segregation requirements for such fuel, it would be necessary for parties in the distribution system, and for EPA, to be able to distinguish such 500 ppm nonroad diesel fuel from 500 ppm locomotive and marine diesel fuel. Differentiating locomotive and marine diesel fuel from nonroad diesel fuel presents a very analogous situation, though perhaps on a smaller scale, to that described above for heating oil prior to June 1, 2010.[246] As a result, we propose to use a marker to segregate locomotive and marine diesel fuel from 500 ppm nonroad diesel fuel beginning June 1, 2010. Since both fuels need to be dyed red for tax purposes prior to sale, for the reasons discussed above with respect to heating oil, we propose that solvent yellow 124 be used as the marker for locomotive and marine diesel fuel beginning June 1, 2010. We propose that the marker would be required to be added at the refinery gate just as visible evidence of the red dye is required today, and fuel containing more than the trace concentration of 0.1 mg/l of the marker would be prohibited from use in any nonroad application.

Since marked locomotive and marine diesel fuel would be a relatively small volume product, we anticipate that in most parts of the distribution system it would not be carried as a separate product in the fungible distribution system. Therefore we anticipate that most shipments of marked locomotive and marine fuel would be from refinery racks or other segregated shipments directly into end-user tankage. Any diesel fuel supplied off the fungible supply system for locomotive and marine uses would therefore likely be spillover from 15 ppm nonroad or highway diesel supply.

Since we anticipate that 500 ppm locomotive and marine diesel fuel will be a small volume product, not carried in the fungible distribution system, and only available in limited locations, we also seek comment on whether the approach of using a marker for locomotive and marine diesel fuel could be replaced with an alternative approach. Specifically, we seek comment on whether to just limit supply of 500 ppm locomotive and marine diesel fuel to segregated shipments, with refineries being liable to ensure and keep records demonstrating that 500 ppm fuel produced for locomotive and marine purposes was distributed solely for these purposes.

[246] Without the proposed marker requirement for locomotive and marine diesel fuel discussed in this section, we expect that there would be no physical difference between 500 ppm nonroad diesel fuel and 500 ppm locomotive and marine diesel fuel.

ii. Diesel Sulfur Credit Banking and Trading Provisions for 2010

For the reasons described above for 2007, we are proposing a similar diesel sulfur credit banking and trading program for 2010. We propose that refiners and importers could generate early credit for production of 15 ppm nonroad diesel fuel prior to June 1, 2010. These credits could be used to delay compliance with the 15 ppm nonroad diesel standard in 2010. As in 2007, while it is possible that a refinery could entirely delay compliance with the 15 ppm standard in 2010 through the use of credits, the most advantageous use of these credit provisions is likely to be the continued sale by individual refineries of otherwise off-spec product during the startup of the 2010 program, when they are still adjusting their operations for consistent production to the 15 ppm sulfur standard.

Credit Generation

Under this proposal, highway and NRLM fuels of like sulfur level would be allowed to be distributed fungibly, and as such would be indistinguishable. For example, prior to June 1, 2010, undyed 15 ppm diesel fuel would be distributed together whether or not it was later dyed for nonroad purposes. Consequently, we are proposing that credits for production of early 15 ppm nonroad diesel fuel prior to June 1, 2010, be determined using the non-highway baseline. Any volume up to a refinery's total highway requirement (100 percent minus the non-highway baseline) would continue to be counted under the provisions of 2007 highway diesel fuel program.[247] Any production of 15 ppm fuel greater than this amount (100% minus the non-highway baseline) beginning June 1, 2009 could be used to generate early nonroad credits.

An example will help to explain the use of these credits. Assume the baseline non-highway percentage has been established at 40% and the refinery produces a total of 100,000,000 gallons of diesel fuel from June 1,

[247] Under the highway program four gallons of excess 15 ppm diesel fuel produced or imported would generate one 500 ppm diesel fuel credit. This credit grants the refiner or importer the right to produce one additional gallon of undyed 500 ppm diesel fuel between June 1, 2006 and May 31, 2010. These credits can be used (or traded within the PADD in which they were generated) to produce or import less than 80% of its highway volume as 15 ppm fuel. This would continue under this proposal for any production up to (100% minus the non-highway baseline). For any volume of 15 ppm fuel greater than 100% minus the non-highway baseline a refiner could either receive gallon-for-gallon nonroad credit under this proposal, or treat it as highway fuel and receive 1:4 credit under the provisions of the highway rule.

2009—December 31, 2009. Its applicable non-highway baseline would be 40,000,000 gallons. If it then produced and marked 10,000,000 gallons of heating oil, 30,000,000 gallons of the remaining diesel fuel (dyed or undyed) would be subject to the NRLM standard of 500 ppm, and the remaining 60,000,000 gallons of diesel fuel would be considered highway diesel fuel and would have to meet the applicable 80/20 requirements (48,000,000 at 15 ppm and 12,000,000 at 500 ppm). If the refiner instead produced only 20,000,000 gallons of fuel to the 500 ppm NRLM standard and produced 70,000,000 gallons to the 15 ppm standard, then it would receive credit for the 10,000,000 gallons excess 15 ppm NRLM fuel that it produced. In this example the refiner could also earn 3,000,000 highway credits for the excess production of 15 ppm highway fuel (1:4 ratio).

In addition to this source of credits, we propose two other sources of credits to allow production of 500 ppm nonroad diesel fuel after June 1, 2010. First, as discussed in subsection B.3.a.iv above, high-sulfur NRLM credits generated prior to June 1, 2010, could be converted into 500 ppm nonroad credits and carried over for use beginning June 1, 2010. Second, under the small refiner hardship provisions described below in subsection C, small refiners could generate credits for any production of NRLM fuel to the 15 ppm standard from June 1, 2010, through May 31, 2012. These credits could be traded to any other refinery or importer nationwide.

We seek comment on whether credits should be permitted to be generated prior to June 1, 2009. Our proposal would restrict the early credit period to just one year for two main reasons. First, any 15 ppm fuel produced prior to June 1, 2009, can be treated as highway diesel fuel and any credits generated on the fuel under the highway program can be traded under the highway credit program. We do not want the early nonroad credit provisions to detract from the smooth functioning of the highway diesel credit program. Second, we do not want the early credit provisions to undermine the availability of 15 ppm diesel fuel for nonroad applications in 2010. Allowing more than a years worth of credits to be generated, plus up to a years worth of high sulfur credits to be generated and carried over for use in 2010 would raise concerns that insufficient 15 ppm nonroad diesel fuel might be produced in 2010 to ensure availability everywhere nationwide. Nevertheless, we seek comment on extending the period for early credit generation and on this assessment.

Credit Use

We propose that 500 ppm nonroad credits could be used on a gallon for gallon basis during the period from June 1, 2010–May 31, 2012, allowing continued production of 500 ppm nonroad diesel fuel. Small refiners could continue to produce 500 ppm nonroad diesel until June 1, 2014, without credits. Any 500 ppm nonroad fuel produced would have to be dyed red at the refinery gate, kept segregated from other fuels in the distribution system, and tracked through the use of unique codes on product transfer documents all the way through to the end-user. Refiners wishing to produce 500 ppm fuel and sell it as nonroad would have to get EPA approval in advance demonstrating how they will ensure such segregation.

Given the cost and burden associated with segregating 500 ppm nonroad diesel fuel as a separate product in the distribution system, we anticipate that the most likely manner in which refiners will be able to use 500 ppm nonroad credits will be through sales made directly from their on-site fuel rack.

We request comment on all aspects of the proposed credit trading system.

c. 2014

Beginning June 1, 2014, after all small refiner and credit provisions have ended, both the 15 ppm nonroad diesel fuel standard and the 500 ppm locomotive and marine diesel fuel standard could be enforced based on sulfur level throughout the distribution system and at the end-user. There would no longer be a need for a baseline, a marker, or a dye. Consequently, we are proposing that after May 31, 2014, the different grades of diesel fuel, 15 ppm, 500 ppm, and high-sulfur would merely have to be kept segregated in the distribution system.

3. Other Options Considered

In developing the proposed program structure described above, we also evaluated a number of other possible approaches. Some of the alternatives discussed below would allow for even greater fuel fungibility, for example, extending to smaller volume products such as those produced through the use of credits. However, these alternative approaches would either place more restrictions on refinery operations, or raise significant enforcement and program integrity concerns. As a result, we are not proposing the following alternatives but seek comment on them, including ways to minimize or alleviate the concerns associated with them.

a. Highway Baseline and a NRLM Baseline for 2007

The proposed program described above relies on a non-highway baseline percentage to distinguish highway fuel from NRLM fuel, and a marker to distinguish heating oil from NRLM fuel. In lieu of using a marker for heating oil, another approach would be to use a second baseline aimed at identifying the NRLM portion of non-highway diesel fuel. In this case a highway baseline would be established consistent with the non-highway baseline proposed above (100 percent minus the proposed non-highway baseline). The highway 80/20 standards would apply to this baseline. A second NRLM baseline would be established to which the 500 ppm NRLM standard would apply. The remaining diesel fuel percentage would be uncontrolled (*i.e.*, it could be high sulfur). This approach would allow for greater fungibility of fuels with the same sulfur level. Not only could 500 ppm highway and 500 ppm NRLM fuel be distributed together, but high sulfur NRLM fuel produced through the credit and hardship provisions could be fungibly distributed with heating oil. Heating oil would not need to contain a marker. As a result, this approach would allow for greater flexibility in using the fuel credit and hardship provisions. The disadvantage, however, is that refiners would face additional burden when shifting into the heating oil market. An explanation of this approach follows.

i. Highway Baseline

The highway baseline would be very analogous to the non-highway baseline proposed above. It would be calculated in the same way, except that it would be 100 percent minus the proposed non-highway baseline. The requirement that NRLM fuel be dyed at the refinery gate would become voluntary. From June 1, 2007, through May 31, 2010, any volume of 500 ppm fuel not dyed at the refinery gate would have to meet the 80/20 highway provisions up to the refinery specific highway baseline percentage. The highway baseline percentage would be determined for each refinery and importer in the same manner as described above for the non-highway baseline.

ii. Nonroad, Locomotive, and Marine Baseline

Under this approach, a refiner or importer would be assigned a NRLM baseline percentage. This baseline

percentage of a refinery's or importer's current high-sulfur diesel fuel and heating oil (number 1 and number 2) production would be deemed to be NRLM diesel fuel and thus, subject to the proposed 500 ppm cap beginning June 1, 2007. The remaining percentage would remain uncontrolled and would not need to contain a marker. A refiner's NRLM baseline percentage would be applied to the percentage of distillate not included in the highway baseline (*i.e.*, the proposed non-highway baseline). For example, if a refiner's highway baseline was 50% and its NRLM baseline was also 50%, then 25% of its production would have to meet the 500 ppm NRLM standard.

If a refiner chose not to use the NRLM baseline percentage, a refinery or importer would have to add the proposed marker and segregate their heating oil from any NRLM diesel fuel throughout the distribution system, including high sulfur NRLM diesel fuel (produced through the use of credits or by small refiners or refiners utilizing hardship provisions). The refinery would have to demonstrate that the fuel was segregated all the way through to the end-user and that the end-user used the fuel for legitimate heating oil purposes only. NRLM end-users would be prohibited from using any fuel with a marker.

There are, however, certain difficulties in establishing an NRLM baseline percentage. Unlike the situation today where highway diesel fuel and non-highway distillates are accounted for based upon their different sulfur levels and the presence of red dye, there is no easy way to measure a given refinery's current production of NRLM diesel fuel as compared to their production of heating oil, in order to accurately establish an individual refinery baseline percentage. Generally the two fuels are produced and shipped as a single fuel. We considered whether refiners and importers could reliably track their high sulfur fuel through the distribution system and estimate the volumes used as diesel fuel and heating oil to establish individual refinery baselines. However, most high sulfur diesel fuel and heating oil is shipped by fungible carriers and we do not believe that sufficient data exist to accurately determine which refiner's fuel was actually consumed in either end-use. Discussion with several refiners have supported this belief. Therefore, we developed an approach that would assign each refinery a percentage of their current high-sulfur distillate production, based on the PADD they reside in, as their NRLM baseline. PADDs 1 and 3 would be combined due to the large amount of high sulfur non-highway diesel fuel shipped from PADD 3 to PADD 1 today.

Under this approach we would project consumption of NRLM diesel fuel and heating oil to determine the relative consumption of these two fuels by PADD. This would be the NRLM baseline assigned to refiners and importers in that PADD. This volume percentage of non-highway diesel fuel would then be considered NRLM and have to meet the proposed 500 ppm cap beginning June 1, 2007. The remainder of the non-highway diesel fuel would remain uncontrolled by EPA and would only have to meet any applicable state sulfur standards for heating oil. If a refinery desired to only produce heating oil, then they could either purchase credits from other refineries or segregate and mark their heating oil.

Using EIA estimated fuel consumption data for the year 2000, grown to 2008 using EPA NONROAD emission model growth rates for nonroad and EIA growth rates for other fuels, produces the NRLM baseline percentages shown in Table IV–2.

TABLE IV–2—NRLM DIESEL FUEL BASELINE PERCENTAGES

PADD	Breakdown of High Sulfur Distillate Fuel Production (In percent)		
	Nonroad	Loco and marine	Combined
1 and 3	26	16	42
2	57	27	84
4	67	29	96
5 (excluding Alaska)	59	18	77
Alaska	22	28	50

One particular concern with this NRLM baseline approach is whether refiners can easily respond to above average demand for heating oil (*e.g.*, in unusually cold winter). As today, any short-term, unexpected increases in demand will be made up from existing inventories of fuel. Today, if there are insufficient inventories of high sulfur fuel, 500 ppm inventories are tapped as well. The same situation will continue to occur in the future. As a result, the issue is not one of being able to supply the market with sufficient fuel to meet demand, but rather what quality of fuel must be produced to build inventories back up after high demand has brought them down. This could be addressed in a number of ways. First, in setting the NRLM baseline itself we could make sure it is not too high and allows for sufficient volumes of high sulfur heating oil to be produced even in the event of an unusually cold winter. Second, we could allow credits to flow across the country through a nationwide credit trading program. This would allow the production of high sulfur fuel to likewise flow across the country to the places experiencing higher than normal demand. Third, provisions could be made for deficit carry over of credits. If demand for high sulfur fuel is unusually high in one year, a refiner could increase production to respond to that demand as long as it is made up the following year.

Another concern raised by this baseline approach is the inability to accurately tailor it to each refinery's actual historical production of NRLM. This NRLM baseline approach does reflect the historical practice for the industry as a whole—refineries produced fungible high sulfur fuel for distribution as a common pool of fuel that was later sold as either NRLM or heating oil. However, it does not allow for refinery specific customization. The proposed non-highway baseline approach determines the specific non-highway percentage for each refinery, and the actual volume of marked and dyed heating oil is allowed to vary. The lack of individual specificity for the NRLM baseline approach, however, avoids the need to add a marker to heating oil.

iii. Combined Impact of Highway and NRLM Baselines

These baselines, as with the proposed non-highway baseline, are set on the basis of a percentage of production. Therefore, as a refinery's overall production of diesel fuel rises and falls, the required volume of each grade of fuel will also rise and fall. Thus, the baselines are flexible enough to respond to changes in a refinery's market or situation. Furthermore, a nationwide credit trading program for 500 ppm NRLM fuel could be put in place, allowing refineries further flexibility to change production in response to consumer demand. To add additional flexibility we could allow for some deficit carry-over of NRLM credits. Finally, a refinery could always avoid use of the baselines entirely by dyeing or marking their fuel and ensuring that it is only used in appropriate end-uses.

The combined effect of the highway baseline and NRLM baseline is shown in Table IV–3.

TABLE IV–3—COMBINED IMPACT OF THE HIGHWAY AND NRLM BASELINES FOR JUNE 1, 2007—MAY 31, 2010

Sulfur level	Percentage requirement
15 ppm	> or = 80% x (highway baseline) or; > or = 80% x All undyed diesel fuel (whichever is less)
15+500 ppm	> or = (highway baseline) + (NRLM baseline)(100% highway baseline) or; = All fuel without a marker and segregated through to the end-user

An example will help to explain the use of these baselines. Assume a refinery in PADD 3 produces 100,000,000 gallons of diesel fuel and heating oil per year from 2003–5, 60 percent of which is undyed. Its highway baseline would thus be 60 percent of its total diesel fuel and heating oil production. Its NRLM baseline, assigned by EPA from Table IV–2, would be 42 percent applied to the remaining 40 percent of total distillate, or 16.8 percent of total distillate. If the refinery then continues to produce a total of 100,000,000 gallons of diesel fuel in 2008, 60,000,000 gallons would be required to meet the highway 80/20 standards, *i.e.*, 48,000,000 at 15 ppm and 12,000,000 at 500 ppm. An additional 16.8 percent, or 16,800,000 gallons would be required to meet the 500 ppm NRLM standard, for a total required 500 ppm production of 28,800,000 gallons. Its remaining 23,200,000 gallons of production could remain uncontrolled and could be sold as heating oil or high sulfur NRLM. If the refiner reduced this 23,200,000 gallons to 500 ppm it would then earn credits that could be sold to another refiner.

b. Locomotive and Marine Baseline for 2010

The proposed non-highway baseline percentage approach described above relies on a marker to distinguish locomotive and marine diesel fuel from nonroad diesel fuel after June 1, 2010. Just as in the alternative above, a baseline for locomotive and marine fuel could be used in lieu of a marker. The 2010 locomotive and marine baseline would be established by EPA and used in the same manner as described above for the NRLM baseline in 2007. Possible locomotive and marine baselines are shown in Table IV–2. The advantage of this baseline approach over the proposed approach is that it allows for the fungible distribution of 500 ppm locomotive and marine fuel with 500 ppm nonroad fuel produced through the credit and hardship provisions. As a result, this approach would allow for greater flexibility in using the diesel fuel credit and hardship provisions. The disadvantage, however, is that refiners wishing to produce locomotive and marine fuel in quantities larger than their baseline would have to purchase credits from other refiners.

It may be possible for each refiner and importer to track the use of its diesel fuel to determine what percentage was used by railroads and marine vessels. This information could then be used in lieu of the PADD average values shown in Table IV–2. However, this approach would have to be taken by every refinery and importer to avoid double counting. Any new refineries or importers would still be assigned a locomotive and marine baseline from Table IV–2. Tracking diesel fuel use in this instance could be feasible, since the number of railroads and marine terminals is relatively small. We request comment on this alternative approach and details of how such an approach could be implemented.

c. Designate and Track Volumes in 2007

One main benefit of the proposed non-highway baseline approach is to allow 500 ppm highway and 500 ppm NRLM diesel fuel to be fungibly distributed while still ensuring achievement of the benefits of the highway program. In developing the proposal, several refiners recommended another possible approach, referred to here as the ''designate and track'' approach. It was suggested as a replacement for the proposed non-highway baseline approach. After further discussion, a modified designate and track approach was also described as an alternative for refiners to choose from, in addition to the baseline and dye alternatives. We discuss both of these designate and track approaches below.

We invite comment on these designate and track approaches. However, we are not proposing them for a number of reasons as discussed in more detail below. We are concerned that such an approach could reduce the volume of 15 ppm fuel required to be produced under the highway program, eroding environmental benefits and calling into question availability of 15 ppm highway fuel. This concern is compounded by serious concerns with respect to the workability and enforceability of such a program, particularly if it is a replacement for the baseline approach. We are also concerned that such an approach would place too much burden on the many entities, including many small entities, in the distribution system. Unlike the situation with the existing highway diesel program, the downstream parties, not the refiners, would be liable if insufficient 15 ppm highway diesel fuel was produced and distributed. Finally, these concerns would appear to be reduced if the designate and track approach were to be allowed as a choice for refiners. However, it may then be of such limited usefulness that it is of little value and only adds program complexity. We are interested in comments describing how these concerns could be addressed in order to implement such an approach.

i. Designate and Track as a Replacement for the Non-Highway Baseline Approach

Under the designate and track approach, a refiner or importer would designate its 500 ppm diesel fuel as highway diesel fuel or NRLM diesel fuel and this refiner designation would be used to differentiate highway fuel and NRLM fuel instead of the non-highway baseline. For example, the highway 80/20 requirement would only apply to the amount of diesel fuel designated by the refinery or importer as highway diesel fuel. A marker would still be used to segregate heating oil, but the dye requirement for NRLM at the refinery gate would be removed. As with the baseline approach, undyed 500 ppm highway and 500 ppm NRLM could be fungibly distributed up until the point the NRLM diesel fuel is dyed. These refiner designations would have to follow the fuels through the distribution system. Under this designate and track approach, fuel distributors would be required to ensure that they did not sell more diesel fuel to the highway market than they took in as highway fuel. For example, if 60% of the fuel they took in was originally designated by the refineries as NRLM, they could not sell more than 40% to the highway market. The refiner or importer would have no obligation to ensure this occurred and no liability if it did not occur.

This approach shifts the focus from monitoring and enforcement of production at the refinery gate to monitoring and enforcement of the volumes of fuel handled by each party in the distribution system. Under the designation and track approach, refiners and importers would have complete flexibility to designate individual batches of diesel fuel or even portions of batches as either highway fuel or NRLM fuel. A pipeline could mix undyed highway 500 ppm and NRLM diesel fuels and ship them fungibly as a single physical batch as in the non-highway baseline approach. However, two sets of records would be kept, one applicable to the highway fuel portion and one applicable to the NRLM fuel portion. Whenever all or a portion of the fungible batch was split off or sold, that portion would have to carry one of the two designations, highway or NRLM. The sum of the volumes designated as either fuel would always be required to add up to the volumes designated in the original batch. A combination of fungibly mixed batches would be handled similarly, with the total volumes of each designation of volume split off or sold equaling the sum of the volumes of each designation of the original batches, respectively.

Each party in the distribution system beyond the refinery gate would be required to reconcile the volumes taken in and the volumes discharged, based on the designations of the diesel fuel, annually. For example, assume that over a year a pipeline received a total of 100,000,000 gallons of undyed 500 ppm diesel fuel from various refineries, with 70% of what it received being designated by the refiners as highway and 30% designated as NRLM. Over the year the pipeline would also designate what it discharged at various terminals or other points as either highway or NRLM. The pipeline would have to ensure that over a year's time it did not discharge more than 70% of the volume of this entire pool of 500 ppm diesel fuel as highway diesel fuel, to ensure that fuel designated as NRLM was not inappropriately converted to highway use. It could not discharge more 500 ppm fuel as highway than it took in as highway, and it would have to discharge at least as much 500 ppm diesel fuel designated as NRLM as it took in. This same reconciliation process would apply to every party in the distribution system.

A primary advantage of this designate and track approach for refiners is that it would allow them complete flexibility in deciding how much 15 ppm highway diesel fuel to produce, allowing them to react to changing market conditions. As long as 80 percent of whatever volume they designated as highway was 15 ppm, they would be in compliance. However, in order to maintain the integrity of the highway program, EPA would have to ensure that all diesel fuel designated as NRLM eventually was dyed and sold to the NRLM market. Otherwise, for example, refiners and importers could simply designate diesel fuel under the more lenient NRLM diesel fuel program while downstream in the distribution system the fuel was shifted to the highway diesel fuel market. Such shifting would compromise the required 80/20 split between 15 ppm and 500 ppm highway diesel fuel and undermine the benefits and integrity of the highway program. Various refiners proposed that EPA compare the volume of all diesel fuel designated as NRLM by the refineries and importers nationwide and compare that with the volume dyed nationwide to determine whether the approach was working. Unfortunately, this approach is not feasible, since EPA could not determine and take corrective action against refiners, importers, or distributors if the designated and dyed volumes did not reconcile. To locate the cause of a discrepancy between the designated and dyed volumes, EPA would have to audit the records of every party in the distribution system nationwide. The refiners and importers would not face any liability under this approach for any downstream discrepancy unless there was evidence of collusion with downstream entities.

Thus, under this designate and track approach, EPA would need to require that all parties handling undyed diesel fuel designated as NRLM maintain records for each batch of fuel shipped and received and submit reports periodically demonstrating that the volume of undyed NRLM designated fuel that they dyed plus that transferred undyed to another fuel distributor equaled or exceeded the volume of undyed NRLM designated fuel that they received.[248] We would also need to require that all parties handling dyed or undyed NRLM diesel fuel maintain records and submit reports demonstrating that the volume of NRLM designated fuel that they received was sold for use in nonroad, locomotive or marine diesel engines or transferred with the same designation to another fuel distributor. These requirements would be applied on an annual basis, providing fuel distributors with flexibility to shift fuel designated for one use to the other market and vice versa to address short term supply fluctuations of each fuel but still maintain overall program integrity.

Given the large number of entities involved in distributing diesel fuel and the number of transactions, there are a number of serious practical concerns regarding the enforceability of such an approach. Under the baseline approach described above, enforcement is focused on the roughly 128 refineries producing either highway or NRLM diesel fuel. This designation and track approach would add the various entities in the distribution system. In order to improve the chances of effectively enforcing the program, we would at a minimum have to limit the scope of the entities involved to bulk terminals and entities upstream. Thus, all NRLM diesel fuel would have to exhibit visible evidence of dye after leaving a large bulk terminal. Even with this limitation, there would be as many as 100 pipelines and 1000 terminals reporting. Enforcement of such an approach would be difficult because to determine whether inappropriate changes in

[248] If the volume of dyed NRLM fuel exceeded the designated volume, this would imply that some highway 500 ppm fuel was dyed. This would not compromise the required 80/20 split between 15 ppm and 500 ppm fuel under the highway program, although the total social cost of producing the fuel would be higher.

designation occurred by a given entity, the records of each entity from which it received fuel and to which it sent fuel over the course of an entire year would also have to be compared. An electronic reporting mechanism would likely have to be set up to facilitate reporting and to track the volumes of fuel received and shipped out by each entity in the distribution system down to the terminal. If any entity in the distribution system were unable to verify through their records that they distributed the same amount or more of NRLM fuel as they took in with this designation, then they, not the refiners, would be presumed liable for violating the provisions of the highway rule. Therefore, in addition to our concerns of ensuring compliance, we invite comment on the appropriateness of shifting the compliance burden for tracking fuel volumes, maintaining records, reporting to the Agency, and responding to enforcement audits from the refiners to the downstream parties, particularly since many of these entities are small businesses.

In addition to the number of entities involved and transactions needing to be tracked, there are a number of complications which would make such an approach difficult to implement. First, due to contamination in the distribution system that results in some product being downgraded from one grade to another in the distribution system, in actuality the volumes of fuel designated at the refinery and those downstream will likely never match. Some means of addressing this situation would have to be developed which did not allow fuel produced as NRLM fuel to be subsequently sold as highway fuel. Second, kerosene will be blended into NRLM diesel fuel in northern areas during the winter months. It is difficult to understand how refiners would be able to designate portions of this fuel as NRLM fuel or highway fuel at the refinery gate given its many other uses. Therefore, this would further disrupt the volume reconciliation. Third, it would not always be entirely clear who should be the entity responsible for compliance, recordkeeping, and reporting. In many cases in the distribution system there are entities who have custody of the fuel while a variety of other entities maintain ownership. A means of sorting out who the responsible party was under such circumstances would have to be determined.

One of the advantages of the proposed baseline approach is that once 500 ppm fuel leaves the refinery gate, the distribution system has complete flexibility to shift it to either the highway or the NRLM markets to respond to changing market conditions. Conversely, as discussed above, one of the main advantages of the designate and track approach is that it allows refiners complete flexibility to modify their relative production of 15 ppm and 500 ppm fuel by their choice of designations (highway or NRLM). However, the market will demand a certain volume of highway fuel and NRLM fuel, and these decisions will be made downstream. If the market demands more highway diesel fuel than what the refiners designated as highway on an annual basis, then under the designate and track approach the terminals will be restricted from responding to this market change. They could shift NRLM fuel into the highway market on a temporary basis, but by the end of the year, they would have to be able to reconcile their highway and NRLM volumes. Given the refiner's inability to predict future demand precisely, and their economic incentive to produce as little 15 ppm diesel fuel as possible, there is a real possibility that some terminals could find themselves in a noncomplying situation. Were this to occur, a terminal would be faced with two difficult choices. They could stop shipping highway diesel fuel, in which case they would not only fail to deliver on their contracts to their customers, but would also constrain highway diesel fuel supply, raising market prices. Or, they could continue to respond to market pressure and sell additional volumes of fuel designated as NRLM into the highway market. In this case, they would risk significant non-compliance penalties from EPA, were we able to detect the violation. Thus, we are concerned that the designate and track approach could result in either widespread noncompliance or disruption of the fuel distribution system.

We are also concerned that the designate and track approach would not maintain the benefits and integrity of the highway program. Nearly a third of all non-highway distillate today is produced to the highway specifications due primarily to limitations in the distribution system. The sulfate PM and SO_2 emission benefits predicted from the highway rule, and the assumptions with respect to program cost and fuel availability, were all based on the assumption that 80% of this spillover volume would comply with the 15 ppm highway standard and would be available for highway use if needed. Under the proposed dye approach, in the future this ''spillover'' from the highway market could technically be dyed at the refinery gate to avoid compliance with the 2006 highway standards. However, our expectation is that the majority of the spillover today would continue into the future as it would be costly to significantly change the current distribution practices. While the dye approach would not ensure this and spillover could decline, it would be unlikely to drop significantly. Similarly, the proposed baseline approach would maintain spillover at historical rates (either 2003–5 the average level or June 1, 2006—May 31, 2007, level). However, under the designate and track approach, wherever undyed 500 ppm was distributed as a grade of fuel, the prior spillover volume could instead be designated as NRLM fuel, and would no longer be subject to the highway program standards (*i.e.*, 80 percent of it would no longer have to meet the 15 ppm sulfur standard.). The segregation and associated cost that previously led to spillover would be gone. As a result, the benefits projected from this fuel volume under the highway rule would be reduced. Furthermore, with the reduced volume of 15 ppm fuel produced, we would need to reevaluate whether sufficient 15 ppm fuel would still be available in all parts of the country for the vehicles that would need it. The areas where availability of 15 ppm fuel would be of greatest concern would be those areas where 500 ppm fuel would be distributed and spillover would decline under the designate and track approach. The enforcement concerns cited in the paragraphs above only serve to heighten this concern.

EPA requests comments on the practical viability of this approach. In addition to the issues noted above, we specifically request comments on the following:

(1) What would be the impacts of this approach on fuel distributors?

(2) What information would need to be kept and/or reported?

(3) How might the required reports be automated in a common, electronic format?

(4) How often should reports be required (*e.g.*, annually, quarterly, each batch if electronically)?

(5) How might the record keeping requirements be combined with those already required by the U.S. Internal Revenue Service?

(6) How would the record keeping requirements work for pipelines and certain terminals that handle fuel without taking ownership and that do not control the decision to dye certain diesel fuel prior to sale?

(7) How might the IRS records for refiners, importers and distributors be used as an independent check on the

volumes of undyed diesel fuel handled which are eventually dyed and which are sold undyed?

(8) What would be the cost associated with the tracking, record keeping and reporting?

(9) Could the industry utilize independent auditors to simplify EPA's enforcement oversight?

(10) Could refiners feasibly be responsible to ensure the necessary volumes are dyed downstream at the terminal rather than placing the responsibility and liability with the fuel distributors?

(11) What changes could be made to the program to avoid losing the benefits of the highway program (*e.g.*, avoid loss in production of 15 ppm attributable to the spillover volume)?

ii. Designate and Track as a Refiner's Option in Addition to the Baseline Approach

Several refiners indicated that the designate and track approach should be considered as an option in addition to the baseline approach. Including the designate and track approach as a refiner's option, however, would significantly alter the design and implications of the approach.

With such an approach, no longer could compliance be determined simply on the basis of whether a terminal dyed at least as much volume of diesel fuel as the volume received designated as NRLM 500 ppm fuel, since the dyed diesel fuel could have been produced under either the non-highway baseline approach or the designate and track approach. In a situation where volumes produced under the designate and track approach are fungibly distributed with volumes produced under the baseline approach, there is no clear way to identify whether dyed volumes have been accurately reconciled under the designate and track approach, risking significant loss in the benefits expected from the highway program.

For example, assume a terminal receives a certain volume of undyed diesel fuel and 30% of it was originally designated by the refinery as NRLM under the designate and track approach. The remaining 70% would have been produced by refineries using the non-highway baseline approach. Some significant portion of the 70% produced by refineries under the baseline approach would have been produced subject to the 500 ppm standard for the NRLM market, not the standards for highway market, and produced with the expectation that it could later be dyed at the terminal. If the terminal dyes only 30% of the entire volume it receives, there is every expectation that some or even all of that 30% could have been produced by refineries using the baseline approach, and should not be counted towards the volume reconciliation under the designate and track approach. If all of the 30% of dyed diesel fuel was produced by refineries using the baseline approach, then the terminal would have effectively sold into the highway market all of the fuel received as NRLM under the designate and track approach.

Thus, in order to allow for volumes to be reconciled using such an approach, we concluded that fuel distributors would have to track which refinery or importer the fuel came from and how they disposed of the fuel for that refinery or importer, in addition to whether it was NRLM or highway. Thus, allowing the designate and track approach as a refiner's option would add one more layer of complexity to the tracking, recordkeeping, and reporting.

The following example explains how the approach could work in theory. Over the course of a year, a terminal receives 6 million gallons of 500 ppm diesel fuel identified as baseline fuel from refinery A, 2 million gallons of 500 ppm diesel fuel designated as ''designate and track'' NRLM fuel from refinery B, and 2 million gallons of 500 ppm diesel fuel designated as ''designate and track'' highway fuel from refinery B. At the end of the year, the terminal would have had to have dyed at least 2 million gallons of the fuel it received from refinery B and delivered it to or on behalf of that refinery as dyed NRLM. (If they do not deliver the fuel back to the entity that designated the fuel, then the dyed fuel could have been baseline fuel from refinery A, and we could not enforce the dyeing of the designate and track fuel volume from refinery B.) The terminal would need to do this separately for each refinery or importer from which it received designate and track diesel fuel.

Based on the above discussion, we believe that in order to have an enforceable program, only those refineries and importers who maintain ownership of the fuel all the way through the pipeline and terminal could take advantage of the option to designate and track their fuel. This could be a very small subset of refiners since they would have to maintain ownership of all of their NRLM diesel fuel distributed through all of its distribution pathways to the point where the fuel is dyed. If this were a very small subset, then it would raise questions as to whether the flexibility of this approach would be worth the added program and enforcement complexity.

Since the pipelines and terminals in this situation are basically providing a service to these refineries and importers, transporting their fuel and dyeing it for them, a different responsibility and liability scheme could be considered. Instead of the fuel distributors being solely responsible for recordkeeping and reporting to the Agency and liable for any violations, it might be possible to leave this burden with the refiner. The refiner could be responsible for ensuring that they took delivery from a terminal of at least as much dyed NRLM diesel fuel as they sent undyed NRLM to that terminal from their refinery gate. The refiner would be responsible for collecting and maintaining the records from the various points in the distribution system to demonstrate compliance and to submit an annual report demonstrating compliance. At the same time EPA would have to be able to verify the refiner's report and as a result, fuel distributors may still have to maintain records.

For the baseline approach to exist simultaneously with the designate and track approach, a refinery or importer would have to choose which approach to utilize and maintain that approach. We could consider allowing the refinery to change approaches on a year to year basis, as with the baseline and dye alternatives.

EPA requests comment on the designate and track approach as a refinery's option and whether it could be enforced as described above. EPA specifically requests comment on:

(1) The advantages and disadvantages of placing the recordkeeping, reporting, and liability burden on the refinery of the designate and track approach if it is an option along with baseline approach;

(2) If this responsibility were not place on the refiners, what level of voluntary participation would occur among fuel distributors (*e.g.*, pipelines and terminals) and how might EPA structure a viable enforcement oversight program;

(3) What level of voluntary refinery participation would occur and whether it warrants the added program complexity;

(4) The extent to which this approach might reduce 15 ppm highway diesel production (*i.e.*, reduced spillover to non-highway markets)

(5) What would be the cost associated with the tracking, record keeping and reporting?

C. Hardship Provisions for Qualifying Refiners

1. Hardship Provisions for Qualifying Small Refiners

In developing our proposed off-highway diesel sulfur program, we evaluated the need and the ability of refiners to meet the 500 and 15 ppm standards as expeditiously as possible. We believe it is feasible and necessary for the vast majority of the program to be implemented in the proposed time frame to achieve the air quality benefits as soon as possible. Based on information available from small refiners and others, we believe that refineries owned by small businesses generally face unique hardship circumstances, compared to larger refiners. Thus, as discussed below, we are proposing several special provisions for refiners that qualify as ''small refiners'' to reduce the disproportionate burden that nonroad diesel sulfur requirements would have on these refiners.[249]

a. Qualifying Small Refiners

EPA is proposing several special provisions that would be available to companies approved as small refiners. The primary reason for these provisions is that small refiners generally lack the resources available to large companies that help large companies, including those large companies that own small-capacity refineries, to raise capital for investing in desulfurization equipment, such as shifting of internal funds, securing of financing, or selling of assets. Small refiners are also likely to have more difficulty in competing for engineering resources and completing construction of the needed desulfurization equipment in time to meet the standards proposed today.

Since small refiners are more likely to face hardship circumstances than larger refiners, we are proposing temporary provisions that would provide additional time to meet the sulfur standards for refineries owned by small businesses. This approach would allow the overall program to begin as early as possible, avoiding the need for delay in order to address the ability of small refiners to comply.

i. Regulatory Flexibility for Small Refiners

As explained in the discussion of our compliance with the Regulatory Flexibility Act in section X.C and in the Initial Regulatory Flexibility Analysis in chapter 11 of the Draft RIA, we considered the impacts of the proposed regulations on small businesses. Most of our analysis of small business impacts was performed as a part of the work of the Small Business Advocacy Review (SBAR) Panel convened by EPA, pursuant to the Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). The final report of the Panel is available in the docket for this proposed rule.

For the SBREFA process, EPA conducted outreach, fact-finding, and analysis of the potential impacts of our regulations on small businesses. Based on these discussions and analyses by all panel members, the Panel concluded that small refiners in general would likely experience a significant and disproportionate financial hardship in reaching the objectives of the proposed nonroad diesel fuel sulfur program.

One indication of this disproportionate hardship for small refiners is the relatively high cost per gallon projected for producing nonroad diesel fuel under the proposed program. Refinery modeling of refineries owned by refiners likely to qualify as small refiners, and of non-small refineries, indicates significantly higher refining costs for small refiners. Specifically, we project that without special provisions, refining costs for small refiners on average would be about 5.5 cents per gallon compared to about 4.0 cents per gallon for non-small refiners.

The Panel also noted that the burden imposed on the small refiners by the proposed sulfur standards may vary from refiner to refiner. Thus, the Panel recommended more than one type of burden reduction measure so that most if not all small refiners could benefit. We have continued to consider the issues raised during the SBREFA process and have decided to propose each of the provisions recommended by the Panel.

ii. Rationale for Small Refiner Provisions

Generally, we structured these proposed provisions to reduce the burden on small refiners while expeditiously achieving air quality benefits and ensuring that the availability of 15 ppm nonroad diesel fuel would coincide with the introduction of 2011 model year nonroad diesel engines and equipment. We believe the proposed special provisions for small refiners are necessary and appropriate.

First, the proposed compliance schedule for the nonroad diesel program, combined with flexibility for small refiners, would achieve the air quality benefits of the program as soon as possible, while helping to ensure that small refiners will have adequate time to raise capital for new or upgraded fuel desulfurization equipment. Most small refiners have limited additional sources of income beyond refinery earnings for financing and typically do not have the financial backing that larger and generally more integrated companies have. Therefore, they can benefit from additional time to accumulate capital internally or to secure capital financing from lenders.

Second, we recognize that while the sulfur levels in this proposed program can be achieved using conventional refining technologies, new technologies are also being developed that may reduce the capital and/or operational costs of sulfur removal. Thus, we believe that allowing small refiners some additional time for newer technologies to be proven out by other refiners would have the added benefit of reducing the risks faced by small refiners. The added time would likely allow for small refiners to benefit from the lower costs of these improvements in desulfurization technology (*e.g.*, better catalyst technology or lower-pressure hydrotreater technology). This would help to offset the financial burden facing small refiners.

Third, providing small refiners more time to comply would increase the availability of engineering and construction resources. Most refiners would need to install additional processing equipment to meet the nonroad diesel sulfur requirements. We anticipate that there may be significant competition for technology services, engineering resources, and construction management and labor. In addition, vendors will be more likely to contract their services with the larger refiners first, as their projects will offer larger profits for the vendors. Temporarily delaying compliance for small refiners would spread out the demand for these resources and probably reduce any cost premiums caused by limited supply.

We discuss below the provisions we are proposing to minimize the degree of hardship for small refiners. With these provisions we are confident about going forward with the 500 ppm sulfur standard for NRLM diesel fuel in 2007 and the 15 ppm sulfur standard for nonroad diesel fuel in 2010 for the rest of the industry. Without small refiner flexibility, EPA would have to consider delaying the overall program until the burden of the program on many small refiners were diminished, which would delay the air quality benefits of the overall program. By providing

[249] The proposed small refiner provisions would not apply to importers, as the burden from capital expenditures for physical refinery improvements are not imposed on importers.

temporary relief to small refiners, we are able to adopt a program that expeditiously reduces off-highway diesel sulfur levels in a feasible manner for the industry as a whole.

iii. Limited Impact of Small Refiner Options on Program Emissions Benefits

Small refiners that choose to make use of the delayed nonroad diesel sulfur requirements would also delay to some extent the emission reductions that would otherwise have been achieved. However, the overall impact of these postponed emission reductions would be small, for several reasons.

First, small refiners represent only a fraction of national non-highway diesel production. Today, refiners that we expect would qualify as small refiners represent only about 6 percent of all high-sulfur diesel production. Second, the proposed delayed compliance provisions described below would affect only engines without new emission controls. During the first step to 500 ppm NRLM fuel, small refiner nonroad fuel could be well above 500 ppm, but the new advanced engine controls would not yet be required. During the second step to 15 ppm nonroad diesel fuel, equipment with the new controls would be entering the market, but use of the 500 ppm small refiner fuel would be restricted to older engines without the new controls. There would be some loss of sulfate PM control in the older engines that operated on higher sulfur small refiner fuel, but no effect on the major emission reductions that the proposed new engine standards would achieve starting in 2011. Finally, because small diesel refiners are generally dispersed geographically across the country, the limited loss of sulfate PM control would also be dispersed.

One proposed small refiner option would allow a modest 20% relaxation in the gasoline sulfur interim standards for small refiners that produce all nonroad diesel fuel at 15 ppm by June 1, 2006. To the extent that small refiners elected this option, a small loss of emission control from Tier 2 gasoline vehicles that used the higher sulfur gasoline could occur. We believe that such a loss of control would be very small. A very few small refiners would be in a position to use this provision. Further, the relatively small production of gasoline with slightly higher sulfur levels should have no measurable impact on the emission of new Tier 2 vehicles, even if the likely ''blending down'' of sulfur levels did not occur as this fuel mixed with lower sulfur fuel during distribution. This provision would also maintain the maximum 450 ppm gasoline sulfur per-gallon cap standard in all cases, providing a reasonable sulfur ceiling for any small refiners making use of this provision.

b. How Do We Define Small Refiners for Purposes of the Hardship Provisions?

The definition of small refiner for the proposed nonroad diesel program is basically the same as our small refiner definitions in the Tier 2/Gasoline Sulfur and Highway Diesel rules. A small refiner must demonstrate that it meets both of the following criteria:

- No more than 1,500 employees corporate-wide, based on the average number of employees for all pay periods from January 1, 2002 to January 1, 2003.
- A corporate crude oil capacity less than or equal to 155,000 barrels per calendar day (bpcd) for 2002.

As with the earlier fuel sulfur programs, the dates for the employee count and for calculation of the crude capacity represent the latest complete years prior to the issuing of the proposed rule.

In determining the total number of employees and crude oil capacity, a refiner must include the number of employees and crude oil capacity of any subsidiary companies, any parent company and subsidiaries of the parent company, and any joint venture partners. We define a subsidiary of a company to mean any subsidiary in which the company has a 50 percent or greater ownership interest. However, we are proposing that a refiner be eligible for small refiner status if it is owned and controlled by an Alaska Regional or Village Corporation organized under the Alaska Native Claims Settlement Act (43 U.S.C. 1626), regardless of number of employees and crude oil capacity. Such an exclusion would be consistent with our desire to grant relief from the regulatory burden to that part of the industry that can least afford compliance. We believe that very few refiners, probably only one, would qualify under this provision. Similarly, we are proposing to incorporate this exclusion into the small refiner provisions of the highway diesel and gasoline sulfur rules, which did not address this issue.

As with the earlier fuel sulfur rules, we are proposing that a refiner that restarts a refinery in the future may be eligible for small refiner status. Thus, a refiner restarting a refinery that was shut down or non-operational between January 1, 2002, and January 1, 2003, could apply for small refiner status. In such cases, we would judge eligibility under the employment and crude oil capacity criteria based on the most recent 12 consecutive months unless we conclude from data provided by the refiner that another period of time is more appropriate. Companies with refineries built after January 1, 2002, would not eligible for the small refiner hardship provisions.

2. The Effect of Financial Transactions on Small Refiner Status and Small Refiner Relief Provisions

During the implementation of the gasoline sulfur and highway diesel sulfur programs, several refiners have raised concerns about how various kinds of financial transactions would affect implementation of the small refiner fuel sulfur provisions. The kind of transactions typically involve refiners with approved small refiner status that are involved in potential or actual sales of the small refiner's refinery, or involve the purchase by the small refiner of another refinery or other non-refining asset. We believe that these concerns are also relevant to the small refiner provisions proposed below for the nonroad diesel sulfur program.

a. Large Refiner Purchasing a Small Refiner's Refinery

One situation involves a ''non-small'' refiner that wishes to purchase a refinery owned by an approved small refiner. The small refiner may not have completed or even begun refinery upgrades to meet the long-term fuel sulfur standards, since it is making use of the special small refiner relief provisions. This situation is of most concern where the purchase is to take place near or after the beginning of the gasoline or highway diesel sulfur programs. Under the existing gasoline sulfur and highway diesel sulfur programs, once such a purchase is completed, the ''non-small'' purchaser would not have the benefit of the small refiner relief provisions that had applied to the previous owner.

The purchasing refiner would have to perform the necessary upgrades to meet the ''non-small'' sulfur standards. As the gasoline sulfur and highway diesel sulfur provisions exist today, such a refiner would be left with very little or (if the respective fuel sulfur control program has already begun) no lead time for compliance. The refiners that have raised this issue have claimed that refiners in this situation would not be able to comply with the ''non-small refiner'' standards upon acquisition of the new refinery. These refiners claim that this could prevent them from purchasing a refinery from a small refiner and, as a result, this would severely limit the ability of small refiners to sell such an asset. The refiners that have raised this issue have

said that some sort of ''grace period'' of additional lead time before the non-small refiner sulfur standards take effect would address this issue.

We believe these concerns are valid and are proposing that an appropriate period of lead time for compliance with the nonroad diesel sulfur requirements be provided where a refiner purchases any refinery owned by a small refiner, whether by purchase of the refinery or purchase of the small refiner entity. We propose that a refiner that acquires a refinery from an approved small refiner be provided 24 additional months from the date of the completion of the purchase transaction (or until the end of the applicable small refiner relief interim period if it is within 24 months—June 1, 2010, for 500 ppm fuel and June 1, 2014, for 15 ppm fuel). During this interim period, production at the newly-acquired refinery could remain at the interim sulfur levels that applied to that refinery for the previous small refiner owner under the small refiner options discussed below. At the end of this period, the refiner would need to comply with the ''non-small refinery'' sulfur standards.

We expect that in most if not all cases, the proposed 24 months of additional lead time would be sufficient for the new refiner-owner to accomplish the necessary engineering, permitting, construction, and start-up of the necessary desulfurization project, since planning for this could be expected to be a part of any purchase decision. If a refiner nonetheless believed that the technical characteristics of its planned desulfurization project would require additional lead time, the refiner could apply for additional time and EPA would consider such requests on a case-by-case basis. Such an application would be based on the technical factors supporting the need for more time and include detailed technical information and projected schedules for engineering, permitting, construction, and startup. Based on information provided in such an application and other relevant information, EPA would decide whether additional time was technically necessary and, if so, how much additional time would be appropriate. As discussed above, in no case would compliance dates be extended beyond the time frame of the applicable small refiner relief provisions (June 1, 2010, for 500 ppm fuel and June 1, 2014, for 15 ppm fuel).[250]

During the 24 months additional lead time (and any further lead time approved by EPA for the purchasing refiner), all existing small refiner provisions and restrictions, as described below, would also remain in place for that refinery. This would include the per-refinery volume limitation on the amount of nonroad diesel that could be produced at the small refiner standards. There would be no adverse environmental impact of this provision, since the small refiner would already have been provided relief prior to the purchase and this provision would be no more generous.

b. Small Refiner Losing Its Small Refiner Status

A second situation involves a refiner with approved small refiner status that later loses its small refiner status because it exceeds the small refiner criteria. In the existing gasoline sulfur and highway diesel sulfur programs, an approved small refiner that exceeds 1,500 employees due to merger or acquisition would lose its small refiner status. (We also intended for refiners that exceeded the 155,000 barrel per calendar day crude capacity limit due to merger or acquisition to lose its small refiner status and we are proposing below to amend the regulations to reflect that criterion as well.) This includes exceedences of the criteria caused by acquisitions of assets such as plant and equipment, as well as acquisitions of business entities.

Our intent in the gasoline and highway diesel sulfur programs, as well as the proposed nonroad diesel sulfur program, has been and continues to be to reserve the small refiner relief provisions for a small subset of refiners that generally tend to face the kinds of special challenges discussed above. At the same time, it is also our intent to avoid stifling normal business growth among small refiners. Therefore, we designed our existing regulations, as well as the proposed regulations, to disqualify a refiner from small refiner status when it exceeds the small refiner criteria through its involvement in transactions such as being acquired by or merging with another entity or through the small refiner itself purchasing another entity or assets from another entity. However, as in the existing regulations, we are proposing that if an approved small refiner were to exceed the criteria without merger or acquisition, it would keep its small refiner status.

Consistent with our intent in the earlier fuel sulfur programs to limit the use of the small refiner hardship provisions, we also intended in the gasoline sulfur and highway diesel sulfur programs for an exceedence of the other small refiner criterion—a limit of 155,000 barrels per calendar day of crude capacity—due to merger or acquisition to be grounds for disqualifying a refiner's small refiner status. However, we inadvertently failed to include this second criterion as grounds for disqualification. In today's action, we propose to resolve this error by adding the crude capacity limit to the employee limit in this context for both the gasoline sulfur and highway diesel sulfur programs, to begin January 1, 2004. Thus, a refiner exceeding either criterion due to merger or acquisition would lose its small refiner status.

We recognize that a small refiner that loses its small refiner status because of a merger or acquisition would face the same type of lead time concerns in complying with the non-small refiner standards as would a non-small refiner that acquired a small refiner's refinery, as discussed above. Therefore, we propose that the additional lead time proposed above for non-small refiners purchasing a small refiner's refinery also apply to this situation. Thus, this additional lead time would apply to any refineries, existing or newly-purchased, that had previously been subject to the small refiner program, but would not apply to a newly-purchased refinery that is subject to the non-small refiner standards. Again, there would be no adverse environmental impact because of the newly-purchased small refiner's pre-existing relief provisions.

The issues discussed in this subsection apply equally to the gasoline sulfur and highway diesel sulfur programs. Thus, we are also proposing that the same provisions relating to additional lead time in cases of financial transaction be applied to the small refiner programs in the earlier fuel sulfur programs. Because these proposed provisions for the existing fuel sulfur programs are independent of today's nonroad diesel fuel program, we may choose to finalize them separately from and earlier than the identical provisions proposed for today's nonroad rule. If this occurs, we will seek to finalize nonroad diesel fuel provisions that are identical or as similar as appropriate to those finalized for the gasoline sulfur and highway diesel program.

In addition, we are inviting comment on several other related provisions we are considering:

[250] This process would be similar to the general hardship provisions of the existing gasoline sulfur and highway diesel sulfur programs and proposed today for nonroad diesel fuel. However, the focus here would be simply on the lead time needed for the technical upgrades and would not consider any claimed financial hardship.

(1) We propose above that a small refiner that loses its small refiner status be granted 24 months of lead time at its existing refineries. Should such a small refiner instead be allowed to ''grandfather in'' its existing small refiner relief program for its existing refinery or refineries? An argument can be made that in purchasing a new refinery or other assets, the small refiner would no longer demonstrate the kind of financial hardship that was the basis for general small refiner relief. However, we also do not intend to stifle normal growth of small refiners, and ''grandfathering in'' the small refiner interim relief program would have no environmental impact, since it would merely continue an existing program at that refinery.

(2) If a small refiner exceeds the small refiner criteria due to the purchases of a non-small refiner, should the proposed additional lead time apply to that refinery? Or should the refiner be required to meet the non-small refiner standards on schedule at the ''new'' refinery, since the previous owner could be assumed to have anticipated the new standards and taken steps to accomplish this prior to the purchase?

c. What Options Are Available for Small Refiners?

We propose several provisions intended to reduce the burdens on small refiners discussed above as well as to encourage their early compliance whenever possible. As described below, these proposed small refiner provisions consist of additional time for compliance and, for small refiners that choose to comply earlier than required, the option of either generating diesel sulfur credits or receiving a limited relaxation of gasoline sulfur requirements.

i. Delays in Nonroad Fuel Sulfur Standards for Small Refiners

We propose that small refiners be allowed to postpone reducing sulfur in nonroad locomotive and marine diesel fuel until June 1, 2010. As described earlier, we are proposing that all refiners producing nonroad diesel fuel be provided significant lead time for making the capital and operational investments to produce 15 ppm fuel, including about three years before the 500 ppm requirement would become effective, and three additional years before 15 ppm was required—June 1, 2007, through May 31, 2010, when 500 ppm fuel could be produced. While this lead time would be useful for small and non-small refiners alike, we believe that in general small refiners would still face disproportionate challenges, and the proposed delay in the first step of control for small refiners would help mitigate these challenges.

Then, beginning June 1, 2010, when the second step of the proposed base program would require 15 ppm fuel for other refiners for nonroad diesel fuel, we propose that small refiners be required to meet a 500 ppm sulfur standard for NR diesel fuel. We propose that this interim standard be effective for four years (until June 1, 2014), after which small refiners would meet the 15 ppm sulfur standard for nonroad diesel fuel. As for other refiners, the small refiner standard for locomotive and marine diesel fuel would remain at 500 ppm. Since new engines with sulfur sensitive emission controls would begin to become widespread during this time, small refiners would need to segregate the 500 ppm NR fuel and supply it only for use in pre-2011 nonroad equipment or in locomotives or marine engines. Section VIII below discusses the requirements for product transfer documents (PTDs) associated with the production of 500 ppm NR fuel by small refiners during this period.

The following table illustrates the proposed small refiner NRLM and NRdiesel standards as compared to the standards proposed in the base nonroad diesel program. (For simplicity, the proposed locomotive and marine diesel standards for small and non-small refiners described above do not appear in the table.)

TABLE IV–4—PROPOSED SMALL REFINER NONROAD DIESEL SULFUR STANDARDS, PPM [a]

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+
Non-small refiners		500	500	500	15	15	15	15	15	15
Small Refiners					500	500	500	500	15	15

Notes:
[a] New standards would take effect in June of the applicable year.

We also request comment on a slightly different compliance schedule that would require small refiners to produce 15 ppm nonroad diesel fuel beginning June 1, 2013, one year earlier than proposed above. Such a schedule would align the end of the interim small refiner provisions with the end of the proposed phase-in for nonroad engines and equipment and eliminate higher sulfur nonroad fuel from the distribution system by the time all new nonroad diesel engines required 15 ppm fuel.

The proposed delayed compliance schedule for small refiners is intended to compensate for the relatively higher compliance burdens on these refiners. It is not intended as an opportunity for those refiners to greatly expand their production of uncontrolled diesel fuel (2007–2010) or 500 ppm sulfur fuel (2010–2014). To help ensure that any significant expansion of refining capacity that a small refiner might undertake in the future would be accompanied by an expansion of desulfurization capacity, we are proposing that small refiners producing higher sulfur fuel limit that production to baseline volume levels.

Specifically, during the first step of the diesel program to 500 ppm (June 2007–June 2010), a small refiner could produce uncontrolled NRLM diesel fuel up to the proposed non-highway baseline for that refiner less any marked heating oil it produces, refer to sub-section B above for an explanation of this baseline. Any diesel fuel produced over its non-highway baseline would be subject to the 500 ppm standard applying to other refiners. Similarly, from June 1, 2010, through May 31, 2014, a small refiner could produce nonroad diesel fuel at 500 ppm up to the non-highway baseline less any volume of heating oil and marked locomotive and marine diesel fuel it produced. Fuel produced in excess of this volume would be subject to the 15 ppm nonroad diesel standard.

ii. Options To Encourage Earlier Compliance by Small Refiners

Some small refiners have indicated that they might find it necessary to produce fuel meeting the nonroad diesel sulfur standards earlier than required by the small refiner program described above, for a variety of reasons. For some small refiners, the distribution systems might limit the number of grades of diesel fuel that will be carried. Others might find it economically advantageous to make 500 ppm or 15

ppm fuel earlier so as not to lose market share. At least one small refiner has indicated that it might decide to desulfurize its NR pool at the same time as it desulfurized its highway diesel fuel, in June of 2006, due to limitations in its distribution system and to take advantage of economies of scale. Given these situations, we propose that small refiners be able to choose between two mutually exclusive options, as an incentive for early compliance.

The first proposed option would make the diesel sulfur credit banking and trading program discussed earlier in this section fully applicable to small refiners. A small refiner could generate diesel sulfur credits for production of 500 ppm NRLM diesel fuel prior to June 1, 2010, and for production of 15 ppm nonroad fuel from June 1, 2010, through May 31, 2012. The specifics of the credit program are described above in subsection B.2, including how they would be applicable to small refiners. Generating and selling credits could provide funds to defray the costs of early nonroad compliance.

The second proposed option would apply to a small refiner that produced all of its NRLM diesel production at 15 ppm by June 1, 2006, and elected not to use the provision described above to earn NRLM sulfur credits for this early compliance. (As for other refiners, locomotive and marine fuel sulfur would not be controlled in 2006 and could meet the 500 ppm standard beginning June 1, 2007.) Such a refiner would receive a modest revision in its interim small refiner gasoline sulfur standards, starting January 1, 2004. Specifically, the applicable small refiner annual average and per-gallon cap gasoline standards would be revised upward by 20 percent for the duration of the small refiner gasoline sulfur interim program (*i.e.*, through either 2007 or 2010, depending on whether the refiner had extended its participation in the gasoline sulfur interim program by complying with the highway diesel standard at the beginning of that program (June, 2006, as provided in 40 CFR 80.552(c))). However, in no case could the per-gallon cap exceed 450 ppm, the highest level allowed under the gasoline sulfur program.

We believe it is very important to link any such temporary relaxation of a small refiner gasoline sulfur interim sulfur standards with environmental benefit of early desulfurization of a significant volume of NRLM diesel fuel. Thus, we propose that a small refiner wishing to use this option must produce a minimum volume of NRLM diesel fuel at 15 ppm by June 1, 2006. Each participating small refiner would need to produce a volume of 15 ppm fuel that was at least 85% of the volume represented by its non-highway distillate baseline percentage. If the refiner began to produce gasoline in 2004 at the higher interim standard of this provision but then either failed to meet the 15 ppm standard for its NRLM fuel by June 1, 2006, or failed to meet the 85% minimum volume requirement, the original small refiner interim gasoline sulfur standard applicable to that refiner would be reinstated. In addition, the refiner would need to compensate for the higher gasoline levels that it had enjoyed by purchasing gasoline sulfur credits or producing an equivalent volume of gasoline below the required sulfur levels.

Under this option, a small refiner could in effect shift some funds from its gasoline sulfur program to accelerate desulfurization of nonroad diesel fuel. Given the environmental benefit that would result from the production of 15 ppm diesel fuel earlier than necessary, and the small potential loss of emission reduction under the gasoline sulfur program from fuel produced by the very few small refiners that we believe would qualify under this second option, we believe the environmental impact of this option would be neutral or positive.

d. How Do Refiners Apply for Small Refiner Status?

A refiner applying for status as a small refiner would provide EPA with several types of information by December 31, 2004. The detailed application requirements are summarized in section VII.E.2 below. In general, a refiner would need to provide information about the following for the parent company and all subsidiaries at all locations: (1) The average number of employees for all pay periods from January 1, 2002, through January 1, 2003; (2) total corporate crude refining capacity; and (3) an indication of which small refiner option the refiner is likely to use (*see* subsection c. above). As with applications for relief under other rules, applications for small refiner status under this proposed diesel rule that were later found to contain false or inaccurate information would be void *ab initio.*

2. General Hardship Provisions

a. Temporary Waivers from Non-highway Diesel Sulfur Requirements in Extreme Unforseen Circumstances

We are proposing a provision which, at our discretion, would permit any domestic or foreign refiner to seek a temporary waiver from the nonroad, locomotive, or marine diesel sulfur standards under certain rare circumstances. This waiver provision is similar to provisions in the reformulated gasoline (RFG), low sulfur gasoline, and highway diesel sulfur regulations. It is intended to provide refiners short-term relief in unanticipated circumstances—such as a refinery fire or a natural disaster—that cannot be reasonably foreseen now or in the near future.

Under this provision, a refiner may seek permission to distribute nonroad, locomotive, or marine diesel fuel that does not meet the applicable 500 or 15 ppm sulfur standards for a brief time period. An approved waiver of this type could, for example, allow a refiner to produce and distribute diesel fuel with higher than allowed sulfur levels, so long as the other conditions described below were met. Such a request would be based on the refiner's inability to produce complying nonroad, locomotive or marine diesel fuel because of extreme and unusual circumstances outside the refiner's control that could not have been avoided through the exercise of due diligence. The request would also need to show that other avenues for mitigating the problem, such as purchase of credits toward compliance under the proposed credit provisions, had been pursued and yet were insufficient. As with other types of relief established in this rule, this type of temporary waiver would have to be designed to prevent fuel exceeding the 15 ppm standard from being used in 2011 and later model year nonroad engines.

The conditions for obtaining a nonroad diesel waiver are similar to those in the RFG, Tier 2 gasoline sulfur, and highway diesel regulations. These conditions are necessary and appropriate to ensure that any waivers that are granted are limited in scope, and that refiners do not gain economic benefits from a waiver. Therefore, refiners seeking a waiver would need to show that the waiver is in the public interest, that the refiner was not able to avoid the nonconformity, that it would make up the air quality detriment associated with the waiver, that it would make up any economic benefit from the waiver, and that it would meet the applicable diesel sulfur standards as expeditiously as possible.

b. Temporary Waivers Based on Extreme Hardship Circumstances

In addition to the provision for short-term relief in extreme unforseen circumstances, we are proposing a provision for relief based on extreme hardship circumstances that is very similar to those established in the

gasoline sulfur and highway diesel sulfur programs. Under the gasoline sulfur program, we granted waivers to four refiners. Each waiver was designed for the specific situation of that refiner. Under the highway diesel program, we have received two applications for which the decisions are still pending.

As in the earlier rules, we have considered whether any refiners would face particular difficulty in complying with the standards in the lead time provided. As described earlier in this section, we concluded that in general small refiners would experience more difficulty in complying with the standards on time because they have less ability to raise the capital necessary for refinery investments, face proportionately higher costs because of poorer economies of scale, and are less able to successfully compete for limited engineering and construction resources. However, it is possible that other refiners that are not small refiners would also face particular difficulty in complying with the sulfur standards on time. Therefore, we are including in this proposed rule a provision which allows us, at our discretion, to grant temporary waivers from the proposed nonroad diesel sulfur standards based on a showing of extreme hardship circumstances.

The extreme hardship provision allows any domestic or foreign refiner to request a waiver from the sulfur standards based on a showing of unusual circumstances that result in extreme hardship and significantly affect a refiner's ability to comply with either the 500 ppm or 15 ppm sulfur diesel standards by either June 1, 2007, or June 1, 2010, respectively. EPA would evaluate each application on a case-by-case basis, considering the factors described below. If EPA approved a hardship application, we could provide refiners with relief similar to the provision for small refiners. That is, we might provide an allowance for producing high sulfur fuel during the 2007–2010 period when the 500 ppm cap is in effect, or an allowance for producing 500 ppm fuel for a period of time after June 1, 2010. Depending on the situation of the refiner, such approved delays in meeting the sulfur requirements might be shorter than those allowed for small refiners *i.e.*, 3 years for high sulfur fuel beginning June 1, 2007, and 4 years for 500 ppm fuel beginning June 1, 2010, but would not be longer. In such an approval, we would expect to impose appropriate conditions to assure the refiner is making its best effort and to minimize any loss of emission control from the program. As with other relief provisions established in this rule, any waiver under this provision would be designed to prevent fuel exceeding the 15 ppm standard from being used in 2011 and later model year nonroad engines.

Providing short-term relief to those refiners that need additional time because they face hardship circumstances facilitates adoption of an overall program that reduces NRLM diesel fuel sulfur to 500 ppm beginning in 2007, and nonroad diesel fuel sulfur to 15 ppm in 2010, for the majority of the industry. However, we do not intend for this waiver provision to encourage refiners to delay planning and investments they would otherwise make. We do not expect to grant temporary waivers that apply to more than approximately one percent of the national NRLM diesel fuel pool in any given year.

The regulatory language for today's action includes a list of the information that must be included in a refiner's application for an extreme hardship waiver. If a refiner fails to provide all the information, as specified in the regulations, as part of its hardship application, we can deem the application void. EPA may request additional information as needed. The following are some examples of the types of information that must be contained in an application:

- The crude oil refining capacity and fuel sulfur level(s) of each diesel fuel product at each of the refiner's refineries.
- Technical plan for capital equipment and operating changes to achieve future diesel fuel sulfur levels.
- The anticipated timing for the overall project the refiner is proposing and key milestones to ultimately produce 100 percent of NRLM diesel fuel at 500 ppm sulfur and 100 percent of its nonroad diesel fuel at 15 ppm sulfur.
- The refiner's capital requirements for each step of the proposed projects.
- Detailed plans for financing the project and financial statements demonstrating the nature of and degree of financial hardship and how the requested relief would mitigate this hardship. This would include a description of the overall financial situation of the company and its plans to secure financing for the desulfurization project (*e.g.*, internal cash flow, bank loans, issuing of bonds, sale of assets, or sale of stock).
- Description of the market area for the refiner's diesel fuel products.
- A plan demonstrating how they would achieve the standards as quickly as possible, including a timetable for obtaining the necessary capital, contracting for engineering and construction resources, obtaining any necessary permits, and beginning and completing construction.

We would consider several factors in our evaluation of the hardship waiver applications. Such factors would include whether a refinery's configuration is unique or atypical; the proportion of non-highway diesel fuel production relative to other refinery products; whether the refiner, its parent company, and its subsidiaries are faced with severe economic limitations (for example, a demonstrated inability to raise necessary capital or an unfavorable bond rating); and steps the refiner has taken to attempt to comply with the standards, including efforts to obtain credits towards compliance. In addition, we would consider the total crude oil capacity of the refinery and its parent or subsidiary corporations, if any, in assessing the degree of hardship and the refiner's role in the diesel market. Finally, we would consider where the diesel fuel would be sold in evaluating the environmental impacts of granting a waiver.

This extreme hardship provision is intended to address unusual circumstances that should be apparent now or would emerge in the near future. Thus, refiners seeking additional time under this provision would have to apply for relief by June 1, 2005. We request comment on this date and whether a separate date would be appropriate for the second (15 ppm) step of the nonroad diesel program to 15 ppm. We would review and act on applications and, if a waiver is granted, would specify a detailed desulfurization schedule under the waiver. Typically, because of EPA's comprehensive evaluation both financial and technical information, action on hardship applications can take six or more months.

D. Should Any Individual States or Territories Be Excluded From This Rule?

1. Alaska

We propose that the diesel fuel sulfur standards—the 500 ppm cap for NRLM diesel fuel beginning June 1, 2007, and the 15 ppm cap for nonroad diesel fuel beginning June 1, 2010—and the aromatics and cetane standards proposed today apply to the portion of Alaska served by the Federal Aid Highway System. However, we propose that Alaska's rural areas be excluded from these proposed fuel content standards. The engine standards proposed today would apply to all nonroad engines throughout Alaska.

Consequently, even in rural Alaska we would still require 2011 and later model year nonroad diesel engines and equipment to be fueled with 15 ppm diesel fuel. The rationale supporting this proposal follows.

a. How Was Alaska Treated Under the Highway Diesel Standards?

Unlike the rest of the nation, Alaska is currently exempt from the 500 ppm sulfur standard for highway diesel fuel and the dye provisions for diesel fuel not subject to this standard. Since the beginning of the 500 ppm highway diesel fuel program, we have granted Alaska exemptions from both the sulfur standard and dye provisions because of its unique geographical, meteorological, air quality, and economic factors.[251]

On December 12, 1995, Alaska submitted a petition for a permanent exemption for all areas of the state served by the Federal Aid Highway System, that is, those areas previously covered only by a temporary exemption. While considering that petition, we started work on a nationwide rule to consider more stringent highway diesel fuel requirements for sulfur content. In the subsequent January 18, 2001, highway diesel sulfur rule (66 FR 5002) the highway engine emission standards were applied fully in Alaska. Based on factors unique to Alaska, we provided the State with: (1) an extension of the exemption from the 500 ppm sulfur highway diesel fuel standard until the effective date of the new 15 ppm sulfur standard for highway diesel fuel in 2006, (2) an opportunity to request an alternative implementation plan for the 15 ppm sulfur diesel fuel program, and (3) a permanent exemption from the diesel fuel dye provisions.

In response to these provisions in our January 18, 2001, highway rule, Alaska informed us that areas served by the Federal Aid Highway System, *i.e.*, communities on the connected road system or served by the Alaska State ferry system, would follow the nationwide requirements. Diesel fuel produced for use in areas of Alaska served by the Federal Aid Highway System will therefore be required to meet the same requirements for highway diesel fuel as diesel fuel produced for the rest of the nation. For the rural parts of the State, areas not served by the Federal Aid Highway System, Alaska informed us that it would submit by mid-2003 the details for an alternative implementation approach.[252] EPA will consider their alternative implementation approach when it is received, and if appropriate will initiate rulemaking to finalize its adoption.

b. What Nonroad Standards Do We Propose for Urban Areas of Alaska?

Since Alaska is currently exempt from the 500 ppm sulfur standard for highway diesel fuel, we also considered exempting Alaska from the 500 ppm step of the proposed NRLM standards. However, despite the exemption, officials from the State of Alaska have informed us that 500 ppm highway diesel fuel is nevertheless being marketed in many parts of Alaska. Market forces have brought the prices for 500 ppm diesel fuel down such that it is now becoming competitive with higher sulfur, uncontrolled diesel fuel. Assuming this trend continues, requiring that NRLM diesel fuel be produced to 500 ppm beginning June 1, 2007 would not appear to be unduly burdensome and for this reason, we propose that this standard apply.

At the same time, our expectation is that compliance with the highway program described above may result in the transition of all of the highway diesel fuel distribution system to 15 ppm beginning in 2006. It could prove very challenging for the distribution system in some of the areas to segregate a 500 ppm grade of NRLM from a 15 ppm grade of highway and an uncontrolled grade for other purposes. We believe economics would determine whether the distribution system would handle the new grade of fuel or substitute 15 ppm sulfur highway diesel fuel for NRLM applications. Thus, in the 2007 to 2010 time frame, the NRLM market in some urban areas might be supplied with 500 ppm sulfur diesel, and in other areas might be supplied with 15 ppm sulfur diesel.

Regardless of what takes place prior to 2010, we anticipate that 15 ppm highway diesel fuel will be made available in Alaska by this time frame. The 2007 and later model year highway fleet will be growing, demanding more and more supply of 15 ppm diesel fuel. Adding nonroad volume to this would not appear to create any undue burden. Thus, we also propose that the 15 ppm standard for nonroad diesel fuel would apply in areas of Alaska served by the FAHS, along with the rest of the Nation beginning June 1, 2010. We seek comment on whether the 500 ppm NRLM diesel standard should apply to these areas of Alaska beginning June 1, 2007, and whether the 15 ppm nonroad standard should apply beginning June 1, 2010.

During the development of the original 500 ppm highway diesel fuel standards in the early 1990's refiners and distributors in Alaska expressed concern that if Alaska were required to dye its non-highway diesel fuel red along with the rest of the country, residual dye in tanks or other equipment would be enough to contaminate and disqualify Jet-A kerosene used as aviation fuel. Since much of the diesel fuel in Alaska is number 1 and indistinguishable from Jet A kerosene, not only would tanks and transfer equipment have to be cleaned, but separate tankage would be needed. Consequently, we granted Alaska temporary exemptions from the dye requirement and in the January 18, 2001, highway diesel rule granted them a permanent exemption. The proposed marker for heating oil in the 2007–10 time period and for locomotive and marine diesel fuel in the 2010–14 time period could present similar concerns in Alaska's distribution system. Consequently, we seek comment on whether to extend the current exemption from the red dye requirement to the proposed marker requirement. If we were to, we then also seek comment on what mechanism could be used in Alaska to ensure that 500 ppm diesel fuel was used in NRLM equipment from 2007–10 and 15 ppm in nonroad equipment after 2010. One possible approach would be to preclude refineries and importers from using credits to comply with the sulfur standards and prohibit end-users in Alaska from using anything but 500 ppm in NRLM equipment from 2007–10 and 15 ppm in nonroad equipment after 2010.

c. What Do We Propose for Rural Areas of Alaska?

Rural Alaska represents a rather unique situation. In the rural areas, the state estimates that the heating oil represent approximately 95% of all distillate consumption (about 50% for heating and 45% for electricity generation). Highway vehicles account for about 1 percent, and marine engines about 4 percent.[253] Consequently, nonroad and locomotive engines and equipment consume a negligible amount of diesel fuel in the rural areas. The fuel

[251] Copies of information regarding Alaska's petition for exemption, subsequent requests by Alaska, public comments received, and actions by EPA are available in public docket A–96–26.

[252] Letter and attached document to Jeffrey Holmstead of EPA from Michele Brown of the Alaska Department of Environmental Conservation, dated April 1, 2002. The communities on the connected road system or served by the Alaska State ferry system are listed in the attached document.

[253] E mail from the Alaska Department of Environmental Conservation, dated July 2, 2002.

storage infrastructure in the villages generally consists of a limited number of small community storage tanks. The fuel must last during the entire winter season when fuel deliveries may not be possible. There is currently only one distillate fuel that is delivered and stored for all distillate purposes in the villages, including home heating, power generation, vehicles, marine engines and possibly some nonroad engines and equipment. Modifications to permit the segregation of small amounts of low sulfur or ultra low-sulfur distillate fuel for highway and/or NRLM use or switching to low sulfur or ultra low-sulfur fuel for all purposes would be an economic hardship for the villages.

Furthermore, as discussed above, for areas not served by the Federal Aid Highway System, the State of Alaska is considering an alternative implementation plan for the 15 ppm and 500 ppm highway standards. One option under consideration by the State would be to not apply these standards in these areas. Rather, the 15 ppm fuel would be provided based on demand to 2007 and later model year vehicles that must be operated on 15 ppm fuel as they enter the fleet. Since the vehicle turnover rate in rural villages is typically very low, and many of the replacement vehicles are pre-owned vehicles themselves, some villages may not obtain their first 2007 or later model year diesel highway vehicle until long after 2010. If such a highway plan would be finalized and EPA subsequently incorporated it into the regulations, the proposed NRLM low-sulfur diesel fuel program, without similar provisions, would require 500 ppm diesel fuel solely for the NRLM market in rural areas beginning June 1, 2007, and 15 ppm sulfur solely for the nonroad market beginning June 1, 2010. Since the demand for new nonroad engines and equipment with aftertreatment (model year 2011 and later) is expected to be nonexistent or very low in the early years in rural Alaska, we believe the best approach is to propose no sulfur or other content requirements for areas of Alaska not served by the FAHS. EPA can revisit this when it receives and takes action on Alaska's highway implementation plan. This will allow for coordination between the highway and NRLM fuel requirements. As proposed, this would allow rural Alaska to limit the volume of 15 ppm sulfur diesel fuel to that which is sufficient to meet the demand from the small number of new nonroad diesel engines and equipment that would be certified to the Tier 4 nonroad standards proposed today beginning with the 2011 model year.

Our goal in proposing this approach is to allow rural Alaska to transition to the low sulfur fuel program in a manner that minimizes costs while still ensuring that the model year 2011 and later nonroad engines and equipment with aftertreatment receive the 15 ppm diesel fuel they need. Similar to the flexibility being considered under the highway program, the flexibility offered by this proposal would likely result in a delay of some sulfate emission reduction benefits in the rural areas of Alaska. The sulfate emissions of NRLM engines and equipment in Alaska would remain at current levels for as long as high-sulfur diesel fuel is used.

2. American Samoa, Guam, and the Commonwealth of Northern Mariana Islands

a. What Provisions Apply in American Samoa, Guam, and the Commonwealth of Northern Mariana Islands?

We are proposing to exclude American Samoa, Guam and the Commonwealth of the Northern Mariana Islands from the proposed NRLM diesel fuel sulfur standard of 500 ppm sulfur in 2007 and 15 ppm sulfur nonroad standard in 2010, as well as the cetane index and aromatics requirements. We also propose to exclude these territories from the Tier 4 nonroad vehicle, engine and equipment emissions standards, and other requirements associated with those emission standards. The territories will continue to have access to new nonroad diesel engines and equipment using pre-Tier 4 technologies, at least as long as manufacturers choose to market those technologies. We will not allow the emissions control technology in the territories to backslide from those available in 2010. If, in the future, manufacturers choose to market only nonroad diesel engines and equipment with Tier 4 emission control technologies, we believe the market will determine if and when the territories will make the investment needed to obtain and distribute the diesel fuel necessary to support these technologies.

We are also proposing to require that all nonroad diesel engines and equipment for these territories be certified and labeled to the applicable requirements—either to the 2010 model year standards and associated requirements under this proposed exclusion, or to the 2011 and later standards and associated requirements applicable for the model year of production under the nationwide requirements of this proposal—and warranted, as otherwise required under the Clean Air Act and EPA regulations. Special recall and warranty considerations due to the use of excluded high sulfur fuel would be the same as those for Alaska during its exemption and transition periods for highway diesel fuel and for these territories for highway diesel fuel (*see* 66 FR 5086, 5088, January 18, 2001).

To protect against this exclusion being used to circumvent the emission requirements applicable to the rest of the United States, we are restricting the importation of nonroad engines and equipment from these territories into the rest of the United States. After the 2010 model year, nonroad diesel engines and equipment certified under this exclusion to meet the 2010 model year emission standards for sale in American Samoa, Guam and the Commonwealth of the Northern Mariana Islands will not be permitted entry into the rest of the United States.

b. Why Are We Treating These Territories Uniquely?

Like Alaska, these territories are currently exempt from the 500 ppm sulfur standard for highway diesel fuel. Unlike Alaska and the rest of the nation, they are also exempt from the new highway diesel fuel standard effective in 2006 and the new highway vehicle and engine emission standards effective beginning in 2007 (*see* 66 FR 5088, January 18, 2001).

Section 325 of the CAA provides that upon request of Guam, American Samoa, the Virgin Islands, or the Commonwealth of the Northern Mariana Islands, we may exempt any person or source, or class of persons or sources, in that territory from any requirement of the CAA, with some specific exceptions. The requested exemption could be granted if we determine that compliance with such requirement is not feasible or is unreasonable due to unique geographical, meteorological, or economic factors of the territory, or other local factors as we consider significant. Prior to the effective date of the current highway diesel sulfur standard of 500 ppm, the territories of American Samoa, Guam and the Commonwealth of Northern Mariana Islands petitioned us for an exemption under section 325 of the CAA from the sulfur requirement under section 211(i) of the CAA and associated regulations at 40 CFR 80.29. We subsequently granted the petitions.[254] We recently determined that the 2007 heavy-duty emission standards and 2006 diesel fuel sulfur

[254] *See* 57 FR 32010, July 20, 1992 for American Samoa; 57 FR 32010, July 30, 1992 for Guam; and 59 FR 26129, May 19, 1994 for CNMI.

standard of our January 18, 2001 highway rule (66 FR 5088) would not apply to these territories.

Compliance with this proposal would result in major economic burden. All three of these territories lack internal petroleum supplies and refining capabilities and rely on long distance imports. Given their remote location from Hawaii and the U.S. mainland, most petroleum products are imported from East rim nations, particularly Singapore. Although Australia, the Philippines, and certain other Asian countries have or will soon require low sulfur diesel fuel, their sulfur limit is 500 ppm, not the new 15 ppm sulfur limit established for highway diesel fuel by the January 18, 2001, highway rule or this proposal for nonroad diesel fuel beginning in 2010 for the United States. Compliance with new 15 ppm sulfur requirements for highway diesel fuel beginning in 2006 and the proposed 15 ppm sulfur requirements for nonroad diesel fuel beginning in 2010 (or the proposed 500 ppm sulfur requirements for NRLM diesel fuel beginning 2007) would require construction of separate storage and handling facilities for a unique grade of diesel fuel for highway and nonroad purposes, or use of 15 ppm diesel fuel for all purposes to avoid segregation. Either of these alternatives would require importation of 500 and 15 ppm sulfur diesel fuel from Hawaii or the U.S. mainland, and would significantly add to the already high cost of diesel fuel in these territories, which rely heavily on United States support for their economies. At the same time, it is not clear that the environmental benefits in these areas would warrant this cost. Therefore, we are not proposing to apply the fuel and engine standards to these territories, but seek comment on this.

E. How Are State Diesel Fuel Programs Affected by the Sulfur Diesel Program?

Section 211(c)(4)(A) of the CAA prohibits states and political subdivisions of states from prescribing or attempting to enforce, for purposes of motor vehicle emission control, ''any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine,'' if EPA has prescribed ''a control or prohibition applicable to such characteristic or component of the fuel or fuel additive'' under section 211(c)(1). This prohibition applies to all states except California, as explained in section 211(c)(4)(B). This express preemption provision in section 211(c)(4)(A) applies only to controls or prohibitions respecting any characteristics or components of fuels or fuel additives for motor vehicles or motor vehicle engines, that is, highway vehicles. It does not apply to controls or prohibitions respecting any characteristics or components of fuels or fuel additives for nonroad engines or nonroad vehicles.[255]

Section 211(c)(4)(A) specifically mentions only controls respecting characteristics or components of fuel or fuel additives in a ''motor vehicle or motor vehicle engine,'' adopted ''for purposes of motor vehicle emissions control,'' and the definitions of motor vehicle and nonroad engines and vehicles in CAA section 216 are mutually exclusive. This is in contrast to section 211(a) and (b), which specifically mention application to fuels or fuel additives used in nonroad engines or nonroad vehicles, and with section 211(c)(1) which refers to fuel used in motor vehicles or engines or nonroad engines or vehicles.

Thus, this proposal would not preempt state controls or prohibitions respecting characteristics or components of fuel or fuel additives used in nonroad engines or nonroad vehicles under the provisions of section 211(c)(4)(A). At the same time, a state control that regulates both highway fuel and nonroad fuel is preempted to the extent the state control respects a characteristic or component of highway fuel regulated by EPA under section 211(c)(1).

A court could consider whether a state control for fuels or fuel additives used in nonroad engines or nonroad vehicles is implicitly preempted under the Supremacy Clause of the U.S. Constitution. Courts have determined that a state law is preempted by federal law where the state requirement actually conflicts with federal law by preventing compliance with the federal requirement, or by standing as an obstacle to accomplishment of Congressional objectives. A court could thus consider whether a given state standard for sulfur in nonroad, locomotive or marine diesel fuel is preempted if it places such significant cost and investment burdens on refiners that refiners cannot meet both state and federal requirements in time, or if the state control would otherwise meet the criteria for conflict preemption.

F. Technological Feasibility of the 500 and 15 ppm sulfur Diesel Fuel Program

This section describes the nonroad, locomotive and marine diesel fuel market and how these fuels differ from current highway diesel fuel, whose sulfur content is already controlled to no more than 500 ppm sulfur. This section then summarizes our assessment of the feasibility of refining and distributing NRLM diesel fuel with a sulfur content of no more than 500 ppm and, for nonroad fuel only, of 15 ppm. Based on this evaluation, we believe it is technologically feasible for refiners and distributors to meet both sulfur standards in the lead time provided. We are only summarizing our analysis here and we refer the reader to the Draft RIA for more details.

1. What is the Nonroad, Locomotive and Marine Diesel Fuel Market Today

Nonroad, locomotive and marine diesel fuel comprise part of what is generally called the distillate fuel market. Other fuels in this market are highway diesel fuel and heating oil, which is used in furnaces and boilers as well as in stationary diesel engines to generate power. Nonroad diesel fuel comprises about 15% of all number 2 distillate fuel, while locomotive and marine diesel fuel comprise about 9% of all number 2 distillate fuel (see Draft RIA).

ASTM defines three number 2 distillate fuels: (1) low sulfur No. 2-D (which includes the 500 ppm sulfur cap for fuel used in highway diesel vehicles), (2) high sulfur No. 2-D, and (3) No. 2 fuel oil (commonly referred to as heating oil).[256] Low sulfur No. 2-D fuel must contain no more than 500 ppm sulfur, have a minimum cetane number of 40, and have a minimum cetane index limit of 40 (or a maximum aromatic content of 35 volume percent). This fuel meets EPA's requirements for current highway diesel vehicle fuel. Both high sulfur No. 2-D and No. 2 fuel oil must contain no more than 5000 ppm sulfur.[257] The ASTM standards for high sulfur No. 2-D fuel also include a minimum cetane number specification of 40. Practically, since most No. 2 fuel oil meets the minimum cetane number specification, pipelines which ship fuel fungibly need only carry one high sulfur

[255] *See* 66 FR 36543 (July 12, 2001) (Notice proposing approval of Houston SIP revisions). *See also* letter from Carl Edlund, Director, Multimedia Planning and Permitting Division, U.S. Environmental Protection Agency, Region VI, to Jeffrey Saitas, Executive Director, Texas Natural Resources Conservation Commission, dated September 25, 2000, providing comments on proposed revisions to the Texas State Implementation Plan for the control of ozone, specifically the Post 99 Rate of Progress Plan and Attainment Demonstration for the Houston/Galveston area. This letter noted that preemption under section 211(c)(4) did not apply to controls on nonroad diesel fuel.

[256] ''Standard Specification for Diesel Fuel Oils,'' ASTM D 975–98b and ''Standard Specification for Fuel Oils,'' ASTM D 396–98.

[257] Some states, particularly those in the Northeast, limit the sulfur content of No. 2 fuel oil to 2000–3000 ppm.

number 2 distillate fuel which meets both sets of specifications. Nonroad, locomotive and marine engines can be and are fueled with both low and high sulfur No. 2-D fuels.

During winter months in the northern U.S., No. 1 distillate, such as kerosene, is sometimes added to No. 2 distillate fuel to prevent gelling. Any No. 1 distillate added to No. 2 NRLM diesel fuel would become NRLM diesel fuel.

Highway diesel fuel, comprises about 57% of all number 2 distillate fuel. Eighty percent of highway diesel fuel will be capped at 15 ppm sulfur starting in 2006. However, because of limitations in the fuel distribution system and other factors, about one-third of non-highway, No. 2 distillate currently meets the 500 ppm highway diesel fuel cap. Thus, about 69 percent of number 2 distillate pool currently meets the 500 ppm sulfur cap, not just the 57 percent used in highway vehicles. The result is that about one-third of the 24% of the distillate market comprised by NRLM diesel fuel currently meets a 500 ppm specification and is also expected to meet the future highway diesel fuel requirements even without this proposed rule. Thus, while this proposed rule would apply to all NRLM diesel fuel, the rule should only materially affect about two-thirds of all NRLM diesel fuel, or 16% of today's distillate market. EPA is not considering any national sulfur standards applicable to home heating fuel or power generation fuel at this time.

2. How Do Nonroad, Locomotive and Marine Diesel Fuel Differ From Highway Diesel Fuel?

Refiners blend together a variety of distillate blendstocks to produce both highway and non-highway diesel fuels. These distillate blendstocks always include straight run material contained in crude oil, plus they often include light cycle oil from a fluidized catalytic cracker, light coker gas oil from a coker and hydrocrackate from a hydrocracker. The actual mix of these blendstocks in highway and non-highway diesel fuel at refineries producing both fuels can differ. However, in general, significant quantities of all of these blendstocks find their way into both low sulfur and high sulfur diesel fuel today. A survey of distillate fuel quality conducted by API and NPRA in 1996 indicated the following feedstock composition for low sulfur diesel fuel and high sulfur diesel fuel and heating oil.

TABLE IV–5—COMPOSITION OF LOW SULFUR DIESEL FUEL AND HIGH SULFUR DIESEL FUEL AND HEATING OIL: 1996 U.S. NON-CALIFORNIA AVERAGE OF SURVEYED REFINERS (VOLUME PERCENT)[a]

Feedstocks	Low Sulfur No. 2 Diesel Fuel	High Sulfur No. 2 Diesel Fuel and Heating Oil
Hydrotreated		
Straight Run Material	52	18
Light Cycle Oil	20	11
Light Coker Gas Oil	8	5
Hydrocrackate	4	9
Non-Hydrotreated		
Straight Run Material	12	45
Light Cycle Oil	3	11
Light Coker Gas Oil	1	1

Notes:
[a] We plan to update these compositions to reflect greater use of heavier crude oils in future analyses.

The primary difference between low and high sulfur number 2 distillate fuels today is the fact that a greater volume percentage of low sulfur fuel feedstocks have been hydrotreated to meet the 500 ppm sulfur cap applicable to highway diesel fuel. As shown in the table above, high sulfur distillate fuels may contain significant amounts of hydrotreated material, but the final sulfur level of the blend is usually well above 500 ppm and currently averages 3400 ppm (see Draft RIA). Hydrotreating today typically involves combining diesel fuel with hydrogen and a catalyst under pressures of 400–1200 pounds per square inch and temperatures of roughly 600 degrees Fahrenheit. In general, the existence of the 500 ppm sulfur cap gives refiners an incentive to use low sulfur blendstocks, such as hydrocrackate and straight run, in their low sulfur diesel fuel. However, some high sulfur blendstocks, such as light cycle oil and light gas coker oil, require hydrotreating to remove other undesirable compounds, such as olefins and metals. Once hydrotreated, they are suitable for use in low sulfur diesel fuel. Also, some light cycle oils and light gas coker oils contain so much sulfur and olefins and have such a low cetane number that they are unsuitable for direct blending into even high sulfur diesel fuel, since most high sulfur diesel fuel meets the ASTM sulfur cap of 5000 ppm and cetane number minimum of 40.[258] Where material is hydrotreated in order to blend into a high sulfur fuel, it is often easier to hydrotreat the material further to meet a 500 ppm cap and blend straight run material directly into the high sulfur diesel pool. Thus, there is no bright line separating the blendstocks used to produce low and high sulfur diesel fuel today.

3. What Technology Would Refiners Use to Meet the Proposed 500 ppm Sulfur Cap?

Refiners currently hydrotreat some or all of their distillate blendstocks to meet the 500 ppm sulfur cap applicable to highway diesel fuel. Refiners would be able to meet the proposed 500 ppm sulfur cap for NRLM diesel fuel using this same technology. As will be discussed further in the next section, several alternative desulfurization technologies are being developed. However, these alternative technologies promise the greatest cost savings at very low sulfur levels, such as 15 ppm. Also, their ongoing development makes it

[258] Non-highway diesel fuel often meets sulfur standards of 2000–3000 ppm in some states, particularly those in the Northeast. These states have limited the sulfur content of home heating oil to these levels. To ease fuel distribution, refiners and distributors sell the same fuel into the home heating fuel and non-highway diesel fuel markets.

unlikely that they would be selected by most refiners for production as early as 2007. Finally, the use of conventional hydrotreating technology to meet a 500 ppm standard can readily be combined later with these alternative technologies to meet the subsequent 15 ppm standard in 2010. Thus, we expect that the vast majority of refiners would use conventional hydrotreating to meet the 500 ppm standard in 2007 applicable to NRLM diesel fuel.

Refiners would also likely need to install or modify several existing ancillary units related to sulfur removal (*e.g.*, hydrogen production and purification, sulfur recovery, amine scrubbing and sour water scrubbing facilities). All of these units currently exist at the vast majority of refineries, but may have to be expanded or enlarged.

4. Has Technology to Meet a 500 ppm Cap Been Commercially Demonstrated?

Conventional diesel desulfurization technologies have been available and in use for many years. U.S. refiners have nearly ten years of experience with this technology in producing diesel fuel with less than 500 ppm sulfur for highway use. Thus, the technology to produce 500 ppm NRLM diesel fuel has clearly been demonstrated and optimized over the last decade.

5. Availability of Leadtime To Meet the 2007 500 ppm Sulfur Cap

About 105 refineries in the U.S. currently produce high sulfur distillate fuel. Under the fuel-related provisions of this proposal, we project that roughly 42 of these refineries would likely need to produce 500 ppm NRLM diesel fuel to satisfy the demand for this fuel. The remaining 63 or so refineries would continue to produce high sulfur distillate fuel, either as heating oil or as high sulfur NRLM diesel fuel.

If we promulgate this proposal one year from today, this would provide refiners and importers with approximately 38 months before they would have to begin complying with the 500 ppm cap for NRLM diesel fuel on June 1, 2007. Our leadtime analysis, which is presented in the draft RIA, projects that 27–39 months are typically needed to design and construct a diesel fuel hydrotreater.[259] Thus, the leadtime available for the 500 ppm cap in mid-2007 should be sufficient.

Easing the task is the fact that we project that essentially all refiners would use conventional hydrotreating to comply with the 500 ppm NRLM diesel fuel cap. This technology has been used extensively for more than 10 years and its capabilities to process a wide range of diesel fuel blendstocks are well understood. Thus, the time necessary to optimize this technology for a specific refiner's situation should be relatively short.

While conventional hydrotreating would likely be used to meet the 500 ppm cap in 2007, most refiners would have to plan to be able process this fuel further to meet the 15 ppm nonroad diesel fuel cap in 2010. Even those refiners planning on producing 500 ppm locomotive and marine diesel fuel starting in 2010 would likely have to plan for the potential that this fuel could be controlled to 15 ppm sulfur at some time in the future. Thus, the conventional hydrotreater built in 2007 would have to be able to be compatible with the technology eventually chosen to produce 15 ppm fuel in 2010 or later. This could affect the hydrotreater's design pressure, physical location and layout and peripherals, such as hydrogen supply and utilities. However, we project that 34 out of the 42 refineries which we project would produce this fuel also produce highway diesel fuel. Thus, over 80 percent of the refiners likely to produce 500 ppm NRLM fuel in 2007 are already well into their planning for meeting the 15 ppm highway diesel fuel standard, effective June 1, 2006. It is likely that these refiners have already chemically characterized their high sulfur diesel fuel blendstocks, as well as their highway diesel fuel, for potential desulfurization. They will also have already assessed the various technologies for producing 15 ppm diesel fuel and have a good idea of what technology they might use to meet the 15 ppm nonroad diesel fuel cap starting in 2010. Those refiners which only produce high sulfur distillate fuel today would still be able to take advantage of the significant experience that technology vendors have obtained in helping refiners of highway diesel fuel plan for producing 15 ppm diesel fuel in 2006.

Also, of the 34 refineries producing highway diesel fuel today, we project that three will likely build a new hydrotreater to produce 15 ppm highway diesel fuel in 2006. This would allow them to produce 500 ppm NRLM diesel fuel using their existing highway diesel fuel hydrotreater. Another 10 of these 34 refineries produce relatively small volumes of high sulfur distillate compared to highway diesel fuel today. Thus, we project that they should be able to produce 500 ppm NRLM fuel from their high sulfur distillate with minor modification to their existing hydrotreater.

Refiners may also need some time to assess what diesel fuel and heating oil markets they plan on participating in starting 2010. While heating oil may not be widely distributed in PADDs 2, 3 and 4, refiners in PADDs 1 and 3 would still be able to produce heating oil for the Northeast fuel market. Likewise, heating oil may still be distributed in the Pacific Northwest. Under this proposal, locomotive and marine diesel fuel would remain at 500 ppm for some time. Thus, many refiners would require some time to decide what market to participate in after 2010. This strategic planning should be able to coincide with refiners' evaluation of 15 ppm technologies and not add to the overall lead time required.

In all, we project that the task of producing 500 ppm NRLM fuel in 2007 would be less difficult than the task refiners faced with the implementation of the 500 ppm highway diesel fuel cap in 1993. Refiners had just over three years of leadtime for the highway diesel fuel cap, as is the case here and this proved sufficient.

6. What Technology Would Refiners Use to Meet the Proposed 15 ppm Sulfur Cap for Nonroad Diesel Fuel?

We project that refiners would be able to use a variety of desulfurization technologies to meet the proposed 15 ppm sulfur cap for nonroad fuel. One approach would be to use an extension of conventional hydrotreating technology. We expect that refiners would utilize hydrotreating to meet the proposed 500 ppm standard. We expect that refiners would design this hydrotreater to facilitate the addition of a second reactor or hydrotreating stage to further desulfurize their distillate blendstocks from 500 ppm to 15 ppm. Refiners might also shift to the use of an improved catalyst even in the first reactor (*i.e.*, that producing roughly 500 ppm sulfur product), as well as add equipment to further purify the hydrogen used.

This is the same technology which EPA projected would be used by most refiners to meet the 15 ppm sulfur cap for highway diesel fuel. EPA just recently reviewed the progress being made by refining technology vendors and refiners in meeting the 2006 highway diesel sulfur cap.[260] All evidence available confirms EPA's projection that conventional hydrotreating will be capable of producing diesel fuel containing less

[259] "Highway Diesel Progress Review," USEPA, EPA420-R–02–016, June 2002.

[260] "Highway Diesel Progress Review," EPA, June 2002, EPA420-R–02–016.

than 10 ppm sulfur. Refiners producing only high sulfur distillate today should have an added advantage in meeting a 15 ppm sulfur cap for nonroad fuel over that for highway fuel. They would be able to design their hydrotreater from the ground up, while most refiners producing 15 ppm diesel fuel for highway use will be trying to utilize their existing 500 ppm hydrotreaters, which may not be designed to be revamped to produce 15 ppm fuel in the most efficient manner.

Based on our review of the limited catalyst performance data in the published literature and the one set of confidential data submitted, we believe that the projections of the more optimistic vendors are the most accurate for the 2010 timeframe given this additional leadtime. For example, the confidential commercial data indicated that five ppm sulfur levels could be achieved with two-stage hydrotreating at moderate hydrogen pressure despite the presence of a significant amount of light cycle oil (LCO). The key factor was the inclusion of a hydrogenation catalyst in the second stage, which saturated many of the poly-nuclear, aromatic rings in the diesel fuel, allowing the removal of sulfur from the most sterically hindered compounds. In addition, refiners that are able to defer production of 15 ppm highway diesel fuel through the purchase of credits, as well as refiners producing 15 ppm nonroad in 2010, would have the added benefit of being able to observe the operation of those hydrotreating units starting up in 2006. This should allow these refiners to be able to select from the best technologies which are employed in the highway program.

In addition, a number of alternative technologies are presently being developed which could produce 15 ppm fuel at lower cost. ConocoPhillips, for example, has developed a version of their S-Zorb technology for diesel fuel desulfurization. This technology utilizes a catalytic adsorbent to remove the sulfur atom from hydrocarbon molecules. It then sends the sulfur-laden catalyst to a separate reactor, where the sulfur is removed and the catalyst is restored. Unipure is developing a process which selectively oxidizes the sulfur contained in diesel fuel. This process have the advantage that the sulfur containing compounds which are most difficult to desulfurize via hydrotreating are quite easily desulfurized via oxidation. Finally, Linde has developed a method which greatly improves the concentration of hydrogen on hydrotreating catalysts. This process promises to greatly reduce the reactor volume necessary to produce 15 ppm diesel fuel.

These three new technologies are at various stages of development. This is discussed in more detail in the next section. Due to the projected ability of these technologies to reduce the cost of meeting a 15 ppm sulfur cap and the leadtime available between now and 2010, we project that 80% of the new volume of 15 ppm nonroad diesel fuel would be produced using advanced technologies.

7. Has Technology to Meet a 15 ppm Cap Been Commercially Demonstrated?

EPA just completed a review of refiners' progress in preparing to produce 15 ppm highway diesel fuel.[261] The information we obtained during that review confirm the projections we made in the HD 2007 program—refiners are technically capable of producing 15 ppm sulfur diesel fuel using extensions of conventional technology and, in fact, they are moving forward with their plans to comply with the program. Thus, we believe there are no technological hurdles to producing 15 ppm diesel fuel.

The European Union has also determined that diesel fuel can be desulfurized to meet a sulfur cap in the range of 10–15 ppm. Europe has established a 10 ppm sulfur cap on highway diesel fuel, effective in 2009, with plans underway for a 10 ppm sulfur cap for nonroad diesel fuel soon thereafter. As with our standards, Europe's 10 ppm cap applies throughout the distribution system. However, fuel tends to be transported much shorter distances in Europe. Therefore, we believe that both the 10 and 15 ppm sulfur caps will require refiners to meet the same 7–8 ppm sulfur target at the refinery gate. Given this, the European standard will require the same technology as that required in the U.S. Most European diesel fuel must meet a higher cetane number specification than U.S. diesel fuel, which causes it to be predominantly comprised of straight run material. This material is easier to desulfurize to sub-15 ppm levels using conventional hydtrotreating technology. In some European countries, nonroad diesel fuel is the same as heating oil and contains significant amounts of cracked material. Thus, on average, it should be easier for European refiners to meet a 10 ppm sulfur cap with their highway diesel fuel than in the U.S. As the 10 ppm cap is extended to nonroad diesel fuel, the stringency of the European standard will be much closer to that of a 15 ppm cap here in the U.S.

We have met with a number of diesel fuel refiners to learn about their plans to produce 15 ppm highway diesel fuel by the June 2006 program compliance date. Since the 15 ppm diesel fuel sulfur standard was established based on the use of extensions of conventional diesel desulfurization technologies, diesel fuel refineries are well positioned to make firm plans for implementation by 2006. Our review has found that this is exactly what refiners are doing. We are very encouraged by the actions some refiners have already taken in terms of announcing specific plans for low sulfur diesel fuel production. It may still be early in the process, but virtually all refiners are already in the stage of planning their approach for compliance. Thus, the refining industry is where we anticipated it would be at this point in time. Moreover, some refining companies are ahead of schedule and will be capable of producing significant quantities of 15 ppm sulfur diesel fuel as early as next year. Thus, we expect that the capability of conventional hydrotreating to produce 15 ppm diesel fuel in refinery-scale quantities will be demonstrated in the U.S. by the end of 2003.

Phillips Petroleum is currently in the process of designing and constructing a commercial sized S-Zorb unit to produce sub-15 ppm diesel fuel at their Sweeney, Texas refinery. This plant is scheduled to begin commercial operation in 2004. This would provide refiners with roughly 3 years of operating data before they would have to decide which technology to use to meet the 15 ppm nonroad sulfur cap in 2010. This should be enough operating experience for most refiners to have sufficient confidence in this advanced process to include it in their options for 2010 compliance. Based on information received from Phillips Petroleum, we estimate that this technology could reduce the cost of meeting the 15 ppm cap for many refiners by 25 percent.

Linde has also developed a new approach for improving the contact between hydrogen, diesel fuel and conventional desulfurization catalysts. Linde projects that their Iso-Therming process could reduce the hydrotreater volume required to achieve sub-15 ppm sulfur levels by roughly a factor of 2. Linde has already built a commercial-sized demonstration unit at a refinery in New Mexico and has been operating the equipment since September 2002. Thus, refiners would have 4–5 years of operating data available on this process before they would have to decide which technology to use to meet the 15 ppm nonroad sulfur cap in 2010. This should be ample operating experience for

[261] *Ibid.*

essentially all refiners to include this process in their options for 2010. Based on information received from Linde, we estimate that this technology could reduce the cost of meeting the 15 ppm cap for many refiners by 40 percent.

Finally, Unipure Corporation is developing a desulfurization process which oxidizes the sulfur atom in diesel fuel molecules, facilitating its removal. This process operates at low temperatures and ambient pressure, so it avoids the need for costly, thick walled, pressure vessels and compressors. It also consumes no hydrogen. Thus, it could be particularly advantageous for refiners who lack an inexpensive supply of hydrogen (*e.g.*, isolated or smaller refineries who cannot construct a world scale hydrogen plant based on inexpensive natural gas). However, the oxidant is very powerful, so specialized, oxidation resistant materials are needed. Unipure has demonstrated its process at the pilot plant level, but has yet to build a commercial sized demonstration unit. However, time still remains for this to be done before refiners need to make final decisions for their 2010 compliance plans. Thus, while more uncertain than the other two advanced processes, the Unipure oxidation process could be selected by a number of refiners to meet the 2010 15 ppm cap. Based on inputs from Unipure, we estimate that their process could reduce the cost of meeting the 15 ppm cap for roughly one-fourth of all refineries by 25–35 percent.

The savings associated with each technology varies with the size, location and complexity of the refinery. However, on average the Linde process appears to have the potential reduce the cost of desulfurizing 500 ppm diesel fuel to 15 ppm by 35–40 percent. The savings associated with the Phillips and Unipure processes appear to be more refinery specific. For about 25 refineries, the Phillips process appears to have the potential to reduce these desulfurization costs by 20–40 percent. The primary advantage of the Unipure process is its lower capital costs. For about 30 refineries, the Unipure process appears to have the potential to reduce the capital investment related to produce 15 ppm fuel from 500 ppm diesel fuel by an average of 40 percent.

8. Availability of Leadtime To Meet the 2010 15 ppm Sulfur Cap

If we promulgate this proposal one year from today, this would provide refiners and importers with more than six years before they would have to begin complying with the 15 ppm cap for nonroad diesel fuel on June 1, 2010. Our leadtime analysis, which is presented in the draft RIA, projects that 30–39 months are typically needed to design and construct a diesel fuel hydrotreater.[262] Thus, refiners would have about 3 years before they would have to begin detailed design and construction. This would allow them time to observe the performance of the hydrotreaters being used to produce 15 ppm highway diesel fuel for at least one year. While not a full catalyst cycle, any unusual degradation in catalyst performance over time should be apparent within the first year. Thus, we project that the 2010 start date would allow refiners to be quite certain that the designs they select in mid-2007 will perform adequately in 2010.

In addition, we expect that most of the advanced technologies will be demonstrated on a commercial scale by the end of 2004. Thus, refiners would have at least two and a half years to observe the performance of these technologies before having to select a technology to meet the 2010 15 ppm cap. This should be more than adequate to fully access the costs and capabilities of these technologies for all but the most cautious refiners.

9. Feasibility of Distributing Nonroad, Locomotive and Marine Diesel Fuels That Meet the Proposed Sulfur Standards

There are two considerations with respect to the feasibility of distributing non-highway diesel fuels meeting the proposed sulfur standards. The first pertains to whether sulfur contamination can be adequately managed throughout the distribution system so that fuel delivered to the end-user does not exceed the specified maximum sulfur concentration. The second pertains to the physical limitations of the system to accommodate any additional segregation of product grades.

a. Limiting Sulfur Contamination

With respect to limiting sulfur contamination during distribution, the physical hardware and distribution practices for non-highway diesel fuel do not differ significantly from those for highway diesel fuel. Therefore, we do not anticipate any new issues with respect to limiting sulfur contamination during the distribution of non-highway fuel that would not have already been accounted for in distributing highway diesel fuel. Highway diesel fuel has been required to meet a 500 ppm sulfur standard since 1993. Thus, we expect that limiting contamination during the distribution of 500 ppm non-highway diesel engine fuel can be readily accomplished by industry.

In the highway diesel rule, EPA acknowledged that meeting a 15 ppm sulfur specification would pose a substantial new challenge to the distribution system. Refiners, pipelines and terminals would have to pay careful attention to and eliminate any potential sources of contamination in the system (*e.g.*, tank bottoms, deal legs in pipelines, leaking valves, interface cuts, etc.) In addition, bulk plant operators and delivery truck operators would have to carefully observe recommended industry practices to limit contamination, including practices as simple as cleaning out transfer hoses, proper sequencing of fuel deliveries, and parking on a level surface. Due to the need to prepare for compliance with the highway diesel program, we anticipate that issues related to limiting sulfur contamination during the distribution of 15 ppm nonroad diesel fuel will be resolved well in advance of the proposed 2010 implementation date for nonroad fuel. We are not aware of any additional issues that might be raised unique to nonroad fuel. If anything we anticipate limiting contamination will become easier as batch sizes are allowed to increase and potential sources of contamination decrease. We request comment on whether there are unique considerations regarding the transition to a 15 ppm standard for nonroad diesel fuel and what actions we should take beyond those that are already underway in preparation for the 15 ppm highway diesel program.

b. Potential Need for Additional Product Segregation

As discussed in sub-section B, we have designed the proposed program to minimize the need for additional product segregation and the associated feasibility and cost issues associated with it. This proposal would allow for the fungible distribution of 500 ppm highway and 500 ppm NRLM diesel fuel in 2007, and 15 ppm highway and 15 ppm nonroad diesel fuel in 2010, up until the point where NRLM or nonroad fuel must be dyed for IRS excise tax purposes. Heating oil would be required to be segregated as a separate pool beginning in 2007 through the use of a new marker, and locomotive and marine fuel by use of the same marker beginning in 2010. With this program design, we believe we have eliminated any potential feasibility issues associated with the need for product segregation. This is not to say that steps will not have to be taken. We have

[262] ''Highway Diesel Progress Review,'' USEPA, EPA420-R–02–016, June 2002.

identified only a single instance where it seems likely that the adoption of this proposal would result in entities in the distribution system choosing to add new tankage due to new product segregation. Bulk plants in areas of the country where heating oil is expected to remain in the market will have to decide whether to add tankage to distribute both heating oil and 500 ppm NRLM fuel. In all other cases we anticipate segments of the distribution system will choose to avoid any fuel segregation costs by limiting the range of sulfur grades they choose to carry, just as they do today. Regardless, however, the costs and impacts of these choices are small. We request comment on this assessment. A more detailed explanation of this assessment can be found in Chapter 5.6 of the draft RIA.

G. What Are the Potential Impacts of the 15 ppm Sulfur Diesel Program on Lubricity and Other Fuel Properties?

1. What Is Lubricity and Why Might it Be a Concern?

Engine manufacturers and owner/operators depend on diesel fuel lubricity properties to lubricate and protect moving parts within fuel pumps and injection systems for reliable performance. Unit injector systems and in-line pumps, commonly used in diesel engines, are actuated by cams lubricated with crankcase oil, and have minimal sensitivity to fuel lubricity. However, rotary and distributor type pumps, commonly used in light and medium-duty diesel engines, are completely fuel lubricated, resulting in high sensitivity to fuel lubricity. The types of fuel pumps and injection systems used in nonroad diesel engines are the same as those used in highway diesel vehicles. Consequently, nonroad and highway diesel engines share the same need for adequate fuel lubricity to maintain fuel pump and injection system durability.

Diesel fuel lubricity concerns were first highlighted for private and commercial vehicles during the initial implementation of the Federal 500 ppm sulfur highway diesel program and the state of California's diesel program. The Department of Defense (DoD) also has a longstanding concern regarding the lubricity of distillate fuels used in its equipment as evidenced by the implementation of its own fuel lubricity improver performance specification in 1989.[263] The diesel fuel requirements in the state of California differed from the federal requirements by substantially restricting the content of diesel fuel requires more severe hydrotreating than reducing the sulfur content to meet a 500 ppm standard.[264] Consequently, concerns regarding diesel fuel lubricity have primarily been associated with California diesel fuel and some California refiners treat their diesel fuel with a lubricity additive as needed. Outside of California, hydrotreating to meet the current 500 ppm sulfur specification does not typically result in a substantial reduction of lubricity. Diesel fuels outside of California seldom require the use of a lubricity additive. Therefore, we anticipate only a marginal increase in the use of lubricity additives in NRLM diesel fuel meeting the proposed 500 ppm sulfur standard for 2007.[265] This proposal would require diesel fuel used in nonroad engines to meet a 15 ppm sulfur standard in 2010. Based on the following discussion, we believe that the increase in the use of lubricity additives in 15 ppm nonroad diesel fuel would be the same as that estimated for 15 ppm highway diesel fuel.

The state of California currently requires the same standards for diesel fuel used in nonroad equipment as in highway equipment. Outside of California, highway diesel fuel is often used in nonroad equipment when logistical constraints or market influences in the fuel distribution system limit the availability of high sulfur fuel. Thus, for nearly a decade nonroad equipment has been using federal 500 ppm sulfur diesel fuel and California diesel fuel, some of which may have been treated with lubricity additives. During this time, there has been no indication that the level of diesel lubricity needed for fuel used in nonroad engines differs substantially from the level needed for fuel used in highway diesel engines.

Blending small amounts of lubricity-enhancing additives increases the lubricity of poor-lubricity fuels to acceptable levels. These additives are available in today's market, are effective, and are in widespread use around the world. Among the available additives, biodiesel has been suggested as one potential means for increasing the lubricity of conventional diesel fuel. Indications are that low concentrations of biodiesel would be sufficient to raise the lubricity to acceptable levels.

Considerable research remains to be performed to better understand which fuel components are most responsible for lubricity. Consequently, it is unclear whether and to what degree the proposed sulfur standards for non-highway diesel engine fuel will impact fuel lubricity. Nevertheless, there is evidence that the typical process used to remove sulfur from diesel fuel—hydrotreating—can impact lubricity depending on the severity of the treatment process and characteristics of the crude. We expect that hydrotreating will be the predominant process used to reduce the sulfur content of non-highway diesel engine fuel to meet the 500 ppm sulfur standard during the first step of the proposed program. The highway diesel program projected that hydrotreating would be the process most frequently used to meet the 15 ppm sulfur standard for highway diesel fuel. The 2010 implementation date for the proposed 15 ppm standard for nonroad diesel fuel would allow the use of new technologies to remove sulfur from fuel.[266] These new technologies have less of a tendency to affect other fuel properties than does hydrotreating.

Based on our comparison of the blendstocks and processes used to manufacture non-highway diesel fuels, we believe that the potential decrease in the lubricity of these fuels from hydrotreating that might result from the proposed sulfur standards should be approximately the same as that experienced in desulfurizing highway diesel fuel.[267] To provide a conservative, high cost estimate, we assumed that the potential impact on fuel lubricity from the use of the new desulfurization processes would be the same as that experienced when hydrotreating diesel fuel to meet a 15 ppm sulfur standard. We request comment on the potential impact of these new desulfurization technologies on lubricity (as well as other fuel properties) that might help us to improve our estimate of the potential impacts of this proposal on fuel properties other than sulfur. Given that the requirements for fuel lubricity in highway and non-highway engines are the same, and the potential decrease in lubricity from desulfurization of non-highway diesel engine would be no greater than that experienced in desulfurizing highway diesel fuel, we

[263] DoD Performance Specification, Inhibitor, Corrosion/Lubricity Improver, Fuel Soluble, , MIL-PRF–25017F, 10 November 1997, Superseding MIL-I–25017E, 15 June 1989.

[264] Chevron Products Diesel Fuel Technical Review provides a discussion of the impacts on fuel lubricity of current diesel fuel compositional requirements in California versus the rest of the nation. *http://www.chevron.com/prodserv/fuels/bulletin/diesel/l2%5F7%5F2%5Frf.htm.*

[265] The cost from the increased use of lubricity additives in 500 ppm NRLM diesel fuel in 2007 and in 15 ppm nonroad diesel fuel in 2010 is discussed in section V of today's preamble.

[266] *See* section IV.F for a discussion of which desulfurization processes we expect will be used to meet the 15 ppm standard for nonroad diesel fuel.

[267] *See* chapter 5 of the RIA for a discussion of the potential impacts on fuel lubricity of this proposal.

estimate that the potential need for lubricity additives in non-highway diesel engine fuel under this proposal would be the same as that for highway diesel fuel meeting the same sulfur standard.

2. A Voluntary Approach on Lubricity

In the United States, there is no government or industry standard for diesel fuel lubricity. Therefore, specifications for lubricity are determined by the market. Since the beginning of the 500 ppm sulfur highway diesel program in 1993, refiners, engine manufacturers, engine component manufacturers, and the military have been working with the American Society for Testing and Materials (ASTM) to develop protocols and standards for diesel fuel lubricity in its D–975 specifications for diesel fuel. ASTM is working towards a single lubricity specification that would be applicable to all diesel fuel used in any type of engine. Although ASTM has not yet adopted specific protocols and standards, refiners that supply the U.S. market have been treating diesel fuel with lubricity additives on a batch to batch basis, when poor lubricity fuel is expected. Other examples include the U.S. military, Sweden, and Canada. The U.S. military has found that the traditional corrosion inhibitor additives used in its fuels have been highly effective in reducing fuel system component wear. Since 1991, the use of lubricity additives in Sweden's 10 ppm sulfur Class I fuel and 50 ppm sulfur Class II fuel has resulted in acceptable equipment durability.[268] Since 1997, Canada has required that its 500 ppm sulfur diesel fuel not meeting a minimum lubricity be treated with lubricity additives.

The potential need for lubricity additives in diesel fuel meeting a 15 ppm sulfur specification was evaluated during the development of EPA's highway diesel rule. In response to the proposed highway diesel rule, all comments submitted regarding lubricity either stated or implied that the proposed sulfur standard of 15 ppm would likely cause the refined fuel to have lubricity characteristics that would be inadequate to protect fuel injection equipment, and that mitigation measures such as lubricity additives would be necessary. However, the commenters suggested varied approaches for addressing lubricity. For example, some suggested that we need to establish a lubricity requirement by regulation while others suggested that the current voluntary, market based system would be adequate. The Department of Defense recommended that we encourage the industry (ASTM) to adopt lubricity protocols and standards before the 2006 implementation date of the 15 ppm sulfur standard for highway diesel fuel.

The final highway diesel rule did not establish a lubricity standard for highway diesel fuel. We believe the issues related to the need for diesel lubricity in fuel used in non-highway diesel engines are substantially the same as those related to the need for diesel lubricity for highway engines. Consequently, we expect the same industry-based voluntary approach to ensuring adequate lubricity in non-highway diesel fuels that we recognized for highway diesel fuel. We believe the best approach is to allow the market to address the lubricity issue in the most economical manner, while avoiding an additional regulatory scheme. A voluntary approach should provide adequate customer protection from engine failures due to low lubricity, while providing the maximum flexibility for the industry. This approach would be a continuation of current industry practices for diesel fuel produced to meet the current federal and California 500 ppm sulfur highway diesel fuel specifications, and benefits from the considerable experience gained since 1993. It would also include any new specifications and test procedures that we expect would be adopted by the American Society for Testing and Materials (ASTM) regarding lubricity of NRLM diesel fuel quality.

Regardless, this is an issue that will be resolved to meet the demands of the highway diesel market, and whatever resolution is reached for highway diesel fuel could be applied to non-highway diesel engine fuel with sufficient advance notice. We are continuing to participate in the ASTM Diesel Fuel Lubricity Task Force[269] and will assist their efforts to finalize a lubricity standard in whatever means possible. We are hopeful that ASTM can reach a consensus early this summer at the next meeting of the ASTM's Lubricity Task Force. We request comment on what actio ns EPA should take to ensure adequate lubricity of non-highway diesel engine fuel beyond those already underway for highway diesel fuel.

3. What Other Impact Would Today's Actions Have on the Performance of Diesel and Other Fuels?

We do not expect that the proposed fuel program would have any negative impacts on the performance of diesel engines in the existing fleet which would use the fuels regulated today. In the early 1990's, California lowered the maximum allowable level of sulfur content of highway and nonroad diesel fuel to 500 ppm, and at the same time California significantly lowered the aromatic content of diesel fuel. California required a cap on total aromatics of 10 percent by volume, while the in-use average at the time was on the order of 35 percent. The lowering of the total aromatic content resulted in some problems with leaks from the fuel pump O-ring seals in some diesel engines due to a change specifically in the polynuclear aromatics content (PNA). In the process of meeting California's 10 percent total aromatic content requirement, the end result typically lowered PNA's from approximately 10–15 percent by volume to near-zero. In the early 1990's, some diesel engine manufacturers used a certain material (Nitrile) for O-rings in diesel fuel pumps. The Nitrile seals were found to be susceptible to leakage with the use of diesel fuel with very low PNA content. Normally, the PNA in the fuel penetrated the Nitrile material and cause it to swell, thereby providing a seal with the throttle shaft. When very low PNA fuel is used after conventional fuel has been used, the PNA already in the swelled O-ring would leach out into the very low PNA fuel. Subsequently, the Nitrile O-ring would shrink and pull away, thus causing leaks, or the stress on the O-ring during the leaching process would cause it to crack and leak. Not all 500 ppm sulfur fuels caused this problem, because the amount and type of aromatics varied, and the in-use seal problems were focused in California due to the 10 percent aromatic requirements and the resulting very low PNA content. This was not a wide-spread issue for the rest of the U.S. where highway diesel fuel also had a 500ppm sulfur cap because the federal requirements did not include a lower aromatic cap. While the process of lowering sulfur levels to 500ppm does lower PNA, it does not achieve the near-zero levels seen in California. Since the 1990's, diesel engine manufacturers have switched to alternative materials (such as Viton), which do not experience leakage. We believe that no issues with leaking fuel pump O-rings would occur with the changes in diesel fuel sulfur levels

[268] Letter from L. Erlandsson, MTC AB, to Michael P. Walsh, dated October 16, 2000. EPA air docket A–99–06, docket item IV–G–42.

[269] ASTM sub committee D02.E0.

contained in this proposal (both the 500 ppm requirement in 2008 and the 15 ppm requirement in 2010) because while we do believe PNA content will be reduced, we are not predicting it will achieve the near-zero level experienced in California.

We expect that this proposal would have no negative impacts on other fuels, such as jet fuel or heating oil. We do expect that the sulfur levels of heating oil would decrease because of this proposal. Beginning in mid-2007, we expect that controlling NRLM diesel fuel to 500 ppm would lead many pipelines to discontinue carrying high sulfur heating oil as a separate grade. In areas served by these pipelines, heating oil users would likely switch to 500 ppm diesel fuel. This would reduce emissions of sulfur dioxide and sulfate PM from furnaces and boilers fueled with heating oil. The primary exception to this would likely be the Northeast and some areas of the Pacific Northwest, where a distinct higher sulfur heating oil would still be distributed as a separate fuel. Also, we expect that a small volume of high sulfur distillate fuel would be created during distribution from the mixing of low sulfur diesel fuels and higher sulfur fuels, such as jet fuel in the pipeline interface. Such high sulfur distillate would likely be sold by the terminal as high sulfur heating oil or reprocessed by transmix processors.

H. Refinery Air Permitting

Prior to making diesel desulfurization changes, some refineries may be required to obtain a preconstruction permit, under the New Source Review (NSR) program, from the applicable state/local air pollution control agency.[270] We believe that the proposed program provides sufficient lead time for refiners to obtain any necessary NSR permits well in advance of the compliance date.

Given that today's diesel sulfur program would provide roughly three years of lead time before the 500 ppm standard would take effect, we believe refiners would have time to obtain any necessary preconstruction permits. Nevertheless, we believe it is reasonable to continue our efforts under the Tier 2 and highway diesel fuel programs, to help states in facilitating the issuance of permits under the NRLM diesel sulfur program. For example, the guidance on Best Available Control Technology (BACT) and Lowest Achievable Emission Rate (LAER) control technology that was developed for the gasoline sulfur program should have application for diesel desulfurization (highway and NRLM) projects as well. Similarly, we believe the concept of EPA permit teams for gasoline sulfur projects could readily be extended to permits related to diesel projects as well. These teams, as needed, would track the overall progress of permit issuance and would be available to assist state/local permitting authorities, refineries and the public upon request to resolve site-specific permitting questions. In addition, these teams would be available, as necessary, to assist in resolving case specific issues to ensure timely issuance of permits. Finally, to facilitate the processing of permits, we encourage refineries to begin discussions with permitting agencies and to submit permit applications as early as possible.

V. Program Costs and Benefits

In this section, we present the projected cost impacts and cost effectiveness of the proposed nonroad Tier 4 emission standards and low-sulfur fuel requirement. We also present a benefit-cost analysis and an economic impact analysis. The benefit-cost analysis explores the net yearly economic benefits to society of the reduction in mobile source emissions likely to be achieved by this rulemaking. The economic impact analysis explores how the costs of the rule will likely be shared across the manufacturers and users of the engines, equipment and fuel that would be affected by the standards.

The results detailed below show that this rule would be highly beneficial to society, with net present value benefits through 2030 of $550 billion, compared to a net present value of social cost of only about $16.5 billion (net present values in the year 2004). The impact of these costs on society should be minimal, with the prices of goods and services produced using equipment and fuel affected by the proposal being expected to increase about 0.02 percent.

Further information on these and other aspects of the economic impacts of our proposal are summarized in the following sections and are presented in more detail in the Draft RIA for this rulemaking. We invite the reader to comment on all aspects of these analyses, including our methodology and the assumptions and data that underlie our analysis.

A. Refining and Distribution Costs

As described above, the fuel-related requirements associated with this proposed rule would be implemented in two steps. Nonroad, locomotive and marine diesel fuel would be subject to a 500 ppm sulfur cap beginning June 1, 2007, while nonroad diesel fuel would be subject to a 15 ppm sulfur cap beginning June 1, 2010. Meeting these standards would generally require refiners adding hydrotreating equipment and possibly new or expanded hydrogen and sulfur plants in their refineries for desulfurizing their nonroad diesel fuel and dispensing of the removed sulfur. Using information provided by vendors of desulfurization equipment and through discussions with distributors of nonroad diesel fuel, we estimated the desulfurization and associated distribution and additive cost for complying with this two step desulfurization program. Except for the costs presented at the end of this section, the costs below reflect a fully phased in fuels program without the proposed small refiner exemption. Costs are in 2002 dollars. We request comment on the cost estimates presented below and the methodologies used to develop them. You can refer to the Draft RIA for details.

The cost to provide nonroad, locomotive and marine diesel fuel under the proposed fuel program is summarized in Table V–A–1 below. The costs shown (and all of the costs described in the rest of this section) only apply to the roughly 65 percent of current nonroad, locomotive and marine diesel fuel that contains more than 500 ppm sulfur (hereafter referred to as the affected volume). We estimate that the other 35 percent of this fuel is actually fuel certified to the highway diesel fuel standards and project that this will continue. Thus, the proposed fuel program would not affect this fuel and no additional costs would be incurred by its refiners or distributors. The costs and benefits of desulfurizing this highway fuel which spills over into the non-highway markets was already included in EPA's 2007 highway diesel fuel rule.

[270] Hydrotreating diesel fuel involves the use of process heaters, which have the potential to emit pollutants associated with combustion, such as NO_X, PM, CO and SO_3. In addition, reconfiguring refinery processes to add desulfurization equipment could increase fugitive VOC emissions. The emissions increases associated with diesel desulfurization would vary widely from refinery to refinery, depending on many source-specific factors, such as crude oil supply, refinery configuration, type of desulfurization technology, amount of diesel fuel produced, and type of fuel used to fire the process heaters.

TABLE V–A–1.—INCREASED COST OF PROVIDING NONROAD, LOCOMOTIVE AND MARINE DIESEL FUEL

	Cents per gallon of affected fuel			Affected fuel volume (million gallons/year) [a]
	Refining	Lubricity and distribution	Total	
Step One—500 ppm NRLM diesel fuel	2.2	0.3	2.5	9,504
Step Two—5 ppm Nonroad diesel fuel	4.4	0.4	4.8	7,803
Step Two—500 ppm Locomotive and Marine diesel fuel	2.2	[b] 0.2	2.4	4,093

Notes:
[a] 2008 for Step One (without consideration of small refiner provisions), 2015 for Step Two.
[b] 0.4 cent per gallon from mid-2010 to mid-2014 due to need for marker.

The majority of the fuel-related cost of the proposal is refining-related. These costs include required capital investments amortized at 7 percent per annum before taxes. The derivation of these costs is discussed in more detail below and in the Draft RIA. We request comment on the estimated cost of meeting the 15 ppm and 500 ppm sulfur caps.

We also project that the increased cost of refining and distributing 15 ppm and 500 ppm fuel would be substantially offset by reductions in maintenance costs. These savings would apply to all diesel engines in the field, not just new engines. Refer to section V. B for a more complete discussion on the projected maintenance savings associated with lower sulfur fuels.

1. Refining Costs

Our process for estimating the refining costs associated with the proposed fuel program consisted of four steps. One, we estimated the volume of 500 and 15 ppm nonroad, locomotive and marine diesel fuel which had to be produced in each PADD [271] in each phase of the program. This step utilized diesel fuel and heating oil use estimates from the Energy Information Administration's (EIA) Fuel Oil and Kerosene Survey for 2000, shipments of diesel fuel between PADDs, projected loss of 15 and 500 ppm volume due to contamination during distribution and small refiner provisions. This nonroad diesel fuel consumption in 2000 is lower than that inherent in the emission estimates described above, which are based directly on the results of EPA's NONROAD emission model. We are investigating ways to make the two estimates more consistent.

Growth in distillate fuel use off this year 2000 base was estimated using projections from EIA's Annual Energy Outlook, with one exception. This exception was that the growth in nonroad diesel fuel use was taken from EPA's NONROAD emission model (roughly three percent per year), as opposed to EIA's projected growth of roughly one percent per year. The higher growth rate is consistent with that inherent in the emission estimates described above.

Refinery production of low and high sulfur distillate fuel in the year 2000 was based on actual reports provided to EIA by all U.S. refiners and importers. Refinery production of low and high sulfur distillate fuel was assumed to grow at the same rate as consumption of the two types of fuel, respectively. These rates were roughly three percent and one and a half percent for low and high sulfur distillate fuel production, respectively. The specific volumes of highway, nonroad, locomotive, and marine diesel fuel by calendar year are presented in chapter 7 of the Draft RIA.

Two, we estimated the cost for each refinery to desulfurize its high sulfur fuel to 500 and 15 ppm. This was based on their historical production volume of high sulfur diesel fuel and estimates of the composition of this fuel (straight run, light cycle oil, etc.).[272] We also considered whether these refineries would be modifying or building hydrotreating capacity in order to meet the 15 ppm highway cap.

Three, we estimated which refineries would find it difficult to market all of their current high sulfur diesel fuel as heating oil, due to their location relative to major pipelines and the size of the heating oil market in their area. Those not located in major heating oil markets and not connected to pipelines serving these areas were projected to have to meet the 500 ppm cap in 2007.

Four, we determined the additional refineries which would produce 500 ppm and 15 ppm fuel to satisfy demand during each phase of the fuel program. Refineries projected to have the lowest compliance costs in each PADD were projected to produce the lower sulfur fuels until demand was met. PADD 3 refineries were allowed to ship low sulfur fuel to the Northeast, but no other inter-PADD transfers were assumed. Imports of 500 ppm highway diesel fuel were assumed to increase at the rate of highway diesel fuel consumption and be converted to 15 ppm diesel fuel, 80 percent in 2006 and 100 percent in 2010. Imports of high sulfur distillate fuel were assumed to increase at the rate of high sulfur distillate fuel consumption, but were assumed to remain entirely high sulfur heating oil even after today's NRLM fuel proposal. In other words, all 15 ppm and 500 ppm NRLM fuel produced under this proposal was assumed to be produced by domestic refineries. This assumption increased the projected costs of the proposal described above more than would have been the case had we assumed that domestic production and imports of high sulfur distillate fuel would each keep their respective shares of the NRLM diesel fuel and heating oil markets in response to this proposal. The relative costs of producing 15 ppm nonroad diesel fuel by domestic and overseas refiners is discussed further in section V.A.6. below.

With the onset of a 2007 500 ppm sulfur cap for nonroad, locomotive and marine diesel fuel, we project that the market for high sulfur diesel fuel and heating oil would become so small that high sulfur fuel would no longer be shipped through common carrier pipelines in most areas. The prime exception to this would be the Northeast, where the heating oil market is very large. Thus, refiners located in the Northeast and those along the major pipelines serving the Northeast, namely the Colonial and Plantation pipelines, could continue to produce high sulfur

[271] Petroleum Administrative for Defense Districts.

[272] The composition of nonroad diesel fuel in each PADD was based on a survey conducted by API and NPRA in 1996. Crude oils processed by domestic refiners have been becoming heavier over time, necessitating greater use of coking and hydrocracking to convert the heavy material into lighter, saleable products. Thus, the contributions of coker and hydrocracked distillate to the overall distillate pool are rising. Coker distillate is somewhat more difficult to desulfurize than average distillate, but hydrocracked distillate is much easier to desulfurize. Overall, this trend could increase projected desulfurization costs slightly. We plan to update these compositions to reflect trends in crude oil quality and refinery configuration in our analysis for the final rule to the extent that more recent data allow.

heating oil. Other refineries would shift the production of high sulfur diesel fuel and heating oil to the 500 ppm NRLM market. The second exception would be refiners granted special provisions due to the small size of their business (*i.e.*, SBREFA refiners) or economic hardship, as discussed in section IV above. The high sulfur distillate production levels of these refineries is small enough that they can sell into more local nonroad, locomotive and marine markets or the heating oil market without using pipelines and so they could continue to produce high sulfur distillate.

Based on refinery distillate production data from the Energy Information Administration (EIA), there are 122 refineries currently producing highway diesel fuel and 105 refineries producing high sulfur diesel fuel or heating oil. Using the methodology described above, absent this proposal, we project that roughly 114 refineries will invest in additional desulfurization equipment to produce 15 ppm highway diesel fuel; 74 refineries in 2006 and 40 in 2010.[273] These 114 refineries include 109 of the 122 refineries which currently produce highway diesel fuel, plus 5 refineries which currently only produce high sulfur distillate fuel today. Again absent the proposed NRLM diesel fuel program, we project that roughly 13 refineries currently producing highway diesel fuel will shift to producing high sulfur distillate fuel. This would leave a total of 113 refineries still producing high sulfur distillate after full implementation of the 2007 highway diesel fuel program.

The number of these 113 domestic refineries expected to produce either 500 ppm of 15 ppm NRLM diesel fuel in response to this proposal is summarized in Table V–A–2.

TABLE V–A–2 REFINERIES PROJECTED TO PRODUCE NRLM DIESEL FUEL UNDER THIS PROPOSAL

Year of Program	500 ppm diesel fuel		15 ppm diesel fuel	
	All refineries	Small refineries	All refineries	Small refineries
2007–2010	42	0	0	0
2010–2014	37	19	25	0
2014+	25	12	37	7

As shown in this table, we project that 42 of the 113 refineries currently producing some high sulfur distillate would desulfurize their high sulfur diesel fuel in response to the proposed 500 ppm standard in 2007. The remainder would continue producing either high sulfur NRLM diesel fuel under the proposed small refiner provisions, or high sulfur heating oil. As explained in section IV.F, we project that these refiners would use conventional hydrotreating technology to meet this standard. Of these 42 refineries, we project that 32 would build new hydrotreaters to meet the 500 ppm sulfur cap. We project that three of the remaining ten refineries would be able to meet the 500 ppm cap with their existing hydrotreater which is currently being used to produce highway diesel fuel. These three refineries are projected to build a new hydrotreater to produce 15 ppm highway diesel fuel in 2006, so their existing highway fuel hydrotreater could process their current high sulfur diesel fuel. The remaining seven refineries currently produce relatively small amounts of high sulfur diesel fuel compared to their highway diesel fuel production. We project that these refiners would be able to economically revamp their existing highway hydrotreater to process their non-highway diesel fuel.

We project that the capital cost involved to meet the 2007 500 ppm sulfur cap would be $600 million, or $9.7 million per refinery building a new hydrotreater. The bulk of this capital would be invested in 2007 ($500 million), with the remainder being invested in 2010.[274] Operating costs would be about $3 million per year for the average refinery. We request comment on the number of refiners who would need to build new equipment to meet the 500 ppm sulfur cap, the capital cost for this new equipment and the cost of operating this equipment.

Starting in mid-2010, we project that 25 refineries would add or revamp equipment to meet the 15 ppm cap on nonroad diesel fuel, while 20 refineries (nearly all of them small refiners) would add or revamp equipment to produce 500 ppm nonroad or locomotive and marine diesel fuel. Finally, an additional 12 refineries (again nearly all of them small refiners) would begin producing 15 ppm nonroad diesel fuel in 2014.

We project that 80 percent of the 15 ppm nonroad diesel fuel volume would be desulfurized by advanced technologies, while the remaining 20 percent would be desulfurized by conventional hydrotreaters. Since the bulk of the hydrotreating capacity being used to meet the 2007 500 ppm standard for NRLM diesel fuel would have just been built in 2007 or 2010, we expect that it would have been designed to facilitate further processing to 15 ppm sulfur and the added 15 ppm facilities would be revamps. However, those refiners who used their existing highway diesel fuel hydrotreaters to meet the proposed 500 ppm cap in 2007 would likely have to construct new equipment in 2010 or 2014 to meet the 15 ppm cap on nonroad diesel fuel, since these hydrotreaters could not be revamped in 2006 to produce 15 ppm highway diesel fuel. When the proposed NRLM diesel fuel program would be fully implemented in 2014, roughly 51 refineries are still projected to produce high sulfur heating oil and thus, would not face any refining costs related to this proposal.

Our projection that 80 percent of refineries would utilize some form of advanced technology to meet the proposed 15 ppm nonroad fuel sulfur cap is based on the fact that this 15 ppm cap would follow the production of 15 ppm highway diesel fuel by four years. Several firms are expending significant research and development resources to bring such advanced technologies to the market for the highway diesel fuel

[273] These (and the subsequent) estimates of the number of refineries investing in new equipment to produce diesel fuels of various sulfur levels should be understood as rough estimates which assist us in projecting costs and other impacts related to this proposal. They are most reasonable when evaluating the total number of refineries investing in a particular year or region. We are not indicating that we believe that we can predict which specific refineries would invest in desulfurization equipment in response to this proposal.

[274] Some refineries would be able to delay production of 500 ppm NRLM fuel until 2010 due to the proposed small refiner provisions. Likewise, some refineries would be able to delay production of 15 ppm nonroad diesel fuel until 2014.

program. We developed cost estimates for two such technologies: Linde Iso-Therming and Phillips S-Zorb. The development of cost estimates for these two advanced technologies, as well as conventional hydrotreating, is described in detail in Chapter 7 of the Draft RIA. We request comment on the potential viability and cost savings associated with advanced desulfurization technologies, particularly in the 2010 timeframe.

The total capital cost of new equipment and revamps related to the proposed 2010 sulfur standard would be $640 million, or $17 million per refinery adding or revamping equipment. Total operating costs would be about $5 million per year for the average refinery. The total refining cost, including the amortized cost of capital, would be 4.4 cents per gallon of new 15 ppm nonroad fuel. This cost is relative to the cost of producing high sulfur fuel today, and includes the cost of meeting the 500 ppm standard beginning in 2007. We request comment on the number of refiners who would need to build new equipment to meet the 15 ppm sulfur cap, the capital cost for this new equipment and the cost of operating this equipment. The average cost of continuing to meet the 500 ppm standard for locomotive and marine fuel would continue at 2.2 cents per gallon.

The above costs reflect national averages for the fully phased in program for each control step. Some refiners would face lower costs while others would face higher costs. Excluding small refiners because they are able to take advantage of the proposed small refiner provisions, the average refining costs by refining region are shown in the table below. Combined costs are shown for PADDs 1 and 3 because of the large volume of diesel fuel which is shipped from PADD 3 to PADD 1.

TABLE V–A–3.—AVERAGE REFINING COSTS BY REGION (CENTS PER GALLON)

	2007 500 ppm Cap	2010 15 ppm Cap
PADDs 1 and 3	1.4	2.6
PADD 2	2.9	5.7
PADD 4	4.0	8.5
PADD 5	2.6	5.4
Nationwide	2.2	4.4

We request comment on the range of estimated refining costs for the various regions for both the proposed 500 and 15 ppm sulfur caps.

2. Cost of Lubricity Additives

Hydrotreating diesel fuel tends to reduce the natural lubricating quality of diesel fuel, which is necessary for the proper functioning of certain fuel system components. There are a variety of fuel additives which can be used to restore diesel fuel's lubricating quality. These additives are currently used to some extent in highway diesel fuel. We expect that the need for lubricity additives that would result from the proposed 500 ppm sulfur standard for off-highway diesel engine fuel would be similar to that for highway diesel fuel meeting the current 500 ppm sulfur cap standard.[275] Industry experience indicates that the vast majority of highway diesel fuel meeting the current 500 ppm sulfur cap does not need lubricity additives. Therefore, we expect that the great majority of off-highway diesel engine fuel meeting the proposed 500 ppm sulfur standard would also not need lubricity additives. In estimating lubricity additive costs for 500 ppm diesel fuel, we assumed that fuel suppliers would use the same additives at the same concentration as we projected would be used in 15 ppm highway diesel fuel. Based on our analysis of this issue for the 2007 highway diesel fuel program, the cost per gallon of the lubricity additive is about 0.2 cent. This level of use is likely conservative, as the amount of lubricity additive needed increases substantially as diesel fuel is desulfurized to lower levels. We also project that only 5 percent of all 500 ppm NRLM diesel fuel would require the use of a lubricity additive. Thus, we project that the cost of additional lubricity additives for the affected 500 ppm NRLM diesel fuel would be 0.01 cent per gallon. See the Draft RIA for more details on the issue of lubricity additives.

We project that all nonroad diesel fuel meeting a 15 ppm cap would require treatment with lubricity additives. Thus, the projected cost would be 0.2 cent per affected gallon of 15 ppm nonroad diesel fuel.

3. Distribution Costs

The proposed fuel program is projected to impact distribution costs in three ways. One, we project that more diesel fuel would have to be distributed under the proposal than without it. This is due to the fact that some of the desulfurization processes reduce the fuel's volumetric energy density during processing. Total energy is not lost during processing, as the total volume of fuel is increased. However, a greater volume of fuel must be consumed in the engine to produce the same amount of power. We assumed that the current cost of distributing diesel fuel of 10 cents per gallon (*see* Draft RIA for further details) would stay constant (*i.e.*, a 1 percent increase in the amount of fuel distributed would increase total distribution costs by 1 percent).

We project that desulfurizing diesel fuel to 500 ppm would reduce volumetric energy content by 0.7 percent. This would increase the cost of distributing fuel by 0.07 cent per gallon. We project that desulfurizing diesel fuel to 15 ppm would reduce volumetric energy content by an additional 0.35 percent. This would increase the cost of distributing fuel by an additional 0.04 cent per gallon, or a total cost of 0.11 cent per gallon of affected 15 ppm nonroad diesel fuel.

Two, while this proposal minimizes the segregation of similar fuels, some additional segregation of products in the distribution system would still be required. The proposed allowance that highway and off-highway diesel engine fuel meeting the same sulfur specification can be shipped fungibly until it leaves the terminal obviates the need for additional storage tankage in this segment of the distribution system.[276] This proposal would also allow 500 ppm NRLM diesel fuel to be mixed with high-sulfur NRLM diesel fuel once the fuels are dyed to meet IRS requirements. This provision would ease the last part of the distribution of high-sulfur NRLM diesel fuel.

However, we expect that the implementation of the proposed 500 ppm standard for NRLM diesel fuel in 2007 would compel some bulk plants in those parts of the country still

[275] Please refer to section IV in today's preamble for additional discussion regarding our projections of the potential impact on fuel lubricity of this proposed rule.

[276] Including the refinery, pipeline, marine tanker, and barge segments of the distribution system.

distributing heating oil as a separate fuel grade to install a second diesel storage tank to handle this 500 ppm nonroad fuel. These bulk plants currently handle only high-sulfur fuel and hence would need a second tank to continue their current practice of selling fuel into the heating oil market in the winter and into the nonroad market in the summer.[277] We believe that some of these bulk plants would convert their existing diesel tank to 500 ppm fuel in order to avoid the expense of installing an additional tank. However, to provide a conservatively high estimate we assumed that 10 percent of the approximately 10,000 bulk plants in the U.S. (1,000) would install a second tank in order to handle both 500 ppm NRLM diesel fuel and heating oil. The cost of an additional storage tank at a bulk plant is estimated at $90,000 and the cost of de-manifolding their delivery truck at $10,000.[278] If all 1,000 bulk plants were to install a new tank, the total one-time capitol cost would be $100,000,000. Amortizing the capital costs over 20 years, results in a estimated cost for tankage at such bulk plants of 0.1 cent per gallon of affected NRLM diesel fuel supplied. Although the impact on the overall cost of the proposed program is small, the cost to those bulk plant operators who need to put in a separate storage tank may represent a substantial investment. Thus, as discussed in section IV.F., we believe many of these bulk plants could make other arrangements to continue servicing both heating oil and NRLM markets.

Due to the end of the highway program temporary compliance option (TCO) in 2010 and the disappearance of high-sulfur diesel fuel from much of the fuel distribution system due to the implementation of this proposed rule, we expect that storage tanks at many bulk plants which were previously devoted to 500 ppm TCO highway fuel and high-sulfur fuel would become available for dyed 15 ppm nonroad diesel service. Based on this assessment, we do not expect that a significant number of bulk plants would need to install an additional storage tank in order to provide dyed and undyed 15 ppm diesel fuel to their customers beginning in 2010 (the proposed implementation date for the 15 ppm nonroad standard).[279] There could potentially be some additional costs related to the need for new tankage in some areas not already carrying 500 ppm fuel under the temporary compliance option of the highway diesel program and which continue to carry high sulfur fuel. However, we expect them to minimal relative to the above 0.1 cent per gallon cost. Thus, we estimate that the total cost of additional storage tanks that would result from the adoption of this proposal would be 0.1 cent per gallon of affected off-highway diesel engine fuel supplied.

Three, the proposed requirement that high sulfur heating oil be marked between 2007 and 2010 and that locomotive and marine diesel fuel be marked from 2010 until 2014 would increase the cost of distributing these fuels slightly. Based on input from marker manufacturers, we estimate that marking these fuels would cost no more than 0.2 cent per gallon and could cost considerably less. There should be no capital cost associated with this requirement, as we are proposing to remove the current requirement that refiners dye all high sulfur distillate at the refinery. The current dyeing equipment should work equally well for the marker. Because heating oil is being marked to prevent its use in NRLM engines, we have spread the cost for this marker over NRLM diesel fuel. Thus, from a regulatory point of view, the heating oil marker would increase the cost of NRLM diesel fuel between 2007 and 2010 by 0.16 cent per gallon. We attribute the cost of marking 500 ppm locomotive and marine diesel fuel directly to this fuel, so the marker cost is simply 0.2 cent per gallon of locomotive and marine diesel fuel between 2010 and 2014.

We do not project any additional downgrade of 15 ppm diesel fuel would result from the proposed fuel program. In our analysis of the 15 ppm highway fuel program, we also projected additional distribution costs due to the need to downgrade more volume of highway diesel fuel to a lower value product. This is a consequence of the large difference between the sulfur content of 15 ppm fuel and other distillate products, like high sulfur diesel fuel, heating oil and jet fuel.[280] We do not project that these costs would increase with this proposed rule. Highway diesel fuel meeting a 15 ppm cap will already be being distributed in all major pipeline and terminal networks. Thus, we expect that 15 ppm nonroad fuel would be added to batches of 15 ppm already being distributed. In this situation, the total interface volume needing to be downgraded would not increase. At the same time, we are not projecting that interface volume would decrease, as high sulfur fuels, such as jet fuel, would still be in the system.

Thus, overall, we estimate that the total additional distribution would be 0.3 cent per gallon of nonroad, locomotive and marine fuel during the first step of the proposed program (from 2007 through 2010). We project that distribution costs would increase to 0.4 cent gallon for 500 ppm locomotive and marine diesel fuel from 2010 to 2014, but decrease to 0.2 cent per gallon thereafter. Finally, we project that distribution costs for 15 ppm nonroad diesel fuel would be 0.2 cent gallon.

4. How EPA's Projected Costs Compare to Other Available Estimates

We used two different methods for evaluating how well our cost estimates reflect the true costs for complying with the two step nonroad fuel program. The first method compared our costs with the incremental market price of diesel fuel meeting a 15 or 500 ppm standard. The second method compared our cost estimate to that from an engineering analysis analogous to the one we performed.

Beginning with market prices, highway diesel fuel meeting a 500 ppm sulfur cap has been marketed in the U.S. for almost ten years. Over the five year period from 1995–1999, its national average price has exceeded that of high sulfur diesel fuel by about 2.4 cent per gallon (*see* chapter 7 of the Draft RIA). While fuel prices are a often a function of market forces which might not reflect the cost of producing the fuel, the comparison of the price difference over a fairly long period such as 5 years would tend to reduce the effect of the market on the prices and more closely reflect the cost of complying with the 500 ppm cap standard. Thus, we feel that this is a sound basis for evaluating our cost estimate. This price difference is essentially the same as our estimated cost for refining and distributing 500 ppm non-highway diesel fuel, thus the price difference for producing and distributing 500 ppm highway fuel corroborates our cost analysis.

Some 15 ppm diesel fuel is marketed today. However, it is either being produced in very limited quantities using equipment designed to meet less

[277] *See* section IV.E.9. of this proposal and chapter 5 of the RIA for additional discussion of the potential impacts of the proposed sulfur standards on the distribution system.

[278] This estimated cost includes the addition of a separate delivery system on the tank truck.

[279] *See* section IV of today's preamble for additional discussion of our rational for this conclusion.

[280] Off-highway diesel fuel sulfur content is currently unregulated and is approximately 3,400 ppm on average. The maximum allowed sulfur content of heating oil is 5,000 ppm. The maximum allowed sulfur content of kerosene (and jet fuel) is 3,000 ppm.

stringent sulfur standards or with other properties which make it unrepresentative of typical U.S. NRLM diesel fuel. Thus, current market prices are not a good indication of the long term price impact of the proposed 15 ppm cap.

Regarding engineering studies, the Engine Manufactures Association (EMA) commissioned a study by Mathpro to estimate the cost of controlling the sulfur content of highway and nonroad diesel fuel to levels consistent with both 500 ppm and 15 ppm cap standards.[281] Mathpro used a higher rate of return on new capital so we adjusted their per-gallon costs to reflect our own amortization methodology. Also, the Mathpro study was completed in 1999 so we adjusted their costs for inflation to year 2002 dollars. After these two adjustments, Mathpro's cost to desulfurize the high sulfur non-highway pool to 500 ppm is 2.5 cents per gallon, while that for a 15 ppm cap is 5.8 cents per gallon.[282] The 500 ppm cost estimate compares quite favorably with our own estimate of 2.2 cents per gallon cost. One reason for our somewhat lower estimate for complying with the 500 ppm standard is that our refinery-specific analysis has only the lowest cost refineries complying as many more expensive refineries can continue to produce heating oil. It is likely that the refineries which our analysis show would comply are more optimized for desulfurizating diesel fuel than the average refinery used by Mathpro. This reason applies even more for 15 ppm cap standard as fewer, more optimized refineries need to comply to produce nonroad diesel fuel which complies with a 15 ppm sulfur cap standard. Furthermore, we considered the use of advanced desulfurization technologies for complying with the 15 ppm standard, while Mathpro did not. Since the Mathpro study was performed in 1999, cost estimates were not available for either of the two technologies which we included. The adjustment of the Mathpro costs and the comparison with our own cost estimates are discussed in detail in the Draft RIA. We request comment on the degree that the results of the Mathpro study for EMA and the comparison with real-world prices support our own cost estimates.

[281] Hirshfeld, David, MathPro, Inc., ''Refining economics of diesel fuel sulfur standards,'' performed for the Engine Manufactuers Association, October 5, 1999.

[282] The Mathpro costs cited reflect their case where current diesel fuel hydrotreaters are revamped with a new reactor in series, which is the most consistent with our technology projection.

5. Supply of Nonroad, Locomotive and Marine Diesel Fuel

EPA has developed the proposed fuel program to minimize its impact on the supply of distillate fuel. For example: we have proposed to transition the fuel sulfur level down to 15 ppm in two steps, providing an estimated 6 years of leadtime for the final step; we are proposing to provide flexibility to refiners through the availability of banking and trading provisions; and we have provided relief for small refiners and hardship relief for any qualifying refiner. In order to evaluate the effect of this proposal on supply, EPA evaluated four possible cases: (1) whether the proposed standards could cause refiners to remove certain blendstocks from the fuel pool, (2) whether the proposed standards could require chemical processing which loses fuel in the process, (3) whether the cost of meeting the proposed standards could lead some refiners to leave that market, and (4) whether the cost of meeting the proposed standards could lead some refiners to stop operations altogether (*i.e.*, shut down). In all cases, as discussed below, we have concluded that the answer is no. Therefore, consistent with our findings made during the 2007 highway diesel rule, we do not expect this proposed rule to cause any supply shortages of nonroad, locomotive and marine diesel fuel. The reader is referred to the draft RIA for a more detailed discussion of the potential supply impact of this proposed rule.

Blendstock Shift: There should be no long term reduction in the amount of material derived from crude oil available for blending into diesel fuel or heating oil as a result of this proposal. Technology exists to desulfurize any commercial diesel fuel to less than 10 ppm sulfur. This technology is just now being proven on a commercial scale with a range of no. 2 diesel fuel blendstocks, as a number of refiners are producing 15 ppm fuel for diesel fleets which have been retro-fitted with PM traps or for pipeline testing. Therefore, there is no technical necessity to remove certain blendstocks from the diesel fuel pool. It costs more to process certain blendstocks, such as light cycle oil, than others. Therefore, there may be economic incentives to move certain blendstocks out of the diesel fuel market to reduce compliance costs. However, that is an economic issue, not a technical issue and will be addressed below when we consider whether refiners might choose to exit the NRLM diesel fuel market.

Processing Losses: The impact of the proposed rule on the total output of liquid fuel from refineries would be negligible. Conventional desulfurization processes do not reduce the energy content of the input material. However, the form of the material is affected slightly. With conventional hydrotreating, about 98 percent of the diesel fuel fed to a hydrotreater producing 15 ppm sulfur product leaves as diesel fuel. Of the 2 percent loss, three-fourths, or about 1.5 percent leaves the unit as naphtha (*i.e.*, gasoline feedstock). The remainder is split evenly between liquified petroleum gas (LPG) and refinery fuel gas. Both naphtha and LPG have higher valuable uses as liquid fuels. Naphtha can be used to produce gasoline. Refiners can adjust the relative amounts of gasoline and diesel fuel which they produce, especially to this small degree. This additional naphtha can displace other gasoline blendstocks, which can then be shifted to the diesel fuel pool. LPG, on the other hand, is primarily used in heating, where it competes with heating oil. Thus, additional LPG can be used to displace gasoline and heating oil, which in turn can be shifted to the diesel fuel pool. Thus, there should be little or no direct impact of desulfurization on refinery fuel production. The shift from diesel fuel to fuel gas is very small (0.25 percent) and this fuel gas can be used to reduce consumption of natural gas within the refinery. These figures apply to the full effect of the proposed standards (*i.e.*, the reduction in sulfur content from 3400 ppm to 15 ppm). For the first step of the proposed fuel program and that portion of the diesel fuel pool which would remain at the 500 ppm level indefinitely, the impacts would only be about 40 percent of those described above.

The use of advanced desulfurization technologies would further reduce these impacts. These technologies are projected to be used in the second step of reducing 500 ppm diesel fuel to 15 ppm sulfur. We project that the Linde process would reduce the above losses for the second step by 55 percent, while the Phillips SZorb process would have no loss in diesel fuel production.

Exit the NRLM Diesel Fuel Market: While the cost of meeting the proposed standards might cause some individual refiners to consider reducing their production of NRLM fuel or leave the market entirely, we do not believe that across the entire industry such a shift is possible or likely. As mentioned above, all diesel fuels and heating oil are essentially identical both chemically and physically, except for sulfur level. Thus, if a refiner could shift his high

sulfur distillate material from the nonroad, locomotive and marine diesel fuel markets to the heating oil market starting in mid-2007, it would avoid the need to invest in new desulfurization equipment. Likewise, starting in mid-2010, a refiner could focus his 500 ppm diesel fuel in the locomotive and marine diesel fuel markets or shift this material to the heating oil market. The problem would be a potential oversupply of heating oil starting in 2007 and locomotive and marine diesel fuel and heating oil starting in 2010. An oversupply could lead to a substantial drop in market price, significantly increasing the cost of leaving the nonroad, locomotive and marine diesel fuel markets. Or, it may be necessary to export the higher sulfur fuel in order to sell it. This could entail transportation costs and overseas prices no higher than existed in the U.S. before the oversupply (and possibly lower due to these imports now entering these overseas markets).

We addressed this same issue during the development of 2007 highway diesel fuel program. There, the issue was whether refiners would shift some or all of their current highway diesel fuel production to either domestic or overseas markets for high sulfur diesel fuel or heating oil in order to avoid investing to meet the 15 ppm cap for highway diesel fuel. A study by Charles River Associates, *et al.,* sponsored by API projected that there could be a near-term shortfall in highway diesel fuel supply of as much as 12 percent.[283] However, supported by a study by Muse, Stancil, we concluded that refiners would incur greater economic loss in trying to avoid meeting the 15 ppm highway diesel fuel cap than they would by complying at current production levels even if the market did not allow them to recover their capital investment. A study by Mathpro, Inc. for AAM and EMA also criticized the conclusions of the Charles River study, particularly their assumption that compliance costs alone would drive investment decisions and that there was essentially a single highway diesel fuel market nationwide.[284] Mathpro demonstrated that smaller refineries located, for example, in the Rocky Mountain region, likely faced higher per gallon compliance costs, but also had been more profitable over the past 15 years than larger refiners in other areas with lower overall costs. This was due to their market niches and the inability for lower cost refiners to ship large volumes of fuel economically to their market.

We believe that the same conclusions apply to the proposed fuel program for six reasons. One, the alternative markets for high sulfur diesel fuel and heating oil would be even more limited after the proposed sulfur caps on nonroad, locomotive and marine diesel fuel than they will be in 2006, as half of the current U.S. market for high sulfur, no. 2 distillate would disappear. We expect that high sulfur heating oil would not even by carried be common carrier pipelines except those serving the Northeast. Therefore, refiners' sale of high sulfur distillate may be limited to markets serviceable by truck. Two, the desulfurization technology to meet a 500 ppm cap has been commercially demonstrated for over a decade. The desulfurization technology to meet a 15 ppm cap will have been commercially demonstrated in mid-2006, a full four years prior to the implementation of the 15 ppm cap on nonroad diesel fuel. Three, the volume of fuel affected by the 15 ppm nonroad diesel fuel standard would be only one-seventh of that affected by the highway diesel fuel program. This dramatically reduces the required capital investment. Four, both Europe and Japan are implementing sulfur caps for highway and nonroad diesel fuel in the range of 10–15 ppm, eliminating these markets as a sink for high sulfur diesel fuel. Five, refineries outside of the U.S. and Europe are operating at a lower percentage of their capacity than U.S. refineries. Thus, U.S. refineries would not be able to obtain attractive prices for high sulfur diesel fuel overseas. Finally, refinery profit margins were much higher during the last part of 2000 and most of 2001 than over the past ten years, indicating a potential long-term improvement in profitability. Margins decreased again during most in 2002, but recovered during the last few months of that year and in early 2003.

Once refiners have made their investments to meet the proposed NRLM diesel fuel standards, or have decided to produce high sulfur heating oil, we expect that the various distillate markets would operate very similar to today's markets. When fully implemented in 2014, there will be three distillate fuels in the market, 15 ppm highway and nonroad diesel fuel, 500 ppm locomotive and marine diesel fuel and high sulfur heating oil. The market for 500 ppm locomotive and marine diesel fuel is much smaller than the other two, particularly considering that it is nationwide and the heating oil market is geographically concentrated. Therefore, the vast majority of refiners are expected to focus on producing either 15 ppm or high sulfur distillate, which is similar to today, where there are two fuels, 500 ppm and high sulfur distillate. In this case, refiners with the capability of producing 15 ppm diesel fuel have the most flexibility, since they can sell their fuel to any of the three markets. Refiners with only 500 ppm desulfurization capability can supply two markets. Those refiners only capable of producing high sulfur distillate would not be able to participate in either the 15 or 500 ppm markets. However, this is not different from today. Generally, we do not expect one market to provide vastly different profit margins than the others, as high profit margins in one market will attract refiners from another via investment in desulfurization equipment.

Refinery Closure: There are a number of reasons why we do not believe that refineries would completely close down under this proposed rule. One reason is that we have included provisions to provide relief for small refiners, as well as any refiner facing unusual financial hardship. Another reason is that nonroad, locomotive and marine diesel fuel is usually the third or fourth most important product produced by the refinery from a financial perspective. A total shutdown would mean losing all the revenue and profit from these other products. Gasoline is usually the most important product, followed by highway diesel fuel and jet fuel. A few refineries do not produce either gasoline or highway diesel fuel, so jet fuel and high sulfur diesel fuel and heating oil are their most important products. The few refiners in this category likely face the biggest financial challenge in meeting the proposed requirements. However, those refiners would also presumably be in the best position to apply for special hardship provisions, presuming that they do not have readily available source of investment capital. The additional time afforded by these provisions should allow the refiner to generate sufficient cash flow to invest in the required desulfurization equipment. Investment here could also provide them the opportunity to expand into more profitable (*e.g.*, highway diesel) markets.

A quantitative evaluation of whether the cost of the proposed fuel program could cause some refineries to cease operations completely would be very difficult, if not impossible to perform. A

[283] ''An Assessment of the Potential Impacts of Proposed Environmental Regulations on U.S. Refinery Supply of Diesel Fuel,'' Charles River Associates and Baker and O'Brien, for API, August 2000.

[284] ''Prospects for Adequate Supply of Ultra Low Sulfur Diesel Fuel in the Transition Period (2006–2007), An Analysis of Technical and Economic Driving Forces for Investment in ULSD Capacity in the U.S. Refining Sector,'' MathPro, Inc., for AAM and EMA, December 7, 2001.

major factor in any decision to shut down is the refiner's current financial situation. It is very difficult to assess an individual refinery's current financial situation. This includes a refiner's debt, as well as its profitability in producing fuels other than those affected by a particular regulation. It can also include the profitability of other operations and businesses owned by the refiner.

Such an intensive analysis can be done to some degree in the context of an application for special hardship provisions, as discussed above. However, in this case, EPA can request detailed financial documents not normally available. Prior to such application, as is the case now, this financial information is usually confidential. Even when it is published, the data usually apply to more than just the operation of a single refinery.

Another factor is the need for capital investments other than for this proposed rule. EPA can roughly project the capital needed to meet other new fuel quality specifications, such as the Tier 2 or highway diesel sulfur standards. However, we cannot predict investments to meet local environmental and safety regulations, nor other investments needed to compete economically with other refiners.

Finally, any decision to close in the future must be based on some assumption of future fuel prices. Fuel prices are very difficult to project in absolute terms. The response of prices to changes in fuel quality specifications, such as sulfur content, as is discussed in the next section, are also very difficult to predict. Thus, even if we had complete knowledge of a refiner's financial status and its need for future investments, the decision to stay in business or close would still depend on future earnings, which are highly dependent on the prices of all products produced by that refinery.

Some studies in this area point to fuel pricing over the past 15 years or so and conclude that prices will only increase to reflect increased operating costs and will not reflect the cost of capital. In fact, the rate of return on refining assets has been poor over the past 15 years and until recently, there has been a steady decline in the number of refineries operating in the U.S. However, this may have been due to a couple of circumstances specific to that time period. One, refinery capacity utilization was less than 80 percent in 1985. Two, at least regarding gasoline, the oxygen mandate for reformulated gasoline caused an increase in gasoline supply despite low refinery utilization rates. While this led to healthy financial returns for oxygenate production, it did not help refining profit margins.

Today, refinery capacity utilization in the U.S. is generally considered to be at its maximum sustainable rate. There are no regulatory mandates on the horizon which will increase production capacity significantly, even if ethanol use in gasoline increases substantially.[285] Consistent with this, refining margins have been much better over the past two and a half years than during the previous 15 years and the refining industry itself is projecting good returns for the foreseeable future.

6. Fuel Prices

It is well known that it is difficult to predict fuel prices in absolute terms with any accuracy. The price of crude oil dominates the cost of producing gasoline and diesel fuel. Crude oil prices have varied by more than a factor of two in the past year. In addition, unexpectedly warm or cold winters can significantly affect heating oil consumption, which affects the amount of gasoline produced and the amount of distillate material available for diesel fuel production. Economic growth, or its lack, affects fuel demand, particularly for diesel fuel. Finally, both planned and unplanned shutdowns of refineries for maintenance and repairs can significantly affect total fuel production, inventory levels and resulting fuel prices.

Predicting the impact of any individual factor on fuel price is also difficult. The overall volatility in fuel prices limits the ability to determine the effect of a factor which changed at a specific point in time which might have led to the price change, as other factors continue to change over time. Occasionally, a fuel quality change, such as reformulated gasoline or a 500 ppm cap on diesel fuel sulfur content, only affects a portion of the fuel pool. In this case, an indication of the impact on price can be inferred by comparing the prices of the two fuels at the same general location over time. However, this is still only possible after the fact, and cannot be done before the fuel quality change takes place.

Because of these difficulties, EPA has generally not attempted to project the impact of its rules on fuel prices. However, in response to Executive Order 13211, we are doing so for this proposed rule. To reflect the inherent uncertainty in making such projections, we developed three projections for the potential impact of the proposed fuel program on fuel prices. The range of potential long-term price increases are shown in Table V-A–4. Short-term price impacts are highly volatile, as are short-term swings in absolute fuel prices, and much too dependent on individual refiners' decisions, unexpected shutdowns, etc. to be predicted even with broad ranges.

TABLE V–A–4.—RANGE OF POSSIBLE TOTAL DIESEL FUEL PRICE INCREASES (CENTS PER GALLON) [a]

	Lower Limit	Mid-Point	Maximum
2007 500 ppm Sulfur Cap: Nonroad, Locomotive and Marine Diesel Fuel			
PADDs 1 and 3	0.9	1.5	3.4
PADD 2	2.3	3.0	4.8
PADD 4	1.7	4.1	5.8
PADD 5	1.0	2.8	4.3
2010 15 ppm Sulfur Cap: Nonroad Diesel Fuel			
PADDs 1 and 3	1.8	3.0	5.4
PADD 2	2.9	6.1	7.4
PADD 4	3.0	8.9	9.3
PADD 5	1.7	5.9	8.4

Notes:
[a] At the current wholesale price of approximately $1.00 per gallon, these values also represent the percentage increase in diesel fuel price.

[285] Both houses of the U.S. Congress are considering bills which would require the increased use of renewables, like ethanol, in gasoline and diesel fuel. While the amount of renewables could be considerable, it is well below the annual growth in transportation fuel use.

The lower end of the range assumes that prices within a PADD increased to reflect the highest operating cost increase faced by any refiner in that PADD. In this case, this refiner with the highest operating cost would not recover any of his invested capital, but all other refiners would recover some or all of their investment. In this case, the price of nonroad, locomotive and marine diesel fuel would increase in 2007 by 1–2 cents per gallon, depending on the area of the country. In 2010, the price of nonroad diesel fuel would increase a total of 2–3 cents per gallon. Locomotive and marine diesel fuel prices would continue to increase by 1–2 cents per gallon.

The mid-range estimate of price impacts assumes that prices within a PADD increase by the average refining and distribution cost within that PADD, including full recovery of capital (at 7 percent per annum before taxes). Lower cost refiners would recover more than their capital investment, while those with higher than average costs recover less. Under this assumption, the price of nonroad, locomotive and marine diesel fuel would increase in 2007 by 2–4 cents per gallon, depending on the area of the country. In 2010, the price of nonroad diesel fuel would increase a total of 3–9 cents per gallon. Locomotive and marine diesel fuel prices would continue to increase by 2–4 cents per gallon.

The upper end estimate of price impacts assumes that prices within a PADD increase by the maximum total refining and distribution cost of any refinery within that PADD, including full recovery of capital (at 7 percent per annum before taxes). All other refiners would recover more than their capital investment. Under this assumption, the price of nonroad, locomotive and marine diesel fuel would increase in 2007 by 3–6 cents per gallon, depending on the area of the country. In 2010, the price of nonroad diesel fuel would increase a total of 5–9 cents per gallon. Locomotive and marine diesel fuel prices would continue to increase by 3–6 cents per gallon.

In addition to the differences noted above, there are a number of assumptions inherent in all three of the above price projections. First, both the lower and upper limits of the projected price impacts described above assume that the refinery facing the highest compliance costs is currently the price setter in their market. This is a worse case assumption which is impossible to validate. Many factors affect a refinery's total costs of fuel production. Most of these factors, such as crude oil cost, labor costs, age of equipment, etc., are not considered in projecting the incremental costs associated with lower NRLM diesel fuel sulfur levels. Thus, current prices may very well be set in any specific market by a refinery facing lower incremental compliance costs than other refineries. This point was highlighted in a study by the National Economic Research Associates (NERA) for AAM of the potential price impacts of EPA's 2007 highway diesel fuel program.[286] In that study, NERA criticized the above referenced study performed by Charles River Associates, *et al.* for API, which projected that prices would increase nationwide to reflect the total cost faced by the U.S. refinery with the maximum total compliance cost of all the refineries in the U.S. producing highway diesel fuel. To reflect the potential that the refinery with the highest projected compliance costs under the maximum price scenario is not the current price setter, we included the mid-point price impacts above. It is possible that even the lower limit price impacts are too high, if the conditions exist where prices are set based on operating costs alone. However, these price impacts are sufficiently low that considering even lower price impacts was not considered critical to estimating the potential economic impact of this rule.

Second, we assumed that a single refinery's costs could affect fuel prices throughout an entire PADD. While this is a definite improvement over analyses which assume that a single refinery's costs could affect fuel prices throughout the entire nation, it is still conservative. High cost refineries are more likely to have a more limited geographical impact on market pricing than an entire PADD.

Third, by focusing solely on the cost of desulfurizing NRLM diesel fuel, we assume that the production of NRLM diesel fuel is independent of the production of other refining products, such as gasoline, jet fuel and highway diesel fuel. However, this is clearly not the case. Refiners have some flexibility to increase the production of one product without significantly affecting the others, but this flexibility is quite limited. It is possible that the relative economics of producing other products could influence a refiner's decision to increase or decrease the production of NRLM diesel fuel under the proposed standards. This in turn could increase or decrease the price impact relative to those projected above.

Fourth, all three of the above price projections are based on the projected cost for U.S. refineries of meeting the proposed NRLM diesel fuel sulfur caps. Thus, these price projections assume that imports of NRLM fuel, which are currently significant in the Northeast, are available at roughly the same cost as those for U.S. refineries in PADDs 1 and 3. We have not performed any analysis of the cost of lower sulfur caps on diesel fuel produced by foreign refiners. However, there are reasons to believe that imports of 500 and 15 ppm NRLM diesel fuel would be available at prices in the ranges of those projected for U.S. refiners.

One recent study analyzed the relative cost of lower sulfur caps for Asian refiners relative to those in the U.S., Europe and Japan.[287] It concluded that costs for Asian refiners would be comparatively higher, due to the lack of current hydrotreating capacity at Asian refineries. This conclusion is certainly valid when evaluating lower sulfur levels for highway diesel fuels which are already at low levels in the U.S., Europe and Japan and for which refineries in these areas have already invested in hydrotreating capacity. It would appear to be less valid when assessing the relative cost of meeting lower sulfur standards for nonroad diesel fuels and heating oils which are currently at much higher sulfur levels in the U.S., Europe and Japan. All refineries face additional investments to remove sulfur from these fuels and so face roughly comparable control costs on a per gallon basis.

One factor arguing for competitively priced imports is the fact that refinery utilization rates are currently higher in the U.S. and Europe than in the rest of the world. The primary issue is whether overseas refiners will invest to meet tight sulfur standards for U.S., European and Japanese markets. Many overseas refiners will not invest, instead focusing on local, higher sulfur markets. However, many overseas refiners focus on exports. Both Europe and the U.S. are moving towards highway and nonroad diesel fuel sulfur caps in the 10–15 ppm range. Europe is currently and projected to continue to need to import large volumes of highway diesel fuel. Thus, it seems reasonable to expect that a number of overseas refiners would invest in the capacity to produce some or all of their diesel fuel at these levels. Overseas refiners also have the flexibility to produce 10–15 ppm diesel fuel from their cleanest blendstocks, as

[286] "Potential Impacts of Environmental Regulations on Diesel Fuel Prices," NERA, for AAM, December 2000.

[287] "Cost of Diesel Fuel Desulfurization In Asian Refineries," Estrada International Ltd., for the Asian Development Bank, December 17, 2002.

most of their available markets have less stringent sulfur standards. Thus, there are reasons to believe that some capacity to produce 10–15 ppm diesel fuel would be available overseas at competitive prices. If these refineries were operating well below capacity, they might be willing to supply complying product at prices which only reflect incremental operating costs. This could hold prices down in areas where importing fuel is economical. However, it is unlikely that these refiners could supply sufficient volumes to hold prices down nationwide. Despite this expectation, to be conservative, in the refining cost analysis conducted earlier in this chapter, we assumed no imports of 500 ppm or 15 ppm NRLM diesel fuel. All 500 ppm and 15 ppm nonroad diesel fuel was produced by domestic refineries. This raised the average and maximum costs of 500 ppm and 15 ppm NRLM diesel fuel and increased the potential price impacts projected above beyond what would have been projected had we projected that 5–10 percent of NRLM diesel fuel would be imported at competitive prices.

B. Cost Savings to the Existing Fleet from the Use of Low Sulfur Fuel

We estimate that reducing fuel sulfur to 500 ppm would reduce engine wear and oil degradation to the existing nonroad diesel equipment fleet and that a further reduction to 15 ppm sulfur would result in even greater reductions. This reduction in wear and oil degradation would provide a dollar savings to users of nonroad equipment. The cost savings would also be realized by the owners of future nonroad engines that are subject to the standards in this proposal. As discussed below, these maintenance savings have been conservatively estimated to be greater than 3 cents per gallon for the use of 15 ppm sulfur fuel when compared to the use of today's unregulated nonroad diesel fuel. A summary of the benefits of low-sulfur fuel is presented in Table V.B–1.[288]

TABLE V.B–1—ENGINE COMPONENTS POTENTIALLY AFFECTED BY LOWER SULFUR LEVELS IN DIESEL FUEL

1Affected Components	Effect of Lower Sulfur	Potential Impact on Engine System
Piston Rings	Reduced corrosion wear	Extended engine life and less frequent rebuilds.
Cylinder Liners	Reduced corrosion wear	Extended engine life and less frequent rebuilds.
Oil Quality	Reduced deposits, reduced acid build-up, and less need for alkaline additives.	Reduce wear on piston ring and cylinder liner and less frequent oil changes.
Exhaust System (tailpipe)	Reduced corrosion wear	Less frequent part replacement.
Exhaust Gas Recirculation System.	Reduced corrosion wear	Less frequent part replacement.

The monetary value of these benefits over the life of the equipment will depend upon the length of time that the equipment operates on low-sulfur diesel fuel and the degree to which engine and equipment manufacturers specify new maintenance practices and the degree to which equipment operators change engine maintenance patterns to take advantage of these benefits. For equipment near the end of its life in the 2008 time frame, the benefits will be quite small. However, for equipment produced in the years immediately preceding the introduction of 500 ppm sulfur fuel, the savings would be substantial. Additional savings would be realized in 2010 when the 15 ppm sulfur fuel would be introduced.

We estimate the single largest savings would be the impact of lower sulfur fuel on oil change intervals. The draft RIA presents our analysis for the oil change interval extension which would be realized by the introduction of 500 ppm sulfur fuel in 2007, as well as the additional oil extension which would be realized with the introduction of 15 ppm sulfur nonroad diesel fuel in 2010. As explained in the draft RIA, these estimates are based on our analysis of publically available information from nonroad engine manufacturers. Due to the wide range of diesel fuel sulfur which today's nonroad engines may see around the world, engine manufacturers specify different oil change intervals as a function of diesel sulfur levels. We have used this data as the basis for our analysis. Taken together, when compared to today's relatively high nonroad diesel fuel sulfur levels, we estimate the use of 15 ppm sulfur fuel will enable an oil change interval extension of 35 percent from today's products.

We present here a fuel cost savings attributed to the oil change interval extension in terms of a cents per gallon operating cost. We estimate that an oil change interval extension of 31 percent, as would be enabled by the use of 500 ppm sulfur fuel in 2007, results in a fuel operating costs savings of 3.0 cents per gallon for the nonroad fleet. We project an additional cost savings of 0.3 cents per gallon for the oil change interval extension which would be enabled by the use of 15 ppm sulfur beginning in 2010. Thus, for the nonroad fleet as a whole, beginning in 2010 nonroad equipment users can realize an operating cost savings of 3.3 cents per gallon compared to today's engine. This means that the end cost to the typical user for 15ppm sulfur fuel is approximately 1.5 cents per gallon (4.8 cent per gallon cost for fuel minus 3.3 cent per gallon maintenance savings). For a typical 100 horsepower nonroad engine this represents a net present value lifetime savings of more than $500.

These savings will occur without additional new cost to the equipment owner beyond the incremental cost of the low-sulfur diesel fuel, although these savings are dependent on changes to existing maintenance schedules. Such changes seem likely given the magnitude of the savings. We have not estimated the value of the savings from the other benefits listed in Table V.B–1, and therefore we believe the 3.3 cents per gallon savings is conservative as it only accounts for the impact of low sulfur fuel on oil change intervals.

C. Engine and Equipment Cost Impacts

The following sections briefly discuss the various engine and equipment cost elements considered for this proposal and present the total costs we have estimated; the reader is referred to the draft RIA for a complete discussion. Estimated engine and equipment costs depend largely on both the size of the piece of equipment and its engine, and on the technology package being added to the engine to ensure compliance with the proposed standards. The wide size variation (*e.g.*, <4 horsepower engines through >2500 horsepower engines) and

[288] *See* Heavy-duty 2007 Highway Final RIA, Chapter V.C.5, and ''Study of the Effects of Reduced Diesel Fuel Sulfur Content on Engine Wear'', EPA report # 460/3–87–002, June 1987.

the broad application variation (*e.g.*, lawn equipment through large mining trucks) that exists in the nonroad industry makes it difficult to present here an estimated cost for every possible engine and/or piece of equipment. Nonetheless, for illustrative purposes, we present some example per engine/equipment cost impacts throughout this discussion. This analysis is presented in detail in Chapter 6 of the draft RIA. We are also considering doing a sensitivity analysis on cost/engine data, which would be put into the docket for comment.

It is important to note that the costs presented here do not reflect any savings that are expected to occur because of the engine ABT program and the equipment manufacturer transition program, both of which are discussed in Section VII. As discussed in the draft RIA, these optional programs have the potential to provide significant savings for both engine and equipment manufacturers. We request comment with supporting data and/or analysis on the cost estimates presented here and the underlying analysis presented in chapter 6 of the draft RIA.

1. Engine Cost Impacts

Estimated engine costs are broken into fixed costs (for research and development, retooling, and certification), variable costs (for new hardware and assembly time), and life-cycle operating costs. Total operating costs include the estimated incremental cost for low-sulfur diesel fuel, any expected increases in maintenance costs associated with new emission control devices, any costs associated with increased fuel consumption, and any decreases in operating cost (*i.e.*, maintenance savings) expected due to low-sulfur fuel. Cost estimates presented here represent an expected incremental cost of engines in the model year of their introduction. Costs in subsequent years would be reduced by several factors, as described below. All engine and equipment costs are presented in 2001 dollars.

a. Engine Fixed Costs

i. Engine and Emission Control Device R&D

The technologies described in section III represent those technologies we believe will be used to comply with the proposed Tier 4 emission standards. These technologies are part of an ongoing research and development effort geared toward compliance with the 2007 heavy-duty diesel highway emission standards. The engine manufacturers making R&D expenditures toward compliance with highway emission standards will have to undergo some additional R&D effort to transfer emission control technologies to engines they wish to sell into the nonroad market. These R&D efforts will allow engine manufacturers to develop and optimize these new technologies for maximum emission-control effectiveness with minimum negative impacts on engine performance, durability, and fuel consumption. Many nonroad engine manufacturers are not part of the ongoing R&D effort toward compliance with highway emissions standards because they do not sell engines into the highway market. These manufacturers are expected to benefit from the R&D work that has already occurred and will continue through the coming years through their contact with highway manufacturers, emission control device manufacturers, and the independent engine research laboratories conducting relevant R&D.

Several technologies are projected for complying with the proposed Tier 4 emission standards. We are projecting that NO_X adsorbers and catalyzed diesel particulate filters (CDPFs) would be the most likely technologies applied by industry to meet our proposed emissions standards for >75 horsepower engines. The fact that these technologies are being developed for implementation in the highway market prior to the implementation dates in this proposal, and the fact that engine manufacturers would have several years before implementation of the proposed Tier 4 standards, ensures that the technologies used to comply with the nonroad standards would undergo significant development before reaching production. This ongoing development could lead to reduced costs in three ways. First, we expect research will lead to enhanced effectiveness for individual technologies, allowing manufacturers to use simpler packages of emission control technologies than we would predict given the current state of development. Similarly, we anticipate that the continuing effort to improve the emission control technologies will include innovations that allow lower-cost production. Finally, we believe that manufacturers would focus research efforts on any drawbacks, such as fuel economy impacts or maintenance costs, in an effort to minimize or overcome any potential negative effects.

We anticipate that, in order to meet the proposed standards, industry would introduce a combination of primary technology upgrades. Achieving very low NO_X emissions would require basic research on NO_X emission control technologies and improvements in engine management to take advantage of the exhaust emission control system capabilities. The manufacturers are expected to take a systems approach to the problem of optimizing the engine and exhaust emission control system to realize the best overall performance. Since most research to date with exhaust emission control technologies for nonroad applications has focused on retrofit programs, there remains room for significant improvements by taking such a systems approach. The NO_X adsorber technology in particular is expected to benefit from re-optimization of the engine management system to better match the NO_X adsorber's performance characteristics. The majority of the dollars we have estimated for research is expected to be spent on developing this synergy between the engine and NO_X exhaust emission control systems. Therefore, for engines requiring both a CDPF and a NO_X adsorber (*i.e.*, >75 horsepower), we have attributed two-thirds of the R&D expenditures to NO_X control, and one-third to PM control.

In the 2007 HD highway rule, we estimated that each engine manufacturer would expend $35 million for R&D to redesign their engines and apply catalyzed diesel particulate filters (CDPF) and NO_X adsorbers. For their nonroad R&D efforts on engines requiring CDPFs and NO_X adsorbers (*i.e.*, >75 horsepower), engine manufacturers selling into the highway market would incur some level of R&D effort but not at the level incurred for the highway rule. In many cases, the engines used by highway manufacturers in nonroad products are based on the same engine platform as those used in highway products. However, horsepower and torque characteristics are often different so some effort will have to be expended to accommodate those differences. For these manufacturers, we have estimated that they would incur an R&D expense of $3.5 million. This $3.5 million R&D expense would allow for the transfer of R&D knowledge from their highway experience to their nonroad engine product line. Two-thirds of this R&D is attributed to NO_X control and one-third to PM control.

For those manufacturers that sell engines only into the nonroad market, and where those engines require a CDPF and a NO_X adsorber, we believe that they will incur an R&D expense nearing that incurred by highway manufacturers for the highway rule, although not at the level incurred by highway manufacturers for the highway rule. Nonroad manufacturers would be able to learn from the R&D efforts already

under way for both the highway rule and for the Tier 2 light-duty highway rule (65 FR 6698). This learning could be done via seminars, conferences, and contact with highway manufacturers, emission control device manufacturers, and the independent engine research laboratories conducting relevant R&D. Therefore, for these manufacturers, we have estimated an expenditure of $24.5 million. This lower number—$24.5 million versus $35 million in the highway rule—reflects the transfer of knowledge to nonroad manufacturers that would occur from the many stakeholders in the diesel industry. Two-thirds of this R&D is attributed to NO_X control and one-third to PM control.

Note that the $3.5 million and $24.5 million estimates represent our estimate of the average R&D expected by manufacturers. These estimates would be different for each manufacturer—some higher, some lower—depending on product mix and the ability to transfer knowledge from one product to another.

For those engine manufacturers selling engines that would require CDPF-only R&D (*i.e.*, 25 to 75 horsepower engines in 2013), we have estimated that the R&D they would incur would be roughly one-third that incurred by manufacturers conducting CDPF/NO_X adsorber R&D. We believe this is a good estimate because CDPF technology is further along in its development than is NO_X adsorber technology and, therefore, a 50/50 split would not be appropriate. Using this estimate, the R&D incurred by manufacturers that have already done selling any engines into both the highway and the nonroad markets would be $1.2 million, and the R&D for manufacturers selling engines into only the nonroad market would be roughly $8 million. All of this R&D is attributed to PM control.

For those engine manufacturers selling engines that would require DOC-only or some engine-out modification R&D (*i.e.*, <75 horsepower engines in 2008), we have estimated that the R&D they would incur would be roughly one-half the amount estimated for their CDPF-only R&D. Using this estimate, the R&D incurred by manufacturers selling any engines into both the highway and nonroad markets would be roughly $600,000, and the R&D for manufacturers selling engines into only the nonroad market would be roughly $4 million. All of this R&D is attributed to PM control.

Some manufacturers of engines produce engines to specifications developed by other manufacturers. Such joint venture manufacturers do not conduct engine-related R&D but simply manufacture an engine designed and developed by another manufacturer. For such manufacturers, we have assumed no R&D expenditures given that we believe they will conduct no R&D themselves and will rely on their joint venture partner. This is true unless the parent company has no engine sales in the horsepower categories covered by the partner company. Under such a situation, we have accounted for the necessary R&D by attributing it to the parent company. We have also estimated that some manufacturers will choose not to invest in R&D for the U.S. nonroad market due to low volume sales that probably cannot justify the expense. More detail on these assumptions and the number of manufacturers assumed not to expend R&D is presented in Chapter 6 of the draft RIA. We welcome comments and supporting documentation.

We have assumed that all R&D expenditures occur over a five year span preceding the first year any emission control device is introduced into the market. Where a phase-in exists (*e.g.*, for NO_X standards on >75 horsepower engines), expenditures are assumed to occur over the five year span preceding the first year NO_X adsorbers would be introduced, and then to continue during the phase-in years; the expenditures would be incurred in a manner consistent with the phase-in of the standard. All R&D expenditures are then recovered by the engine manufacturer over an identical time span following the introduction of the technology. We assume a seven percent rate of return for all R&D. We have apportioned these R&D costs across all engines that are expected to use these technologies, including those sold in other countries or regions that are expected to have similar standards. We have estimated the fraction of the U.S. sales to this total sales at 42 percent. Therefore, we have attributed this amount to U.S. sales.

Using this methodology, we have estimated the total R&D expenditures attributable to the proposed standards at $199 million.

ii. Engine-Related Tooling Costs

Once engines are ready for production, new tooling will be required to accommodate the assembly of the new engines. In the 2007 highway rule, we estimated approximately $1.6 million per engine line for tooling costs associated with CDPF/NO_X adsorber systems. For the proposed nonroad Tier 4 standards, we have estimated that nonroad-only manufacturers would incur the same $1.6 million per engine line requiring a CDPF/NO_X adsorber system and that these costs would be split evenly between NO_X control and PM control. For those systems requiring only a CDPF, we have estimated one-half that amount, or $800,000 per engine line. For those systems requiring only a DOC or some engine-out modifications, we have applied a one-half factor again, or $400,000 per engine line. Tooling costs for CDPF-only and for DOC engines are attributed solely to PM control.

For those manufacturers selling into both the highway and nonroad markets, we have estimated one-half the baseline tooling cost, or $800,000, for those engine lines requiring a CDPF/NO_X adsorber system. We believe this is reasonable since many nonroad engines are produced on the same engine line with their highway counterparts. For such lines, we believe very little to no tooling costs would be incurred. For engine lines without a highway counterpart, something approaching the $1.6 million tooling cost would be applicable. For this analysis, we have assumed a 50/50 split of engine product lines for highway manufacturers and, therefore, a 50 percent factor applied to the $1.6 million baseline. These tooling costs would be split evenly between NO_X control and PM control. For engine lines <75 horsepower, we have used the same tooling costs as the nonroad-only manufacturers because these engines tend not to have a highway counterpart. Therefore, for those engine lines requiring only a CDPF (*i.e.*, those between 25 and 75 horsepower), we have estimated a tooling cost of $800,000. Similarly, the tooling costs for DOC and/or engine-out engine lines has been estimated to be $400,000. Tooling costs for CDPF-only and for DOC engines are attributed solely to PM control.

We expect engines in the 25 to 50 horsepower range to apply EGR systems to meet the proposed NO_X standards for 2013. For these engines, we have included an additional tooling cost of $40,000 per engine line, consistent with the EGR-related tooling cost estimated for 50–100 horsepower engines in our Tier 2/3 rulemaking. This tooling cost is applied equally to all engine lines in that horsepower range regardless of the markets into which the manufacturer sells. We have applied this tooling cost equally because engines in this horsepower range do not tend to have highway counterparts. Tooling costs for EGR systems are attributed solely to NO_X control.

We have applied all the above tooling costs to all manufacturers that appear to actually make engines. We have not

eliminated joint venture manufacturers because these manufacturers would still need to invest in tooling to make the engines even if they do not conduct any R&D. We have assumed that all tooling costs are incurred one year in advance of the new standard and are recovered over a five year period following implementation of the new standard; all tooling costs are marked up seven percent to reflect the time value of money. As done for R&D costs, we have attributed a portion of the tooling costs to U.S. sales and a portion to sales in other countries expected to have similar levels of emission control. More information is contained in Chapter 6 of the draft RIA and we request comment on how we have applied our tooling cost estimates and to whom we have applied them.

Using this methodology, we estimate the total tooling expenditures attributable to the proposed standards at $67 million.

iii. Engine Certification Costs

Manufacturers will incur more than the normal level of certification costs during the first few years of implementation because engines will need to be certified to the new emission standards. Consistent with our recent standard setting regulations, we have estimated engine certification costs at $60,000 per new engine certification to cover testing and administrative costs. To this we have added the proposed certification fee of $2,156 per new engine family. This cost, $62,156 per engine family was used for <75 horsepower engines certifying to the 2008 standards. For 25 to 75 horsepower engines certifying to the 2013 standards, and for >75 horsepower engines certifying to their proposed standards, we have added costs to cover the proposed test procedures for nonroad diesel engines (*i.e.*, the transient test and the NTE); these costs were estimated at $10,500 per engine family. These certification costs—whether it be the $62,156 or the $72,656 per engine family—apply equally to all engine families for all manufacturers regardless of into what markets the manufacturer sells. We have applied these certification costs to only the US sold engines because the certification conducted for US sales is not presumed to fulfill the certification requirements of other countries.

Applying these costs to each of the 665 engine families as they are certified to a new emissions standard results in total costs of $72 million expended during implementation of the proposed standards. These costs are attributed to NO_X and PM control consistent with the phase-in of the new emissions standards—where new NO_X and PM standards are introduced together, the certification costs are split evenly; where only a new PM standard is introduced, the certification costs are attributed to PM only; where a NO_X phase-in becomes 100% in a year after full implementation of a PM standard, the certification costs are attributed to NO_X only. All certification costs are assumed to occur one year prior to the new emission standard and are then recovered over a five year period following compliance with the new standard; all certification costs are marked up seven percent to reflect the time value of money.

b. Engine Variable Costs

This section summarizes the detailed analysis presented in the draft RIA for this proposed rule. We encourage the reader to refer to chapter 6 of that draft RIA for the details of what is presented here and encourage comments and supporting data and/or analysis regarding those details. Of particular interest are comments regarding the costs of precious metals, or platinum group metals (PGM). The PGM costs are a significant fraction of the total costs for aftertreatment devices. For our analysis, we have used the 2002 annual average costs for platinum and rhodium (the two PGMs we expect will be used) because we believe they represent a better estimate of the cost for PGM than other metrics. We request comment on this approach and whether an alternative approach would be more appropriate. Specifically, we request comment regarding the use of a five year average in place of the one year average we have used. Additionally, EPA invites comment on the impacts, if any, that this rulemaking would have in the context of a variety of rulemakings on the market impacts on precious metals.

i. NO_X Adsorber System Costs

The NO_X adsorber system that we are anticipating would be applied for Tier 4 would be the same as that used for highway applications. In order for the NO_X adsorber to function properly, a systems approach that includes a reductant metering system and control of engine A/F ratio is also necessary. Many of the new air handling and electronic system technologies developed in order to meet the Tier 2/3 nonroad engine standards can be applied to accomplish the NO_X adsorber control functions as well. Some additional hardware for exhaust NO_X or O_2 sensing and for fuel metering will likely be required. The cost estimates include a DOC for clean-up of hydrocarbon emissions that occur during NO_X adsorber regeneration events. We have also assumed that warranty costs would increase due to the application of this new hardware. Chapter 6 of the draft RIA contains the details for how we estimated costs associated with the new NO_X control technologies required to meet the proposed Tier 4 emission standards. These costs are estimated to increase engine costs by roughly $670 in the near-term for a 150 horsepower engine, and $2,070 in the near-term for a 500 horsepower engine. In the long-term, we estimate these costs to be $550 and $1,670 for the 150 horsepower and 500 horsepower engines, respectively. Note that we have estimated costs for all engines in all horsepower ranges, and these estimates are presented in detail in the draft RIA. Throughout this discussion of engine and equipment costs, we present costs for a 150 and a 500 horsepower engine for illustrative purposes.

ii. Catalyzed Diesel Particulate Filter (CDPF) Costs

CDPFs can be made from a wide range of filter materials including wire mesh, sintered metals, fibrous media, or ceramic extrusions. The most common material used for CDPFs for heavy-duty diesel engines is cordierite. We have based our cost estimates on the use of silicon carbide (SiC) even though it is more expensive than other filter materials. We request comment on our assumption that SiC will be used in favor of cordierite. We estimate that the CDPF systems will add $780 to engine costs in the near-team for a 150 horsepower engine and $2,770 in the near-term for a 500 horsepower engine. In the long-term, we estimate these CDPF system costs to be $590 and $2,110 for the 150 horsepower and the 500 horsepower engines, respectively.

iii. CDPF Regeneration System Costs

Application of CDPFs in nonroad applications is expected to present challenges beyond those of highway applications. For this reason, we anticipate that some additional hardware beyond the diesel particulate filter itself may be required to ensure that CDPF regeneration occurs. For some engines this may be new fuel control strategies that force regeneration under some circumstances, while in other engines it might involve an exhaust system fuel injector to inject fuel upstream of the CDPF to provide necessary heat for regeneration under some operating conditions. We estimate the near-term costs of a CDPF regeneration system to be $190 for a 150

horsepower engine and $320 for a 500 horsepower engine. In the long-term, we estimate these costs at $140 and $240, respectively.

iv. Closed-Crankcase Ventilation System (CCV) Costs

We are proposing to eliminate the exemption that allows turbo-charged nonroad diesel engines to vent crankcase gases directly to the environment. Such engines are said to have an open crankcase system. We project that this requirement to close the crankcase on turbo-charged engines would force manufacturers to rely on engineered closed crankcase ventilation systems that filter oil from the blow-by gases prior to routing them into either the engine intake or the exhaust system upstream of the CDPF. We have estimated the initial cost of these systems to be roughly $40 for low horsepower engines and up to $100 for very high horsepower engines. These costs are incurred only by turbo-charged engines because today's naturally aspirated engines already have CCV systems.

v. Variable Costs for Engines Below 75 Horsepower and Above 750 Horsepower

This proposal includes standards for engines <25 horsepower that begin in 2008, and two sets of standards for 25 to 75 horsepower engines—one set that begins in 2008 and another that begins in 2013. The 2008 standards for all engines <75 horsepower are of similar stringency and are expected to result in similar technologies (*i.e.*, the addition of a DOC). The 2013 standards for 25 to 75 horsepower engines are considerably more stringent than the 2008 standards and are expected to force the addition of a CDPF along with some other engine hardware to enable the proper functioning of that new technology. More detail on the mix of technologies expected for all engines <75 horsepower is presented in section III. As discussed there, if changes are needed to comply, we expect manufacturers to comply with the 2008 standards through either engine improvements or through the addition of a DOC. From a cost perspective, we have projected that engines would comply by either adding a DOC or by making some engine modifications resulting in engine-out emission reductions. Presumably, the manufacturer would choose the least costly approach that provided the necessary reduction. If engine-out modifications are less costly than a DOC, our estimate here is conservative. If the DOC proves to be less costly, then our estimate is representative of what most manufacturers would do. Therefore, we have assumed that, beginning in 2008, all engines below 75 horsepower add a DOC. Note that this is a conservative estimate in that we have assume this cost for all engines when, as discussed in section IV, some engines <75 horsepower already meet the proposed PM standards. We have estimated this added hardware to result in an increased engine cost of $150 in the near-term and $140 in the long-term for a 30 horsepower engine.

We have also projected that some engines in the 25 to 75 horsepower range would have to upgrade their fuel systems to accommodate the CDPF. We have estimated the incremental costs for these fuel systems at roughly $740 in the 25–50 horsepower range, and around $430 in the 50–75 horsepower range. This difference reflects a different base fuel system, with the smaller engines assumed to have mechanical fuel systems and the larger engines assumed to already be electronic. The electronic systems will incur lower costs because they already have the control unit and electronic fuel pump. Also, we have assumed these fuel changes would occur for only direct injection (DI) engines; indirect injection engines (IDI) are assumed to remain IDI but to add more hardware as part of their CDPF regeneration system to ensure proper regeneration under all operating conditions. Such a regeneration system, described above, is expected to cost roughly twice that expected for DI engines, or around $320 for a 30 horsepower IDI engine versus $160 for a DI engine.

We have also projected that engines in the 25–50 horsepower range would add cooled EGR to comply with their new NO_X standard. We have estimated that this would add $90 in the near-term and $70 in the long-term to the cost of a 30 horsepower engine.

We believe there are factors that would cause variable hardware costs to decrease over time, making it appropriate to distinguish between near-term and long-term costs. Research in the costs of manufacturing has consistently shown that as manufacturers gain experience in production, they are able to apply innovations to simplify machining and assembly operations, use lower cost materials, and reduce the number or complexity of component parts.[289] Our analysis, as described in more detail in the draft RIA, incorporates the effects of this learning curve by projecting that the variable costs of producing the low-emitting engines decreases by 20 percent starting with the third year of production. For this analysis, we have assumed a baseline that represents such learning already having occurred once due to the 2007 highway rule (*i.e.*, a 20 percent reduction in emission control device costs is reflected in our near-term costs). We have then applied a single learning step from that point in this analysis. We invite comment on this methodology to account for the learning curve phenomenon and also request comment on whether learning is likely to reduce costs even further in this industry (*e.g.*, should a second learning step be applied to our near-term costs?). Additionally, manufacturers are expected to apply ongoing research to make emission controls more effective and to have lower operating costs over time. However, because of the uncertainty involved in forecasting the results of this research, we conservatively have not accounted for it in this analysis.

c. Engine Operating Costs

We are projecting that a variety of new technologies will be introduced to enable nonroad engines to meet the proposed Tier 4 emissions standards. Primary among these are advanced emission control technologies and low-sulfur diesel fuel. The technology enabling benefits of low-sulfur diesel fuel are described in section III, and the incremental cost for low-sulfur fuel is described in section V.A. The new emission control technologies are themselves expected to introduce additional operating costs in the form of increased fuel consumption and increased maintenance demands. Operating costs are estimated in the draft RIA over the life of the engine and are expressed in terms of cents/gallon of fuel consumed. In section V.C.3, we present these lifetime operating costs as a net present value (NPV) in 2001 dollars for several example pieces of equipment.

Total operating cost estimates include the following elements: the change in maintenance costs associated with applying new emission controls to the engines; the change in maintenance costs associated with low sulfur fuel such as extended oil change intervals; the change in fuel costs associated with the incrementally higher costs for low sulfur fuel, and the change in fuel costs due to any fuel consumption impacts associated with applying new emission controls to the engines. This latter cost is attributed to the CDPF and its need for periodic regeneration which we estimate may result in a one percent fuel consumption increase where a NO_X

[289] ''Learning Curves in Manufacturing,'' Linda Argote and Dennis Epple, Science, February 23, 1990, Vol. 247, pp. 920–924.

adsorber is also applied, or a two percent fuel consumption increase where no NO_X adsorber is applied (refer to chapter 6, section 6.2.3.3). Maintenance costs associated with the new emission controls on the engines are expected to increase since these devices represent new hardware and, therefore, new maintenance demands. For CDPF maintenance, we have used a maintenance interval of 3,000 hours for smaller engines and 4,500 hours for larger engines and a cost of $65 through $260 for each maintenance event. For closed-crankcase ventilation (CCV) systems, we have used a maintenance interval of 675 hours for all engines and a cost per maintenance event of $8 to $48 for small to large engines. Offsetting these maintenance cost increases would be a savings due to an expected increase in oil change intervals because low sulfur fuel would be far less corrosive than is current nonroad diesel fuel. Less corrosion would mean a slower acidification rate (*i.e.*, less degradation) of the engine lubricating oil and, therefore, more operating hours between needed oil changes. As discussed in section V.B, the use of 15 ppm sulfur fuel can extend oil change intervals by as much as 35 percent for both new and existing nonroad engines and equipment. We have used a 35 percent increase in oil change interval along with costs per oil change of $70 through $400 to arrive at estimated savings associated with increased oil change intervals.

These operating costs are expressed as a cent/gallon cost (or savings). As a result, operating costs are directly proportional to the amount of fuel consumed by the engine. We have estimated these operating costs, inclusive of fuel-related costs, to be 3.4 cents/gallon for a 150 horsepower engine and 4.2 cents/gallon for a 500 horsepower engine. More detail on operating costs can be found in chapter 6 of the draft RIA.

The existing fleet will also benefit from lower maintenance costs due to the use of low sulfur diesel fuel. The operating costs for the existing fleet are discussed in Section V.B.

2. Equipment Cost Impacts

In addition to the costs directly associated with engines that incorporate new emission controls to meet new standards, we expect cost increases due to the need to redesign the nonroad equipment in which these engines are used. Such redesigns would probably be necessary due to the expected addition of new emission control systems, but could also occur if the engine has a different shape or heat rejection rate, or is no longer made available in the configuration previously used. Based on their past experiences, equipment manufacturers have told EPA that a major concern with a new standard is their ability to redesign a large number of applications in a short period of time. Therefore, we have provided equipment manufacturers transition flexibility provisions to help them avoid business disruptions resulting from the changes associated with new emission standards. These flexibility provisions are presented in detail in Section III.E.4.

In assessing the economic impact of the new emission standards, EPA has made a best estimate of the modifications to equipment that relate to packaging (installing engines in equipment engine compartments). The incremental costs for new equipment would be comprised of fixed costs (for redesign to accommodate new emission control devices) and variable costs (for new equipment hardware and for labor to install new emission control devices). Note that the fixed costs do not include certification costs, as did the engine fixed costs, because equipment is not certified to emission standards. We have attributed all changes in operating costs (*e.g.*, additional maintenance) to the cost estimates for engines. Included in section V.C.3 is a discussion of several example pieces of equipment (*e.g.*, skid/steer loader, dozer, etc.) and the costs we have estimated for these specific example pieces of equipment. Full details of our equipment cost analysis can be found in chapter 6 of the draft RIA. All costs are presented in 2001 dollars.

a. Equipment Fixed Costs

The most significant changes anticipated for equipment redesign are changes to accommodate the physical changes to engines, especially for those engines that add PM traps and NO_X adsorbers. The costs for engine development and the emission control devices are included as costs to the engines, as described above. *What remains to be quantified for equipment manufacturers is the effort to integrate the engine and emissions control devices into the overall functioning of the equipment.* What remains to be quantified for equipment manufacturers is the effort to integrate the engine and emissions control devices into the overall functioning of the equipment. We have allocated extensive engineering time for this effort.

The costs we have estimated are based on engine power and whether an application is non-motive (*e.g.*, a generator set) or motive (*e.g.*, a skid steer loader). The designs we have considered to be non-motive are those that lack a propulsion system. In addition, the proposed emission standards for engines rated under 25 horsepower and the proposed 2008 standards for 25–75 horsepower engines are projected to require no significant equipment redesign beyond that done to accommodate the Tier 2 standards. We expect that these engines would comply with the proposesd Tier 4 standards through either engine modifications to reduce engine-out emissions or through the addition of a DOC. We have projected that engine modifications would not affect the outer dimensions of the engine and that a DOC would replace the existing muffler. Therefore, either approach taken by the engine manufacturer should have minimal to no impact on the equipment design. Nonetheless, we have conservatively estimated their redesign costs at $50,000 per model.

A number of equipment manufacturers have shared detailed information with us regarding the investments made for Nonroad Tier 2 equipment redesign efforts, as well as redesign estimates for significant changes such as installing a new engine design. These estimates range from approximately $50,000 for some lower powered equipment models to well over $1 million dollars for high horsepower equipment with very challenging design constraints. Based on that input, for the proposed Tier 4 standards, we have estimated that equipment redesign costs would range from $50,000 per model for 25 horsepower equipment up to $750,000 per model for 300 horsepower equipment and above. We have attributed only a portion of the equipment redesign costs to U.S. sales in a manner consistent with that taken for engine R&D costs and engine tooling costs. In addition, we expect manufacturers to incur some fixed costs to update service and operation manuals to address the maintenance demands of new emission control technologies and the new oil service intervals which we estimate to be between $2,500 and $10,000 per equipment model.

These equipment fixed costs (redesign and manual updates) were then allocated appropriately to each new model to arrive at a total equipment fixed cost of $697 million. We have assumed that these costs would be recovered over a ten year period at a seven percent interest rate.

b. Equipment Variable Costs

Equipment variable cost estimates are based on costs for additional materials to mount the new hardware (*i.e.*, brackets and bolts required to secure the

aftertreatment devices) and additional sheet metal assuming that the body cladding of a piece of equipment (*i.e.*, the hood) might change to accommodate the aftertreatment system. Variable costs also include the labor required to install these new pieces of hardware. For engines >75 horsepower—those expected to incorporate CDPF and NO_X adsorber technology—the amount of sheet metal is based on the size of the aftertreatment devices.

For equipment of 150 horsepower and 500 horsepower, respectively, we have estimated the costs to be roughly $60 to $140. Note that we have estimated costs for equipment in all horsepower ranges, and these estimates are presented in detail in the draft RIA. Throughout this discussion of engine and equipment costs, we present costs for a 150 and a 500 horsepower engine for illustrative purposes.

3. Overall Engine and Equipment Cost Impacts

To illustrate the engine and equipment cost impacts we are estimating for the proposed standards, we have chosen several example pieces of equipment and presented the estimated costs for them. Using these examples, we can calculate the costs for a specific piece of equipment in several horsepower ranges and better illustrate the cost impacts of the proposed standards. These costs along with information about each example piece of equipment are shown in Table V.C–1. Costs presented are near-term and long-term costs for the final standards to which each piece of equipment would comply. Long-term costs are only variable costs and, therefore, represent costs after all fixed costs have been recovered and all projected learning has taken place. Included in the table are estimated prices for each piece of equipment to provide some perspective on how our estimated control costs relate to existing equipment prices.

TABLE V.C–1—NEAR-TERM AND LONG-TERM COSTS FOR SEVERAL EXAMPLE PIECES OF EQUIPMENT[a]

($2001, for the final emission standards to which the equipment must comply)

	GenSet	Skid/steer loader	Backhoe	Dozer	Ag tractor	Dozer	Off-highway truck
Horsepower	9 hp	33 hp	76 hp	175 hp	250 hp	503 hp	1,000 hp
Incremental engine & equipment cost							
Long-term	$120	$760	$1,210	$2,590	$2,000	$4,210	$6,780
Near-term	$170	$1,100	$1,680	3,710	$2,950	$6,120	$10,100
Estimated equipment price when new[b]	$3,500	$13,500	$50,000	$235,000	$130,000	$575,000	$700,000
Incremental operating costs[c]	−$90	$40	$370	$1,550	$1,320	$4,950	$12,550
Baseline operating costs (fuel & oil only)[c]	$940	$2,680	$7,960	$77,850	$23,750	$77,850	$179,530

Notes:

[a] Near-term costs include both variable costs and fixed costs; long-term costs include only variable costs and represent those costs that remain following recovery of all fixed costs.

[b] "Estimated Price of New Nonroad Example Equipment," memorandum from Zuimdie Guerra to docket A–2001–28.

[c] Present value of lifetime costs.

More detail and discussion regarding what these costs and prices mean from an economic impact perspective can be found in section V.E.

D. Annual Costs and Cost Per Ton

One tool that can be used to assess the value of the proposed standards for nonroad fuel and engines is the costs incurred per ton of emissions reduced. This analysis involves a comparison of our proposed program to other measures that have been or could be implemented.

We have calculated the cost per ton of our proposed program based on the net present value of all costs incurred and all emission reductions generated over a 30 year time window following implementation of the program. This approach captures all of the costs and emissions reductions from our proposed program including those costs incurred and emissions reductions generated by the existing fleet. The baseline (*i.e.*, the point of comparison) for this evaluation is the existing set of fuel and engine standards (*i.e.*, unregulated fuel and the Tier 2/Tier 3 program). The 30 year time window chosen is meant to capture both the early period of the program when very few new engines that meet the proposed standards would be in the fleet, and the later period when essentially all engines would meet the proposed standards.

As discussed in section IV, the proposal contains two separate fuel programs. We are proposing a 500 ppm sulfur cap on nonroad, locomotive, and marine fuels beginning in 2007. This fuel program, the first step in our two step fuel program, provides significant air quality benefits through reduced SO_2 and PM emissions from both new and existing nonroad, locomotive, and marine engines. In sections V.D.1 and 2, we summarize the cost for this program as if it remained in place for 30 years, even though it would be supplanted by the second step of our fuel program in 2010. We also provide an analysis of the cost per ton for the SO_2 reductions that would be realized by the 500 ppm fuel program for the same 30 year time window. In this way, the cost per ton of the SO_2 reductions realized by the 500 ppm fuel program can be compared to other available means to control SO_2 emissions. The significant PM reductions are not accounted for in the relative cost per ton estimate, but are accounted for in our inventory analysis presented in section II and in the benefits analysis presented later in this section. Additional detail regarding all of the estimates presented here are available in the draft RIA.

We are proposing a second step in the fuel program that would cap nonroad fuel sulfur levels at 15 ppm beginning in 2010. This fuel program enables the introduction of advanced emission control technologies including CDPFs and NO_X adsorbers. The combination of the two-step fuel program and the new diesel engine standards represents the total Tier 4 program for nonroad diesel engines and fuel proposed today. In sections V.D.3 and 4, we present our estimate of the annual and total costs for

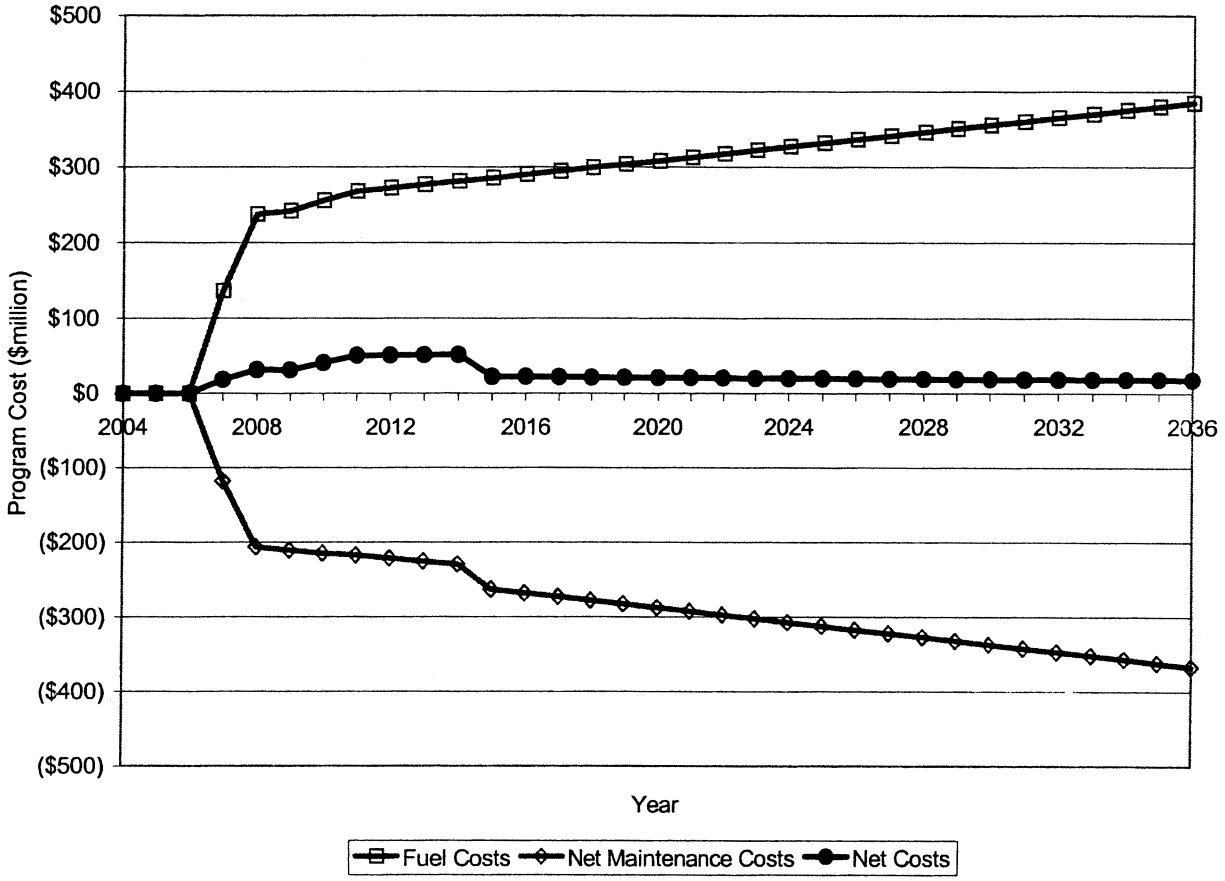
this complete program beginning in 2007 and continuing for 30 years. Also included is an estimate of the cost per ton of emissions reductions realized by this program for NMHC+NO_X, PM, and SO_2.

1. Annual Costs for the 500 ppm Fuel Program

Cent per gallon costs for the proposed 500 ppm fuel program (*i.e.*, the reduction to a 500 ppm sulfur cap) were presented in section V.A. Having this fuel would result in maintenance savings associated with increased oil change intervals for both the new and the existing fleet of nonroad, locomotive, and marine engines. These maintenance savings were discussed in section V.B. There are no engine and equipment costs associated with the 500 ppm fuel program because new emission standards are not part of that proposed program. Figure V.D–1 shows the annual costs associated with the 500 ppm fuel program.

As can be seen in Figure V.D–1, the costs for refining and distributing the 500 ppm fuel range from $250 million in 2008 to nearly $400 million in 2036. These control costs are largely offset by the maintenance savings that range from $200 million in 2008 to $380 million in 2036. Despite the fact that the costs of the 500 ppm fuel for nonroad diesel fuel is 2.5 cents/gallon and the maintenance savings are 3 cents per gallon, the net costs are positive because of the costs for the locomotive and marine fuel is not off-set by the maintenance savings. As a whole, the net cost of the program in each year is essentially zero, ranging from $50 million in the early years to only $18 million in 2036. The net present value of the net costs and savings associated with the proposed 500 ppm fuel program during the years 2007 to 2036 is estimated at $510 million.

FIGURE V.D-1 -- ANNUAL COSTS OF THE 500 PPM FUEL PROGRAM



2. Cost Per Ton for the 500 ppm Fuel Program

The 2007 fuel program would result in large reductions of both SO_2 and PM emissions. Roughly 98 percent of fuel sulfur is converted to SO_2 in the engine with the remaining two percent being exhausted as sulfate PM. Because the majority of the emissions reductions associated with this program would be SO_X, we have attributed all the control costs to SO_X in calculating the cost per ton associated with this program. However, we have modeled both the SO_X and PM reductions so that our inventory and benefits analysis fully account for them.

As noted above, we have calculated both the costs and emission reductions of the 500 ppm fuel program as if it were to remain in place indefinitely. Figure V.D–1 shows the costs in each year of the program, the net present value of which is estimated at $510 million. We have estimated the 30 year net present value of the SO_X emission reductions at 5.6 million tons.

Table V.D–1 shows the cost per ton of emissions reduced as a result of the proposed 500 ppm fuel program. The cost per ton numbers include costs and emission reductions that would occur from both the new and the existing fleet (*i.e.*, those pieces of nonroad equipment that were sold into the market prior to the proposed emission standards) of

nonroad, locomotive, and marine engines.

TABLE V.D–1—500 PPM FUEL PROGRAM AGGREGATE COST PER TON AND LONG-TERM ANNUAL COST PER TON ($2001)

Pollutant	2004–2036 Discounted lifetime cost per ton	Long-term cost per ton in 2036
SO_X	$90	$50

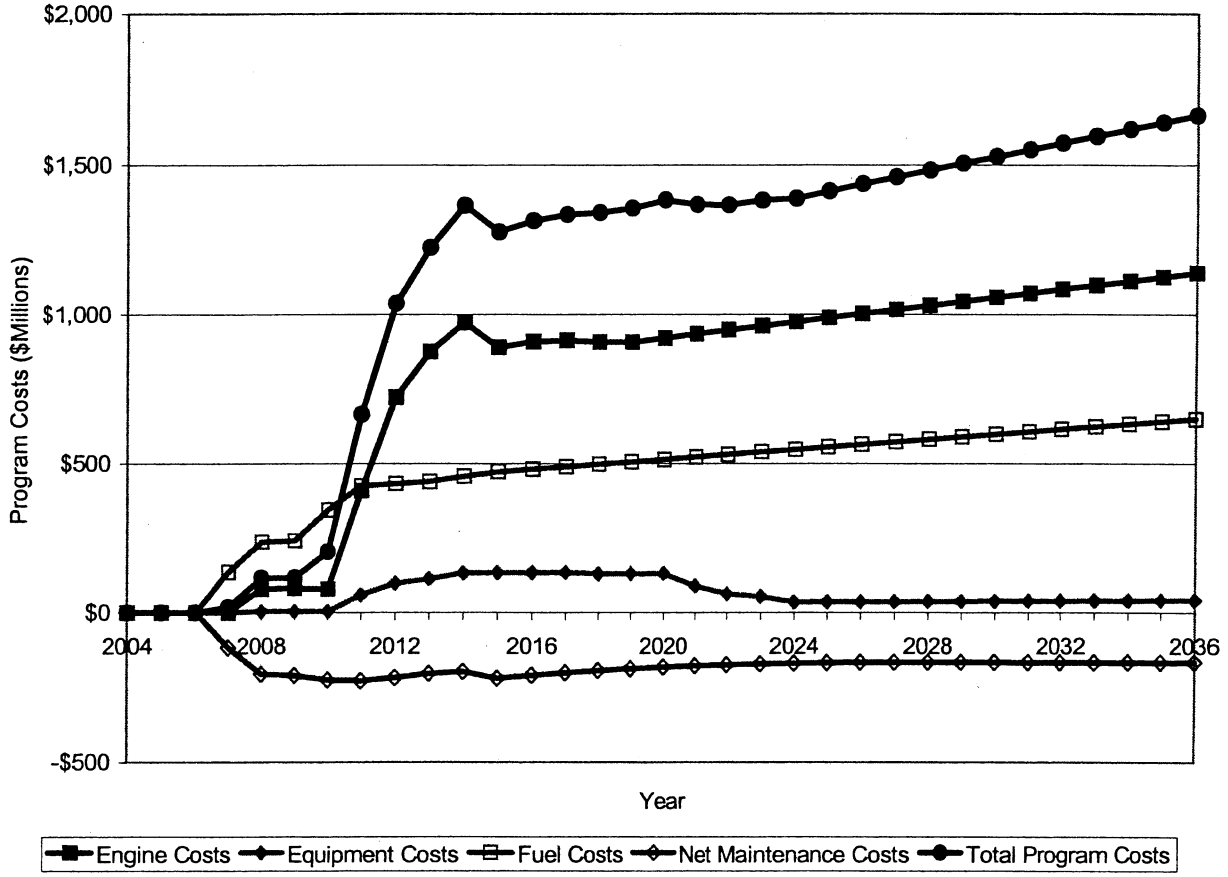
We also considered the cost per ton of the 500 ppm fuel program without taking credit for the expected maintenance savings associated with low sulfur fuel. Without the maintenance savings, the cost per ton of SO_X reduced would be $990 per ton for each year of the program. More detail on how the costs and cost per ton numbers associated with the 500 ppm fuel program were calculated can be found in the draft RIA.

3. Annual Costs for the Proposed Two-Step Fuel Program and Engine Program

The costs of the total proposed engine and fuel program include costs associated with both steps in the fuel program—the reduction to 500 ppm sulfur in 2007 and the reduction to 15 ppm sulfur in 2010. Also included are costs for the proposed 2008 engine standards for <75 horsepower engines, the proposed 2013 standards for 25 to 75 horsepower engines, and costs for the proposed engine standards for >75 horsepower engines. Included are all maintenance costs and savings realized by both the existing fleet (nonroad, locomotive, and marine) and the new fleet of engines complying with the proposed standards.

Figure V.D–2 presents these results. All capital costs for fuel production and engine and equipment fixed costs have been amortized. The figure shows that total annual costs are estimated to be $120 million in the first year the new engine standards apply, increasing to a peak of $1.7 billion in 2036 as increasing numbers of engines become subject to the new standards and an ever increasing amount of fuel is consumed. The net present value of the annualized costs over the period from 2007 to 2036 is $20.7 billion.

FIGURE V.D-2 -- ANNUAL COSTS OF THE PROPOSED TWO-STEP FUEL AND ENGINE PROGRAM



4. Cost per Ton of Emissions Reduced for the Total Program

We have calculated the cost per ton of emissions reduced associated with the proposed engine and fuel program. We have done this using the net present value of the annualized costs of the program through 2036 and the net present value of the annual emission reductions through 2036. We have also calculated the cost per ton of emissions in the year 2036 using the annual costs

and emission reductions in that year alone. This number represents the long-term cost per ton of emissions reduced after all fixed costs of the program have been recovered by industry leaving only the variable costs of control. The cost per ton numbers include costs and emission reductions that would occur from the existing fleet (*i.e.*, those pieces of nonroad equipment that were sold into the market prior to the proposed emission standards). These results are shown in Table V.D–2. We did the cost analysis using a 3% discount rate. We will also be conducting a similar analysis using a 7% discount rate and including this information in the docket.

TABLE V.D–2—TOTAL PROPOSED FUEL AND ENGINE PROGRAM AGGREGATE COST PER TON AND LONG-TERM ANNUAL COST PER TON ($2001)

Pollutant	2004–2036 Discounted lifetime cost per ton	Long-term cost per ton in 2036
NO_X+NMHC	$810	$530
PM	8,700	6,900
SO_X	[a] 200	170

Notes:
[a] This result does not match that in Table 8.4–2 because the nonroad portion of the fuel is reduced to 15 ppm and does not stay at 500 (locomotive and marine portions are kept at 500ppm). The costs to reduce fuel sulfur from uncontrolled to 15ppm were assigned 50/50 to NO_X+NMHC and PM for the reduction to 15 ppm is to enable aftertreatment technology.

5. Comparison With Other Means of Reducing Emissions

In comparison with other programs to control these pollutants, we believe that the proposed programs represent a cost effective strategy for generating substantial NO_X+NMHC, PM, and SO_2 reductions. This can be seen by comparing the 2007 fuel program (*i.e.*, a sulfur cap of 500 ppm) cost per ton and the total program cost per ton with a number of standards that EPA has adopted in the past. Table V.D–3 summarizes the cost per ton of several past EPA actions for NO_X+NMHC. Table V.D–4 summarizes the cost per ton of several past EPA actions for PM.

TABLE V.D–3—COST PER TON OF PREVIOUS MOBILE SOURCE PROGRAMS FOR NO_X + NMHC

Program	$/ton
Tier 2 Nonroad Diesel	630
Tier 3 Nonroad Diesel	430
Tier 2 vehicle/gasoline sulfur	1,410–2,370

TABLE V.D–3—COST PER TON OF PREVIOUS MOBILE SOURCE PROGRAMS FOR NO_X + NMHC—Continued

Program	$/ton
2007 Highway HD	2,260
2004 Highway HD	220–430
Off-highway diesel engine	450–710
Tier 1 vehicle	2,160–2,930
NLEV	2030
Marine SI engines	1,230–1,940
On-board diagnostics	2,430
Marine CI engines	30–190

Note: Costs adjusted to 2001 dollars using the Producer Price Index for Total Manufacturing Industries.

TABLE V.D–4.—COST PER TON OF PREVIOUS MOBILE SOURCE PROGRAMS FOR PM

Program	$/ton
Tier 1/Tier 2 Nonroad Diesel	2,410
2007 Highway HD	14,280
Marine CI engines	5,480–4,070
1996 urban bus	12,870–20,590
Urban bus retrofit/rebuild	31,740
1994 highway HD diesel	21,930–25,670

Note: Costs adjusted to 2001 dollars using the Producer Price Index for Total Manufacturing Industries.

To compare the cost per ton of SO_2 emissions reduced, we looked at the cost per ton for the Title IV SO_2 trading programs. This information is found in EPA report 430/R–02–004, ''Documentation of EPA Modeling Applications (V.2.1) Using the Integrated Planning Model'', in Figure 9.11 on page 9–14 (*www.epa.gov/airmarkets/epa-ipm/index.html#documentation*). The SO_2 cost per ton results of the proposed program presented in Table V.D–2 compare very favorably with the program shown in Table V.D–5.

TABLE V.D–5—COST PER TON OF SO_2 FROM EPA BASE CASE 2000 FOR THE TITLE IV SO_2 TRADING PROGRAMS

Program	$/ton
Title IV SO_2 Trading Programs.	$490 in 2010 to $610 in 2020.

Note: Costs adjusted to 2001 dollars using the Producer Price Index for Total Manufacturing Industries.

E. Do the Benefits Outweigh the Costs of the Standards?

Our analysis of the health and welfare benefits to be expected from this proposal are presented in this section. Briefly, the analysis projects major benefits throughout the period from initial implementation of the rule through 2030, the last year analyzed. As described below, thousands of deaths and other serious health effects would be prevented, yielding a net present value in 2004 of those benefits we could monetize of approximately $550 billion dollars. These benefits exceed the net present value of the social cost of the proposal ($17 billion) by a factor of over 30 to one.

1. What Were the Results of the Benefit-Cost Analysis?

Table V.E–1 presents the primary estimate of reduced incidence of PM-related health effects for the years 2020 and 2030. In interpreting the results, it is important to keep in mind the limited set of effects we are able to monetize. Specifically, the table lists the PM-related benefits associated with the reduction of several health effects.[290] In 2030, we estimate that there will be 9,600 fewer fatalities per year associated with fine PM, and the rule will result in about 5,700 fewer cases of chronic bronchitis, 8,300 fewer hospitalizations (for respiratory and cardiovascular disease combined), and result in significant reductions in days of restricted activity due to respiratory illness (with an estimated 5.7 million fewer cases). We also estimate substantial health improvements for children from reduced upper and lower respiratory illness, acute bronchitis, and asthma attacks.[291]

Table V.E–2 presents the total monetized benefits for the years 2020 and 2030. This table also indicates with a ''B'' those additional health and environmental effects which we were unable to quantify or monetize. These effects are additive to estimate of total benefits, and EPA believes there is

[290] Based upon recent preliminary findings by the Health Effects Institute, the concentration-response functions used to estimate reductions in hospital admissions may over or underestimate the true concentration-response relationship. *See* letter from Dan Greenberg, President, Health Effects Institute, May 30, 2002, attached to letter from Dr. Hopke, dated August 8, 2002. Docket A–2000–01, Document IV–A–145.

[291] Our estimate incorporates significant reductions of 150,000 fewer cases of lower respiratory symptoms in children ages 7 to 14 each year, 110,000 fewer cases of upper respiratory symptoms (similar to cold symptoms) in asthmatic children each year, and 14,000 fewer cases of acute bronchitis in children ages 8 to 12 each year. In addition, we estimate that this rule will reduce almost 6,000 emergency room visits for asthma attacks in children each year from reduced exposure to particles. Additional incidents would be avoided from reduced ozone exposures. Asthma is the most prevalent chronic disease among children and currently affects over seven percent of children under 18 years of age.

considerable value to the public of the benefits that could not be monetized. A full listing of the benefit categories that could not be quantified or monetized in our estimate are provided in Table V.E–5.

In summary, EPA's primary estimate of the benefits of the rule are approximately $81 + B billion in 2030. In 2020, total monetized benefits are approximately $43 + B billion. These estimates account for growth in real gross domestic product (GDP) per capita between the present and the years 2020 and 2030. As the table indicates, total benefits are driven primarily by the reduction in premature fatalities each year, which account for over 90 percent of total benefits.

TABLE V.E–1.—REDUCTIONS IN INCIDENCE OF PM-RELATED ADVERSE HEALTH EFFECTS ASSOCIATED WITH THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS

Endpoint	Avoided incidence [a] (cases/year)	
	2020	2030
Premature mortality [b]—Base estimate: Long-term exposure (adults, 30 and over)	5,200	9,600
Chronic bronchitis (adults, 26 and over)	3,600	5,700
Non-fatal myocardial infarctions (adults, 18 and older)	9,200	16,000
Hospital admissions—Respiratory (adults, 20 and older) [c]	2,400	4,500
Hospital admissions—Cardiovascular (adults, 20 and older) [d]	1,900	3,800
Emergency Room Visits for Asthma (18 and younger)	3,600	5,700
Acute bronchitis (children, 8–12)	8,400	14,000
Lower respiratory symptoms (children, 7–14)	92,000	150,000
Upper respiratory symptoms (asthmatic children, 9–11)	77,000	110,000
Work loss days (adults, 18–65)	650,000	960,000
Minor restricted activity days (adults, age 18–65)	3,900,000	5,700,000

Notes:
[a] Incidences are rounded to two significant digits.
[b] Premature mortality associated with ozone is not separately included in this analysis
[c] Respiratory hospital admissions for PM includes admissions for COPD, pneumonia, and asthma.
[d] Cardiovascular hospital admissions for PM includes total cardiovascular and subcategories for ischemic heart disease, dysrhythmias, and heart failure.

TABLE V.E–2.—EPA PRIMARY ESTIMATE OF THE ANNUAL QUANTIFIED AND MONETIZED BENEFITS ASSOCIATED WITH IMPROVED PM AIR QUALITY RESULTING FROM THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS

Endpoint	Monetary Benefits [a, b] (millions 2000$, adjusted for income growth)	
	2020	2030
Premature mortality [c] Long-term exposure (adults, 30 and over)	$39,000	$74,000
Chronic bronchitis (WTP valuation; adults, 26 and over)	1,600	2,600
Non-fatal myocardial infarctions	750	1,300
Hospital Admissions from Respiratory Causes [d]	38	74
Hospital Admissions from Cardiovascular Causes [e]	40	80
Emergency Room Visits for Asthma	1	2
Acute bronchitis (children, 8–12)	3	5
Lower respiratory symptoms (children, 7–14)	2	3
Upper respiratory symptoms (asthmatic children, 9–11)	2	3
Work loss days (adults, 18–65)	90	130
Minor restricted activity days (adults, age 18–65)	210	320
Recreational visibility (86 Class I Areas)	1,200	1,900
Total Monetized Benefits [f]	43,000 + B	81,000 + B

Notes:
[a] Monetary benefits are rounded to two significant digits.
[b] Monetary benefits are adjusted to account for growth in real GDP per capita between 1990 and the analysis year (2020 or 2030).
[c] Valuation assumes the 5 year distributed lag structure described earlier. Results reflect the use of two different discount rates; a 3% rate which is recommended by EPA's Guidelines for Preparing Economic Analyses (US EPA, 2000a), and 7% which is recommended by OMB Circular A–94 (OMB, 1992).
[d] Respiratory hospital admissions for PM includes admissions for COPD, pneumonia, and asthma.
[e] Cardiovascular hospital admissions for PM includes total cardiovascular and subcategories for ischemic heart disease, dysrhythmias, and heart failure.
[f] B represents the monetary value of the unmonetized health and welfare benefits. A detailed listing of unquantified PM, ozone, CO, and NMHC related health effects is provided in Table V.E–5.

The estimated social cost (measured as changes in consumer and producer surplus) in 2030 to implement the final rule from Table V.F–2 is $1.5 billion (2000$). Thus, the net benefit (social benefits minus social costs) of the program at full implementation is approximately $79 + B billion. In 2020, partial implementation of the program yields net benefits of $42 + B billion. Therefore, implementation of the final rule is expected to provide society with a net gain in social welfare based on economic efficiency criteria. Table V.E–3 presents a summary of the benefits,

costs, and net benefits of the proposed rule. Figure VE.1 displays the stream of benefits, costs, and net benefits of the Nonroad Land-based Diesel Vehicle Rule from 2007 to 2030. In addition, Table V–E.4 presents the net present value of the stream of benefits, costs, and net benefits associated with the rule for this 23 year period (using a three percent discount rate). The total net present value in 2004 of the stream of net benefits (benefits minus costs) is $530 billion.

TABLE V.E–3.—SUMMARY OF BENEFITS, COSTS, AND NET BENEFITS OF THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS

	2020 [a] (billions of 2000 dollars)	2030 [a] (billions of 2000 dollars)
Social Costs [b]	$1.4	$1.5.
Social Benefits [b, c, d]:		
CO, VOC, Air Toxic-related benefits	Not monetized	Not monetized.
Ozone-related benefits	Not monetized	Not monetized.
PM-related Welfare benefits	$1.2	$1.9.
PM-related Health benefits	$42+ B	$79 + B.
Net Benefits (Benefits-Costs) [c]	$42 + B	$79 + B.

Notes:

[a] All costs and benefits are rounded to two significant digits.

[b] Note that costs are the total costs of reducing all pollutants, including CO, VOCs and air toxics, as well as NO_X and PM. Benefits in this table are associated only with PM, NO_X and SO_3 reductions.

[c] Not all possible benefits or disbenefits are quantified and monetized in this analysis. Potential benefit categories that have not been quantified and monetized are listed in Table V.E–5. B is the sum of all unquantified benefits and disbenefits.

FIGURE V.E-1 -- STREAM OF BENEFITS, COSTS, AND NET BENEFITS OF THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS

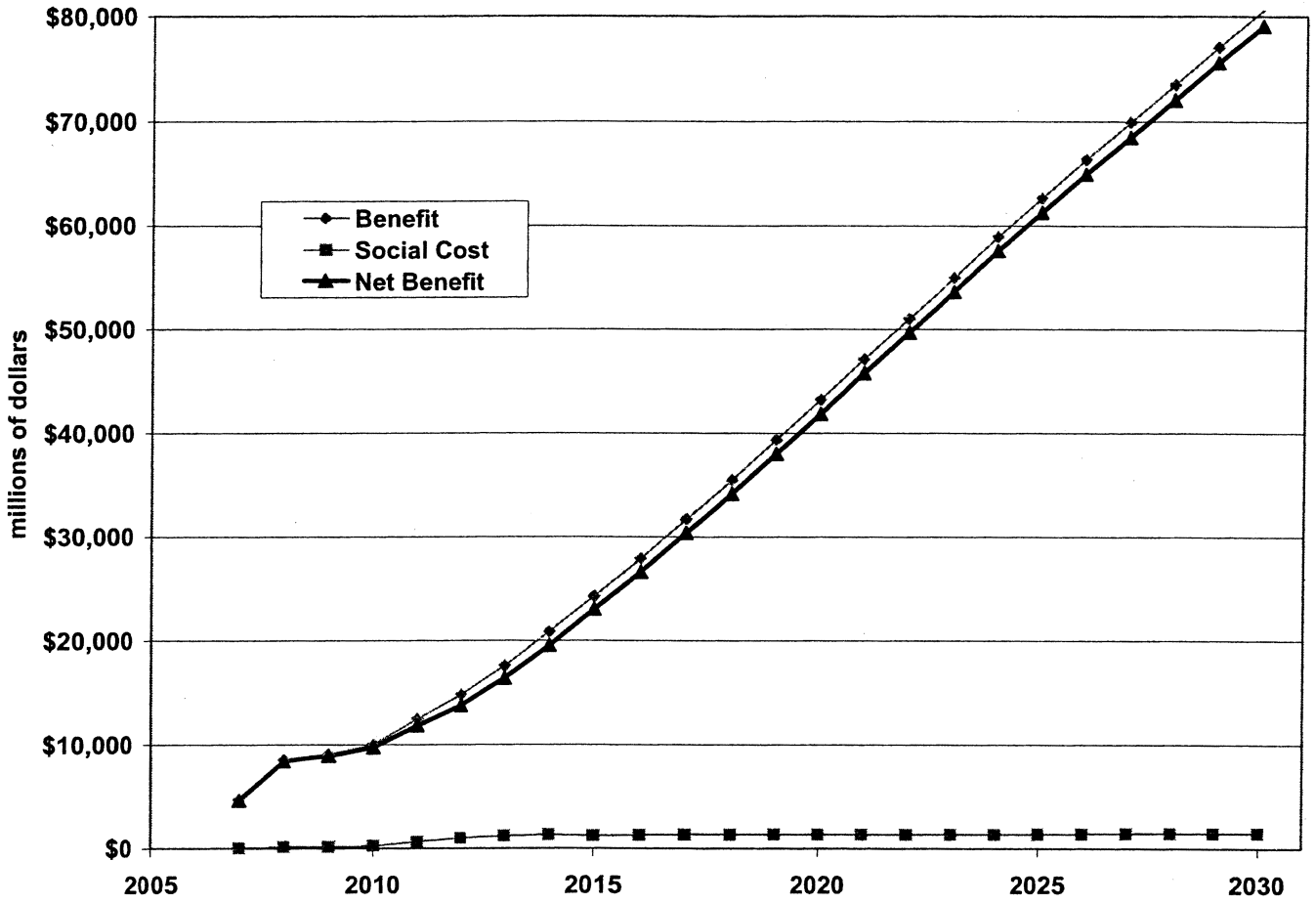


TABLE V.E–4.—NET PRESENT VALUE IN 2004 OF THE STREAM OF BENEFITS, COSTS, AND NET BENEFITS FOR THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS

[Billions of 2000$]

Social Costs	$17
Social Benefits	550
Net Benefits	[a] 530

Notes:
[a] Numbers do not add due to rounding.

2. What Was Our Overall Approach to the Benefit-Cost Analysis?

The basic question we sought to answer in the benefit-cost analysis was, ''What are the net yearly economic benefits to society of the reduction in mobile source emissions likely to be achieved by this proposed rulemaking?'' In designing an analysis to address this question, we selected two future years for analysis (2020 and 2030) that are representative of the stream of benefits and costs at partial and full-implementation of the program.

To quantify benefits, we evaluated PM-related health effects (including directly emitted PM, SO_3, and NO_X contributions to fine particulate matter). Our approach requires the estimation of changes in air quality expected from the rule and then estimating the resulting impact on health. In order to characterize the benefits of today's action, given the constraints on time and resources available for the analysis, we adopted a benefits transfer technique that relies on air quality and benefits modeling for a preliminary control option for nonroad diesel engines and fuels. Results from the modeled preliminary control option in 2020 and 2030 are then scaled and transferred to the emission reductions expected from the proposed rule. We also transferred modeled results by using scaling factors associated with time to examine the stream of benefits in years other than 2020 and 2030.

More specifically, our health benefits assessment is conducted in two phases. Due to the time requirements for running the sophisticated emissions and air quality models needed to obtain estimates of the benefits expected to result from implementation of the rule, it is often necessary to select an example set of emission reductions to use for the purposes of emissions and air quality modeling. In phase one, we evaluate the PM and ozone related health effects associated with a modeled preliminary control option that was a close approximation of the proposed standards in the years 2020 and 2030. Using information from the modeled preliminary control option on the changes in ambient concentrations of PM and ozone, we then conduct a

health assessment to estimate the number of reduced incidences of illnesses, hospitalizations, and premature fatalities associated with this scenario and estimate the total economic value of these health benefits. The standards we are proposing in this rulemaking, however, are slightly different in the amount of emission reductions expected to be achieved in 2020 and 2030 relative to the modeled scenario. Thus, in phase two of the analysis we apportion the results of the phase one analysis to the underlying NO_X, SO_3, and PM emission reductions and scale the apportioned benefits to reflect differences in emissions reductions between the modeled preliminary control option and the proposed standards. The sum of the scaled benefits for the PM, SO_3, and NO_X emission reductions provide us with the total benefits of the rule.

The benefit estimates derived from the modeled preliminary control option in phase one of our analysis uses an analytical structure and sequence similar to that used in the benefits analyses for the Heavy Duty Engine/Diesel Fuel final rule and in the ''section 812 studies'' to estimate the total benefits and costs of the full Clean Air Act.[292] We used many of the same models and assumptions used in the Heavy Duty Engine/Diesel Fuel analysis as well as other Regulatory Impact Analyses (RIAs) prepared by the Office of Air and Radiation. By adopting the major design elements, models, and assumptions developed for the section 812 studies and other RIAs, we have largely relied on methods which have already received extensive review by the independent Science Advisory Board (SAB), by the public, and by other federal agencies. In addition, we will be working through the next section 812 study process to enhance our methods.[293] Interested parties will therefore be able to obtain further information from the section 812 study on the kinds of methods we are likely to use for estimating benefits and costs in the final nonroad diesel rule.

The benefits transfer method used in phase two of the analysis is similar to that used to estimate benefits in the recent analysis of the Nonroad Large Spark-Ignition Engines and Recreational Engines standards (67 FR 68241, November 8, 2002). A similar method has also been used in recent benefits analyses for the proposed Industrial Boilers and Process Heaters NESHAP and the Reciprocating Internal Combustion Engines NESHAP.

On September 26, 2002, the National Academy of Sciences (NAS) released a report on its review of the Agency's methodology for analyzing the health benefits of measures taken to reduce air pollution. The report focused on EPA's approach for estimating the health benefits of regulations designed to reduce concentrations of airborne particulate matter (PM).

In its report, the NAS said that EPA has generally used a reasonable framework for analyzing the health benefits of PM-control measures. It recommended, however, that the Agency take a number of steps to improve its benefits analysis. In particular, the NAS stated that the Agency should:

- Include benefits estimates for a range of regulatory options;
- Estimate benefits for intervals, such as every five years, rather than a single year;
- Clearly state the projected baseline statistics used in estimating health benefits, including those for air emissions, air quality, and health outcomes;
- Examine whether implementation of proposed regulations might cause unintended impacts on human health or the environment;
- When appropriate, use data from non-U.S. studies to broaden age ranges to which current estimates apply and to include more types of relevant health outcomes;
- Begin to move the assessment of uncertainties from its ancillary analyses into its Base analyses by conducting probabilistic, multiple-source uncertainty analyses. This assessment should be based on available data and expert judgment.

Although the NAS made a number of recommendations for improvement in EPA's approach, it found that the studies selected by EPA for use in its benefits analysis were generally reasonable choices. In particular, the NAS agreed with EPA's decision to use cohort studies to derive benefits estimates. It also concluded that the Agency's selection of the American Cancer Society (ACS) study for the evaluation of PM-related premature mortality was reasonable, although it noted the publication of new cohort studies that should be evaluated by the Agency.

EPA has addressed many of the NAS comments in our analysis of the proposed rule. We provide benefits estimates for each year over the rule implementation period for a wide range of regulatory alternatives, in addition to our proposed emission control program. We use the estimated time path of benefits and costs to calculate the net present value of benefits of the rule. In the RIA, we provide baseline statistics for air emissions, air quality, population, and health outcomes. We have examined how our benefits estimates might be impacted by expanding the age ranges to which epidemiological studies are applied, and we have added several new health endpoints, including non-fatal heart attacks, which are supported by both U.S. studies and studies conducted in Europe. We have also improved the documentation of our methods and provided additional details about model assumptions.

Several of the NAS recommendations addressed the issue of uncertainty and how the Agency can better analyze and communicate the uncertainties associated with its benefits assessments. In particular, the Committee expressed concern about the Agency's reliance on a single value from its analysis and suggested that EPA develop a probabilistic approach for analyzing the health benefits of proposed regulatory actions. The Agency agrees with this suggestion and is working to develop such an approach for use in future rulemakings. EPA plans to hold a meeting of its Science Advisory Board (SAB) in early Summer 2003 to review its plans for addressing uncertainty in its analyses. Our likely approach will incorporate short-term elements intended to provide interim methods in time for the final Nonroad rule to address uncertainty in important analytical parameters such as the concentration-response relationship for PM-related premature mortality. Our approach will also include longer-term elements intended to provide scientifically sound, peer-reviewed characterizations of the uncertainty surrounding a broader set of analytical parameters and assumptions, including but not limited to emissions and air quality modeling, demographic projections, population health status, concentration-response functions, and valuation estimates.

3. What Are the Significant Limitations of the Benefit-Cost Analysis?

Every benefit-cost analysis examining the potential effects of a change in

[292] The section 812 studies include: (1) US EPA, Report to Congress: The Benefits and Costs of the Clean Air Act, 1970 to 1990, October 1997 (also known as the ''Section 812 Retrospective Report''); and (2) the first in the ongoing series of prospective studies estimating the total costs and benefits of the Clean Air Act (*see* EPA report number: EPA–410–R–99–001, November 1999). *See* Docket A–99–06, Document II–A–21.

[293] We anticipate a public SAB meeting June 11–13, 2003, in Washington, DC, regarding components of our analytical blueprint. Interested parties may want to consult the Web page: *http://www.epa.gov/science1.*

environmental protection requirements is limited to some extent by data gaps, limitations in model capabilities (such as geographic coverage), and uncertainties in the underlying scientific and economic studies used to configure the benefit and cost models. Deficiencies in the scientific literature often result in the inability to estimate quantitative changes in health and environmental effects, such as potential increases in premature mortality associated with increased exposure to carbon monoxide. Deficiencies in the economics literature often result in the inability to assign economic values even to those health and environmental outcomes which can be quantified. While these general uncertainties in the underlying scientific and economics literatures, which can cause the valuations to be higher or lower, are discussed in detail in the Regulatory Support Document and its supporting documents and references, the key uncertainties which have a bearing on the results of the benefit-cost analysis of this final rule include the following:

- The exclusion of potentially significant benefit categories (such as health and ecological benefits of reduction in CO, VOCs, air toxics, and ozone);
- Errors in measurement and projection for variables such as population growth;
- Uncertainties in the estimation of future year emissions inventories and air quality;
- Uncertainties associated with the scaling of the results of the modeled benefits analysis to the proposed standards, especially regarding the assumption of similarity in geographic distribution between emissions and human populations and years of analysis;
- Variability in the estimated relationships of health and welfare effects to changes in pollutant concentrations;
- Uncertainties in exposure estimation;
- Uncertainties associated with the effect of potential future actions to limit emissions.

Despite these uncertainties, we believe the benefit-cost analysis provides a reasonable indication of the expected economic benefits of the proposed rulemaking in future years under a set of assumptions.

One significant limitation to the benefit transfer method applied in this analysis is the inability to scale ozone-related benefits. Because ozone is a homogeneous gaseous pollutant, it is not possible to apportion ozone benefits to the precursor emissions of NO_X and VOC. Coupled with the potential for NO_X reductions to either increase or decrease ambient ozone levels, this prevents us from scaling the benefits associated with a particular combination of VOC and NO_X emissions reductions to another. Because of our inability to scale ozone benefits, we do not include ozone benefits as part of the monetized benefits of the proposed standards. For the most part, ozone benefits contribute substantially less to the monetized benefits than do benefits from PM, thus their omission will not materially affect the conclusions of the benefits analysis. Although we expect economic benefits to exist, we were unable to quantify or to value specific changes in ozone, CO or air toxics because we did not perform additional air quality modeling.

There are also a number of health and environmental effects which we were unable to quantify or monetize. A full appreciation of the overall economic consequences of the proposed rule requires consideration of all benefits and costs expected to result from the new standards, not just those benefits and costs which could be expressed here in dollar terms. A complete listing of the benefit categories that could not be quantified or monetized in our estimate are provided in Table V.E–5. These effects are denoted by ''B'' in Table V.E–3 above, and are additive to the estimates of benefits.

TABLE V.E–5.—ADDITIONAL, NON-MONETIZED BENEFITS OF THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS

Pollutant	Unquantified effects
Ozone Health	Premature mortality.[a] Increased airway responsiveness to stimuli. Inflammation in the lung. Chronic respiratory damage. Premature aging of the lungs. Acute inflammation and respiratory cell damage. Increased susceptibility to respiratory infection. Non-asthma respiratory emergency room visits. Increased school absence rates.
Ozone Welfare	Decreased yields for commercial forests (for example, Western US). Decreased yields for fruits and vegetables. Decreased yields for non-commercial crops. Damage to urban ornamental plants. Impacts on recreational demand from damaged forest aesthetics. Damage to ecosystem functions.
PM Health	Infant mortality. Low birth weight. Changes in pulmonary function. Chronic respiratory diseases other than chronic bronchitis. Morphological changes. Altered host defense mechanisms. Cancer. Non-asthma respiratory emergency room visits.
PM Welfare	Visibility in many Class I areas. Residential and recreational visibility in non-Class I areas. Soiling and materials damage. Damage to ecosystem functions.

TABLE V.E–5.—ADDITIONAL, NON-MONETIZED BENEFITS OF THE PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS—Continued

Pollutant	Unquantified effects
Nitrogen and Sulfate Deposition Welfare.	Impacts of acidic sulfate and nitrate deposition on commercial forests.
	Impacts of acidic deposition to commercial freshwater fishing.
	Impacts of acidic deposition to recreation in terrestrial ecosystems.
	Reduced existence values for currently healthy ecosystems.
	Impacts of nitrogen deposition on commercial fishing, agriculture, and forests.
	Impacts of nitrogen deposition on recreation in estuarine ecosystems.
	Damage to ecosystem functions.
CO Health	Premature mortality.[a]
	Behavioral effects.
HC Health[b]	Cancer (benzene, 1,3-butadiene, formaldehyde, acetaldehyde).
HC Welfare	Direct toxic effects to animals.
	Bioaccumulation in the food chain.
	Damage to ecosystem function.
	Odor.

Notes:

[a] Premature mortality associated with ozone and carbon monoxide is not separately included in this analysis. In this analysis, we assume that the ACS/Krewski, *et al.* C–R function for premature mortality captures both PM mortality benefits and any mortality benefits associated with other air pollutants. A copy of Krewski, *et al.,* can be found in Docket A–99–06, Document No. IV–G–75.

[b] Many of the key hydrocarbons related to this rule are also hazardous air pollutants listed in the Clean Air Act.

F. Economic Impact Analysis

An Economic Impact Analysis (EIA) was prepared to estimate the economic impacts of this proposal on producers and consumers of nonroad engines and equipment and related industries. The Nonroad Diesel Economic Impact Model (NDEIM), developed for this analysis, was used to estimate market-level changes in price and outputs for affected engine, equipment, fuel, and application markets as well as the social costs and their distribution across economic sectors affected by the program. This section presents the results of the economic impact analysis. A detailed description of the NDEIM, the model inputs, and several sensitivity analyses can be found in chapter 10 of the Draft Regulatory Impact Analysis prepared for this proposal.

1. What Is an Economic Impact Analysis?

Regulatory agencies conduct economic impact analyses of potential regulatory actions to inform decision makers about the effects of a proposed regulation on society's current and future well-being. In addition to informing decision makers within the Agency, economic impact analyses are conducted to meet the statutory and administrative requirements imposed by Congress and the Executive office. The Clean Air Act requires an economic impact analysis under section 317, while Executive Order 12866—Regulatory Planning and Review requires Executive Branch agencies to perform benefit-costs analyses of all rules it deems to be ''significant'' (typically over $100 million annual social costs) and submit these analyses to the Office of Management and Budget (OMB) for review. This economic impact analysis estimates the potential market impacts of the proposed rule's compliance costs and provides the associated social costs and their distribution across stakeholders for comparison with social benefits (as presented in Section V.E).

2. What Is EPA's Economic Analysis Approach for This Proposal?

The underlying objective of an EIA is to evaluate the effect of a proposed regulation on the welfare of affected stakeholders and society in general. Using information on the expected compliance costs of the proposed program as presented in the preceding discussion, this EIA explores how the companies that produce nonroad diesel engines, equipment, or fuel may change their production behavior in response to the costs of complying with the standards. It also explores how the consumers who use the affected products may change their purchasing decisions. For example, the construction industry may reduce purchases if the prices of nonroad diesel equipment increase, thereby reducing the volume of equipment sold (or market demand) for such equipment. Alternatively, the construction industry may pass along these additional costs to the consumers of their final goods and services by increasing prices, which would mitigate the potential impacts on the purchases of nonroad diesel equipment.

The conceptual approach of the NDEIM is to link significantly affected markets to mimic how compliance costs will potentially ripple through the economy. The compliance costs will be directly borne by engine manufacturers, equipment manufacturers, and petroleum refineries. Depending on market characteristics, some or all of these compliance costs will be passed on through the supply chain in the form of higher prices extending to producers and consumers in the application markets (*i.e.*, construction, agriculture, and manufacturing). The NDEIM explicitly models these linkages and estimates behavioral responses that lead to new equilibrium prices and output for all related markets and the resulting distribution of costs across stakeholders.

The NDEIM uses a multi-market partial equilibrium approach to track changes in price and quantity for 60 integrated product markets, as follows:

- 7 diesel engine markets (less than 25 hp, 26 to 50 hp, 51 to 75 hp, 76 to 100 hp, 101 to 175 hp, 176 to 600 hp, and greater than 600 hp; the EIA includes more horsepower categories than the standards, allowing more efficient use of the engine compliance cost estimates developed for this proposal).
- 42 diesel equipment markets (7 horsepower categories within 7 application categories: agricultural, construction, general industrial, pumps and compressors, generator and welder sets, refrigeration and air conditioning, and lawn and garden; there are 7 horsepower/application categories that did not have sales in 2000 and are not included in the model, so the total number of diesel equipment markets is 42 rather than 49).
- 3 application markets (agricultural, construction, and manufacturing).
- 8 nonroad diesel fuel markets (2 sulfur content levels of 15 ppm and 500 ppm for each of 4 PADDs; PADDs 1 and

3 are combined for the purpose of this analysis). It should be noted that PADD 5 includes Alaska and Hawaii. Because those two states are geographically separate from the rest of PADD 5, we seek comment on whether they should be considered as separate fuel markets.

The NDEIM uses an intermediate run time frame and assumes perfect competition in the market sectors. It is a computer model comprised of a series of spreadsheet modules that define the baseline characteristics of the supply and demand for the relevant markets and the relationships between them. A detailed description of the model methodology, inputs, and parameters is provided in chapter 10 of the draft RIA prepared for this proposal. The model methodology is firmly rooted in applied microeconomic theory and was developed following the OAQPS Economic Analysis Resource Document.[294] Based on the specified market linkages, the model is shocked by applying the engineering compliance cost estimates to the appropriate market suppliers and then numerically solved using an iterative auctioneer approach by ''calling out'' new prices until a new equilibrium is reached in all markets simultaneously.

The actual economic impacts of the proposed rule will be determined by the ways in which producers and consumers of the engines, equipment, and fuels affected by the proposal change their behavior in response to the costs incurred in complying with the standards. In the NDEIM, these behaviors are modeled by the demand and supply elasticities. The supply elasticities for the engine and equipment markets and the demand elasticities for the application markets were estimated using econometric methods. The procedures and results are reported in Appendix 10.1 of the draft RIA. Literature-based estimates were used for the supply elasticities in the application and fuel markets.

There are two ways to handle the demand elasticities for the engine, equipment, and fuel markets. In the approach used in NDEIM, these demand elasticities are internally derived based on the specified market linkages, *i.e.*, the demand for engines, equipment, and fuel are modeled as directly related to the supply and demand of goods and services supplied by the final application markets. In other words, the supply of those goods and services determines the demand for equipment and fuel, and the supply of equipment determines the demand for engines. Using this approach, the NDEIM predicts that engine and equipment production will decrease by only a small amount: 0.013% and 0.014% respectively (see Table V.F–1). Also, please see draft RIA Appendices 10A and 10B for more detailed estimates on the price increase estimates. Because the application markets are modeled with inelastic or unit elastic demand and supply elasticities (quantity supplied/demanded is expected to be fairly insensitive to price changes or they will vary directly with price changes), the model predicts that engine and equipment manufacturers will pass along virtually all of their costs to end users.

An alternative approach could be used in which the demand elasticities for the equipment, engine, and fuel markets are not derived as part of the model. They could be estimated separately or a sensitivity analysis could be conducted that assumes more elastic values than those generated by the NDEIM. We are continuing to investigate this matter and will be placing additional information about elasticities in the docket during the comment period for this rule. We request comment on that information as well as on the methodology and other aspects of this EIA.

The estimated engine and equipment market impacts are based solely on the expected increase in variable costs associated with the proposed standards. Fixed costs associated with the engine emission standards are not included in the market analysis reported in Table IV–F–1. This is because in an analysis of competitive markets the industry supply curve is based on its marginal cost curve, and fixed costs are not reflected in changes in the marginal cost curve. In addition, fixed costs are primarily R&D costs associated with design and engineering changes, and firms in the affected industries currently allocate funds for these costs. Therefore, fixed costs are not likely to affect the prices of engines or equipment. This assumption is described in greater detail in section 10.2 of the draft RIA. R&D costs are a long-run concern and decisions to invest or not invest in R&D are made in the long run. If funds have to be diverted from some other activity into R&D needed to meet the environmental regulations, then these costs represent a component of the social costs of the rule. Therefore, fixed costs are included in the welfare impact estimates reported in Table V.F–2 as additional costs on producers. We also performed a sensitivity analysis, included in chapter 10 of the draft RIA for this proposal, that includes fixed costs as part of the model. This results in a transfer of welfare losses from engine and equipment markets to the application markets, but does not change the overall welfare losses associated with the proposal.

Economic theory indicates that, in the long run, prices are expected to reflect the average total costs of the marginal producer in a market and not just variable costs. This suggests that it may be necessary to treat fixed costs differently for a long-run analysis. We will continue to investigate this effect and intend to place additional information in the docket during the comment period for this rule. We request comment on that information as well as on how fixed costs and R&D expenditures are handled in the NDEIM.

In addition to the variable and fixed costs described above, there are three additional costs components that are included in the total social cost estimates of the proposed regulation but that are not explicitly included in the NDEIM. These are operating savings (costs), fuel marker costs, and spillover from 15 ppm fuel to higher sulfur fuel. We request comment on how best to incorporate each of these costs in the analysis.

Operating savings (costs) refers to changes in operating costs that are expected to be realized by users of both existing and new nonroad diesel equipment as a result of the reduced sulfur content of nonroad diesel fuel. These include operating savings (cost reductions) due to fewer oil changes, which accrue to nonroad engines, and marine and locomotive engines, that are already in use as well as new nonroad engines that will comply with the proposed standards (*see* section V.B.). These savings (costs) also include any extra operating costs associated with the new PM emission control technology which may accrue to new engines that use this new technology. These savings (costs) are not included directly in the model because some of the savings accrue to existing engines and because these savings (costs) are not expected to affect consumer decisions with respect to new engines. Instead, they are added into the estimated welfare impacts as additional costs to the application markets, since it is the users of these engines that will see these savings (costs). Nevertheless, a sensitivity analysis was also performed in which these savings (costs) are included as inputs to the NDEIM, where they are modeled as benefits accruing to the application producers. The results of

[294] U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Innovative Strategies and Economics Group, OAQPS Economic Analysis Resource Document, April 1999. A copy of this document can be found in Docket A–2001–28, Document No. II–A–14.

this analysis are presented in Chapter 10 of the draft RIA.

Fuel marker costs refers to costs associated with marking high sulfur diesel fuel in the locomotive, marine, and heating oil markets between 2007 and 2014. Marker costs are not included in the market analysis because locomotive, marine, and heating oil markets are not explicitly modeled in the NDEIM. Similar to the operating savings (costs), marker costs are added into the estimated welfare impacts separately.

The costs of fuel that spills over from the 15 ppm market to higher grade sulfur fuel are also not included in the NDEIM but, instead, are added into the estimated welfare impacts separately. As described in section IV above, refiners are expected to produce more 15 ppm fuel than is required for the nonroad diesel fuel market. This excess 15 ppm fuel will be sold into markets that allow fuel with a higher sulfur level (*e.g.*, locomotive, marine diesel, or home heating fuel). Because this spillover fuel will meet the 15 ppm limit, it is necessary to count the costs of sulfur reduction processes against those fuels.

Consistent with the engine and equipment cost discussion in section V.C. of this preamble, the EIA does not include any cost savings associated with the proposed equipment transition flexibility program or the proposed nonroad engine ABT program. As a result, the results of this EIA can be viewed as somewhat conservative, in this respect.

3. What Are the Results of this Analysis?

The economic analysis consists of two parts: a market analysis and welfare analysis. The market analysis looks at expected changes in prices and quantities for directly and indirectly affected market commodities. The welfare analysis looks at economic impacts in terms of annual and present value changes in social costs. For this proposed rule, the social costs are computed as the sum of market surplus offset by operating cost savings. Market surplus is equal to the aggregate change in consumer and producer surplus based on the estimated market impacts associated with the proposed rule. Operating cost savings are associated with the decreased sulfur content of diesel fuel. These include maintenance savings (cost reductions) and changes in fuel efficiency. Increased maintenance costs may also be incurred for some technologies. Operating costs are not included in the market analysis but are instead listed as a separate category in the social cost results tables.

Economic impact results for 2013, 2020, and 2030 are presented in this section. The first of these years, 2013, corresponds to the first year in which the standards affect all engines, equipment, and fuels. It should be noted that, as illustrated in Table V.D–2, above, aggregate program costs peak in 2014; increases in costs after that year are due to increases in the population of engines over time. The other years, 2020 and 2030, correspond to years analyzed in our benefits analysis. Detailed results for all years are included in Appendix 10.E. for this chapter.

a. Expected Market Impacts

The market impacts of this rule suggest that the overall economic impact of the proposed emission control program on society is expected to be small, on average. According to this analysis, the average prices of goods and services produced using equipment and fuel affected by the proposal are expected to increase by about 0.02 percent. The estimated price increases and quantity reductions for engines and equipment vary depending on compliance costs. In general, we would expect for price increases to be higher (lower) as a result of a high (low) relative level of compliance costs to market price. We would also expect the change in price to be highest when compliance costs are highest.

The estimated market impacts for 2013, 2020, and 2030 are presented in Table V.F–1. The market-level impacts presented in this table represent production-weighted averages of the individual market-level impact estimates generated by the model: the average expected price increase and quantity decrease across all of the units in each of the engine, equipment, fuel, and final application markets. For example, the model includes seven individual engine markets that reflect the different horsepower size categories. The 23 percent price change for engines shown in Table V.F–1 for 2013 is an average price change across all engine markets weighted by the number of production units. Similarly, equipment impacts presented in Table V.F–1 are weighted averages of 42 equipment-application markets, such as small (< 25hp) agricultural equipment and large (>600hp) industrial equipment. It should be noted that price increases and quantity decreases for specific types of engines, equipment, application sectors, or diesel fuel markets are likely to be different. But the data in this table provide a broad overview of the expected market impacts that is useful when considering the impacts of the proposal on the economy as a whole. The individual market-level impacts are presented in Chapter 10 of the draft RIA for this proposal.

Engine Market Results: Most of the variable costs associated with the proposed rule are passed along in the form of higher prices. The average price increase in 2013 for engines is estimated to be about 23 percent. This percentage is expected to decrease to about 19.5 percent for 2020 and later. This expected price increase varies by engine size because compliance costs are a larger share of total production costs for smaller engines. In 2013, the year of greatest compliance costs overall, the largest expected percent price increase is for engines between 25 and 50 hp: 34 percent or $852; the average price for an engine in this category is about $2,500. However, this price increase is expected to drop to 26 percent, or about $647, for 2016 and later. The smallest expected percent price increase in 2013 is for engines in the greater than 600 hp category. These engines are expected to see price increases of about 3 percent increase in 2013, increasing to about 5.6 percent in 2014 and beyond. The expected price increase for these engines is about $4,211 in 2013, increasing to about $6,950 in 2014 and later, for engines that cost on average about $125,000.

The market impact model predicts that even with these increases in engine prices, total demand is not expected to change very much. The expected average change in quantity is only about 69 engines per year in 2013, out of total sales of more than 500,000 engines. The estimated change in market quantity is small because as compliance costs are passed along the supply chain they become a smaller share of total production costs. In other words, firms that use these engines and equipment will continue to purchase them even at the higher cost because the increase in costs will not have a large impact on their total production costs. Diesel equipment is only one factor of production for their output of construction, agricultural, or manufactured goods. The average decrease in the quantity of all engines produced as a result of the regulation is estimated to be about 0.013 percent. This decrease ranges from 0.010 percent for engines less than 25 hp to 0.016 percent for engines 175 to 600 hp.

Equipment Market Results: Estimated price changes for the equipment markets reflect both the direct costs of the proposed standards on equipment production and the indirect cost through increased engine prices. In 2013, the average price increase for nonroad diesel equipment is estimated

to be about 5.2 percent. This percentage is expected to decrease to about 4.5 percent for 2020 and beyond. The range of estimated price increases across equipment types parallels the share of engine costs relative to total equipment price, so the estimated percentage price increase among equipment types also varies. The market price in 2013 for agricultural equipment between 175 and 600 hp is estimated to increase about 1.4 percent, or $1,835 for equipment with an average cost of $130,000. This compares with an estimated engine price increase of about $1,754 for engines of that size. The largest expected price increase in 2013 for equipment is $4,335, or 4.9 percent, for pumps and compressors over 600 hp. This compares with an estimated engine price increase of about $4,211 for engines of that size. The smallest expected price increase in 2013 for equipment is $125, or 3.6 percent, for construction equipment less than 25 hp. This compares with an estimated engine price increase of about $124 for engines of that size. The price changes for the equipment are less than that for engines because the engine is only one input in the production of equipment.

The output reduction for nonroad diesel equipment is estimated to be very small and to average about 0.014 percent for all years. This decrease ranges from 0.005 percent for general manufacturing equipment to 0.019 percent for construction equipment. The largest expected decrease in quantity in 2013 is 13 units of construction equipment per year for construction equipment between 100 and 175 hp, out of about 62,800 units. The smallest expected decrease in quantity in 2013 is less than one unit per year in all hp categories of pumps and compressors.

TABLE V.F–1.—SUMMARY OF MARKET IMPACTS ($2001)

Market	Engineering cost	Change in price		Change in quantity	
	Per unit	Absolute ($million)	Percent	Absolute	Percent
2013					
Engines	$1,087	$840	22.9	−69 [a]	−0.013
Equipment	1,021	1,017	5.2	−118	−0.014
Application Markets [b]			0.02		−0.010
No. 2 Distillate Nonroad	0.039	0.038	4.1	−1.38 [c]	−0.013
2020					
Engines	$1,028	$779	19.5	−79 [a]	−0.013
Equipment	1,018	1,013	4.4	−135	−0.014
Application Markets [b]			0.02		−0.010
No. 2 Distillate Nonroad	0.039	0.039	4.1	−1.58 [c]	−0.014
2030					
Engines	$1,027	$768	19.4	−92 [a]	−0.013
Equipment	1,004	999	4.5	−156	−0.014
Application Markets [b]			0.02		−0.010
No. 2 Distillate Nonroad	0.039	0.039	4.1	−1.84 [c]	−0.014

Notes:

[a] The absolute change in the quantity of engines represents only engines sold on the market. Reductions in engines consumed internally by integrated engine/equipment manufacturers are not reflected in this number but are captured in the cost analysis. For this reason, the absolute change in the number of engines and equipment does not match.

[b] The model uses normalized commodities in the application markets because of the great heterogeneity of products. Thus, only percentage changes are presented.

[c] Units are in million of gallons.

Application Market Results: The estimated price increase associated with the proposed standards in all three of the application markets is very small and averages about 0.02 percent for all years. In other words, on average, the prices of goods and services produced using the engines, equipment, and fuel affected by this proposal are expected to increase only negligibly. This is because in all of the application markets the compliance costs passed on through price increases represent a very small share of total production costs. For example, the construction industry realizes an increase in production costs of approximately $468 million in 2013 because of the price increases for diesel equipment and fuel. However, this represents only 0.03 percent of the $1,392 billion value of shipments in the construction industry in 2001. The estimated average commodity price increase in 2013 ranges from 0.06 percent in the agricultural application market to about 0.01 percent in the manufacturing application market. The percentage change in output is also estimated to be very small and averages about 0.01 percent. This reduction ranges from less than a 0.01 percent decrease in manufacturing to about a 0.02 percent decrease in construction. Note that these estimated price increases and quantity decreases are average for these sectors and may vary for specific subsectors. Also, note that absolute changes in price and quantity are not provided for the application markets in Table V.F–1 because normalized commodity values are used in the market model. Because of the great heterogeneity of manufactured or agriculture products, a normalized commodity ($1 unit) is used in the application markets. This has no impact on the estimated percentage change impacts but makes interpretation of the absolute changes less informative.

Fuel Markets Results: The estimated average price increase across all nonroad diesel fuel is about 4 percent for all years. For 15 ppm fuel, the estimated price increase for 2013 ranges from 3.2 percent in the East Coast region (PADD 1&3) to 9.3 percent in the mountain region (PADD 4). The average

national output decrease for all fuel is estimated to be about 0.01 percent for all years, and is relatively constant across all four regional fuel markets.

b. Expected Welfare Impacts

Social cost impact estimates are presented in Table V.F–2. A time series of social costs from 2007 through 2030 is presented in Table IV.F–3. As described above, the total social cost of the regulation is the sum of the changes in producer and consumer surplus estimated by the model plus engine maintenance savings (negative costs) resulting from using fuel with a lower sulfur content. Total social costs in 2013 are projected to be 1,202.4 million ($2001). About 82 percent of the total social costs is expected to be borne by producers and consumers in the application markets, indicating that the majority of the costs are expected to be passed on in the form of higher prices. When these estimated impacts are broken down, 58 percent are expected to be borne by consumers in the application markets and 42 percent are expected to be borne by producers in the application markets. Equipment manufacturers are expected to bear about 10 percent of the total social costs. Engine manufacturers and diesel fuel refineries are expected to bear 2.5 percent and 0.5 percent, respectively. The remaining 5.0 percent is accounted for by fuel marker costs and the additional costs of 15 ppm fuel being sold in to markets such as marine diesel, locomotive, and home heating fuel that do not require it.

In 2030, the total social costs are projected to be about $1,509.6 million ($2001). The increase is due to the projected annual growth in the engine and equipment populations. As in earlier years, producers and consumers in the application markets are expected to bear the large majority of the costs, approximately 94 percent. This is consistent with economic theory, which states that, in the long run, all costs are passed on to the consumers of goods and services.

The present value of total social costs through 2030 is estimated to be $16.5 billion ($2001). This present value is calculated using a social discount rate of 3 percent from 2004 through 2030. We also performed an analysis using an alternative 7 percent social discount rate. Using that discount rate, the present value of the social costs through 2030 is estimated to be $9.9 billion ($2001).

TABLE V.F–2.—SUMMARY OF SOCIAL COSTS ESTIMATES ASSOCIATED WITH PRIMARY PROGRAM: 2013, 2020, AND 2030

[$million][a,b]

	Maximum cost year (2013)			Year 2020			Final year (2030)		
	Market surplus ($10^6)	Operating savings ($10^6)	Total	Market surplus ($10^6)	Operating savings ($10^6)	Total	Market surplus ($10^6)	Operating savings ($10^6)	Total
Engine Producers									
Total	30.2	.....	30.2	0.1	.....	0.1	0.1	.....	0.1
Equipment Producers									
Total	116.1	.....	116.1	102.6	.....	102.6	5.3	.....	5.3
Agricultural Equipment	39.9	.....	39.9	33.2	.....	33.2	1.3	.....	1.3
Construction Equipment	53.0	.....	53.0	48.2	.....	48.2	3.8	.....	3.8
Industrial Equipment	23.2	.....	23.2	21.2	.....	21.2	0.2	.....	0.2
Application Producers and Consumers									
Total	1,231.8	(241.9)	989.8	1,386.5	(190.1)	1,196.3	1,598.9	(174.5)	1,424.5
Total Producer	515.7	.....	.....	583.4	.....	.....	672.9	.....	.....
Total Consumer	716.1	.....	.....	803.1	.....	.....	926.0	.....	.....
Agriculture	348.7	(44.7)	304.0	339.2	(35.2)	364.0	416.5	(32.3)	429.2
Construction	468.3	(77.9)	390.4	550.4	(61.2)	489.3	635.7	(56.1)	579.5
Manufacturing	414.8	(119.3)	295.5	436.8	(93.8)	343.0	501.8	(86.0)	415.7
Fuel Producers Total	7.8	.....	7.8	9.0	.....	9.0	10.5	.....	10.5
PADD I&III	3.6	.....	3.6	4.1	.....	4.1	4.8	.....	4.8
PADD II	2.9	.....	2.9	3.3	.....	3.3	3.9	.....	3.9
PADD IV	0.8	.....	0.8	0.9	.....	0.9	1.0	.....	1.0
PADD V	0.5	.....	0.5	0.6	.....	0.6	0.8	.....	0.8
Nonroad Spillover	.....	51.2	.....	.....	58.6	.....	.....	69.2	
Marker Costs	.....	7.3	.....	.....	.....	.....	.....	.....	.....
Total	1,385.8	(183.4)	1,202.4	1,498.2	(131.5)	1,366.7	1,614.9	(105.3)	1,509.6

Notes:
[a] Figures are in 2001 dollars.
[b] Operating savings are shown as negative costs.

TABLE IV.F–3—NATIONAL ENGINEERING COMPLIANCE COSTS AND SOCIAL COSTS ESTIMATES FOR THE PROPOSED RULE: 2004–2030

[$10 6] [a]

Year	Engineering compliance costs	Total social costs[b]
2004	0.00	0.00
2005	0.00	0.00
2006	0.00	0.00
2007	39.61	39.61
2008	130.41	130.40
2009	132.25	132.25
2010	262.02	262.01
2011	641.12	641.07
2012	1,010.37	1,010.27
2013	1,202.52	1,202.40
2014	1,329.14	1,329.01
2015	1,260.74	1,260.62
2016	1,298.40	1,298.27
2017	1,318.75	1,318.62
2018	1,325.02	1,324.89
2019	1,339.30	1,339.16
2020	1,366.79	1,366.66
2021	1,351.08	1,350.94
2022	1,349.58	1,349.44
2023	1,365.53	1,365.38
2024	1,371.60	1,371.45
2025	1,395.98	1,395.83
2026	1,419.79	1,419.64
2027	1,442.91	1,442.76
2028	1,465.41	1,465.26
2029	1,487.68	1,487.53
2030	1,509.77	1,509.61
NPV at 3%	16,524.29	16,522.66
NPV at 7%	9,894.02	9,893.06

Notes:
[a] Figures are in 2001 dollars.
[b] Figures in this column do not include the human health and environmental benefits of the proposal.

VI. Alternative Program Options

Our proposed emission control program consists of a two-step program to reduce the sulfur content of nonroad diesel fuel in conjunction with the proposed Tier 4 engine standards. As we developed this proposal, we evaluated a number of alternative options with regard to the scope, level, and timing of the standards. This section presents a summary of our analysis of several alternative control scenarios. A complete discussion of all the alternatives, their feasibility, and their inventory, benefits, and cost impacts can be found in Chapter 12 of the draft Regulatory Impact Analysis for this proposal.

While we are interested in comments on all of the alternatives presented, we are especially interested in comments on two alternative scenarios which EPA believes merit further consideration in developing the final rule: a program in which sulfur levels are required to be reduced to 15 ppm in essentially a single step, and a variation on the proposed two-step fuel control program, in which the second step of sulfur control to 15 ppm in 2010 would apply to locomotive and marine diesel fuel in addition to nonroad diesel fuel. This section describes these two options in greater detail; additional information can be found in Chapter 12 of the draft Regulatory Impact Analysis for this proposal.

A. Summary of Alternatives

We developed emissions, benefits, and cost analyses for a number of alternatives. The alternatives we considered can be categorized according to the structure of their fuel requirements: whether the 15 ppm fuel sulfur limit is reached in two-steps, like the proposed program, or one-step.

One-step alternatives are those in which the fuel sulfur standard is applied in a single step: there are no fuel-based phase-ins. We evaluated three one-step alternatives. Option 1 is described in detail in Section VI.B, below. We considered two other one-step alternatives which differ from Option 1 in the timing of the fuel option (2006 or 2008) and the engines standards (level of the standards and when they are introduced). As described in Table IV–1, Option 1b differs from Option 1 regarding the timing of the fuel standards, while Option 1a differs from Option 1 in terms of the engine standards. Both Option 1a and 1b would also extend the 15 ppm fuel sulfur limit to locomotive and marine diesel fuel as well.

Two-step alternatives are those in which the fuel sulfur standard is set first at 500 ppm and then is reduced to 15 ppm. The two-step alternatives vary from the proposal in terms of both the timing and levels of the engine standards and the timing of the fuel standards. Option 2a is the same as the proposed program except the 500 ppm fuel standard is introduced a year earlier, in 2006. Option 2b is the same as the proposed program except the 15 ppm fuel standard is introduced a year earlier in 2009 and the trap-based PM standards begin earlier for all engines. Option 2c is the same as the proposed program except the 15 ppm fuel standard is introduced a year earlier in 2009 and the trap-based PM standards begin earlier for engines 175–750 hp. Option 2d is the same as the proposed program except the NO_X standard is reduced to 0.30 g/bhp-hr for engines 25–75 hp, and this standard is phased in. Finally, Option 2e is the same as the proposed program except there are no new Tier 4 NO_X limits.

Options 3 and 4 are identical to the proposed program, except Option 3 would exempt mining equipment over 750 hp from the Tier 4 standards, and Option 4 would include applying the 15 ppm sulfur limit to both locomotive and marine diesel fuel. Option 4 is discussed in detail in Section IV.C, below.

Option 5a and 5b are identical to the proposal except for the treatment of engines less than 75 hp. Option 5a is identical to the proposal except that no new program requirements would be set in Tier 4 for engines under 75 hp. Instead Tier 2 standards and testing requirements for engines under 50 hp, and Tier 3 standards and testing requirements for 50–75 hp engines, would continue indefinitely. The Option 5b program is identical to the proposal except that for engines under 75 hp only the 2008 engine standards would be set. There would be no additional PM filter-based standard in 2013 for 25–75 hp engines, and no additional NO_X+NMHC standard in 2013 for 25–50 hp engines.

Table VI–1 contains a summary of a number of these alternatives and the expected emission reductions, costs, and monetized benefits associated with them in comparison to the proposal. These alternatives cover a broad range of possible approaches and serve to provide insight into the many other program design alternatives not expressly evaluated further. The analysis was done using a 3% discount rate. If we were to use another rate, the values would change but not to such a degree as to change our conclusions regarding the various options. A complete discussion of all the alternatives, their feasibility, and their inventory, benefits, and cost impacts can be found in Chapter 12 of the draft Regulatory Impact Analysis for this proposal.

TABLE VI-1 – SUMMARY OF ALTERNATIVE PROGRAM OPTIONS (INCREMENTAL TO THE PROPOSAL)

Option	Fuel Standards	Engine Standards	Estimated Relative Inventory Impacts[e] (NPV tons thru 2030; 3% discount)	Estimated Cost Impacts - $Billion (NPV thru 2030; 3%)	Estimated Benefits Stream - $Billion[e] (NPV thru 2030; 3%)
Proposal ***(inventory impacts, costs and benefits reported below for the options are compared to the proposal)***					
	• 500 PPM in 2007 for NR, loco/marine • 15 ppm in 2010 NR only	• >25 hp: PM AT introduced 2013 • >75 hp: NOx AT introduced and phased-in 2011-2013 • <25 hp: PM stds in 2008 • 25-75 hp: PM stds in 2008 (optional for 50-75 hp)	Relative to baseline: 1,126,000 PM 4,952,000 SO2 5,591,000 NOx+NMHC	$16.7	$550[b]
1-Step Fuel Options					
1	• 15 ppm in 2008 for NR only • 500 ppm in 2008 for loco/marine	• < 50 hp: PM stds only in 2009 • 25-75 hp: PM AT stds and EGR or equivalent NOx technology in 2013; no NOx AT • >75 hp: PM AT stds phasing in beginning in 2009; NOx AT phasing in beginning in 2011	6,000 PM -191,000 SO2 11,000 NOx+NMHC	$1.7[d]	$.2[b]
1a	• 15 ppm in 2008 for NR, loco/marine	• PM AT introduced in 2009-10 • NOx AT introduced in 2011-12	129,000 PM -63,000 SO2 1,843,000 NOx+NMHC	a	$59
1b	• 15 ppm in 2006 for NR, loco/marine	Same as 1a	a		
2-Step Fuel Options					
2a	Same as proposal except – • 500 ppm in 2006 for NR, loco/marine	Same as proposal	18,000 PM 228,000 SO2 0 NOx+NMHC	a	$7[b]
2b	Same as proposal except – • 15 ppm in 2009 for NR	Same as proposal except – • Move PM AT up 1 year for all engines > 25 hp (phase in starts 2010)	54,000 PM 17,000 SO2 36,000 NOx+NMHC	$1.2[d]	$16[b]

Option	Fuel Standards	Engine Standards	Estimated Relative Inventory Impacts[c] (NPV tons thru 2030; 3% discount)	Estimated Cost Impacts - $Billion (NPV thru 2030; 3%)	Estimated Benefits Stream - $Billion[e] (NPV thru 2030; 3%)
2c	Same as proposal except – • 15 ppm in 2009 for NR	Same as proposal except – • Move PM AT up 1 year for all engines 175-750 hp (phase in starts 2010)	20,000 PM 17,000 SO2 16,000 NOx+NMHC	$0.8[d]	$6[b]
2d	• Same as proposal	Same as proposal except – • Phase-in NOx AT for 25-75hp beginning in 2013	0 PM 0 SO2 751,000 NOx+NMHC	a	$10[b]
Other Options					
3	• Same as proposal	Same as proposal except – • Mining equipment over 750 hp left at Tier 2	-30,000 PM 0 SO2 -751,000 NOx+NMHC	-$0.5	-$18[b]
4	Same as proposal except – • loco/marine fuel to 15 ppm in 2010	Same as proposal	9,000 PM 114,000 SO2 0 NOx+NMHC	$1.8	$6[b]
5a	• Same as proposal	Same as proposal except- • No Tier 4 standards <75 hp	-209,000 PM 0 SO2 -334,000 NOx+NMHC	-$3.8	-$70
5b	• Same as proposal	Same as proposal except- • No new <75hp standards after 2008 (i.e., no CDPFs in 2013)	-121,000 PM 0 SO2 -333,000 NOx+NMHC	-$2.6	-$43

Notes:

[a] Qualitative analysis only. Option is impractical due to infeasibility or other significant concerns. See the draft RIA for a detailed discussion

[b] By benefits transfer method

[c] Net Present (2004) Value impacts through 2030, using a 3% discount rate, relative to the proposed program. Positive values mean that the Option produces greater emission reductions from baseline than the proposed program.

[d] Cost estimates do not include the costs due to potential for limited product offerings and market disruptions in the engine/equipment and/or fuel markets. See Section V of this preamble and the draft FIA for a detailed discussion.

[e] Benefits do not include CO, VOC, air toxics, ozone, and PM welfare benefits. See Section V.F of this preamble and the draft RIA for additional discussion.

B. Introduction of 15 ppm Nonroad Diesel Sulfur Fuel in One Step

EPA carefully evaluated and is seeking comment on alternative regulatory approaches. Instead of the proposed two-step reduction in nonroad diesel sulfur, one alternative would require that the nonroad diesel sulfur level be reduced to 15ppm beginning June 1, 2008. This alternative would have the advantage of enabling use of high efficiency exhaust emission control technology for nonroad engines as early as the 2009 model year. It also would have several disadvantages which have prompted us not to propose it. The disadvantages in comparison to the proposal include inadequate lead-time for engine and equipment manufacturers and refiners, leading to increased costs and potential market disruptions. In this section, we describe this alternative in greater detail and discuss potential engine and fuel impacts. We also present our estimated emission and benefit impacts. Two other one-step fuel options which are variations of the alternative discussed in this section, Options 1a and 1b in Table VI–1, are presented in Chapter 12 of the draft RIA for this proposal.

1. Description of the One-Step Alternative

While numerous engine standards and phase-in schedules are possible, we considered the standards shown in Tables VI–2 and VI–3 as being the most stringent one-step program that could be considered potentially feasible considering cost, lead-time, and other factors. These standards are similar to those in our proposed option, the primary difference being the generally earlier phase-in dates for the PM standards.

TABLE VI–2.—PM STANDARDS FOR 1-STEP FUEL SCENARIO

[g/bhp–hr]

Engine power	Model year					
	2009	2010	2011	2012	2013	2014
hp < 25	0.30	.....	.....	.....	.....	.....
25 ≤ hp <50	10.22	.....	.....	.....	0.02	.....
50 ≤ hp <75	.....	.....	.....	.....	0.02	.....
75 ≤ hp <175	.....	.....	0.01	.....	.....	.....
	.....	[a] 50%	[a] 50%	[a] 100%	.....	.....
175 ≤ hp <750	.....	0.01	.....	.....	.....	.....
	[a] 50%	[a] 50%	[a] 100%	.....	.....	.....
hp ≥ 750	.....	.....	.....	.....	0.01	.....
	.....	.....	[a] 50%	[a] 50%	[a] 50%	[a] 100%

Notes:
[a] Percentages are the model year sales required to comply with the indicated standard.

TABLE VI–3.—NO_X AND NMHC STANDARDS FOR 1-STEP FUEL SCENARIO

[g/bhp–hr]

Engine power	Model year			
	2011	2012	2013	2014
25 ≤ hp < 75	.....	.....	[a] 3.5	.....
75 ≤ hp <175		0.30 NO_X 0.14 NMHC		
		[b] 50%	[b] 50%	[b] 100%
175 ≤ hp <750	0.30 NO_X 0.14 NMHC			
	[b] 50%	[b] 50%	[b] 50%	[b] 100%
hp ≥750	0.30 NO_X 0.14 NMHC			
	[b] 50%	[b] 50%	[b] 50%	[b] 100%

Notes:
[a] A 3.5 NMHC + NO_X standard would apply to the 25–50 hp engines. Engines greater than 50hp are already subject to this standard in 2008 under the existing Tier 3 program.
[b] Percentages are the model year sales required to comply with the indicated standards.

2. Engine Emission Impacts

The main advantage associated with this one-step approach is pulling ahead the long-term PM engine standards. By making 15 ppm sulfur fuel widely available by late 2008, we could accelerate the long-term PM engine standards, leading to the introduction of precious metal catalyzed PM traps as early as 2009, two years earlier than possible under the two-step sulfur reduction approach. Some stakeholders have expressed the concern that a two-step approach leads to later than desired introduction of high-efficiency exhaust emissions controls on nonroad diesels because this cannot happen until the 15 ppm fuel standard goes into effect. As shown in Table VI–1, there would be additional public health benefits associated with this one-step approach. However, in comparison to the proposal, the additional benefits are

relatively small, less than one percent or about $3 billion more than the proposed program.[295]

Even though 15 ppm fuel would be available beginning June 1, 2008 under this one-step approach, we do not believe it would be feasible to propose an aggressive turnover of new engines to trap-equipped versions in 2009. Nor would it be possible to introduce NO_X controls any earlier than we are already proposing, model year 2011. The proposed standards need to be coordinated with Tier 3 standards, and with the heavy duty highway diesel standards. The coordination of Tier 4 standards with Tier 3 standards and with the development of emissions control technology for highway diesel engines is of critical importance to successful implementation of the Tier 4 standards. Even those manufacturers who do not make highway engines are expected to gain substantially from the highway PM and NO_X control development work, provided they can plan for standards set at a similar level of stringency and timed in a way to allow for the orderly migration of highway engine technology to nonroad applications.

Thus, although the application of high-efficiency exhaust PM emission controls to nonroad diesels would be enabled with the introduction of 15 ppm sulfur nonroad fuel in 2008 under a one-step program, we believe that to require the application of PM controls across the wide spectrum of nonroad engines shortly thereafter would raise serious feasibility concerns that could only be resolved, if at all, through a very large additional R&D effort undertaken roughly in parallel with the similarly large highway R&D effort, a duplication of effort we wish to avoid for reasons discussed in Section III. Nonroad engine designers would need to accomplish much of this development well before the diesel experience begins to accumulate in earnest in 2007, in order to be ready for a 2009 first introduction date. Waiting until 2007 before initiating 2009 model year design work would risk the possibility of product failures, limited product availability and major market disruptions. At the same time, for those engine manufacturers who participate in both the highway and nonroad diesel engine markets, attempting to have concurrent engine product developments for highway and nonroad, could result in the possibility of product failures, limited product availability and major disruptions for the highway market as well. Thus, in balancing their costs and burden, many manufacturers may be forced to choose which products would be available for 2009 and which products would be delayed for release. Manufacturers would also incur large additional costs to redesign hundreds of engine models and thousand of machine types to meet Tier 4 standards only one to three years after Tier 3 standards take effect in 2006–2008. These cost impacts are reflected in Table VI–1 and their derivation is explained in chapter 12 of the draft RIA. This extra expenditure could only be modestly mitigated by phasing in the standards, since a crash R&D effort with limited benefit from highway experience would still be necessary.

Moreover, with respect to NO_X, it would be impractical or simply infeasible to pull the standards ahead on the same schedule. This is because EPA's highway diesel program allows manufacturers to phase in NO_X technology over 2007–2010. As a result, we do not expect that the high-efficiency NO_X control technology could reasonably be applied to nonroad engines any earlier under a one-step program than under a two-step program (*i.e.*, beginning in 2011).

In summary, this option would lead us to apply PM and NO_X standards in two different model years, or else forgo any opportunity to apply PM traps in 2009. Redesigning engines and emission controls for early PM control and then again a couple of years later for NO_X control, on top of shortened Tier 3 stability periods, would likely add substantial costs to the program. As manufacturers attempt to avoid these costs and optimize their development they may simply have to restrict product offerings for some period, leading to price spikes and shortages due to lack of product availability. Having the NO_X and PM standards phase in simultaneously under our proposed approach avoids cost and design stability issues for both engine and equipment manufacturers. In addition, the longer leadtime for the engine standards under our proposed program will allow greater economic efficiencies for engine manufacturers as they transfer highway emission reduction technology to nonroad engines.

3. Fuel Impacts

In addition to the challenges associated with pulling ahead the PM standards described above, there are also some concerns regarding the practicality of an early 15 ppm nonroad diesel sulfur standard. A one-step approach may result in several economic inefficiencies that would increase the cost of the program. For example, refiners will have little opportunity to take advantage of the newer desulfurization technologies currently being developed. As described in sections IV and V, refiners will only begin to be able to take advantage of these new technologies in 2008. By 2010, the ability to incorporate them into their refinery modifications is expected to double. If refiners have to take steps to reduce the sulfur content of nonroad diesel fuel earlier, they will likely have to use more expensive current technology. The cost impacts of this decision will persist, since the choice of technology is a long term decision. If a refiner is forced by the effective date of the standards to employ a more expensive technology, that choice will affect that refiner's output indefinitely, since the cost of upgrading to the new technologies will be prohibitive. As presented in section 5.2 of the Draft RIA, we estimate that the costs of achieving a 15 ppm standard in 2008 is approximately 0.4 c/gal greater than for the proposal. While difficult to quantify there are also considerable advantages to allowing refiners some operating time in producing 15 ppm diesel fuel for the highway program prior to requiring them to solidify their designs for producing nonroad diesel fuel to 15 ppm. The primary advantage is that the design of desulfurization equipment used to produce 15 ppm nonroad diesel fuel can reflect the operating experience of the equipment used to produce 15 ppm highway diesel fuel starting in 2006. This extra time would also provide current refiners of high sulfur diesel fuel with highly confident estimates of the cost of producing 15 ppm diesel fuel, reducing uncertainty and increasing their likelihood of investing to produce this fuel. With a start date of June 1, 2008 refiners would have to solidify their designs and start construction prior to getting any data on the performance of their highway technology. This would increase the cost of producing 15 ppm nonroad diesel fuel for the life of the new desulfurization equipment, as well as potentially delaying some refiners' decision to invest in new desulfurization equipment due to uncertainties in cost, performance, etc.

[295] A variation on this one-step approach would be to also require the sulfur content of locomotive and marine fuel to meet the 15 ppm standard in 2008. The decision of whether or not to require the sulfur content of locomotive and marine fuel to also be reduced to 15 ppm, however, is not unique to the one step approach, and, as discussed below is an alternative also being evaluated under our proposed 2-step program. Were we to require locomotive and marine diesel fuel to also meet the 15 ppm standard in 2008 under a one-step approach, there would be additional inventory reductions of about 10,000 tons of PM and 128,000 tons of SO_3 (NPV 3% through 2030).

4. Emission and Benefit Impacts

We used the nonroad model to estimate the emission inventory impacts associated with this one-step option, as well as the other options listed in Table VI–1. As for all the alternatives, we then used the benefits transfer method to estimate the monetized benefits of the alternative.[296] The results are shown in Table VI–1. As is evidenced by the values in Table VI–1, the one-step alternative would achieve slightly greater PM and NO_X emission reductions through 2030 than the proposed 2-step program, with 6,000 and 11,000 additional tons reduced, respectively (or less than 0.5 percent). Unlike the proposed 2-step program, however, there would be no SO_2 emission reductions in 2007 due to the delay in fuel sulfur control, although 2009 and later emission are slightly greater due primarily to the earlier introduction of engines using PM filters. Nevertheless, the SO_2 benefits of the one-step program are slightly less than the proposed 2-step program in the long run, by about 191,000 tons (about 4 percent) through 2030.

After careful consideration of these matters, we have decided to propose the two-step approach in today's notice. The two-step program avoids adverse risks to the smooth implementation of the entire Tier 4 nonroad program that could be caused by the significantly shortened lead-time and stability of the one-step program. There are also concerns about the potential negative impacts the one-step option may have on the 2007 highway program, including the implications of the overlap of implementation schedules (see above and Chapter 12 of the draft RIA). Nevertheless, we believe that the one-step approach is a regulatory alternative worth considering. In addition to seeking comment on our proposed program, we also seek comment on the relative merits and shortcomings of a one-step approach to regulating nonroad diesel fuel and the associated schedule for implementing the engine standards.

C. Applying 15 ppm Requirement to Locomotive and Marine Diesel Fuel

To enable the high efficiency exhaust emission control technology to begin to be applied to nonroad diesel engines beginning with the 2011 model year, we are proposing that all nonroad diesel fuel produced or imported after June 1, 2010 would have to meet a 15 ppm sulfur cap. Although locomotive and marine diesel engines are similar in size to some of the diesel engines covered in this proposal, there are many differences that have caused us to treat them separately in past EPA programs.[297] These include differences in duty cycles and exhaust system design configurations, size, and rebuild and maintenance practices. Because of these differences, we are not proposing new engine standards today for these engine categories. Since we are not proposing more stringent emission standards, we are also not proposing that the second step of sulfur control to 15 ppm in 2010 be applied to locomotive and marine diesel fuel. Instead, we are proposing to set a sulfur fuel content standard of 500 ppm for diesel fuel used in locomotive and marine applications. This fuel standard is expected to provide considerable sulfate PM and SO_2 benefits even without establishing more stringent emission standards for these engines. We estimate that, cumulatively through 2030, reducing the sulfur content of locomotive and marine diesel fuel would eliminate about 102,000 tons of sulfate PM (net present value, based on a 3 percent discount rate).

As discussed in section IV, we are seriously considering the option of extending the 15 ppm sulfur standard to locomotive and marine fuel as early as June 1, 2010, including them in the second step of the proposed two-step program. There are several advantages associated with this alternative. First, as reflected in Table VI–1, it would provide important additional sulfate PM and SO_2 emission reductions and the estimated benefits from these reductions would outweigh the costs by a considerable margin. Second, in some ways it would simplify the fuel distribution system and the design of the fuel program proposed today since a marker would not be required for locomotive and marine diesel fuel. Furthermore, the prices for locomotive and marine diesel fuel may be virtually unaffected. Under the proposal, we expect that a certain amount of marine fuel will be 15 ppm sulfur fuel regardless of the standard due to limitations in the production and distribution of unique fuel grades. Where 500 ppm fuel is available, the possible suppliers of fuel will likely be more constrained, limiting competition and allowing prices to approach that of 15 ppm fuel. If we were to bring locomotive and marine fuel to 15 ppm, the pool of possible suppliers could expand beyond those today, since highway diesel fuel will also be at the same standard. Third, it would help reduce the potential opportunity for misfueling of 2007 and later model year highway vehicles and 2011 and later model year nonroad equipment with higher sulfur fuel. Finally, it would allow refiners to coordinate plans to reduce the sulfur content of all of their nonroad, locomotive, and marine diesel fuel at one time. While in many cases this may not be a significant advantage, it may be a more important consideration here since it is probably not a question of whether locomotive and marine fuel must meet a 15 ppm cap, but merely when. As discussed in section IV, it is the Agency's intention to propose action in the near future to set new emission standards for locomotive and marine engines that could require the use of high efficiency exhaust emission control technology, and thus, also require the use of 15 ppm sulfur diesel fuel.[298] We anticipate that such engine standards would likely take effect in the 2011–13 timeframe, requiring 15 ppm locomotive and marine diesel fuel in the 2010–12 timeframe. We intend to publish an advance notice of proposed rulemaking for such standards by the Spring of 2004 and finalize those standards by 2007.

However, discussions with refiners have suggested there are significant advantages to leaving locomotive and marine diesel fuel at 500 ppm, at least in the near-term and until we set more stringent standards for those engines. The locomotive and marine diesel fuel markets could provide an important market for off-specification product, particularly during the transition to 15 ppm for highway and nonroad diesel fuel in 2010. Waiting just a year or two beyond 2010 would address the critical near-term needs during the transition. In addition, waiting just another year or two beyond 2010 is also projected to allow virtually all refiners to take advantage of the new lower cost technology.

After careful consideration of these matters, we have decided not to propose

[296] The results that were obtained for Option 1a were extrapolated based on the emission inventory changes to the proposed program and were obtained for the other alternatives by assuming the air quality changes between the alternative and the actual case run were small enough to allow for such extrapolation. An explanation of the benefits transfer method is contained in Chapter 9 of the draft RIA.

[297] Locomotives, in fact, are treated separately from other nonroad engines and vehicles in the Clean Air Act, which contains provisions regarding them in section 213(a)(5). Less than 50 hp marine engines were included in the 1998 final rule for nonroad diesel engines, albeit with some special provisions to deal with marine-specific engine characteristics and operating cycles.

[298] EPA established the most recent new standards for locomotives and marine diesel engines (including those under 50 hp) in separate actions (63 FR 18977, April 16, 1998, and 67 FR 68241, November 8, 2002).

to apply the second step of sulfur control of 15 ppm to locomotive and marine diesel fuel at this time. Nevertheless, for the reasons described above, we are carefully weighing whether it would be appropriate to do so. Therefore, we seek comment on this alternative and the various advantages, disadvantages, and implications of it.

D. Other Alternatives

We have also analyzed a number of other alternatives, as summarized in Table VI–1. Some of these focus on control options more stringent than our proposal while others reflect modified engine requirements that result in less stringent control. EPA has evaluated these options in terms of the feasibility, emissions reductions, costs, and other relevant factors. EPA believes the proposed approach is the proper one with respect to these factors, and believes the options discussed above while having possible merit in some areas, raise what we believe are different and significant concerns with respect to these factors compared to the proposed approach. Hence we did not include these options. These concerns are discussed in more detail in Chapter 12. These concerns are discussed in more detail in Chapter 12 of the draft RIA. Hence, we did not include these options as part of our proposal for nonroad fuel and engine controls. We are interested in comment on these alternatives, especially information regarding their feasibility, costs, and other relevant concerns.

VII. Requirements for Engine and Equipment Manufacturers

This section describes the regulatory changes proposed for the engine and equipment compliance program. First, the proposed regulations for Tier 4 engines have been written in plain language. They are structured to contain the provisions that are specific to nonroad CI engines in a new proposed part 1039, and to apply the general provisions of existing parts 1065 and 1068. The proposed plain language regulations, however, are not intended to significantly change the compliance program, except as specifically noted in today's notice (and we are not soliciting comment on any part of the rule that remains unchanged substantively). As proposed, these plain language regulations would only apply for Tier 4 engines. The changes from the existing nonroad program are described below along with other notable aspects of the compliance program.

A. Averaging, Banking, and Trading

1. Are We Proposing To Keep the ABT Program for Nonroad Diesel Engines?

EPA has included averaging, banking, and trading (ABT) programs in most mobile source emission control programs adopted in recent years. Our existing regulations for nonroad diesel engines include an ABT program (§ 89.201 through § 89.212). We are proposing to retain the basic structure of the existing nonroad diesel ABT program with today's notice, though we are proposing a number of changes to accommodate implementation of the proposed emission standards. Behind these changes is the recognition that the proposed standards represent a major technological challenge to the industry. The proposed ABT program is intended to enhance the ability of engine manufacturers to meet the stringent standards proposed today. The proposed program is also structured to limit production of very high-emitting engines and to avoid unnecessary delay of the transition to the new exhaust emission control technology.

We view the proposed ABT program as an important element in setting emission standards that are appropriate under CAA section 213 with regard to technological feasibility, lead time, and cost. The ABT program helps to ensure that the stringent standards we are proposing are appropriate under section 213(a) given the wide breadth and variety of engines covered by the standards. For example, if there are engine families that will be particularly costly or have a particularly hard time coming into compliance with the standard, this flexibility allows the manufacturer to adjust the compliance schedule accordingly, without special delays or exceptions having to be written into the rule. Emission-credit programs also create an incentive (for example, to generate credits in early years to create compliance flexibility for later engines) for the early introduction of new technology, which allows certain engine families to act as trailblazers for new technology. This can help provide valuable information to manufacturers on the technology before they apply the technology throughout their product line. This early introduction of clean technology improves the feasibility of achieving the standards and can provide valuable information for use in other regulatory programs that may benefit from similar technologies. Early introduction of such engines also secures earlier emission benefits.

In an effort to make information on the ABT program more available to the public, we intend to issue periodic reports summarizing use of the proposed ABT program by engine manufacturers. The information contained in the periodic reports would be based on the information submitted to us by engine manufacturers, and summarized in a way that protects the confidentiality of individual engine manufacturers. We believe this information will also be helpful to engine manufacturers by giving them a better indication of the availability of credits. Again, our periodic reports would not contain any confidential information submitted by individual engine manufacturers, such as sales figures. Also, the information would be presented in a format that would not allow such confidential information to be determined from the reports.

2. What Are the Provisions of the Proposed ABT Program?

The following section describes the changes proposed to the existing ABT program. In addition to those areas specifically highlighted, we are soliciting comments on all aspects of the proposed ABT changes, including comments on the need for and benefit of these changes to manufacturers in meeting the proposed emission standards.

The ABT program has three main components. Averaging means the exchange of emission credits between engine families within a given engine manufacturer's product line. (Engine manufacturers divide their product line into ''engine families'' that are comprised of engines expected to have similar emission characteristics throughout their useful life.) Averaging allows a manufacturer to certify one or more engine families at levels above the applicable emission standard, but below a set upper limit. However, the increased emissions must be offset by one or more engine families within that manufacturer's product line that are certified below the same emission standard, such that the average emissions from all the manufacturer's engine families, weighted by engine power, regulatory useful life, and production volume, are at or below the level of the emission standard. (The inclusion of engine power, useful life, and production volume in the averaging calculations is designed to reflect differences in the in-use emissions from the engines.) Averaging results are calculated for each specific model year. The mechanism by which this is accomplished is certification of the engine family to a ''family emission limit'' (FEL) set by the manufacturer, which may be above or below the standard. An FEL that is established

above the standard may not exceed an upper limit specified in the ABT regulations. Once an engine family is certified to an FEL, that FEL becomes the enforceable emissions limit for all the engines in that family for purposes of compliance testing. Averaging is allowed only between engine families in the same averaging set, as defined in the regulations.

Banking means the retention of emission credits by the engine manufacturer for use in future model year averaging or trading. Trading means the exchange of emission credits between nonroad diesel engine manufacturers which can then be used for averaging purposes, banked for future use, or traded to another engine manufacturer.

The existing ABT program for nonroad diesel engines covers NMHC+NO_X emissions as well as PM emissions. With today's notice we are proposing to make the ABT program available for the proposed NO_X standards and proposed PM standards. (For engines less than 75 horsepower where we are proposing combined NMHC+NO_X standards, the ABT program would continue to be available for the proposed NMHC+NO_X standards as well as the proposed PM standards.) ABT would not be available for the proposed NMHC standards for engines above 75 horsepower or for the proposed CO standards for any engines.

As noted earlier, the existing ABT program for nonroad diesel engines includes FEL caps—limits on how high the emissions from credit-using engine families can be. No engine family may be certified above these FEL caps. These limits provide the manufacturers compliance flexibility while protecting against the introduction of unnecessarily high-emitting engines. When we propose new standards, we typically propose new FEL caps for the new standards. In the past, we have generally set the FEL caps at the emission levels allowed by the previous standard, unless there was some specific reason to do otherwise. We are proposing to do otherwise here because the proposed standard levels in today's notice are so much lower than the current standards levels, especially the Tier 4 standards for engines above 75 horsepower. The transfer to new technology is feasible and appropriate. Thus, to ensure that the ABT provisions are not used to continue producing old-technology high-emitting engines under the new program, the proposed FEL caps would not, in general, be set at the previous standards. An exception is for the proposed NMHC+NO_X standard for engines between 25 and 50 horsepower effective in model year 2013, where we are proposing to use the previously applicable NMHC+NO_X standard for the FEL cap since the gap between the previous and proposed standards is approximately 40 percent (rather than 90 percent for engines above 75 horsepower).

For engines above 75 horsepower certified during the phase-in period, there would be two separate sets of engines with different FEL caps. For engines certified to the existing (Tier 3) NMHC+NO_X standards during the phase-in, the FEL cap would necessarily continue to be the existing FEL caps as adopted in the October 1998 rule. For engines certified to the proposed Tier 4 NO_X standard during the phase-in, the FEL cap would be 3.3 g/bhp-hr for engines between 75 and 100 horsepower, 2.8 g/bhp-hr for engines between 100 and 750 horsepower, and 4.6 g/bhp-hr for engines above 750 horsepower. These proposed NO_X FEL caps represent an estimate of the NO_X emission level that is expected under the combined NMHC+NO_X standards that apply with the existing previous tier standards. Beginning in model year 2014 when the proposed Tier 4 NO_X standard for engines above 75 horsepower take full effect, we are proposing a NO_X FEL cap of 0.60 g/bhp-hr for engines above 75 horsepower. (As described below, we are proposing to allow a small number of engines greater than 75 horsepower to have NO_X FELs above the 0.60 g/bhp-hr cap beginning in model year 2014.) Given the fact that the proposed Tier 4 NO_X standard is approximately a 90 percent reduction from the existing standards for engines above 75 horsepower, we do not believe the previous standard would be appropriate as the FEL cap for all engines once the Tier 4 standards are fully phased-in. We believe that the proposed NO_X FEL caps will ensure that manufacturers adopt NO_X aftertreatment technology across all of their engine designs (with the exception of a limited number) but will also allow for some meaningful use of averaging during the phase-in period. When compared to the proposed 0.30 g/bhp-hr NO_X standard, the proposed NO_X FEL cap of 0.60 g/bhp-hr (effective when the Tier 4 standards are fully phased-in) is consistent with FEL caps set in previous rulemakings.

For the transitional PM standards being proposed for engines between 25 and 75 horsepower effective in model year 2008 and for the Tier 4 PM standards for engines below 25 horsepower, we are proposing the previously applicable Tier 2 PM standards (which do vary within the 25 to 75 horsepower category) for the FEL caps since the gap between the previous and proposed standards is approximately 50 percent (rather than in excess of 90 percent for engines above 75 horsepower). For the proposed Tier 4 PM standard effective in model year 2013 for engines between 25 and 75 horsepower, we are proposing a PM FEL cap of 0.04 g/bhp-hr, and for the proposed Tier 4 PM standard effective in model years 2011 and 2012 for engines between 75 and 750 horsepower, we are proposing a PM FEL cap of 0.03 g/bhp-hr. (As described below, we are proposing to allow a small number of Tier 4 engines greater than 25 horsepower to have PM FELs above these caps.) Given the fact that the proposed Tier 4 PM standards for engines above 25 horsepower are less than 10 percent of the previous standards, we do not believe the previous standards would be appropriate as FEL caps once the Tier 4 standards take effect. We believe that the proposed PM FEL caps will ensure that manufacturers adopt PM aftertreatment technology across all of their engine designs (except for a limited number of engines), yet will still provide substantial flexibility in meeting the standards.

For the proposed Tier 4 PM standards for engines above 750 horsepower there is a phase-in period during model years 2011 through 2013. During the phase-in period, there would be two separate sets of engines with different FEL caps. For engines certified to the existing Tier 2 PM standard, the FEL cap would continue to be the existing PM FEL cap adopted in the October 1998 rule. For engines certified to the proposed Tier 4 PM standard during the phase-in, the FEL cap would be 0.15 g/bhp-hr (the PM standard for the previous tier). Beginning in model year 2014, when the proposed Tier 4 PM standard for engines above 750 horsepower takes full effect, consistent with the proposed caps for lower horsepower categories, we are proposing a PM FEL cap of 0.03 g/bhp-hr. (As described below, we are proposing to allow a small number of engines greater than 750 horsepower to have PM FELs above the 0.03 g/bhp-hr cap beginning in model year 2014.) We believe that the proposed PM FEL caps for engines above 750 horsepower will ensure that manufacturers adopt PM aftertreatment technology across all of their engine designs once the standard is fully phased-in (with the exception of a limited number) while allowing for some meaningful use of averaging during the phase-in period.

Table VII.A–1 contains the proposed FEL caps and the effective model year

for the FEL caps (along with the associated standards proposed for Tier 4). We request comment on the need for and the levels of these proposed FEL caps. It should be noted that for Tier 4, where we are proposing a new transient test, as well as retaining the current steady-state test, the FEL established by the engine manufacturer would be used as the enforceable limit for the purpose of compliance testing under both test cycles. In addition, under the NTE requirements, the FEL times the appropriate multiplier would be used as the enforceable limit for the purpose of such compliance testing.

TABLE VII.A–1.—PROPOSED FEL CAPS FOR THE PROPOSED TIER 4 STANDARDS IN THE ABT PROGRAM

[g/bhp-hr]

Power category	Effective model year	NO_X standard	NO_X FEL cap	PM standard	PM FEL cap
hp < 25 (kW < 19)	2008+	([a])	([a])	[b] 0.30	0.60
25 ≤ hp < 50 (19 ≤ kW < 37)	2008–2012	([a])	([a])	0.22	0.45
25 ≤ hp < 50 (19 ≤ kW < 37)	2013+[d]	[e] 3.5	5.6 [e]	0.02	[f] 0.04
50 ≤ hp < 75 (37 ≤ kW < 56)	2008–2012	([a])	([a])	0.22	0.30
50 ≤ hp < 75 (37 ≤ kW < 56)	2013+	([a])	([a])	0.02	[f] 0.04
75 ≤ hp <175 (56 ≤ kW <130)	2012–2013 [g]	0.30	3.3 for hp < 100 2.8 for hp ≥ 100.	0.01	[f] 0.03
75 ≤ hp <175 (56 ≤ kW <130)	2014+	0.30	0.60 [f]	0.01	[f] 0.03
175 ≤ hp ≤750 (130 ≤ kW ≤560)	2011–2013	0.30	2.8	0.01	[f] 0.03
175 ≤ hp ≤750 (130 ≤ kW ≤560)	2014+	0.30	0.60 [f]	0.01	[f] 0.03
hp >750 (kW >560)	2011–2013	0.30	4.6	0.01	0.15
hp >750 (kW >560)	2014+	0.30	0.60 [f]	0.01	[f] 0.03

Notes:

[a] The existing NMHC+NO_X standard and FEL cap apply (see CFR Title 40, section 89.112).

[b] A PM standard of 0.45 g/bhp-hr would apply to air-cooled, hand-startable, direct injection engines under 11 horsepower, effective in 2010.

[c] The proposed FEL caps do not apply if the manufacturer elects to comply with the optional standards. The existing FEL caps continue to apply.

[d] FEL caps apply in model year 2012 if the manufacturer elects to comply with the optional standards.

[e] These are a combined NMHC+NO_X standard and FEL cap.

[f] As described in this section, a small number of engines are allowed to exceed these FEL caps.

[g] This period would extend through the first nine months of 2014 under the alternative, reduced phase-in requirement (see Section III.B.1. for a description of the proposed alternative).

As noted above, we are proposing to allow a limited number of engines to have a higher FEL than the caps noted in Table VII.A–1 in certain instances. Under this proposal, the allowance to certify up to these higher FEL caps would apply to Tier 4 engines at or above 25 horsepower. The provisions are intended to provide some limited flexibility for engine manufacturers as they transition to the stringent standards while ensuring that the vast majority of engines are converted to the advanced low-emission technologies expected under the Tier 4 program. This additional lead time appears appropriate, given the potential that a limited set of nonroad engines may face especially challenging difficulties in complying, and considering further that the same amount of overall emission reductions would be achieved through the need for credit-generating nonroad engines.

Beginning the first year Tier 4 standards apply in each power category above 25 horsepower, an engine manufacturer would be allowed to certify up to ten percent of its engines in each power category with PM FELs above the caps shown in Table VII.A–1. The PM FEL cap for such engines would instead be the applicable previous tier PM standard. The ten percent allowance would be available for the first four years the Tier 4 standards apply. For the power categories in which we are proposing a phase-in requirement for the Tier 4 NO_X standards, the allowance to use a higher FEL cap would apply only to PM during the phase-in years. Once the phase-in period is complete, the allowance would apply to NO_X as well. (For engines above 750 horsepower, where we are proposing a phase-in for both NO_X and PM, the allowance to use a higher FEL cap would not take effect until model year 2014 when the phase-in was complete.)

After the fourth year the Tier 4 standards apply, the allowance to certify engines using the higher FEL caps would still be available but for no more than five percent of a manufacturer's engines in each power category. (For the power category between 25 and 75 horsepower, this allowance would apply beginning with the 2013 model year and would apply to PM. The allowance to use the higher FEL caps is not necessary for the 2008 proposed standards or the 2013 proposed NMHC+NO_X standards because the FEL caps for those standards are set at the previously applicable tier standards.)

Table VII.A–2 presents the model years, percent of engines, and higher FEL caps that would apply under this allowance. Because the engines certified with the higher FEL caps are certified to the Tier 4 standards (albeit through the use of credits), they would be considered Tier 4 engines and all other requirements for Tier 4 engines would also apply, including the Tier 4 NMHC standard. We invite comment on whether additional provisions may be necessary for the limited number of engines certified to the higher FELs, including whether an averaging program for NMHC would be needed.

TABLE VII.A–2.—ALLOWANCE FOR LIMITED USE OF AN FEL CAP HIGHER THAN THE TIER 4 FEL CAPS

Power category	Model years	Engines allowed to have higher FELs	NO_X FEL cap (g/bhp-hr)	PM FEL cap (g/bhp-hr)
25 ≤ hp <75 (19 ≤ kW < 56)	2013–2016	10	Not applicable	0.22.
	2017+	5		
75 ≤ hp <175 (56 ≤ kW <130)	2012–2013[a]	10	Not applicable	0.30 for hp <100.
	2014–2015	10	3.3 for hp <100	0.22 for hp ≥100.
	2016+	5	2.8 for hp ≥100	
175 ≤ hp ≤750 (130 ≤ kW ≤ 560)	2011–2013	10	Not applicable	0.15.
	2014	10	2.8	
	2015+	5		
hp >750 (kW > 560)	2014–2017	10	4.6	0.15.
	2018+	5		

[a] This period would extend through the first nine months of 2014 under the alternative, reduced phase-in requirement (see Section III.B.1. for a description of the proposed alternative).

We request comment on the proposed provisions to allow higher FELs on a limited number of Tier 4 engines, including whether the proposed allowance limits of 10 percent and 5 percent have been set at the right levels and whether the allowance to use a higher FEL cap is appropriate for the Tier 4 program. We also request comment on allowing manufacturers to use the allowances in a slightly different manner over the first four years. Instead of allowing manufacturers to certify up to ten percent for each of the first four years, manufacturers could certify up to 40 percent of one year's production but spread it out over four years in an unequal manner (*e.g.*, 15 percent in the first and second years, and 5 percent in the third and fourth years). Last of all, we request comment on whether the allowance should be available for NO_X during the years we a proposing a phase-in for the Tier 4 NO_X standards. As proposed, we would not cover NO_X during the phase-in years because manufacturers already can certify up to 50 percent of their engines to the Tier 3 NMHC+NO_X standards.

Under the proposed Tier 4 program, for engines above 75 horsepower there will be two different groups of engines during the phase-in period. In one group, engines would certify to the applicable Tier 3 NMHC+NO_X standard (or Tier 2 standard for engines above 750 horsepower), and would be subject to the ABT restrictions and allowances previously established for those tiers. In the other group, engines would certify to the 0.30 g/bhp-hr NO_X standard, and would be subject to the restrictions and allowances in this proposed program. While engines in each group are certified to different standards, we are proposing to allow manufacturers to transfer credits across these two groups of engines with the following adjustment. As proposed, manufacturers could use credits generated during the phase-out of engines subject to the Tier 3 NMHC+NO_X standard (or Tier 2 NMHC+NO_X standard for engines above 750 horsepower) to average with engines subject to the 0.30 g/bhp-hr NO_X standard, but these credits will be subject to a 20 percent discount. In other words, each gram of NMHC+NO_X credits from the phase-out engines would be worth 0.8 grams of NO_X credits in the new ABT program. The ability to average credits between the two groups of engines will give manufacturers a greater opportunity to gain experience with the low-NO_X technologies before they are required to meet the final Tier 4 standards across their full production. (The 20 percent discount would also apply to NMHC+NO_X credits generated on less than 75 horsepower engines and used for averaging purposes with the NO_X standards for engines greater than 75 horsepower.)

We are proposing the 20 percent discount for two main reasons. First, the discounting addresses the fact that NMHC reductions can provide substantial NMHC+NO_X credits, which are then treated as though they were NO_X credits. For example, a 2010 model year engine (between 175 and 750 horsepower) emitting at 2.7 g/bhp-hr NO_X and 0.3 g/bhp-hr NMHC meets the 3.0 g/bhp-hr NMHC+NO_X standard in that year, but gains no credits. In 2011, that engine, equipped with a PM trap to meet the new PM standard, will have very low NMHC emissions because of the trap, an emission reduction already accounted for in our assessment of the air quality benefit of this program. As a result, without substantially redesigning the engine to reduce NO_X or NMHC, the manufacturer could garner a windfall of nearly 0.3 g/bhp-hr of NMHC+NO_X credit for each of these engines produced. (Engines designed at lower NO_X levels than this in 2010 can gain even more credits.) Allowing these NMHC-derived credits to be used undiscounted to offset NO_X emissions on the phase-in engines in 2011 (for which each 0.1 g/bhp-hr of margin can make a huge difference in facilitating the design of engines to meet the 0.30 g/bhp-hr NO_X standard) would be inappropriate. Second, the discounting would work toward providing a net environmental benefit from the ABT program, such that the more that manufacturers use banked and averaged credits, the greater the potential emission reductions overall.

Some foreign engine manufacturers have commented that it is difficult for them to accurately predict the number of engines that eventually end up in the U.S., especially when they sell to a number of different equipment manufacturers who may import equipment. This would make it difficult for the engine manufacturer to ensure they are complying with the proposed NO_X phase-in requirements for engines above 75 horsepower and the proposed PM phase-in requirements for engines above 750 horsepower. Therefore, we are proposing to allow engine

manufacturers to demonstrate compliance with the NO_X phase in requirements for engines above 75 horsepower and the PM phase in requirements for engines above 750 horsepower by certifying ''split'' engine families (*i.e.*, an engine family that is split into two equal-sized subfamilies, one that generates a number of credits and one that uses an equal number of credits). In order to facilitate compliance with the proposed standards, we are proposing that this option be available to all engine manufacturers (*i.e.*, both foreign and domestic manufacturers). Manufacturers would be allowed to certify split engine families with FELs no higher than the levels specified in Table VII.A–3. The maximum NO_X FEL values specified in Table VII.A–3 were set at the level which would result in NO_X ABT credits from engines above the Tier 4 standards offsetting ABT credits from engines below the previously applicable NMHC+NO_X standards, including the 20 percent discount for using NMHC+NO_X credits on Tier 4 engines. The maximum PM FEL value for engines above 750 horsepower was set at the level halfway between the Tier 2 and proposed Tier 4 PM standard for engines above 750 horsepower. Manufacturers certifying split engine families would exclude those engines from end of the year ABT calculations (and therefore would not need to determine actual U.S. sales of such engine families for ABT credit calculation purposes). Manufacturers certifying split engine families would also exclude those engines from the calculations demonstrating compliance with the phase-in percentage requirements as well.

TABLE VII.A–3.—MAXIMUM FEL FOR ENGINE FAMILIES CERTIFIED AS ''SPLIT'' ENGINE FAMILIES

Power category	Pollutant	Maximum FEL, g/bhp-hr
75 ≤ hp >175 (56 ≤ kW <130).	NO_X	[a] 1.7
175 ≤ hp ≤750 (130 ≤ kW <560).	NO_X	1.5
hp >750 (kW >560).	NO_X	2.3
hp >750 (kW >560).	PM	0.08

Notes:

[a] A limit of 2.5 g/bhp-hr would apply under the alternative, reduced phase-in requirement (see Section III.B.1. for a description of the proposed alternative).

We are proposing one additional restriction on the use of credits under the ABT program. For the proposed Tier 4 standards we are proposing that manufacturers may only use credits generated from other Tier 4 engines or from engines certified to the previous tier of standards (*i.e.*, Tier 2 for engines below 50 horsepower, Tier 3 for engines between 50 and 750 horsepower, and Tier 2 engines above 750 horsepower). (As discussed in more detail below, we are proposing slightly different restrictions on the use of previous tier credits for engines between 75 and 175 horsepower.) We currently have a similar provision that prohibits the use of Tier 1 credits to demonstrate Tier 3 compliance, and given the levels of the final Tier 4 standards being proposed today, we believe it is appropriate to apply a similar restriction. Otherwise, we would be concerned about the possibility that credits from engines certified to relatively high standards could be used to significantly delay the implementation of the final Tier 4 program and its benefits.

For reasons explained in Section III.B.1.b. of today's notice, we are proposing unique phase-in requirements for engines between 75 and 175 horsepower in order to ensure appropriate lead time for these engines. Because of these unique phase-in provisions for engines between 75 and 175 horsepower, we are proposing slightly different provisions regarding the use of previous-tier credits. Under this proposal, manufacturers that choose to demonstrate compliance with the proposed phase-in requirements (*i.e.*, 50 percent in 2012 and 2013 and 100 percent in 2014) would be allowed to use Tier 2 NMHC+NO_X credits generated by engines above 50 horsepower (along with any other allowable credits) to demonstrate compliance with the Tier 4 standards for engines between 75 and 175 horsepower during model years 2012, 2013 and 2014 only. These Tier 2 credits would be subject to the power rating conversion already established in our ABT program, and to the 20% credit adjustment we are proposing for use of NMHC+NO_X credits as NO_X credits. Manufacturers that choose to demonstrate compliance with the optional reduced phase-in requirement for engines between 75 and 175 horsepower, would not be allowed to use Tier 2 credits generated by engines above 50 horsepower to demonstrate compliance with the Tier 4 standards. (Use of credits other than banked Tier 2 credits from engines above 50 horsepower would still be allowed, in accordance with other ABT program provisions.) In addition, manufacturers choosing the reduced phase-in option would not be allowed to generate NO_X credits from engines in this power category in 2012, 2013, and the first 9 months of 2014, except for use in averaging within this power category (*i.e.*, no banking or trading, or averaging with engines in other power categories would be permitted). This restriction would apply throughout this period even if the reduced phase-in option is exercised during only a portion of this period. We believe that this restriction is important to avoid potential abuse of the added flexibility allowance, considering that larger engine categories will be required to demonstrate substantially greater compliance levels with the 0.30 g/bhp-hr NO_X standard several years earlier than engines built under this option.

Under this proposal, we are not proposing any averaging set restrictions for Tier 4 engines. An averaging set is a group of engines, defined by EPA in the regulations, within which manufacturers may use credits under the ABT program. In the current nonroad diesel ABT program, there are averaging set restrictions. The current averaging sets consist of engines less than 25 horsepower and engines greater than or equal to 25 horsepower. The restriction was adopted because of concerns over the ability of manufacturers to generate significant credits from the existing engines and use the credits to delay compliance with the newly adopted standards. (*See* 63 FR 56977.) We believe the proposed Tier 4 standards are sufficiently protective to limit the ability of manufacturers to generate significant credits from their current engines. In addition, we believe the proposed FEL caps provide sufficient assurance that low-emissions technologies will be introduced in a timely manner. Therefore, under this proposal, averaging would be allowed between all engine power categories without restriction effective with the Tier 4 standards. The averaging set restriction placed on credits generated from Tier 2 and Tier 3 engines would continue to apply if they are used to demonstrate compliance for Tier 4 engines.

As described in section III.B.1.d.i. of today's notice, we are also proposing a separate PM standard for air-cooled, hand-startable, direct injection engines under 11 horsepower. In order to avoid potential abuse of this standard, engines certified under this proposed requirement would not be allowed to generate credits as part of the ABT program. Credit use by these engines

would be allowed. The restriction should be no burden to manufacturers, as it would apply only to those air-cooled, hand-startable, direct injection engines under 11 horsepower that are certified under the special standard, and the production of credit-generating engines would be contrary to the standard's purpose.

The current ABT program contains a restriction on trading credits generated from indirect injection engines greater than 25 horsepower. The restriction was originally adopted because of concerns over the ability of manufacturers to generate significant credits from existing technology engines. (*See* 63 FR 56977.) Under this proposal, we are not proposing the restriction which prohibits manufacturers from trading credits generated on Tier 4 indirect fuel injection engines greater than 25 horsepower. Based on the certification levels of indirect injection engines, we do not believe there is the potential for manufacturers to generate significant credits from their currently certified engines against the proposed Tier 4 standards. Therefore, we are not proposing to restrict the trading of credits generated on Tier 4 indirect injection engines to other manufacturers. The restriction placed on the trading of credits generated from Tier 2 and Tier 3 indirect injection engines would continue to apply in the Tier 4 timeframe.

We are not proposing to apply a specific discount to Tier 3 PM credits used to demonstrate compliance with the Tier 4 standards. PM credits generated under the Tier 3 standards are based on testing performed over a steady-state test cycle. Under the proposed Tier 4 standards, the test cycle is being supplemented with a transient test (*see* Section III.C above and VII.F below). Because in-use PM emissions from Tier 3 engines will vary depending on the type of application in which the engine is used (some having higher in-use PM emissions, some having lower in-use PM emissions), the relative ''value'' of the Tier 3 PM credits in the Tier 4 timeframe will differ. Instead of requiring manufacturers to gather information to estimate the level of in-use PM emissions compared to the PM level of the steady-state test, we believe allowing manufacturers to bring Tier 3 PM credits directly into the Tier 4 time frame without any adjustment is appropriate because it discounts their value for use in the Tier 4 timeframe (since the initial baseline being reduced is probably higher than measured in the Tier 2 test procedure).

3. Should We Expand the Nonroad ABT Program To Include Credits From Retrofit of Nonroad Engines?

We are considering expanding the scope of the standards by setting voluntary new engine standards applicable to the retrofit of nonroad diesel engines, and allowing these nonroad diesel engines to generate PM and NO_X credits available for use by other nonroad diesel engines. This program could achieve greater emission reductions of these pollutants than could otherwise be achieved, in a cost-effective manner. Specifically, we would allow existing in-use nonroad diesel engines that are retrofitted to achieve more stringent levels of emissions than are otherwise required to generate credits available for use in the ABT program by new nonroad engines. Credit-generating engines electing to participate in the program would be considered new nonroad diesel engines, subject to the normal compliance mechanisms applicable to other new nonroad diesel engines. These new nonroad engines could generate credits that could be used in the ABT program for other new nonroad diesel engines. Any such program would also have to ensure that credits are surplus, verifiable, quantifiable, and enforceable. We request comment on whether such a program would be feasible and appropriate for the Tier 4 nonroad standards, and on how such a program might be structured.

We are considering an approach for credit generation based on the use of advanced exhaust emission control technology/engine system combinations that would provide significant emissions reductions. To accomplish this, simple changes that are easy to circumvent accidentally or to defeat intentionally would not be eligible to generate credits, and essentially, only changes involving introduction of post combustion emissions control technology would be eligible. Thus, we would structure the program such that engine recalibration as the sole mechanism to reduce emissions would not be eligible for retrofit credits. Also, as noted, for purposes of a nonroad retrofit ABT program, in order to generate credits, the manufacturer of the nonroad retrofit engine system choosing to participate in the program would accept that the retrofit engine would be considered a new nonroad engine, subject to enforceable standards and normal certification and compliance requirements. We have outlined in a memorandum to the docket our ideas for meeting these objectives, including possible ways to structure the program.[299] This memorandum describes potential procedures for credit generation, credit use, and a number of compliance, implementation, and enforcement measures.

We recognize that expanding the ABT program in this way would introduce new issues and complexities to the nonroad Tier 4 program, and that there are several ways to structure the program. We are seeking comment on whether such an expansion of the ABT program is feasible and appropriate, as well as on the details of how a program could be structured. We have considered and described a possible framework for nonroad retrofit credits in an effort to help commenters provide input. The level of detail provided below and in the memorandum to the docket does not indicate that we have made any decisions on whether nonroad retrofit credits are appropriate for the ABT program or about how the program should function. We invite comment not only on the provisions described below and in the memorandum to the docket, but also on alternative approaches that commenters believe would lead to a better overall program.

We are also seeking comment on the timing of a retrofit credits approach. We believe that if such a program were adopted, credit generation could start in 2004 at the earliest, and request comment on ending the program in the 2015 time frame. We view this as primarily a transitional program which could be most useful in the early years of the nonroad program. Ending the program in 2015 may also ease concerns about long-term impact of such a program on the environment.

We encourage commenters to carefully address all aspects of a nonroad retrofit credits program including its usefulness, feasibility, compliance and enforcement measures, environmental benefits, and potential cost savings. We specifically request comment on the potential for such a program to provide additional emissions reductions than would otherwise be obtained and request comment on the potential impacts such provisions would have on emissions reductions associated with the proposed nonroad standards. We are also interested in comments on practical issues and details regarding how the program would operate and be enforced.

a. What would be the environmental impact of allowing ABT nonroad retrofit credits?

[299] Memorandum to the Docket, Chris Lieske and Joseph McDonald, EPA, Additional Information on Nonroad Retrofit Engine ABT Credit Concepts, Docket A–2001–28.

We would structure any nonroad credit ABT program in a way that provides greater overall emissions reductions over the life of the group of nonroad engines involved than would otherwise be achieved. These additional overall reductions would be achieved by applying a discount of 20 percent to ABT retrofit credits that are used to meet nonroad standards. The result of applying a discount would be that each ABT retrofit credit generated would translate to less than one nonroad engine credit available for consumption in the nonroad program. For example, a discount of 20 percent would reduce the consumable credits by 20 percent. The discount would provide greater overall net emissions reductions from the use of an ABT retrofit program, and the amount of this environmental benefit would increase with increased use of the program. Also, applying a discount would be consistent with past Agency actions (see additional discussion in the memorandum to the docket noted above).

A discount would be an essential element of the nonroad retrofit credit provisions, since one of our objectives if we promulgated such an expanded ABT program would be to create greater net emission reductions. The absence of a discount would result in no net environmental impact, as the generation of credits would lead to emissions reductions which would be offset by the increase in emissions when the credits were used. A discount would also serve to mitigate the potential for net environmental detriments due to uncertainties in credit calculation and use.

We request comment on whether a discount of 20 percent would be appropriate given the expectation that the discount will generate cost-effective emissions reductions that would otherwise not occur, as well as the more prevalent uncertainties associated with trading credits between nonroad retrofits and new nonroad engines.

b. How would EPA ensure compliance with retrofit emissions standards?

If this program were adopted, we would expect to require the retrofit manufacturer to specify all emissions related maintenance and to list the type of fuel used to certify its retrofit-engine system and whether a particular fuel sulfur level is necessary to meet the standard and to maintain emissions compliance of the retrofit-engine system in-use. If such a fuel is necessary to maintain emissions compliance in-use, EPA would also consider the fuel to be ''critical emission related scheduled maintenance'' under a retrofit engine program. As a result of such classification, the manufacturer would be required to demonstrate that proper fueling will be performed in-use. Such a demonstration would include a showing that the required fuel is available to, and would be used by, the ultimate consumer or fleet operator receiving the retrofitted engines. Such retrofitted engines would also have to be labeled appropriately to reflect the new engine family and may also require labeling for the type of fuel to be used. In general, we would require the manufacturer to submit a plan for implementing all relevant aspects of the retrofit to ensure proper installation and emissions compliance throughout the useful life period. A full discussion of compliance issues and possible compliance provisions, such as recall, in-use testing, useful life, and warranty is provided in the memorandum to the docket, noted above. We request comment on these approaches for ensuring in-use compliance with possible nonroad retrofit emissions standards and requirements.

c. What is the legal authority for a nonroad ABT retrofit program?

Allowing use by new nonroad engines of credits generated by retrofit of in-use nonroad engines is justified legally as an aspect of EPA's standard setting authority. As we envision a program, a retrofit nonroad engine would be considered to be a new nonroad engine when the manufacturer opts into a voluntary retrofit program (if established). Upon such opt-in, this new engine would be subject to enforceable standards under CAA section 213, somewhat similar to opting into the voluntary Blue Sky series standards (see Section VII.E.2). Thus, the generation of credits by nonroad retrofits and their use by new engines subject to Tier 4 would be similar to conventional ABT. Put another way, the generation of credits by retrofitting in-use non-road engines and their subsequent use by new nonroad engines subject to the Tier 4 standards is an averaging program involving emission credits generated by one type of new nonroad engine and used by other new nonroad engines, similar to conventional ABT programs. With a nonroad retrofit credit program, and the emissions reductions associated with it, the overall emission reductions from Tier 4 nonroad engines and nonroad retrofit engines, taken together, would be the greatest achievable considering cost, noise, safety and energy factors, and would also be appropriate after considering those same factors. See also *NRDC* v. *Thomas,* 805 F.2d 410, 425 (D.C. Cir. 1986) (averaging provisions upheld against challenge that they are inconsistent with NCP provisions), and *Husqvarna AB* v. *EPA*, 254 F.3d 195, 202 (D.C. Cir 2001) (averaging, banking, and trading provisions cited as an element supporting EPA's selection of lead time under section 213(b)). At the same time, we also note that the proposed standards are the greatest achievable (taking all statutory factors into account) and appropriate independent of the nonroad retrofit program, as explained elsewhere in this preamble.[300]

B. Transition Provisions for Equipment Manufacturers

1. Why Are We Proposing Transition Provisions for Equipment Manufacturers?

As EPA developed the 1998 Tier 2/3 standards for nonroad diesel engines, we determined that provisions were needed to avoid unnecessary hardship for equipment manufacturers. The specific concern is the amount of work required and the resulting time needed for equipment manufacturers to incorporate all of the necessary equipment redesigns into their applications in order to accommodate engines that have been redesigned to meet the new emission standards. We therefore adopted a set of provisions for equipment manufacturers to provide them with reasonable leadtime for the transition process to the newly adopted standards. The program consisted of four major elements: (1) A percent-of-production allowance, (2) a small-volume allowance, (3) availability of hardship relief, and (4) continuance of the allowance to use up existing inventories of engines. *See* 63 at FR 56977–56978 (Oct. 23, 1998).

Given the level of the proposed Tier 4 standards, we believe that there will be engine design changes comparable in magnitude to those involved during the transition to Tier 2/3. We thus believe that at least some equipment manufacturers will face comparable challenges during the transition to the Tier 4 standards. This is confirmed by comments to EPA by a number of the equipment Small Entity Representatives during the SBREFA process, which indicated that the Tier 2/3 transition provisions were proving beneficial in providing adequate leadtime and urging

[300] There is one minor exception to this analysis. Retrofits involving use of new nonroad engines as replacement engines in older nonroad equipment would be justified primarily as an aspect of EPA's lead time authority under section 213(d). This is because credits would not be generated from an engine certifying to a more stringent standard, so that the credit is effectively generated by equipment rather than by an engine, *i.e.* generated by something other than a new non-road engine.

EPA to adopt comparable provisions in a Tier 4 rule. *See* Report of the Small Business Advocacy Review Panel, section 8.4.1 (Dec. 23, 2002). Therefore, with a few exceptions described in more detail below, we are proposing to adopt transition provisions for Tier 4 in this notice that are similar to those adopted with the previous Tier 2/3 rulemaking. The following section describes the proposed transition provisions available to equipment manufacturers. (Section VII.C. of today's notice describes all of the proposed provisions that would be available specifically for small businesses.)

Our experience to date with the transition provisions for the Tier 2/3 standards above 50 horsepower is limited. In the one power category where manufacturers have been required to submit information on the number of engines using the allowances (engines between 300 and 600 horsepower), approximately 20 percent of the engines in the category are relying on the allowances in the first year that the Tier 2 standards apply. (For the power categories below 50 horsepower, manufacturers are reporting that there are very few engines using allowances. However, given the level of the Tier 1 standards, we would not expect there to have been much need for equipment redesign to handle Tier 1 engines.) While this information is useful, we do not believe there is enough information available to determine if the level of the existing allowances should be revised for the Tier 4 proposal. For this reason, we are primarily relying on the provisions of the Tier 2/3 equipment manufacturer transition provisions for the Tier 4 proposal. However, as described in more detail below, we are proposing to add notification, reporting, and labeling requirements to the Tier 4 proposal, which are not required in the existing transition provisions for equipment manufacturers. We believe these additional proposed provisions are necessary for EPA to gain a better understanding of the extent to which these provisions will be used and to ensure compliance with the Tier 4 transition provisions. We are also proposing new provisions dealing specifically with foreign equipment manufacturers and the special concerns raised by the use of the transition provisions for equipment imported into the U.S.

As under the existing provisions, equipment manufacturers would not be obligated to use any of these provisions, but all equipment manufacturers would be eligible to do so. Also, as under the existing program, we are proposing that all entities under the control of a common entity, and that meet the definition in the regulations of a nonroad vehicle or nonroad equipment manufacturer contained in the regulations, would have to be considered together for the purposes of applying exemption allowances. This would not only provide certain benefits for the purpose of pooling exemptions, but would also preclude the abuse of the small-volume allowances that would exist if companies could treat each operating unit as a separate equipment manufacturer.

2. What Transition Provisions Are We Proposing for Equipment Manufacturers?

a. Percent-of-Production Allowance

Under the proposed percent-of-production allowance, each equipment manufacturer may install engines not certified to the proposed Tier 4 emission standards in a limited percentage of machines produced for the U.S. market. Equipment manufacturers would need to provide written assurance to the engine manufacturer that such engines are being procured for the purpose of the transition provisions for equipment manufacturers. These engines would instead have to be certified to the standards that would apply in the absence of the Tier 4 standards (*i.e.*, Tier 2 for engines below 50 horsepower, Tier 3 for engines between 50 and 750 horsepower,[301] and Tier 2 for engines above 750 horsepower). This percentage would apply separately to each of the proposed Tier 4 power categories (engines below 25 horsepower, engines between 25 and 75 horsepower, engines between 75 and 175 horsepower, engines between 175 and 750 horsepower, and engines above 750 horsepower) and is expressed as a cumulative percentage of 80 percent over the seven years beginning when the Tier 4 standards first apply in a category. No exemptions would be allowed after the seventh year. For example, an equipment manufacturer could install engines certified to the Tier 3 standards in 40 percent of its entire 2011 production of nonroad equipment that use engines rated between 175 and 750 horsepower, 30 percent of its entire 2012 production in this horsepower category, and 10 percent of its entire 2013 production in this horsepower category. (During the transitional period for the Tier 4 standards, the fifty percent of engines that would be allowed to certify to the previous tier NO_X standard but meet the Tier 4 PM standard would be considered as Tier 4-compliant engines for the purpose of the equipment manufacturer transition provisions.) If the same manufacturer were to produce equipment using engines rated above 750 horsepower, a separate cumulative percentage allowance of 80 percent would apply to these machines during the seven years beginning in 2011. This proposed percent-of-production allowance is almost identical to the percent-of-production allowance adopted in the October 1998 final rule, the difference being, as explained earlier, that we are proposing to have fewer power categories associated with the proposed Tier 4 standards.

The proposed 80 percent exemption allowance, were it to be used to its maximum extent by all equipment manufacturers, would bring about the introduction of cleaner engines several months later than would have occurred if the new standards were to be implemented on their effective dates. However, the equipment manufacturer flexibility program has been integrated with the standard-setting process from the initial development of this proposal, and as such we believe it is a key factor in assuring that there is sufficient lead time to initiate the Tier 4 standards according to the proposed schedule.[302]

Machines that use engines built before the effective date of the proposed Tier 4 standards would not be included in an equipment manufacturer's percent of production calculations under this allowance. Machines that use engines certified to the previous tier of standards under our Small Business provisions (as described in Section VII.C. of this proposal) would not be included in an equipment manufacturer's percent of production calculations under this allowance. All engines certified to the Tier 4 standards, including those engines that produce emissions at higher levels than the

[301] Under this proposal, for engines between 50 and 75 horsepower, the NMHC+NO_X standard that would apply in Tier 4 is the same as the existing Tier 3 NMHC+NO_X standard.

[302] For emissions modeling purposes, we have assumed that manufacturers take full advantage of the existing allowances under the transition program for equipment manufacturers in establishing the emissions baseline. This assumption is based on information provided to us by engine manufacturers for model year 2001, which shows that approximately 20 percent of the engines in the 300–600 horsepower category are relying on the allowances in the first year that the Tier 2 standards apply. In modeling the Tier 4 program, because the program will not take effect for many years and it is not possible to accurately forecast use of the proposed transition program for equipment manufacturers and to assess costs in a conservative manner, we have assumed that all engines will meet the Tier 4 standards in the timeframe proposed. As discussed in section V.C., this is consistent with our cost analysis, which assumes no use of the proposed transition program for equipment manufacturers.

standards, but for which an engine manufacturer uses ABT credits to demonstrate compliance, would count as Tier 4 complying engines and would not be included in an equipment manufacturer's percent of production calculations. As noted earlier, engines that meet the proposed Tier 4 PM standards but are allowed to meet the Tier 3 NMHC+NO_X standards during the phase-in period would also count as Tier 4 complying engines and would not be included in an equipment manufacturer's percent of production calculations. And, as also noted earlier, all engines used under the percent-of-production allowance would have to certify to the standards that would be in effect in the absence of the Tier 4 standards (*i.e.*, the Tier 3 standards for engines between 50 and 750 horsepower and the Tier 2 standards for engines below 50 horsepower and above 750 horsepower).

The choice of a cumulative percent allowance of 80 percent is based on our best estimate of the degree of reasonable leadtime needed by equipment manufacturers. We believe the 80 percent allowance responds to the need for flexibility identified by equipment manufacturers, while ensuring a significant level of emission reductions in the early years of the proposed program.

We are also proposing to allow manufacturers to start using a limited number of the new Tier 4 flexibilities once the seven-year period for the existing Tier 2/Tier 3 program expires (and so continue producing engines meeting Tier 1 or Tier 2 standards). In this way, a manufacturer could potentially continue exempting the most difficult applications once the seven-year period of the current Tier 2/3 flexibility provisions is finished. (Under the existing transition program for equipment manufacturers, any unused allowances expire after the seven year period. We are not reopening this provision with this proposal.) However, opting to start using Tier 4 allowances once the seven-year period from the current Tier 2/Tier 3 program expires would reduce the available percent of production exemptions available from the Tier 4 standards. We are proposing that equipment manufacturers may use up to a total of 10 percent of their Tier 4 allowances prior to the effective date of the proposed Tier 4 standards. (The early use of Tier 4 allowances would be allowed in each Tier 4 power category.) This percentage of equipment utilizing the early Tier 4 allowances would be subtracted from the proposed Tier 4 allowance of 80 percent for the appropriate power category, resulting in fewer allowances once the Tier 4 standards take effect. For example, if an equipment manufacturer used the maximum amount of early Tier 4 allowances of 10 percent, then the manufacturer would have a cumulative total of 70 percent remaining when the Tier 4 standards take effect (*i.e.*, 80 percent production allowance minus 10 percent). We are also requesting comment on requiring equipment manufacturers to take a two-for-one loss of Tier 4 allowances for each allowance used prior to the Tier 4 effective date. This would reduce the number of overall engines that could be exempted under the Tier 4 allowance program and result in greater environmental benefits than would be realized if manufacturers used all of the Tier 4 allowances in the Tier 4 timeframe.

We view this proposed provision on early use of Tier 4 allowances as providing reasonable leadtime for introducing Tier 4 engines, since it should result in earlier introduction of Tier 4-compliant engines (assuming that the 80% allowance would otherwise be utilized) with resulting net environmental benefit (notwithstanding longer utilization of earlier Tier engines, due to the stringency of the Tier 4 standards) and should do so at net reduction in cost by providing cost savings for the engines that have used the Tier 4 allowances early. As discussed above, once the Tier 4 implementation model year begins, engines which use the transition provision allowances must be certified to the standards that would apply in the absence of the Tier 4 standards.

b. Small-Volume Allowance

The percent-of-production approach described above may provide little benefit to businesses focused on a small number of equipment models. Therefore we are proposing to allow any equipment manufacturer to exceed the percent-of-production allowances described above during the same seven year period, provided the manufacturer limits the number of exempted engines to 700 total over the seven years, and to 200 in any one year. As noted earlier, equipment manufacturers would need to provided written assurance to the engine manufacturer when it purchases engines under the transition provisions for equipment manufacturers. The limit of 700 exempted engines would apply separately to each of the proposed Tier 4 power categories (engines below 25 horsepower, engine between 25 and 75 horsepower, engines between 75 and 175 horsepower, engines between 175 and 750 horsepower, and engines above 750 horsepower). In addition, manufacturers making use of this provision must limit exempted engines to a single engine family in each Tier 4 power category.

As with the proposed percent-of-production allowance, machines that use engines built before the effective date of the proposed Tier 4 standards would not be included in an equipment manufacturer's count of engines under the small-volume allowance. Similarly, machines that use engines certified to the previous tier of standards under our Small Business provisions (as described in Section VII.C. of this proposal) would not be included in an equipment manufacturer's count of engines under the small-volume allowance. All engines certified to the Tier 4 standards, including those that produce emissions at higher levels than the standards but for which an engine manufacturer uses ABT credits to demonstrate compliance, would be considered as Tier 4 complying engines and would not be included in an equipment manufacturer's count of engines under the small-volume allowance. Engines that meet the proposed Tier 4 PM standards but are allowed to meet the Tier 3 NMHC+NO_X standards during the phase-in period would also be considered as Tier 4 complying engines and would not be included in an equipment manufacturer's count of engines under the small-volume allowance. All engines used under the small-volume allowance would have to certify to the standards that would be in effect in the absence of the Tier 4 standards (*i.e.*, the Tier 3 standards for engines between 50 and 750 horsepower and the Tier 2 standards for engines below 50 horsepower and above 750 horsepower).

In discussions regarding the current small-volume allowance, some manufacturers expressed the desire to be able to exempt engines from more than one engine family, but still fall under the number of exempted engine limit. (Under the current rules, although equipment manufacturers are allowed to exempt up to 700 units over seven years, they must all use the same engine family. In many cases, a manufacturer's largest sales volume model does not even sell 700 units over seven years. As a result, the maximum number of units a manufacturer can exempt under the small-volume allowance is less than the 700 unit limit.) We are concerned, however, that allowing manufacturers to exempt engines in more than one family, but retaining the current 700-unit allowance, could lead to significantly higher numbers of engines being exempted from the Tier 4 program.

Using data of equipment sales by equipment manufacturers that qualify as small businesses under Small Business Administration (SBA) guidelines, we have analyzed the effects of a small-volume allowance program that would set an exempted engine allowance lower than 700 units over seven years but allow manufacturers to exempt engines from more than one engine family. Based on sales information for small businesses, we believe we could revise the small-volume allowance program to include lower caps and allow manufacturers to exempt more than one engine family while still keeping the total number of engines eligible for the allowance at roughly the same overall level as the 700-unit program described above.[303] Such a program would in general provide sufficient leadtime for equipment manufacturers, allowing them to temporarily exempt greater numbers of equipment models from the proposed Tier 4 standards, but, as noted above, keeping the total number of engines eligible for the allowance at roughly the same overall level as the existing program would allow (and so not allow more leadtime than necessary). Based on our analysis, the small-volume allowance program could be revised to allow equipment manufacturers to exempt 525 machines over seven years (with a maximum of 150 in any given year) for each of the three power categories below 175 horsepower, and 350 machines over seven years (with a maximum of 100 in any given year) for the two power categories above 175 horsepower. Concurrent with the revised caps, manufacturers would be allowed to exempt engines from more than one engine family under the small-volume allowance program. Table VII.B–1 compares the proposed small-volume allowance program to the variation described in this paragraph.

TABLE VII.B–1.—SMALL-VOLUME ALLOWANCE PROGRAM COMPARISON

	Engines exempted over 7 years	Maximum exempted engines in one year	Single engine family restriction?
Proposed program	—700 for each power category	200	—Yes
Variation under consideration	—525 for power categories < 175 hp —350 for power categories > 175 hp	100	—No

We request comment on adopting a small-volume allowance program with the lower caps noted above that allows manufacturers to exempt more than one engine family in each power category. We specifically request comment on allowing equipment manufacturers to choose between the two small-volume allowance programs described above. Alternatively, we request comment on whether we should replace the current program (which allows 700 units over seven years with a one engine family restriction) with this revised small-volume allowance program (which would allow fewer units over seven years but without the single engine family restriction). Our analysis of small businesses noted above did show that there were a very limited number of companies that could potentially get fewer total allowances under a revised program with the lower caps compared to the existing program (i.e., a company that sells an equipment model that utilizes one engine family whose sales over a seven year period are above the revised limits noted above but less than 700). Allowing an equipment manufacturer to choose between the two programs would help to ensure that manufacturers are able to retain the current level of flexibility they have under the current program.

Because we are proposing fewer power categories for the Tier 4 standards, the proposed equipment flexibility program is designed to reflect those changes. Therefore, under the proposed small-volume allowance, the specified unit allowances will apply separately to each of the five power categories being proposed for the Tier 4 standards.

As noted earlier, we are also proposing to allow manufacturers to start using a limited number of the new Tier 4 flexibilities once the seven-year period for the existing Tier 2/Tier 3 program expires (and so continue producing engines meeting Tier 1 or Tier 2 standards). Under the proposed small-volume allowance, any engines used by the manufacturer prior to Tier 4 would be subtracted from the proposed 700 unit allowance (for the appropriate Tier 4 power category), resulting in fewer allowances once the Tier 4 standards take effect. As with the proposed percent-of-production allowance, we are proposing to limit the number of Tier 4 small-volume allowances that can be used prior to the effective dates of the Tier 4 standards to a total of 100 units in each of the Tier 4 power categories. We are taking comment on requiring equipment manufacturers to take a two-for-one loss of Tier 4 small-volume allowances for each allowance used prior to the Tier 4 effective date. As explained above, we view this proposal as providing reasonable leadtime for introduction of Tier 4 engines by providing the possibility of earlier introduction of such engines with a net cost savings.

c. Hardship Relief Provision

We are proposing to extend the availability of the ''hardship relief provision'' with the Tier 4 transition provisions for equipment manufacturers. Under the proposal, an equipment manufacturer that does not make its own engines could obtain limited additional relief by providing evidence that, despite its best efforts, it cannot meet the implementation dates, even with the proposed equipment flexibility program provisions outlined above. Such a situation might occur if an engine supplier without a major business interest in the equipment manufacturer were to change or drop an engine model very late in the implementation process. As with other equipment manufacturer transition provisions, the equipment Small Entity Representatives indicated that the availability this allowance was useful to them in the transition to the Tier 2/3 standards, and they urged that it be continued in any Tier 4 rule. Report of the Small Business Advocacy Panel, section 8.4.1.

[303] ''Analysis of Small Volume Equipment Manufacturer Flexibilities,'' EPA memo from Phil Carlson to Docket A–2001–28.

Applications for hardship relief would have to be made in writing, and would need to be submitted before the earliest date of noncompliance. The application would also have to include evidence that failure to comply was not the fault of the equipment manufacturer (such as a supply contract broken by the engine supplier), and would need to include evidence that serious economic hardship to the company would result if relief is not granted. We would work with the applicant to ensure that all other remedies available under the flexibility provisions were exhausted before granting additional relief, if appropriate, and would limit the period of relief to no more than one year. Applications for hardship relief generally will only be accepted during the first year after the effective date of an applicable new emission standard.

The Agency expects this provision would be rarely used. This expectation has been supported by our initial experience with the Tier 2 standards in which only one equipment manufacturer has applied under the hardship relief provisions. Requests for hardship relief would be evaluated by EPA on a case-by-case basis, and may require, as a condition of granting the applications, that the equipment manufacturer agree (in writing) to some appropriate measure to recover the lost environmental benefit.

d. Existing Inventory Allowance

The current program for nonroad diesel engines includes a provision for equipment manufacturers to continue to use engines built prior to the effective date of new standards, until the older engine inventories are depleted. It also prohibits stockpiling of previous tier engines. We are proposing to extend these provisions as manufacturers transition to the standards contained in this proposal. We are also proposing to extend the existing provision that provides an exception to the applicable compliance regulations for the sale of replacement engines. In proposing to extend this provision, we are requiring that engines built to replace certified engines be identical in all material respects to an engine of a previously certified configuration that is of the same or later model year as the engine being replaced. The term ''identical in all material respects'' would allow for minor differences that would not reasonably be expected to affect emissions.

3. What Are the Recordkeeping, Notification, Reporting, and Labeling Requirements Associated With the Equipment Manufacturer Transition Provisions?

a. Recordkeeping Requirements for Engine and Equipment Manufacturers

We are proposing to extend the recordkeeping requirements from the current equipment manufacturer transition program. Under the proposed requirements, engine manufacturers would be allowed to continue to build and sell previous tier engines needed to meet the market demand created by the equipment manufacturer flexibility program, provided they receive written assurance from the engine purchasers that such engines are being procured for this purpose. We are proposing that engine manufacturers would be required to keep copies of the written assurance from the engine purchasers for at least five full years after the final year in which allowances are available for each power category.

Equipment manufacturers choosing to take advantage of the proposed Tier 4 allowances would be required to: (1) Keep records of the production of all pieces of equipment excepted under the allowance provisions for at least five full years after the final year in which allowances are available for each power category; (2) include in such records the serial and model numbers and dates of production of equipment and installed engines, and the rated power of each engine, (3) calculate annually the number and percentage of equipment made under these transition provisions to verify compliance that the allowances have not been exceeded in each power category; and (4) make these records available to EPA upon request.

b. Notification Requirements for Equipment Manufacturers

We are also proposing some new notification requirements for equipment manufacturers with the Tier 4 program. Under this proposal, equipment manufacturers wishing to participate in the Tier 4 transition provisions would be required to notify EPA prior to their use of the Tier 4 transition provisions. Equipment manufacturers would be required to submit their notification before the first calendar year in which they intend to use the transition provisions. We believe that prior notification will not be a significant burden to the equipment manufacturer, but will greatly enhance our ability to ensure compliance. Indeed, EPA believes that in order for an equipment manufacturer to properly use either of the allowances provided, it would already have the information required in the notification. Thus we are not requiring additional planning or information gathering beyond that which the equipment manufacturer must already be doing in order to ensure its compliance with the regulations. Under the proposed notification requirements, each equipment manufacturer would be required to notify EPA in writing and provide the following information:

(1) The nonroad equipment manufacturer's name, address, and contact person's name, phone number;

(2) the allowance program that the nonroad equipment manufacturer intends to use by power category;

(3) the calendar years in which the nonroad equipment manufacturer intends to use the exception;

(4) an estimation of the number of engines to be exempted under the transition provisions by power category;

(5) the name and address of the engine manufacturer from whom the equipment manufacturer intends to obtain exempted engines; and

(6) identification of the equipment manufacturer's prior use of Tier 2/3 transition provisions.

EPA is requesting comment on whether the notification provisions should also apply to the current Tier 2/Tier 3 transition program, and if so, how these provisions should be phased in for equipment manufacturers using the current Tier 2/Tier 3 transition provisions. EPA believes such a notification provision could be implemented as soon as 2005 and requests comments on the appropriate start date should we adopt such a notification provision for equipment manufacturers for the Tier 2/Tier 3 transition program.

c. Reporting Requirements for Engine and Equipment Manufacturers

As with the current program, engine manufacturers who participate in the proposed Tier 4 program would be required to annually submit information on the number of such engines produced and to whom the engines are provided, in order to help us monitor compliance with the program and prevent abuse of the program.

We are proposing new reporting requirement for equipment manufacturers participating in the Tier 4 equipment manufacturer transition provisions. Under this proposal, equipment manufacturers participating in the program would be required to submit an annual written report to EPA that calculates its annual number of exempted engines under the transition provisions by power category in the

previous year. Equipment manufacturers using the percent of production allowance, would also have to calculate the percent of production the exempted engines represented for the appropriate year. Each report would include a cumulative calculation (both total number and, if appropriate, the percent of production) for all years the equipment manufacturer has used the transition provisions for each of the proposed Tier 4 power categories. In order to ease the reporting burden on equipment manufacturers, EPA intends to work with the manufacturers to develop an electronic means for submitting information to EPA.

EPA is requesting comment on whether these reporting requirements should also apply to the current Tier 2/Tier 3 transition program, and if so, how these provisions should be phased in for equipment manufacturers using the current Tier 2/Tier 3 transition provisions. Because equipment manufacturers are already required to keep the information we would require under the reporting requirements described above, we believe such a reporting requirement could be implemented to cover exempted engines produced in the 2005 model year. We request comments on the appropriate start date should we adopt such reporting requirements for equipment manufacturers for the Tier 2/Tier 3 transition program.

d. Labeling Requirements for Engine and Equipment Manufacturers

Engine manufacturers are currently required to label their certified engines with a label that contains a variety of information. Under this proposal, we are proposing that engine manufacturers would be required to identify on the engine label if the engine is exempted under the Tier 4 transition program. In addition, equipment manufacturers would be required to apply a label to the engine or piece of equipment that identifies the equipment as using an engine produced under the Tier 4 transition program for equipment manufacturers. These proposed labeling requirements would allow EPA to easily identify the exempted engines and equipment, verify which equipment manufacturers are using these exceptions, and more easily monitor compliance with the transition provisions. Labeling of the equipment could also help U.S. Customs to quickly identify equipment being imported using the exemptions for equipment manufacturers.

EPA is requesting comment on whether these labeling requirements should also apply to the current Tier 2/Tier 3 transition program, and if so, how these provisions should be phased in for engine manufacturers and equipment manufacturers. Due to limited impact of such a labeling requirement, we believe such a requirement could be implemented to cover model year 2005 engines and equipment using those engines. We request comments on the appropriate start date should we adopt such labeling requirements for engine manufacturers and equipment manufacturers for the Tier 2/Tier 3 transition program.

4. What Are the Proposed Requirements Associated With Use of Transition Provisions for Equipment Produced by Foreign Manufacturers?

Under the current regulations, importers are treated as equipment manufacturers and are each allowed the full allowance under the transition provisions. Therefore, under the current provisions, importers of equipment from a foreign equipment manufacturer could as a group import more excepted equipment from that foreign manufacturer than 80% of that manufacturer's production for the U.S. market or more than the small volume allowances identified in the transition provisions. Therefore, the current regulation creates a potentially significant disparity between the treatment of foreign and domestic equipment manufacturers. EPA did not intend this outcome, and does not believe it is needed to provide reasonable leadtime to foreign equipment manufacturers.

Under this proposal, only the nonroad equipment manufacturer that is most responsible for the manufacturing and assembling process would qualify for the allowances or other relief provided under the Tier 4 transition provisions. Foreign equipment manufacturers who comply with the compliance related provisions discussed below would receive the same allowances and other transition provisions as domestic manufacturers. Foreign equipment manufacturers who do not comply with the compliance related provisions discussed below would not receive allowances. Importers that have little involvement in the manufacturing and assembling of the equipment would not receive any allowances or other transition relief directly, but could import exempt equipment if it is covered by an allowance or transition provision associated with a foreign equipment manufacturer. This would allow transition allowances and other provisions to be used by foreign equipment manufacturers in the same way as domestic equipment manufacturers, while avoiding the potential for importers unnecessarily using allowances. For the purposes of this proposal, a foreign equipment manufacturer would include any equipment manufacturer that produces equipment outside of the United States that is eventually sold in the United States.

All foreign nonroad equipment manufacturers wishing to use the transition provisions would have to comply with all requirements of the regulation discussed above including: notification, recordkeeping, reporting and labeling. Along with the equipment manufacturer's notification described earlier, a foreign nonroad equipment manufacturer would have to comply with various compliance related provisions similar to those adopted in several fuel regulations relating to foreign refiners.[304] As part of the notification, the foreign nonroad equipment manufacturer would have to:

(1) Agree to provide EPA with full, complete and immediate access to conduct inspections and audits;

(2) Name an agent in the District of Columbia for service of process;

(3) Agree that any enforcement action related to these provisions would be governed by the Clean Air Act;

(4) Submit to the substantive and procedural laws of the United States;

(5) Agree to additional jurisdictional provisions;

(6) Agree that the foreign nonroad equipment manufacturer will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors for actions performed within the scope of EPA employment related to the provisions of this program;

(7) Agree that the foreign nonroad equipment manufacturer becomes subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity; and

(8) Submit all reports or other documents in the English language, or include an English language translation.

In addition to these proposed requirements, we are requesting comment on requiring foreign equipment manufacturers that participate in the transition program to comply with a bond requirement for engines imported into the U.S. We describe a bond program below which we believe could be an important tool to ensure that foreign equipment manufacturers are subject to the same

[304] See, for example, 40 CFR 80.410 concerning provisions for foreign refiners with individual gasoline sulfur baselines.

level of enforcement as domestic equipment manufacturers. We believe a bonding requirement for the foreign equipment manufacturer is an important enforcement tool in order to ensure that EPA has the ability to collect any judgements assessed against a foreign equipment manufacturer for violations of these transition provisions. We request comments on all aspects of the specific program we describe here, but also on alternative measures which would achieve the same goal. A memo has been placed in the docket for today's notice that contains draft regulatory language that would apply if we adopted a bonding requirement as discussed in this section.[305]

Under a bond program, the participating foreign equipment manufacturer would have to obtain annually a bond in the proper amount that is payable to satisfy United States judicial judgments that results from administrative or judicial enforcement actions for conduct in violation of the Clean Air Act. The foreign equipment manufacturer would have three options for complying with the bonding requirement. The foreign equipment manufacturer could:

(1) Post a bond by paying the amount of the bond to the Treasurer of the United States;

(2) obtain a bond in the proper amount from a third party surety agent, provided EPA agrees in advance as to the third party and the nature of the surety agreement; or

(3) obtain an EPA waiver from the bonding requirement, if the foreign equipment manufacturer can show that it has assets of an appropriate value in the United States.

EPA expects the third bond option to address instances where an equipment manufacturer produces equipment outside the United States containing flexibility engines, but also has facilities (and thus significant assets) inside the United States. Under this third option, such a manufacturer could apply to the EPA for a waiver of the bonding requirement.

Since EPA's concerns of compliance will relate to the nature and tier of engine used in the transition equipment, we believe the bond value should be related to the value of the engine used. Therefore, we are requesting comment on a value of the bond set at a level designed to represent approximately 10% of the cost of the engine for each piece of transition equipment produced for import into the United States under this program. So that manufacturers have certainty regarding the bond amounts and so that there isn't a need for extensive data submittals and evaluation between EPA and the manufacturer, we request comment on EPA specifying in this rulemaking the estimated average cost for a Tier 4 engine on which the bond would be based. For example, we believe cost estimates on the order of those contained in Table 10.3–3 of the draft RIA may be an appropriate basis. Under this approach, transition equipment using engines in the less than 25 horsepower category would require a bond of $150 per piece of equipment (10 percent of $1,500), equipment using engines in the 25–50 horsepower range would require a bond of $250 per piece of equipment (10 percent of $2,500), etc. We also request comment on whether 10 percent is a sufficient value for the bond or whether higher values, such as 50 percent, or lower values are more appropriate.

Finally, if a foreign equipment manufacturer's bond is used to satisfy a judgment, the foreign equipment manufacturer would then be required to increase the bond to cover the amount used within 90 days of the date the bond is used.

In addition to the foreign equipment manufacturer requirements discussed above, EPA also proposes to require importers of exempted equipment from a complying foreign equipment manufacturer to comply with certain provisions. EPA believes these importer provisions are essential to EPA's ability to monitor compliance with the transition provisions. EPA proposes that the regulations would require each importer to notify EPA prior to their initial importation of equipment exempted under the Tier 4 transition provisions. Importers would be required to submit their notification prior to the first calendar year in which they intend to import exempted equipment from a complying foreign equipment manufacturer under the transition provisions. The importer's notification would need to include the following information:

(1) The name and address of importer (and any parent company);

(2) The name and address of the manufacturers of the exempted equipment and engines the importer expects to import;

(3) Number of exempted equipment the importer expects to import for each year broken down by equipment manufacturer and power category; and

(4) The importer's use of the transition provisions in prior years (number of flexibility engines imported in a particular year, under what power category, and the names of the equipment and engine manufacturers).

In addition, EPA is proposing that any importer electing to import to the United States exempted equipment from a complying foreign equipment manufacturer would have to submit annual reports to EPA. The annual report would include the number of exempted equipment the importer actually imported to the United States in the previous calendar year; and the identification of the equipment manufacturers and engine manufacturers whose exempted equipment/engines were imported.

C. Engine and Equipment Small Business Provisions (SBREFA)

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions. Since EPA believes that the proposed rule may have a significant economic impact on small businesses, we intend to prepare a regulatory flexibility analysis as part of this rulemaking, and have prepared an initial regulatory flexibility analysis (IRFA) pursuant to section 603 of the RFA which is part of the record for this proposal.

Under section 609(b) of the RFA, a Small Business Advocacy Review Panel (SBAR Panel or Panel) is required to be convened prior to publication of an IRFA that an agency may be required to prepare under the RFA. Section 609(b) directs the Panel to, through outreach with small entity representatives (SERs), report on the comments of the SERs and make findings on issues related to identified elements of an IRFA under section 603 of the RFA (*see* Section X.C of this preamble for more discussion on the elements of an IRFA). The purpose of the Panel is to gather information to identify potential impacts on small businesses and to develop options to mitigate these concerns. At the completion of the SBAR Panel process, the Panel is required to prepare a Final Panel Report. This report includes background information on the proposed rule being developed, information on the types of small entities that would be subject to the proposed rule, a description of efforts

[305] ''Potential Bond Regulations for Foreign Equipment Manufacturers Under the Tier 4 Nonroad Diesel Proposal,'' EPA memorandum from Leslie Kirby-Miles, U.S. EPA/OECA to Docket A–2001–28.

made to obtain the advice and recommendations of representatives of those small entities, and a summary of the comments that have been received to date from those representatives. Once completed, the Panel report is provided to the agency issuing the proposed rule and included in the rulemaking record. The report provides the Panel and the Agency with an opportunity to identify and explore potential ways of shaping the proposed rule to minimize the burden of the rule on small entities while achieving the rule's purposes and when consistent with Clean Air Act statutory requirements.

EPA has approached this process with care and diligence. To identify representatives of small businesses for this process, we used the definitions provided by the Small Business Administration (SBA) for manufacturers of nonroad diesel engines and vehicles. The categories of small entities in the nonroad diesel sector that will potentially be affected by this rulemaking are defined in the following table:

Industry	Defined as small entity by SBA if:	Major SIC codes
Engine manufacturers	Less than 1,000 employees	Major Group 35.
Equipment manufacturers:		
—construction equipment	Less than 750 employees	Major Group 35.
—industrial truck manufacturers (*i.e.,* forklifts)	less than 750 employees	Major Group 35.
—all other nonroad equipment manufacturers	Less than 500 employees	Major Group 35.

One small engine manufacturer and 5 small equipment manufacturers agreed to serve as Small Entity Representatives (SERs) throughout the SBAR Panel process for this proposal. These companies represented the nonroad market well, as the group of SERs consisted of businesses that manufacture various types of nonroad diesel equipment.

The following are the provisions recommended by the SBAR Panel, including both the provisions that we, EPA, are proposing and those on which we are requesting comment. As described in section VII.B above, there are other provisions that apply to all equipment manufacturers; however, most of the discussion in this section is geared to small entities only. We request comment on all aspects of both the provisions recommended by the Panel and on those that we are proposing in today's action.

1. Nonroad Diesel Small Engine Manufacturers

a. Lead Time Transition Provisions for Small Engine Manufacturers

i. What the Panel Recommended

The transition provisions recommended by the SBAR Panel for engines produced or imported by small entities are listed below. For all of the provisions, the Panel recommended that small engine manufacturers and small importers must have certified engines in model year 2002 or earlier in order to take advantage of these provisions. Each manufacturer would be limited to 2,500 units per year as this number allows for some market growth. The Panel recommended these stipulations in order to prohibit the misuse of the transition provisions as a tool to enter the nonroad diesel market or to gain unfair market position relative to other manufacturers.

Currently, certified nonroad diesel engines produced by small manufacturers all have a horsepower rating of 80 or less. The transition provisions that the Panel considered were dependent upon what approach, or approaches, were proposed for the rulemaking.

- For an approach with two phases of standards:
- An engine manufacturer could skip the first phase and comply on time with the second; or,
- A manufacturer could delay compliance with each phase of standards for three years.
- For an approach that entails only one phase of standards, the manufacturer could opt to delay compliance. It was recommended that the length of the delay be three years; however the Panel suggested that we request comment on whether this delay period should be two, three, or four years. Each delay would be pollutant specific (*i.e.*, the delay would apply to each pollutant as it is phased in).

The Panel believed that these options could offer an opportunity to reduce the burden on small manufacturers while at the same time meet the regulatory goals of the Agency. The Panel further believed that these options would not put small manufacturers at a significant disadvantage as they would be in compliance with the Tier 4 standards in the long run and the options would give them more lead time to comply. The Panel also felt that a complete exemption from the upcoming standards (even assuming that such an exemption could be justified legally) would put these manufacturers at a competitive disadvantage as the rest of the market would be producing compliant engines and eventually there would not be equipment designed to accommodate their engines.

ii. What EPA is Proposing

Due to the structure of the standards and their timing as discussed in Section III, EPA is proposing transition provisions for small engine manufacturers which encompass both approaches recommended by the Panel, with the inclusion of the 2,500 unit limit (as suggested by the Panel) for each manufacturer.

- First, with regard to PM:
- Engines under 25 hp and those between 75 and 175 hp have only one standard so the manufacturer could delay compliance with these standards for up to three years. Based on available data, we believe that there are no small manufacturers of nonroad diesel engines above 175 hp.
- For engines between 50 and 75 hp, EPA is proposing a one phase program with the option to delay compliance for one year if interim standards are met. For this power category we are treating the PM standard as a two phase standard with the stipulation that small manufacturers cannot use PM credits to meet the interim standard. Furthermore, if a small manufacturer elects the optional approach to the standard (elects to skip the interim standard), no further relief will be provided.
- Second, with regard to NO_X:
- There is no change in the NO_X standard for engines under 25 hp and those between 50 and 75 hp. For these two power bands EPA is proposing no special provisions.
- For engines in the 25–50 hp and the 75–175 hp categories we are proposing a three year delay in the program consistent with the one-phase approach recommendation above. Based on available data, we believe that there are no small manufacturers of nonroad diesel engines above 175 hp.

b. Hardship Provisions for Small Engine Manufacturers

i. What the Panel Recommended

The Panel recommended two types of hardship provisions for small engine manufacturers. These provisions are:

• For the case of a catastrophic event, or other extreme unforseen circumstances, beyond the control of the manufacturer that could not have been avoided with reasonable discretion (*i.e.,* fire, tornado, supplier not fulfilling contract, etc.); and

• For the case where a manufacturer has taken all reasonable business, technical, and economic steps to comply but cannot.

Either hardship relief provision would provide lead time for up to 2 years, and a manufacturer would have to demonstrate to EPA's satisfaction that failure to sell the noncompliant engines would jeopardize the company's solvency, EPA may also require that the manufacturer make up the lost environmental benefit.

ii. What EPA is Proposing

EPA is proposing to adopt the Panel recommendations for hardship provisions for small engine manufacturers. While perhaps ultimately not necessary given the phase-in schedule discussed above, such provisions provide a useful safety valve in the event of unforeseen extreme hardship.

c. Other Small Engine Manufacturer Issues

i. What the Panel Recommended

The Panel also recommended that an ABT program be included as part of the overall rulemaking program. In addition, the Panel suggested that EPA take comment on including specific ABT provisions for small engine manufacturers.

ii. What EPA is Proposing

As discussed above, an ABT program has been included in the overall program in this rule proposal. ABT is being proposed in today's action as it is intended to enhance the flexibility offered to engine manufacturers that will be of assistance in making the transition to meet the stringent standards proposed in today's rules in the leadtime proposed. As noted in Section VII.A, EPA is proposing to retain the basic structure of the current nonroad diesel ABT program, though a number of changes (which will help to accommodate implementation of the proposed emission standards) are being proposed today.

Though the Panel recommended small engine manufacturer-specific ABT provisions, such provisions are not being included in this proposal. EPA does not believe it would be appropriate to provide a different ABT program for small engine manufacturers, especially given the provisions mentioned above. Discussions during the SBAR process indicated that small volume manufacturers would need extra time to comply due to cost and personnel constraints, and there is little reason to believe that small manufacturer specific ABT provisions could create an incentive to accelerate compliance. Small manufacturers would of course be able to participate in the general ABT program, which EPA believes will provide sufficient lead time for small entities.

2. Nonroad Diesel Small Equipment Manufacturers

a. Transition Provisions for Small Equipment Manufacturers

i. What the Panel Recommended

The Panel recommended that EPA adopt the transition provisions described below for small manufacturers and small importers of nonroad diesel equipment. These transition provisions are similar to those in the Tier 2/3 rule (*see* 89.102). The recommended transition provisions are as follows:

• Percent-of-Production Allowance: Over a seven model year period, equipment manufacturers may install engines not certified to the new emission standards in an amount of equipment equivalent to 80 percent of one year's production. This is to be implemented by power category with the average determined over the period in which the flexibility is used.

• Small Volume Allowance: A manufacturer may exceed the 80 percent allowance in seven years as described above, provided that the previous Tier engine use does not exceed 700 total over seven years, and 200 in any given year. This is limited to one family per power category.

Alternatively, the Panel also recommended, at the manufacturer's choice by hp category, a program that eliminates the ''single family provision'' restriction with revised total and annual sales limits as shown below:

• For categories <175 hp—525 previous Tier engines (over 7 years) with an annual cap of 150 units (these engine numbers are separate for each hp category defined in the regulations)

• For categories of > 175hp—350 previous Tier engines (over 7 years) with an annual cap of 100 units (these engine numbers are separate for each hp category defined in the regulations)

The Panel recommended that EPA seek comment on the total number of engines and annual cap values listed above. In contrast to the Tier 2/Tier 3 rule promulgated in 1998, SBA expects the transition to the Tier 4 technology will be more costly and technically difficult. Therefore, the small equipment manufacturers may need more liberal flexibility allowances especially for equipment using the lower hp engines. The Panel's recommended flexibility may not adequately address the approximately 50 percent of small business equipment models where the annual sales per model is less than 300 and the fixed costs are higher. Thus, the SBA and OMB Panel members recommended that comment be sought on implementing the small volume allowance (700 engine provision) for small equipment manufacturers without a limit on the number of engine families which could be covered in any hp category.

• Due to the changing nature of the technology as the manufacturers transition from Tier 2 to Tier 3 and Tier 4, the Panel recommended that the equipment manufacturers be permitted to borrow from the Tier 3/Tier 4 flexibilities for use in the Tier 2/Tier 3 time frame.

• Lastly, the Panel recommended proposing a continuation of the current transition provisions, without modifications to the levels or nature of the provisions, that are available to these manufacturers.

To maximize the likelihood that the application of these provisions will result in the availability of previous Tier engines for use by the small equipment manufacturers, the Panel recommended that—similar to the application of flexibility options that are currently in place—these provisions should be provided to all equipment manufacturers.[306]

During the SBAR Panel process, an issue was raised requesting that EPA establish a provision which would allow small entity manufacturers to request limited ''application specific'' alternative standards for equipment configurations which present unusually challenging technical issues for compliance. The Panel recommended that EPA seek comment on the need for and value of special application specific standards for small equipment manufacturers.

ii. What EPA is Proposing

EPA is in fact proposing the Percent-of-Production and Small Volume Allowances for all equipment manufacturers, and explicitly took the

[306] The Panel recognized that, similar to the Tier 2/3 standards, it may be necessary to provide transition provisions for all equipment manufacturers, not just for small entities; and the Panel recommended that this be taken into account. However, the work of the SBAR Panel is meant to develop regulatory alternatives for small manufacturers, thus the Panel nominally recommended transition provisions for small equipment manufacturers only.

Panel report into account in making that proposal (*see* Section VII.B. above). The Agency believes that this proposal should provide the type of transition leeway recommended by the Panel. EPA believes that the transition provisions could allow small equipment manufacturers to postpone any redesign needed on low sales volume or difficult equipment packages, thus saving both money and strain on limited engineering staffs. Within limits, small equipment manufacturers would be able to continue to use their current engine/equipment configuration and avoid out-of-cycle equipment redesign until the allowances are exhausted or the time limit passes.

With respect to these transition provisions, EPA requests comment on the Panel's suggested exemption and annual cap values listed above. As discussed above in Section VII.B, EPA also requests comment on implementing the small volume allowance provision without the single family limit provision using caps slightly lower than 700 units, with this provision being applied separately to each engine power category subject to the proposed standards.

Similar to the discussion in Section VII.B above, EPA requests comment on new proposed requirements associated with use of transition provisions by foreign importers. During the SBREFA Panel process, the Panel discussed the possible misuse of the transition provisions by using them as a loophole to enter the nonroad diesel equipment market or to gain unfair market position relative to other manufacturers. The Panel recognized that this was a possible problem, and believed that the requirement that small equipment manufacturers and importers have reported equipment sales using certified engines in model year 2002 or earlier was sufficient to alleviate this problem. Upon further analysis, EPA found that importers of equipment from a foreign equipment manufacturer could as a group import more excepted equipment from that foreign manufacturer than 80% of that manufacturer's production for the United States market or more than the small volume allowances identified in the transition provisions. This also creates a potentially significant disparity between the treatment of foreign and domestic equipment manufacturers. EPA did not intend this outcome, and does not believe it is needed to provide reasonable leadtime to foreign equipment manufacturers.

Therefore, as explained earlier in Section VII.B, EPA is requesting comment on the additional requirement that only the nonroad diesel equipment manufacturer that is most responsible for the manufacturing and assembling process, and therefore the burden of complying with the proposed standards, would qualify for the allowances provided under the small equipment manufacturer transition provisions. Under this requirement, only an importer that produces or manufactures nonroad diesel equipment would be eligible for these transition provisions. An importer that does not manufacture or produce equipment does not face a burden in complying with the proposed standard, and therefore would not receive any allowances under these transition provisions directly, but could import exempt equipment if it is covered by an allowance or transition provisions associated with a foreign small equipment manufacturer. EPA believes that this requirement transfers the flexibility offered in these transition provisions to the party with the burden and would allow transition provisions and allowances to be used by foreign equipment manufacturers in the same way as domestic equipment manufacturers, while avoiding the potential for misuse by importers of unnecessary allowances. EPA also sees no reason that this provision should not apply in the same way to all importers, and thus (as explained in Section VII.B) is proposing that the provision apply uniformly.

EPA is also proposing the Panel's recommendation that equipment manufacturers be allowed to borrow from Tier 4 flexibilities in the Tier 2/3 timeframe. See the more extended discussion on this issue in Section VII.B above.

With regard to the Panel recommendation for a provision allowing small manufacturers to request limited ''application specific'' alternative standards for equipment configurations which present unusually challenging technical issues for compliance, EPA requests comment on this recommendation. EPA believes that the need for such a provision has not been established and that it likely would provide more lead time than can be justified, and could undermine emission reductions which are achievable. Moreover, no participant in the SBAR process offered any empirical support that such a problem even exists. Nor have such issues been demonstrated (or raised) by equipment manufacturers, small or large, in implementing the current nonroad standards. In addition, EPA believes that any application-specific difficulties can be accommodated by the transition provisions the Agency is proposing including ABT. Nonetheless, in keeping with the SBAR recommendations, comment is requested on the value of, and need for, special application specific standards for small equipment manufacturers.

b. Hardship Provisions for Small Equipment Manufacturers

i. What the Panel Recommended

The Panel also recommended that two types of hardship provisions be extended to small equipment manufacturers. These provisions are:

- For the case of a catastrophic event, or other extreme unforseen circumstances, beyond the control of the manufacturer that could not have been avoided with reasonable discretion (*i.e.* fire, tornado, supplier not fulfilling contract, etc.).
- For the case where a manufacturer has taken all reasonable business, technical, and economic steps to comply but cannot. In this case relief would have to be sought before there is imminent jeopardy that a manufacturer's equipment could not be sold and a manufacturer would have to demonstrate to the Agency's satisfaction that failure to get permission to sell equipment with a previous Tier engine would create a serious economic hardship. Hardship relief of this nature cannot be sought by a ''integrated'' manufacturer (one which also manufactures the engines for its equipment).

ii. What EPA is Proposing

EPA is proposing that the Panel recommended hardship provisions be extended to small equipment manufacturers in addition to the transition provisions described above. To be eligible for these hardship provisions (as well as the proposed transition provisions), equipment manufacturers and importers must have reported equipment sales using certified engines in model year 2002 or earlier. As explained earlier, this proposal is needed to thwart misuse of these provisions as a loophole to enter the nonroad diesel equipment market or to gain unfair market position relative to other manufacturers. We request comment on this restriction.

As explained earlier, hardship relief would not be available until other allowances have been exhausted. Either relief provision would provide small equipment manufacturers with additional lead time for up to two model years based on the circumstances, but EPA may require recovery of the lost environmental benefit.

EPA requests comment on all of the aspects of the proposed hardship provisions for small equipment manufacturers.

D. Phase-In Provisions

In Section III we described the proposed NO_X and NMHC standards phase-in schedule. This phase-in requirement is based on percentages of a manufacturer's production for the U.S. market. We recognize, however, that manufacturers need to plan for compliance well in advance of the start of production, and that actual production volumes for any one model year may differ from their projections. On the other hand, we believe that it would be inappropriate and infeasible to base compliance solely on a manufacturer's projections. That could encourage manufacturers to overestimate their production of complying phase-in engines, and could result in significantly lower emission benefits during the phase-in. We voiced the same concern with respect to the highway HDDE phase-in schedule (see 66 FR 5109). As in the highway HDDE program we propose to initially only require nonroad diesel manufacturers to project compliance with the phase-in based on their projected production volumes, provided that they made up any deficits (in terms of percent of production) the following year.

Because we expect that a manufacturer making a good-faith projection of sales would not be very far off of the actual production volumes, we are proposing to limit the size of the deficit that would be allowed, as in the highway program. In all cases, the manufacturer would be required to produce at least 25% of its production in each phase-in power category as ''phase-in'' engines (meeting the proposed NO_X and NMHC standards or demonstrating compliance through use of ABT credits) in the phase-in years (after factoring in any adjustments for Early Introduction or Blue Sky Series engine credits; see Section VII.E). This minimum required production level would be 20% for the 75–175 hp category if a manufacturer exercises the option to comply with a reduced phase-in schedule in lieu of using banked Tier 2 ABT credits, as discussed in Section III.B1.b. Another important proposed restriction is that manufacturers would not be allowed to have a deficit in the year immediately preceding the completion of the phase-in to 100%. This would help ensure that manufacturers are able to make up the deficit. Since they could not produce more than 100% low-NO_X engines after the final phase-in year, it would not be possible to make up a deficit from this year. These provisions are identical to those adopted in the highway HDDE program.

E. What Might Be Done To Encourage Innovative Technologies?

1. Incentive Program for Early or Very Low Emission Engines

In our rulemakings for heavy-duty highway engines and light-duty Tier 2 vehicles, we expressed our view that providing incentives for manufacturers to introduce engines emitting at very low levels early, or at levels significantly below the final standards, is appropriate and beneficial. We believe that such inducements may help pave the way for greater and/or more cost effective emission reductions from future engines and vehicles. We believe this also holds for the early introduction of low-emitting nonroad diesel engines. We also believe that the opportunity for a practical early-engine program is even greater for the nonroad sector than for the highway sector, considering the long lead times before these proposed nonroad diesel standards would take effect, the large variety of applications (and therefore potential pull-ahead opportunities) in the nonroad sector, the large number of machines fueled at dedicated fuel stations on construction sites, farms, and industrial complexes, and the widespread availability of very low sulfur diesel fuel at highway outlets after 2006, even sooner in some areas. Thus we are proposing an early-engine incentive program very similar to that adopted for highway engines and vehicles.

Specifically, we are proposing that manufacturers be permitted to take credit for engines certified to this rule's proposed standards prior to the 2011 model year in exchange for making fewer engines certified to these standards in or after the 2011 model year. In other words, clean engines sold earlier than required reduces the requirement to sell similar engines later. The emission standards levels must actually be met by qualifying engines to earn the early introduction credit, without use of ABT credits. Therefore, the early introduction engine credit is an alternative to the ABT program in that any early engines or vehicles can earn either the engine credit or the ABT emission credit, but not both. The purpose of the incentive is to encourage introduction of clean technology engines earlier than required in exchange for added flexibility during the phase-in years.

Any early engine credits earned for a diesel-fueled engine would be predicated on the assurance by the manufacturer that the engine would indeed be fueled with low sulfur diesel fuel in the marketplace. We expect this would occur through selling such engines into fleet applications, such as municipal maintenance fleets, large construction company fleets, or any such well-managed centrally-fueled fleet. Because obtaining a reliable supply of 15 ppm maximum sulfur diesel fuel prior to the 2011 model year will require some effort by nonroad diesel machine operators, we believe it is necessary and appropriate to provide a greater incentive for early introduction of clean diesel technology. Therefore, we propose to count one early diesel engine as 1.5 diesel engines later. This extra early credit for diesel engines means that fewer clean diesel engines than otherwise would be required may enter the market during the years 2011 and later. But, more importantly, it means that emission reductions would be realized earlier than under our base program. We believe that providing incentives for early emission reductions is a worthwhile goal for this program, because improving air quality is an urgent need in many parts of the country as explained in Section II, and because the early learning opportunity with new technologies can help to ensure a smooth transition to Tier 4 standards. Therefore, we are proposing these provisions for manufacturers willing to make the early investment in cleaner engines.

We are proposing to provide this early introduction credit to diesel engines at or above 25 hp that meet all of today's Tier 4 emissions standards (NO_X, PM, and NMHC) in the applicable power category. We are also providing this early introduction credit to diesel engines that pull-ahead compliance with only the PM standard. However, a PM-only early engine would offset only the ''phase-out'' engines during the phase-in years (those required to meet the Tier 4 standard for PM but not for NO_X or NMHC); it would not offset engines required to meet the Tier 4 NO_X, NMHC, and PM standards. Tier 4 engines certified to, or required to meet, the 2008 PM standard would not participate in this program, either as credit generators or as credit users.

An important aspect of the early incentive provision is that it must be done on an engine count basis. That is, a diesel engine meeting new standards early would count as 1.5 such diesel engines later. This contrasts with a provision done on an engine percentage basis which would count one percent of diesel engines early as 1.5 percent of diesel engines later. Basing the incentive on an engine count would alleviate any possible influence of fluctuations in engine sales in different model years.

Another important aspect of this proposed program is that it would be limited to engines sold prior to the 2011 model year for engines at or above 175 hp, prior to the 2012 model year for engines between 75 and 175 hp, or prior to the 2013 model year for engines between 25 and 75 hp. In other words, as in the highway program, nonroad diesel engines sold during the transitional ''phase-in'' model years would not be considered ''early'' introduction engines and would therefore receive no early introduction credit. However, such engines and vehicles would still be able to generate ABT credits. As with the phase-in itself, and for the same reasons, we are proposing that an early introduction credit could only be used to offset requirements for engines in the same power category as the credit-generating engine (*see* Section III.B).

As a further incentive to introduce clean engines and vehicles early, we are also proposing a provision that would give manufacturers an early introduction credit equal to two engines during or after the phase-in years. This ''Blue Sky'' incentive would apply for diesel engines achieving standards levels at one-half of the proposed long-term NO_X standard while also meeting the NMHC and PM standards. Due to the extremely low emission levels to which these Blue Sky series engines and vehicles would need to certify, we believe that the double engine count credit is appropriate. Table VII.E–1 shows the emission levels that would be required for diesel engines to earn any early introduction credits (other than ABT credits).

TABLE VII.E–1.—PROPOSED PROGRAM FOR EARLY INTRODUCTION OF CLEAN ENGINES AT OR ABOVE 25 HP

Category	Must meet [a]	Per engine credit
Early PM-only [b]	0.01 g/bhp-hr (≥75 hp) or PM 0.02 g/bhp-hr PM (<75 hp) or 0.02 g/bhp-hr PM (<75 hp).	1.5-to-1 PM-only
Early Engine [b]	above-indicated PM standard + 0.30/0.14 g/bhp-hr NO_X / NMHC (≥75 hp) or 3.5 g/bhp-hr NMHC + NO_X (<75 hp).	1.5-to-1
Blue Sky Series Engine	as above for Early Rnginr, except must meet 0.15 g/bhp-hr NO_X standard.	2-to-1

Notes:
[a] Engines in all 3 categories must also meet the Tier 4 crankcase emissions requirements.
[b] Engine count credits must be earned prior to the start of phase-in requirements in applicable power categories (prior to 2103 for 25–75 hp engines).

We welcome comment on these proposed provisions, as well as other ideas for encouraging the introduction of Tier 4 engines early, or of engines cleaner than Tier 4 levels. One area we especially seek comment on is whether or not engines below 25 hp that achieve the proposed long-term Tier 4 PM standard for 25–75 hp engines of 0.02 g/bhp-hr, or engines below 75 hp that achieve the proposed long-term Tier 4 NO_X standard for >75 hp engines of 0.30 g/bhp-hr, should gain credits under this program that could be used to offset requirements for larger engines, as a means of encouraging the migration of clean technologies to smaller engines.

2. Continuance of the Existing Blue Sky Program

In the 1998 final rule, the Agency established its original Blue Sky Series Engine program for nonroad diesel engines (63 FR 56968; see preamble Section III.I). This program encourages the early introduction of engines with emission levels (as measured on a transient test) about 40% lower than the Tier 2 standards levels. Manufacturers could designate these engines as Blue Sky Series engines and sell them for use in state, municipal, or commercial programs calling for these cleaner engines (but not in the ABT program, to avoid double-counting of emission reductions). Because the Agency's direction for the nonroad engine program was not completely settled at the time, the 1998 final rule limited the Blue Sky program to engines built in the 2004 and earlier model years, but discussed our intent to consider extending it later. This Tier 4 proposal does provide more clarity for the future direction of the nonroad engine program, and so at this time we are asking for comment on extending or revising the existing Blue Sky Series engine program. We believe that the levels set for the existing Blue Sky program are not stringent enough to warrant their continuance into the Tier 4 years, but we also note that the lack of a transient certification test in Tier 3 may make continuance of this program beyond 2004, perhaps through Tier 3 (and Tier 2 for engines under 50 hp), useful. We welcome comment on this, as well as on any experience with the program thus far, plans to use it in the future, whether the standards and test cycle should be changed and, if so, beginning in what model year.

F. Provisions for Other Test and Measurement Changes

This section contains further detail and explanation regarding several related nonroad diesel engine emissions test and measurement provisions. There are five topics which will be discussed: (1) EPA's proposed supplemental nonroad transient test; (2) an additional cold start transient test requirement for nonroad diesel engines; (3) a provision for control of smoke testing; (4) steady-state testing; (5) maximum test speed; and (6) general improvements to test procedure precision.

1. Supplemental Transient Test

Nonroad diesel engines and equipment for the most part run on a more transient basis than their highway diesel counterparts through operations such as shifting loads, powering auxiliary equipment and performing repetitive tasks. A smaller, but significant, transient segment of nonroad equipment operates in a constant-speed manner for most or all of its useful life as with electrical generating sets, arc welders and the like. However, nonroad test regulations to date have tended to not capture a broad area of real world operating characteristics and the emissions which result from these modes of equipment operation. The Agency believes that it is important to ensure that nonroad engines meet emission standards in-use under typical operating conditions so that the expected benefits of the program will be achieved over the life of the program. The supplemental nonroad diesel engine transient test provisions EPA is proposing are intended to help achieve this goal. Steady-state emission testing of nonroad diesel engines will be retained because it covers types of in-use diesel engine

operation not represented in nonroad diesel transient operation. Steady-state emission testing provides a benchmark as well for simpler test programs, like Selective Enforcement Audits (SEAs).

As explained in section III.C. above, EPA is proposing to supplement its steady-state emission testing in nonroad diesel engines with a transient duty emission test procedure for nonroad diesel engines, the Nonroad Transient Composite (NRTC) [307] test cycle. The Agency's NRTC cycle is described in proposed regulations at 40 CFR part 1039. A detailed discussion of the proposed transient test cycle and its derivation is contained in Chapter 4 of the Draft RIA for this proposal. Like current nonroad diesel standards, any new emission standards would apply to certification, Selective Enforcement Audits (SEAs), and equipment in actual use for engines covered by the standards.

EPA's supplemental nonroad transient test will apply to a nonroad diesel engine when that engine must first show compliance with EPA's proposed Tier 4 PM and NO_X+NMHC emissions standards which are based on the performance of the advanced post-combustion emissions control systems (*e.g.* CDPFs and NO_X adsorbers), with the specific exception of engines under 25 hp for PM and under 75 hp for NO_X. The transient duty cycle would be applicable to Tier 4 phase-in engines, as well as the phase-out engines (as defined in section III.B.1.b of this preamble). However, we are seeking comment on whether the transient test procedure should only be required for the PM standard for phase out engines. The table VII.F.–1 below outlines the dates for implementation of this requirement and notes specific exceptions for phase-in of some engine standards.

TABLE VII.F.–1. IMPLEMENTATION MODEL YEAR FOR NONROAD TRANSIENT TESTING

Power category	Transient test implementation model year [a]
< 25 hp	2013
25 ≤ hp < 75	[b] 2013
75 ≤ hp < 175	2012
175 ≤ hp ≤ 750 hp	2011
>750 hp	[c] 2011

NOTE:

[a] We are taking comment on whether the transient test procedure should only be required for the PM standard for phase out engines under 750 hp and we are seeking comment on not requiring the transient test procedure for carry over engines over 750 hp.

[b] The transient test would apply in 2012 for any engines in the 50–75 hp range that choose not to comply with the proposed 2008 transitional PM standard.

[c] Beginning in 2014, when the phase-in has been completed, the transient test would apply to all nonroad engines >750 hp, however we are taking comment on this approach.

While manufacturers of nonroad diesel engines under 75 hp are not subject to the transient test procedure and therefore not required to submit data demonstrating that their engines will meet the Tier 4 nonroad PM emission standard beginning in 2008, it is our expectation that manufacturers, in anticipation of the transient test requirements and in accordance with applicable defeat device prohibitions, would design their engines with effective, in-use control over the expected range of operating conditions, including transients. Given this, we feel this affords a good balance to address workload constraints for these manufacturers as they prepare for addressing Tier 4 compliance. As explained earlier in section III of this preamble, actual submission of transient test data will not be required of engine manufacturers in these power categories until 2013.[308] EPA recognizes that the timing of interim standards for these engines could otherwise force manufacturers of smaller engines to have to certify under the proposed NRTC duty cycle test requirement before the requirement applies to the broader market of engine manufacturers in the 2011 to 2013 time frame.

The Agency notes however that some manufacturers have reported difficulties measuring transient PM emissions in 750 hp and over engines under full-flow constant volume sampling (CVS) emission measurement systems. It has been reported that this may be due to difficulties apportioning the large exhaust volumes to sample emissions. Additionally, manufacturers have raised concerns regarding a requirement to conducttransient testing for engines over 750 hp, based on concerns related to facility impacts and sales volumes that are particular for engines over 750 hp. To address the concerns raised, the Agency is taking comment on not requiring the engine manufacturer to conduct transient testing for engines over 750 hp for purposes of certification. Manufacturers would have the option to submit an engineering analysis that demonstrates compliance with the applicable transient standard. This engineering analysis would have to include relevant test data, such as steady state test data, that would support the engineering analysis.

Similarly, PM exhaust emissions gathered from these large engines using partial flow sampling systems (PFSS) tend to be high in volatile PM fractions [309] under some low load operating modes. To date, volatile PM measured from PFSS has not been proven to be consistently comparable to volatile PM measured by a full-flow CVS. The pressure across the filter and other sample zone conditions, coupled with differences in the dilution rate and method and residence time, may combine to yield a different PM composition in PFSS than in full-flow CVS systems at these operating conditions. EPA requests comment from manufacturers on the use of PFSS test practices for PM emission data collection in these large displacement engines.

EPA recognizes that there may be practical difficulties with emission testing in large nonroad diesel engines over 750 hp, systems which often have multiple exhaust manifolds and may incorporate several catalysts or other pieces of emission control equipment. Further, the Agency does not intend at this time to require that manufacturers use PFSS to determine PM emissions from their engines for certification. A large engine manufacturer may, however, choose to submit PM data to the Agency using PFSS as an alternative test method, if that manufacturer can demonstrate test equivalency using a paired-T test, as outlined in regulations at 40 CFR 86.1306–07.

EPA is also proposing, as an alternative to the NRTC for a limited class of engines, a Constant Speed Variable Load (CSVL) transient duty cycle. The CSVL transient duty cycle is derived from the EPA's Arc Welder Highly Transient Torque application duty cycle. The CSVL cycle is described in the proposed regulations at 40 CFR 1039.510. Because of the more limited range of engine operation in the CSVL cycle, manufacturers must ensure that engines certified with data generated with this cycle are used exclusively in constant-speed applications. Accordingly, these engines must include labeling information indicating this limited emission certification. An example of engines in this category of

[307] Memoranda to Docket A–2001–28: ''Speed and Load Operating Schedule for the Nonroad Transient Composite test cycle'' and ''NRTC Cycle Construction''.

[308] See Note ''b'' in Table VII–F–1 above for engines between 25 and 75 hp (19–56 kW).

[309] Memorandum to Docket ''Partial Flow Testing Concerns in Large Nonroad Diesel Engines as Regards Emission Testing Through Partial Flow Sampling'', Docket A–2001–28.

nonroad diesel equipment include power generating sets which are very tightly governed for operating speed changes. Other ''constant speed'' equipment may be less closely regulated for changes in speed such as those that utilize a 3% droop-type of engine speed governor. One might expect that this latter group would more easily pass cycle performance statistics over a constant speed transient test than the more speed change-sensitive former group, represented by electrical generating sets, for example. However, both types of constant speed engines experience some fluctuations in speed and load during operation in-use and the CSVL duty cycle would capture emissions from these infrequent modes of operation, as well.

Transient testing requires consideration of statistical parameters for verifying that test engines adequately follow the prescribed schedule of speed and load values. The proposed regulations in § 1065.530 detail these statistical parameters (or ''cycle statistics'') for nonroad diesel engines. These values are somewhat different than the comparable values for highway diesel engines to take into account the characteristics of the nonroad composite cycle and the CSVL cycle. Note also that we are proposing to modify certain cycle statistics previously established for nonroad spark-ignition engines. These changes generally allow testing spark-ignition engines in a way that follows the speed and load traces somewhat less precisely than previously established. All of the proposed changes for spark-ignition engines are consistent with the comparable cycle statistics we are proposing for nonroad diesel engines.

While designed to control for a broad range of constant-speed nonroad engines, the Agency's CSVL cycle has an average speed which may be lower than the speed which a manufacturer considers optimal for their engines in-use. Further, EPA recognizes that some constant speed equipment may operate near or at its rated engine rpm during much of that equipment's useful life. As such, EPA is proposing that constant-speed engines tested in the laboratory with installed speed governors be required to meet cycle statistics for engine load, but not for engine speed. This addresses the concern that different engines may have different degrees of engine speed variation and that some engines may be set to operate at speeds slightly different than the defined point of maximum test speed. At the same time, the installed governor forces the test engine to operate in a way that is representative of in-use operation. This is described further in Chapter 4 of the Draft RIA for this rulemaking.

Engine manufacturers have raised additional concerns about designing constant-speed engines to meet emission standards over the CSVL cycle. These concerns generally focus on the fact that the cycle has relatively light engine loads and is derived from an arc welder powered by a naturally aspirated engine. Manufacturers questioned the representativeness of this cycle for generators, which is a more common application for constant-speed engines. We continue to believe that transient testing of these engines will add assurance that they control emissions under real in-use operation. While the CSVL cycle does not capture the full operating experience of every engine application, we believe that engines designed to this cycle will control emissions effectively under other types of transient operation not specifically included in the certification procedure. Especially given the anticipated emission-control technologies, we believe engines that are capable of meeting emission standards on the CSVL cycle will have the transient-response characteristics that are appropriate for controlling emissions at higher engine loads and for less dynamic transient operation. At the same time, we share engine manufacturers' interest in creating duty cycles that achieve in-use emission reductions without requiring approaches that lead to laboratory improvements unrelated to an engine's in-use operation. We are therefore expecting to continue discussions with engine manufacturers to pursue the possibility of developing a constant-speed transient cycle that addresses these concerns. We request comment on the extent to which the CSVL cycle will pose design burdens or constraints unrelated to improving in-use emission control.

EPA recently adopted a similar transient duty cycle for spark-ignition constant-speed engines (67 FR 68242, 68298–99, November 8, 2002). This duty cycle, which is based on the same underlying engine operation of an arc welder powered by a diesel engine, includes a combination of equal parts typical and high-transient operation. There was no effort to modify the schedule of engine operation to make it more representative of spark-ignition engines, so the expectation was that the same cycle would eventually apply to nonroad diesel engines. Aside from the different selection of engine operation from the available operating welder described above, the proposed constant-speed transient cycle includes several adjustments that would need to be factored into the ''spark-ignition'' cycle before it could be applied to nonroad diesel engines. These adjustments include renormalization with a more robust engine map (based on updated specifications of the original engine) and ''I-alpha'' corrections to synchronize measurements made with and without a flywheel (see Section 4.2.8.1 of the Draft RIA). EPA requests comment on whether the previously adopted constant-speed transient cycle (in modified form) should apply equally to nonroad diesel engines. Conversely, if EPA adopts the proposed constant-speed transient cycle for nonroad diesel engines, we would expect to change the regulations for spark-ignition engines to align with the conclusions in this rulemaking. EPA accordingly requests comment on these same issues as they relate to spark-ignition engines.

EPA is proposing an optional test cycle specifically for engines used in transport refrigeration units (TRUs). These engines would be certified to a four-mode steady-state duty cycle, developed by the California-EPA Air Resources Board.[310] Two modes would be run at the engine's maximum test speed, one mode at 50% of observed engine torque and the other mode at 75% of observed engine torque. The third and fourth modes would be run at the engine's intermediate test speed and, again, one mode would be run at 50% of observed engine torque and the other mode at 75% of observed engine torque. All four modes would be weighted equally in determining an operating mode's contribution to the engine's emissions.

Manufacturers certifying engines to the TRU cycle would need to state on the emission control label that the engines may only be used in TRUs, provide installation instructions to ensure they will operate only in the modes covered by the test cycle, and keep records on delivery destinations for these engines. Although these engines would not be subject to a transient duty cycle, they would be subject to not-to-exceed standards based on any normal operation that they might experience in the field. Manufacturers of these engines may petition EPA at certification for a waiver of the requirement to provide smoke emission data for their constant-torque engines. We request comment on whether different modes, or different weighting

[310] Information on the proposed TRU cycle may be found on the California ARB Web site at *http://www.arb.ca.gov/diesel/dieselrrp.htm.*

factors, would be more appropriate for characterizing TRU emissions.

2. Cold Start Testing

EPA is proposing to include a requirement for a cold start transient test to be run in conjunction with the Agency's proposed nonroad diesel engine transient test. While EPA does not have available a database of emission information to characterize cold start emissions from all power categories of nonroad diesel engines, EPA has been able to analyze the second-by-second in-use operation of some forty pieces of Tier 1 and older nonroad equipment. Using a subset of equipment from this study, the Agency characterized the ''average'' workday of each piece of equipment in the data set [311] and attempted to define the role ''cold start'' operation, generally characterized by lower exhaust temperatures and higher-than-idle engine speeds, played in engine emissions. Generally, the Agency found that times when the engine was operating at cold start, higher engine emission rates were seen than during normal, temperature-stabilized operation of the engine. These cold start, or ''warming-up'', periods were seen to last on average ten minutes after equipment key-on for the units in our study.

The Agency found, that over an eight to ten hour workday, a piece of nonroad equipment would spend between 25 and 35 percent of its in-use day running in idle operation at a relatively low rate of emission output. With downtime on the equipment for operator lunch times and equipment transport, there could be a further period of an hour or more of low to no emissions from the equipment in-use. At first key-on of the workday, and with each additional ''key-on'' cold start event during the day, the equipment experiences a period of higher emissions until it reaches a stabilized operating temperature. Start-up of the equipment after a period of downtime which lasted an hour or more was generally seen to experience rates of engine emissions similar to those seen at first key-on, or cold start, and were considered periods of cold start emissions, as well. The total time the equipment in the study spent at these higher rates of ''cold start'' engine emissions could be estimated to generate approximately one-tenth of the engine emissions that the equipment would be expected to produce over the whole workday. Therefore, EPA proposes to weight the emission test results from its additional cold start transient test requirement as one tenth of the composite transient emission test results for a particular engine. The Agency requests comments as to the robustness of this weighting factor and as to its applicability across the spectrum of nonroad diesel equipment.

In addition, EPA requests comment on the potential to apply an approach adopted for commercial spark-ignition engines, in which engines operate over a single ''warm-start'' cycle (67 FR 68298, November 8, 2002; see 40 CFR 1048.510), to nonroad diesel engines. The regulations for these spark-ignition engines address cold-start emissions indirectly through a combination of provisions. First, the warm-up period before emission measurement can start is limited to three minutes of operation. As a result, any engine operation after this three-minute period is fully accounted for by emission measurements. Second, the regulations direct manufacturers to design their emission-control systems to start working as soon as possible after engine starting and to describe in their application for certification how their engines meet this objective. For engines that take advantage of the period of unmeasured emissions with a design that has unnecessarily high emissions, we can consider this a defeat device and deny certification. Manufacturers therefore need to take steps to design their engines and any emission-control equipment to control emissions during the warm-up period without the additional effort of supplemental cold-start testing. EPA requests comment on whether this approach would be appropriate for nonroad diesel engines. In particular, we request comment on how long the warm-up period prior to start of emissions measurement should be for diesel engines. The three-minute warm-up period specified for these spark-ignition engines reflects the time needed for their catalysts to start working. The emission-control technologies anticipated for diesel engines under this proposal would need additional time, perhaps 10 minutes, before they achieved nearly full effectiveness in controlling diesel emissions. Any comments regarding this approach should address how the changed procedure would affect measured emission levels and how the emission standard should be adjusted to reflect these changes.

3. Control of Smoke

Manufacturers are currently responsible for testing and reporting results for nonroad ''peak acceleration'' and ''lugging'' smoke emissions. These regulations are detailed in 40 CFR 89.113 [312] and refer the reader back to 40 CFR 86, subpart I, which was developed for highway engines. This rulemaking however proposes to replace the present Federal Smoke Procedure for nonroad engines with the ISO 8178 Part 9 nonroad smoke procedure as the method and standards by which engine manufacturers will certify their nonroad engines. This new smoke testing procedure with its related smoke standards will become effective for a particular engine when that engine is certified to EPA's proposed Tier 4 or transition PM and NO_X-NMHC standards. Proposed regulations may be found at 40 CFR part 1039.

The ISO–TC70/SC8/WG1 committee developed a nonroad smoke test procedure, ISO 8178–9 and finalized it on October 15, 2000. Recognizing the value of harmonized test procedures and limit standards, EPA is proposing through this rulemaking to use ISO 8178–9 for smoke testing of nonroad diesel engines. EPA has analyzed ISO 8178–9 and concluded that it is appropriate for adoption within the Agency's nonroad test procedures. It is important to note that the ISO 8178–9 smoke emissions test procedure is very different from the procedure specified in Subpart I of Part 86. As a consequence, in adopting the ISO 8178–9 procedure, EPA proposes to revise the numerical limit value associated with this ISO procedure. EPA proposes that the appropriate (maximum) numerical standard for ISO 8178–9 peak (acceleration) smoke value measurement will be 20 percent opacity, peak smoke values at 3x, 6x, and 9x will be 18 percent opacity, 16 percent opacity and 14 percent opacity, respectively, and the lug smoke value will be 10 percent opacity. The Agency has determined this value on review of data from smoke tests on various engines [313] across differing programs and requests comment as to the appropriateness of these particular limit values.

Some state governments have expressed a desire for a federal smoke regulatory program that would enable

[311] Memorandum to Docket, ''Analysis of Second-by-Second Emission and Activity Data for a Private Rental Fleet of Construction Equipment'' Docket A–2001–28.

[312] Smoke testing guidelines are detailed under ISO 8178–9, First Ed. 10–15–2000, ''Reciprocating internal combustion engines-Exhaust emission measurement-Part 9: Test cycles and test procedures for test bed measurement of exhaust gas smoke emissions from compression ignition engines operating under transient conditions''. A copy of the testing procedure may be found for reference only in Docket A–2001–28.

[313] ''Nonroad Diesel Engine Smoke Testing and Limited Filter Analysis'' May, 2001.Final Report to Engine Manufacturers Association from Southwest Research Institute. Docket A–2001–28

them to test in-use nonroad engines in a manner that would permit action against gross emitters of smoke. In a like manner, EPA could propose additional smoke testing regulations as part of any future rulemaking which would address manufacturer's in-use smoke test requirements. The main elements of any in-use smoke program would be a new Federal smoke standard(s) and test procedure for new engines, guidance from EPA for state in-use smoke control programs (including a full smoke test procedure and accompanying state limit values), and a means by which the data from the two programs could be related. The current smoke test procedure from Part 86, Subpart I does not provide data comparable to the most practical in-use smoke test procedure, a snap-idle acceleration test with measured opacity. However, based on the current ISO 8178–9 procedure, EPA believes data from an ISO 8178–9 certification smoke test could provide the desired link.

In applying nonroad smoke standards and procedures to engines rated 50 hp and under, EPA has chosen to exempt one-cylinder engines, the large majority of which are being used in generator sets and other constant-speed applications, from the smoke standards. EPA still believes that testing of these engines is unique in ways that would need to be addressed before requiring smoke standards and testing for this class of engines. These engines tend to produce puffs of smoke that may make the smoke measurement erratic. The Agency believes the air quality impact of this decision will be minimal. EPA expects to reconsider this issue in the future in relation to other in-use testing concerns.

Finally, the Agency proposes to exempt from smoke standards those nonroad diesel engines which have certified PM emission levels or Family Emission Limits (FELs) below 0.05 g/hp-hr. The Agency believes that engines meeting an FEL below 0.05 g/hp-hr would utilized control technology, such as particulate traps, that would provide adequate smoke control.

4. Steady-State Testing

Recognizing the variety of both power classes and work applications to be found within the nonroad vehicle and engine population, EPA will retain current Federal steady-state test procedures for nonroad engines. The steady state duty cycle applicable in each of the following categories: 1) nonroad engines 25 hp and greater; 2) nonroad engines less than 25 hp; and 3) nonroad engines having constant-speed, variable-load applications, (*e.g.*, generator sets) as set out in Table VII.F–2. The steady-state cycles remain, respectively, the 8-mode cycle, the 6-mode cycle and the 5-mode cycle.[314] We envision manufacturers that satisfy the requirements to certify on the steady state ISO 8178-D2 duty cycle might likewise satisfy the requirements to test over the Constant Speed Variable Load Duty Cycle (CSVL). Manufacturers will be required to meet emission standards under steady-state conditions, in addition to meeting emission standards under the proposed supplemental transient test cycle. Steady-state test cycles are needed so that testing for certification will reflect the broad range of operating conditions experienced by these engines. A steady-state test cycle represents an important type of modern engine operation, in power and speed ranges that are typical in-use. The mid-to-high speeds and loads represented by present steady-state testing requirements are the speeds and loads at which these engines are designed to operate for extended periods for maximum efficiency and durability. Details concerning the three steady-state procedures for nonroad engines and equipment can be found in proposed regulations at proposed 40 CFR 1039.510 and in the three appendices which follow that section, one for each cycle.

Manufacturers would perform each steady-state test following all applicable test procedures in proposed regulations at proposed 40 CFR part 1039, *e.g.*, procedures for engine warm-up and exhaust emissions measurement. We are proposing that the testing must be conducted with all emission-related engine control variables in the maximum NO_X-producing condition which could be encountered for a 30 second or longer averaging period at a given test point. Table VII.F.-2 below summarizes the steady-state testing requirements by individual engine power categories.

TABLE VII.F–2.—SUMMARY OF STEADY-STATE TEST REQUIREMENTS

Nonroad engine power classes	Steady-state testing requirements		
	8-Mode cycle (ISO 8178–4 C1)	6-Mode cycle (ISO 8178–4 G3)	5-Mode cycle (ISO 8178–4 D2)
hp < 25 (kW < 19)	NA [a]	applies	applies [b].
25 ≤ hp < 75 (19 ≤ kW < 56)	applies	NA [a]	applies [b].
75 ≤ hp <175 (56 ≤ kW <130)	applies	NA [a]	applies [b].
175 ≤ hp ≤750 (130 ≤ kW ≤560)	applies	NA [a]	applies [b].
hp >750 (kW >560)	applies	NA [a]	applies [b].

[a] Testing procedure not applicable to this class of engines.
[b] For constant, or nearly constant, speed engines and equipment with variable, or intermittent, load.

5. Maximum Test Speed

We are proposing to make a slight change to how test cycles are specified. We are proposing to apply the existing definition of maximum test speed in part 1065 to nonroad CI engines. This definition of maximum test speed is the single point on an engine's normalized maximum power versus speed curve that lies farthest away from the zero-power, zero-speed point. This is intended to ensure that the maximum speed of the test is representative of actual engine operating characteristics and is not improperly used to influence the parameters under which their engines are certified. In establishing this definition of maximum test speed, it was our intent to specify the highest speed at which the engine is likely to be operated in use. Under normal circumstances this maximum test speed should be close to the speed at which peak power is achieved. However, in past discussions, some manufacturers have indicated that it is possible for the maximum test speed to be unrepresentative of in-use operation. Since we were aware of this potential during the original development of this

[314] The three proposed steady-state test cycles are similar to test cycles found in the International Standard ISO 8178–4:1996 (E) and remain consistent with the existing 40 CFR part 89 steady state duty cycles.

definition, we included provisions to address issues such as these. Part 1065 allows EPA to modify test procedures in situations where the specified test procedures would otherwise be unrepresentative of in-use operation. Thus, in cases in which the definition of maximum test speed resulted in an engine speed that was not expected to occur with in-use engines, we would work with the manufacturers to determine the maximum speed that would be expected to occur in-use.

6. Improvements to the Test Procedures

We are proposing changes to the test procedures to improve the precision of emission measurements. These changes address the potential effect of measurement precision on the feasibility of the standards. It is important to note that these changes are not intended to bias results high or low, but only to improve the precision of the measurements. Based on our experience with these modified test procedures, and our discussions with manufacturers about their experiences, we are confident that these changes will not affect the stringency of the standards. These changes are summarized briefly here, and the rationale for the changes affecting Constant Volume Sampling (CVS) and PM testing are summarized in a memo to the docket (Air Docket A–99–06, IV–B–11), which was originally submitted in support of the recent highway heavy-duty diesel engine rule (66 FR 5001, January 18, 2001). The rationale for any other changes are summarized in a memo to the docket for this proposal.

Many of the changes are to the PM sampling procedures. The PM procedures will be the same as those finalized as part of the highway heavy-duty diesel engine rule (66 FR 5001, January 18, 2001). These include changes to the type of PM filters that are used and improvements in how PM filters are weighed before and after emission measurements, including requirements for more precise microbalances.

Another area includes changes to the CVS dilution air and flow measurement specifications to allow for lower dilution ratios. These changes are also the same as those changes finalized in the highway rule.

Another area of change is the NO_X calibration procedure. These changes are also the same as those changes finalized in the highway rule. The new calibration procedures will result in more precise continuous measurement of very low concentrations of NO_X.

Other changes are being proposed to allow for other measurement options, including the complete or partial adoption of the International Standards Organization's test procedures as specified in ISO 8178–1 (2002–2003 revision) and ISO 8178–11 DIS. EPA has participated in draft changes to these procedures and feels that adopting these procedures, at least in part, would not only allow for the use of the most technically correct procedures, but would also improve harmonization with international standards, which might offer cost savings for some manufacturers. EPA requests comments on the appropriateness of adopting parts of or all of ISO 8178–1 (2002–2003 revision) and ISO 8178–11 DIS.

If finalized, manufacturers would be allowed to use the new procedures immediately for all certifications of all engines (*i.e.* to certify any nonroad engine, not just Tier 4 engines), and manufacturers will also be able to use their current procedures up to a certain transition date to allow for a gradual transition to the new procedures. The reason for this is that some of these changes may not be convenient or cost-effective in the short term, and manufacturers may be willing to live with some slightly lower measurement precision in order to lower short-term testing costs. We believe, though, that manufacturers should be able to individually optimize their test facilities in this manner. In addition, it is important for manufacturers to understand that we will conduct our confirmatory testing in the manner specified in these regulations.

We are also proposing a new regulatory provision that specifies the steps that someone would need to follow to demonstrate that their own alternate measurement procedure is as good as or better than the procedure specified by our regulations. This provision will be the same as that finalized for highway testing, which can be found in 40 CFR 86.1306–07. The proposed test procedure changes just discussed can be found in 40 CFR Part 1065 of the proposed regulations.

G. Not-To-Exceed Requirements

EPA is proposing to adopt not-to-exceed (NTE) emission standards for new non-road diesel engines which are similar to those the Agency set for highway heavy-duty diesel engines. Specifically, the Agency proposes to adopt for non-road diesel engines NTE specifications similar to those finalized as part of the heavy-duty highway diesel engine rulemaking. These specifications are currently published in 40 CFR 86.007–11 and 40 CFR 86.1370–2007.

NTE standards are set as multipliers of FTP standards, therefore, the NTE standards are also set as emissions mass per unit work performed (*i.e.* brake-specific, g/kW-hr). EPA proposes that non-road NTE standards be applicable to NO_X, CO, THC, and PM mass emissions from the engines subject to this proposed rule. These standards are evaluated against EPA-prescribed procedures for conducting in-use testing. Such tests may be conducted in an engine or chassis dynamometer laboratory, or they may be conducted on a piece of non-road equipment operating normally in-use by using EPA-prescribed field-testing procedures.

For new nonroad diesel engines, EPA proposes that manufacturers state in their application for certification that they are able to meet the NTE standards under all conditions that may reasonably be expected to occur in normal equipment operation and use. Manufacturers will have to maintain a detailed description of any testing, engineering analysis, and other information that forms the basis for their statement. This information may include a variety of steady-state emission measurements not included in the prescribed emission testing duty cycles. It may also include a continuous trace showing how emissions vary during the transient test or operation manufacturers believe are representative of the way their engines normally operate in the field. This data may also consist of field testing data. Any of the aforementioned data may be analyzed using the NTE data reduction procedures proposed in this regulation; with the final emissions data set then compared to the appropriate NTE standards.

EPA requests comment on an alternative NTE specification that differs from the highway NTE specification. If adopted, this would be the sole NTE test procedure for Tier 4 nonroad diesel engines. The alternative utilizes all engine operation to determine compliance. Other differences in its data reduction procedures would eliminate the need for measuring engine torque for the alternative NTE, which can be particularly difficult on-board nonroad vehicles. These alternative procedures would also eliminate the need for an absolute exhaust flow measurement for these engines by relying on a signal linearly proportional to standard exhaust flow. This alternative approach would address some concerns of the ease of practical in-use implementation of NTE testing. For more detailed information on EPA's NTE provisions, refer to Chapter 4.3 of the draft RIA for this proposal.

H. Certification Fuel

It is well-established that measured emissions may be affected by the properties of the fuel used during the test. For this reason, we have historically specified allowable ranges for test fuel properties such as cetane and sulfur content. These specifications are intended to represent most typical fuels that are commercially available in use. This helps to ensure that the emissions reductions expected from the standards occur in use as well as during emissions testing. Because we are proposing to lower the upper limit for in-use nonroad diesel fuel sulfur content to 500 ppm in 2007, and again to 15 ppm in 2010, we are also proposing to establish new ranges of allowable sulfur content for testing. These are proposed to be 300 to 500 ppm (by weight) for model year 2008 to 2010 engines, and 7 to 15 ppm (by weight) for 2011 and later model year engines. We believe that these ranges best correspond to the fuels that diesel machines will potentially see in use. (*See* 66 FR 5112–5113 where we adopted a similar approach to certification fuels for highway HDDEs.) These specifications will apply to emission testing conducted for certification, selective enforcement audits, in-use, and NTE testing, as well as any other laboratory engine testing for compliance purposes for engines in the designated model years. Any compliance testing of previous model year engines will be done with the fuels designated in our regulations for those model years. Note that we are allowing certification with fuel meeting the 7 to 15 ppm sulfur specification in 2010 for under 11 hp, air-cooled, hand-startable, DI engines certified under the proposed optional standard provision discussed in Section III.B.1.d.i.

It is important to note that while these specifications include the maximum sulfur level allowed for in-use fuel, we believe that it is generally appropriate to test using the most typical fuels. As for highway fuel, we expect that, under the 15 ppm maximum sulfur requirement, refineries will typically produce diesel fuel with about 7 ppm sulfur, and that the fuel could have slightly higher sulfur levels after distribution. Thus, we expect that we would use fuel having a sulfur content between 7 and 10 ppm sulfur for our emission testing. This is the same as the range we indicated would be used for HDDE engine testing in model year 2007 and later (66 FR 5002); and as with the highway fuel, should we determine that the typical in-use nonroad diesel fuel has significantly more sulfur than this, we would adjust this target upward.

We are also proposing two options for early use of the new 7 to 15 ppm diesel test fuel. The first would be available beginning in the 2007 model year for engines employing sulfur-sensitive technology. (Model year 2007 coincides approximately with the introduction of 15 ppm highway fuel.) This allowance to use the new fuel in model years before 2011 would only be available for engines which the manufacturer demonstrates will be operated in use on fuel with 15 ppm sulfur or less. Any testing that we perform on these engines would also use fuel meeting this lower sulfur specification. This optional certification fuel provision is intended to encourage the introduction of low-emission diesel technologies in the nonroad sector. These engines will be able to use the lower sulfur fuel throughout their operating life, given the early availability of this fuel under the highway program, and the assured availability of this fuel for nonroad engines by mid-2010.

Considering that our proposed Tier 4 program would subject engines under 75 hp to new emission standards in 2008 when 15 ppm maximum sulfur fuel will be readily available from highway fuel pumps (and will enter the nonroad fuel market shortly after in 2010), we believe it is appropriate to provide a second, less proscriptive, option for use of 15 ppm sulfur certification fuel. This option would be available to any manufacturers willing to take extra steps to encourage the use of this fuel before it is required in the field. We are proposing to allow the early use of 15 ppm certification fuel for 2008–2010 engines under 75 hp, provided the certifying manufacturer ensures that ultimate purchasers of equipment using these engines are informed that the use of fuel meeting the 15 ppm specification is recommended, and also recommends to equipment manufacturers buying these engines that labels be applied at the fuel inlet to remind users of this recommendation. This option would not apply to those 50–75 hp engines not being certified to the 0.22 g/bhp-hr PM standard, under the manufacturers' option discussed in Section III.B.1.a. Comment is request on whether or not application of this label should be mandatory for the equipment manufacturers, and on whether the engine manufacturers should supply the labels.

We believe that there may be a very small loss of emissions benefit from any of these engines for which the operator chooses to ignore the recommendation. This is because the engine manufacturer will be designing the engine to comply with the emissions standards when tested using 15 ppm fuel, potentially resulting in slightly higher emissions when it is not operated on the 15 ppm fuel. We also believe, however, that this is more than offset overall by the encouragement this provision provides for early use of 15 ppm fuel. We are not proposing that this option be available for engine designs employing oxidation catalysts or other sulfur-sensitive exhaust emission control devices except under the more restrictive provision for early use of 15 ppm fuel described above, involving a demonstration by the manufacturer that the fuel will indeed be used. Because these devices could potentially have very high sulfur-to-sulfate conversion rates, and because very high-sulfur fuels will still be available to some extent, we believe that allowing this provision for these engines would risk very high PM emissions until the 15 ppm nonroad fuel is introduced. Comment is requested on whether or not we should deal with early use of 15 ppm test fuel to certify catalyst-equipped engines in some other way, such as through a weighted-average emissions criterion using results from testing on both higher-and lower-sulfur fuels. We are also not proposing to make this second early 15 ppm test fuel option available for engines not subject to a new Tier 4 standard in 2008 as these engines should already be designed to meet applicable standards in earlier years without need for the 15 ppm fuel.

We are also proposing a similar provision for use of certification fuel meeting the proposed 300–500 ppm sulfur specification before the 2008 model year. We believe certification of model year 2006 and 2007 engines being designed to meet new Tier 2 or Tier 3 emission standards taking effect in those years (2006 for engines at or above 175 hp and 2007 for 100–175 hp engines) should be able to use this fuel, provided the certifying manufacturer is willing to take measures equivalent to those discussed above to encourage the early use of this fuel (a recommendation to the ultimate purchaser to use fuel with 500 ppm maximum sulfur and a recommendation to equipment manufacturers to so label their equipment). We also request comment as above on whether the labeling should be mandatory. The widespread availability of 500 ppm sulfur highway fuel, the short time that these 2006 and 2007 engines could use higher sulfur fuels if an operator were to ignore the recommendation, and the eventual use

of 15 ppm sulfur fuel in most of these engines for most of their operating lives, gives us confidence that this provision to encourage early use of lower sulfur fuel would be beneficial to the environment overall. As with the proposed change to 300–500 ppm cert fuel for model years 2008–2010, engine manufacturers would design their engines to comply based on the test fuel specifications for certification and compliance testing. The change from a fuel specification for compliance testing that ranges up to 2000 ppm sulfur for Tier 2 and 3 engines to a specification of 500 ppm sulfur maximum could have some limited effect on the emissions control designs used on these Tier 2 and 3 engines, in that it would be slightly easier to meet the Tier 2 and 3 standards using the lower sulfur test fuel. In general, it is reasonable to set specifications of test fuel reflecting representative in-use fuels, and here the engines are expected to be using fuel with sulfur levels of 500 ppm or lower until 2010, and 15 ppm or lower after that. In this case, any impact on expected engine emissions from this change in test fuel for Tier 2 and 3 is expected to be slight.

We note that under current regulations manufacturers are already allowed to conduct testing with certification fuel sulfur levels as low as 300 ppm. The additional proposed provision for early use of 300–500 ppm sulfur test fuel would, however, result in any compliance testing conducted by the Agency being done with fuel meeting the 300–500 ppm specification. Likewise choice of the option for early use of 15 ppm sulfur test fuel would result in any Agency testing being done using that fuel. However, under both of these early certification fuel options involving a recommended fuel use provision, the Agency would not reject engines from in-use testing for which there was evidence or suspicion that the engine had been fueled at some time with higher sulfur fuel.

Finally, we are proposing to extend a provision adopted in the 1998 final rule. In that rule we set a 2000 ppm upper limit on the test fuel sulfur concentration for any testing to be performed by the Agency on Tier 1 engines under 50 hp and Tier 2 engines at or above 50 hp. We did not extend this provision to later model year engines at that time because we felt that more time was needed to assess trends in fuel sulfur levels for fuels used in nonroad diesels. At this time we are not aware of any additional information that would indicate that a change in this test specification is warranted. More importantly, because the fuel regulation we are proposing would make 500 ppm maximum sulfur nonroad diesel fuel available by mid-2007, Tier 3 engines at or above 50 hp (which phase in beginning in 2006) will be in the field for only 1½ years prior to the in-use introduction of 500 ppm fuel, and Tier 2 engines under 50 hp (which phase in beginning in 2004) will be in the field for at most 3½ years prior to this time. We believe it is appropriate to avoid adding the unnecessary complication of frequent multiple changes to the test fuel specification. We are therefore proposing to extend the 2000 ppm limit to testing conducted on engines until the 2008 model year when the 500 ppm maximum test fuel sulfur level takes effect as discussed above.

I. Labeling and Notification Requirements

As explained in Section III, the emissions standards contained in the proposed regulations would make it necessary for manufacturers to employ exhaust emission control devices that require very low-sulfur fuel (less than 15 ppm) to ensure proper operation. This action therefore proposes to restrict the sulfur content of diesel fuel used in these engines. However, the 2008 emissions standards would be achievable with less sensitive technologies and thus it could be appropriate for those engines to use diesel fuel with up to 500 ppm sulfur. There could be situations in which vehicles requiring either 15 ppm fuel or 500 ppm may be accidentally or purposely misfueled with higher-sulfur fuel. Any of these misfueling events could seriously degrade the emission performance of sulfur-sensitive exhaust emission control devices, or perhaps destroy their functionality altogether.

In the highway rule we adopted a requirement that heavy-duty vehicle manufacturers notify each purchaser that the vehicle must be fueled only with the applicable low-sulfur diesel fuel. We also required that diesel vehicles be equipped by the manufacturer with labels near the refueling inlet to indicate that low sulfur fuel is required.[315] We are proposing similar requirements here. Specifically, we are proposing that manufacturers notify each purchaser that the nonroad engine must be fueled only with the applicable low-sulfur diesel fuel, and ensure that the equipment is labeled near the refueling inlet to indicate that low sulfur fuel is required. We believe that these measures would help owners find and use the correct fuel and would be sufficient to address misfueling concerns. Thus, more costly provisions, such as fuel inlet restrictors, should not be necessary.

Beginning in model year 2011, the required fuel would be 15 ppm. For these engines, the label should state: ''ULTRA LOW-SULFUR NONROAD DIESEL FUEL OR ON-HIGHWAY DIESEL FUEL ONLY (15 parts per million)''. For model years 2008 to 2010, when the proposed test fuel would contain 300 to 500 ppm sulfur, the label should state: ''LOW-SULFUR NONROAD DIESEL FUEL, ULTRA LOW-SULFUR NONROAD DIESEL FUEL, OR ON-HIGHWAY DIESEL FUEL ONLY (500 ppm maximum)''. Engine manufacturers may choose during earlier model years to certify engines using test fuel with sulfur levels between 500 and 2,000 ppm. We would not require that these engines be labeled.

This approach would ensure that the proper functioning of the emission controls is not compromised by misfueling, while allowing owners flexibility with respect to in-use fuels in those cases in which their engines do not use sulfur-sensitive technologies.

For non-integrated manufacturers, the engine manufacturer will be required to provide such a label to the equipment manufacturer, which the equipment manufacturer will be required to install. Optionally, if an equipment manufacturer chooses to install its own label, the engine manufacturer will not be required to provide the label.

J. Temporary In-Use Compliance Margins

The Tier 4 standards will be challenging for diesel engine manufacturers to achieve, and will require manufacturers to develop and adapt new technologies for a large number and wide variety of engine platforms. Not only will manufacturers be responsible for ensuring that these technologies will allow engines to meet the standards at the time of certification, they will also have to ensure that these technologies continue to be highly effective in a wide range of in-use environments so that their engines would comply in use when tested by EPA. Furthermore, for the first time, these nonroad diesel engines will be subject to a new transient test cycle and NTE standards. However, in the early years of a program that introduces new technology, there are risks of in-use compliance problems that may not appear in the certification process or

[315] We also required that highway vehicles be labeled on the dashboard. Given the type of equipment using nonroad CI engines, we are proposing equivalent dashboard requirement here.

during developmental testing. Thus, we believe that for a limited number of model years after new standards take effect it is appropriate to adjust the compliance levels for assessing in-use compliance for diesel engines equipped with particulate traps or NO_X adsorbers. This would provide assurance to the manufacturers that they will not face recall if they exceed standards by a small amount during this transition to clean technologies. This approach is very similar to that taken in the light-duty highway Tier 2 final rule (65 FR 6796) and the highway heavy-duty rule (66 FR 5113–5114), both of which involve similar approaches to introducing the new technologies.

Table VII.J–1 shows the in-use adjustments that we propose to apply. These adjustments would be added to the appropriate FELs (see Section VII.A) or, for engines certified to the standards without the use of credits, to the standards themselves, in determining the in-use compliance level for a given in-use hours accumulation. These adjustment levels were chosen to be roughly equivalent to the temporary in-use standard adjustments adopted for the heavy-duty highway program. Note also the limiting of these adjustments to engines certified to FELs below certain threshold levels. This is similar to the approach taken in the heavy-duty rule which applied the in-use standards only to vehicles using advanced low-emission technologies (see 66 FR 5113–5114). Our intent is that these add-on levels be available only for highly-effective advanced technologies such as particulate traps and NO_X adsorbers. As in our other mobile source programs, we do not believe that the standards are stringent enough or the required technology change radical enough to warrant add-ons for other proposed standards changes (the NO_X standard for 25–75 hp engines, the 2008 PM standards for engines below 75 hp, or the NMHC standards).

TABLE VII.J–1.—ADD-ON LEVELS USED IN DETERMINING IN-USE STANDARDS

Engine power	Model years	NO_X add-on level to FEL [a] (g/bhp-hr)	PM add-on level to FEL [b] (g/bhp-hr)
25≤ hp <75 (19 ≤ kW < 56)	2013–2014	none.	
75 ≤ hp <175 (56 ≤ kW < 130)	2012–2015	0.10 for operating hours ≤4000	0.01
		0.20 for operating hours >4000	
hp ≥175 (kW ≥130)	2011–2015	0.10 for operating hours ≤4000	
		0.20 for operating hours >4000.	

Notes:
[a] Applicable only to those engines with FELs at or below 1.5 g/bhp-hr NO_X.
[b] Applicable only to those engines with FELs at or below the Tier 4 PM standard.

Note that these in-use add-on levels apply only to engines certified through the first few model years of the new standards and having FELs below the specified levels. The in-use add-ons are available through model year 2015 for such engines above 75 hp because our proposed implementation schedule does not complete the phase-in process in these power categories until 2014. The 2015 date provides 2 years for the designers of those engine models that are last to be phased in (which may comprise upwards of 50% of sales and a large number of low-volume engine models) to discover and resolve any problems not showing up in the certification process or developmental testing.[316] This is the same period as that provided in the highway HDDE rule.

During the certification demonstration, manufacturers will still be required to demonstrate compliance with the unadjusted Tier 4 certification standards using deteriorated emission rates. Therefore, the manufacturer will not be able to use these in-use standards as the design targets for the engine. They will need to project that most engines would meet the standards in-use without adjustment. The in-use adjustments will merely provide some assurance that they would not be forced to recall engines because of some small miscalculation of the expected deterioration rates.

K. Monitoring and Reporting of Emissions Related Defects

We are proposing to apply the defect reporting requirements of § 1068.501 to replace the provisions of 40 CFR part 85 for nonroad engines. The requirements obligate manufacturers to tell us when they learn that emission control systems are defective and to conduct investigations under certain circumstances to determine if an emission-related defect is present. We are also proposing a requirement that manufacturers initiate these investigations when warranty information, parts shipments, and any other information which is available indicates that a defect investigation may be fruitful. For this purpose, we consider defective any part or system that does not function as originally designed for the regulatory useful life of the engine or the scheduled replacement interval specified in the manufacturer's maintenance instructions. The parts and systems are those covered by the emissions warranty, and listed in Appendix I and II of part 1068.

We believe the investigation requirement proposed in this rule will allow both EPA and the engine manufacturers to fully understand the significance of any unusually high rates of warranty claims and parts replacements for parts or parameters that may have an impact on emissions. We believe that as part of its normal product quality practices prudent engine manufacturers already conduct a thorough investigation when available data indicate recurring parts failures. Such data is valuable and readily available to most manufacturers and, under this proposal it must be considered to determine whether or not there is a possible defect of an emission-related part.

Defect reports submitted in compliance with the current regulations are based on a single threshold applicable to engine families of all production volumes. No affirmative requirement for gathering information about the full extent of the problem was applicable. For very large volume engine families, the proposed approach may result in fewer total defect reports being submitted by manufacturers than the traditional approach because the

[316] Flexibility provisions such as our ABT program and the incentive program for early or very low emission engines may result in some engines that incorporate the advanced emission control technologies even later. However, we do not believe it is appropriate to adjust the in-use compliance levels for engines on which achieving the standard is delayed by manufacturer's choice, nor did we do so in our highway HDDE program.

number of defects triggering the submission requirement generally rises in proportion to the engine family size. The single threshold in the existing regulations results in reporting of defects in the smallest engine families covered by this regulation very rarely because a relatively high proportion of such engines would have to be known to be defective before reporting is required under a fixed threshold scheme. Therefore, under this proposal, the threshold for reporting for the smallest engine families has been decreased as compared to the current requirements.

We are aware that accumulation of warranty claims and part shipments will likely include many claims and parts that do not represent defects, so we are establishing a relatively high threshold for triggering the manufacturer's responsibility to investigate whether there is, in fact, a real occurrence of an emission-related defect. Manufacturers are not required to count towards the investigation threshold any replacement parts they require to be replaced at specified intervals during the useful life, as specified in the application for certification and maintenance instructions to the owner, because shipment of such parts clearly do not represent defects. All such parts would be excluded from investigation of potential defects and reporting of defects, whether or not any specific part was, in fact, shipped for specified replacement.

This proposal is intended to require manufacturers to use information we would expect them to keep in the normal course of business. We believe in most cases manufacturers would not be required to institute new programs or activities to monitor product quality or performance. A manufacturer that does not keep warranty or replacement part information may ask for our approval to use an alternate defect-reporting methodology that is at least as effective in identifying and tracking potential emissions related defects as the proposed requirements. However, until we approve such a request, the proposed thresholds and procedures continue to apply.

The thresholds for investigation proposed today are 4 percent of total production to date, or 4,000 engines, whichever is less, but never fewer than 40 for any single engine family in one model year. These thresholds are reduced by 50 percent for defects related to any aftertreatment devices, including particulate traps, because these components typically play such a significant role in controlling engine emissions. For example, for an engine family with a sales volume of 20,000 units in a given model year, the manufacturer would have to investigate potential emission-related defects if there were warranty claims or parts shipments for replacing electronic control units in 800 or more engines; or catalytic converters on 400 or more engines. For an engine family with sales volume of 500 units in a given model year, the manufacturer would have to investigate potential emission-related defects if there were warranty claims or parts shipments of electronic control units in 40 or more engines; or catalytic converters on 20 or more engines. Please note, manufacturers would not investigate for emission related defects until either warranty claims or parts shipments separately reach the investigation threshold. We recognize that a part shipment may ultimately be associated with a particular warranty claim in the manufacturer's database and, therefore, warranty claims and parts shipments would not be aggregated for the purpose of triggering the investigation threshold under this proposal.

In order to carry out an investigation to determine if there is an emission-related defect, manufacturers would have to use available information such as preexisting assessments of warranted parts or other replaced parts. Manufacturers would also have to gather information by assessing previously unexamined parts submitted with warranty claims and replacement parts which are available or become available for examination and analysis. If available parts are deemed too voluminous to conduct a timely investigation, manufacturers would be permitted to employ appropriate statistical analyses of representative data to help draw timely conclusions regarding the existence of a defect. These investigative activities should be summarized in the periodic reports of recently opened or closed investigations as discussed below. It is important to note that EPA does not regard having reached the investigation thresholds as conclusive proof of the existence of a defect, only that initiation of an appropriate investigation is merited to determine whether a defect exists.

The second threshold in this proposal specifies when a manufacturer must report that there is an emission-related defect. This threshold involves a smaller number of engines because each potential defect has been screened to confirm that it is an emission-related defect. In counting engines to compare with the defect-reporting threshold, the manufacturer would consider a single engine family and model year. However, when a defect report is required, the manufacturer would report all occurrences of the same defect in all engine families and all model years which use the same part. For engines subject to this proposal, the threshold for reporting a defect is 0.25 percent of total production for any single engine family, or 250 defects, whichever is less. The thresholds are reduced 50 percent for reporting defects related to aftertreatment devices. Additionally, this proposal requires a minimum of 5 defects before a report must be filed so that limited isolated parts failures that occur for low volume engine families do not require a defect report. It is important to note that while EPA regards occurrence of the defect threshold as proof of the existence of a reportable defect, it does not regard that occurrence as conclusive proof that recall or other action is merited.

If the number of engines with a specific defect is found to be less than the threshold for submitting a defect report, but information, such as warranty claims or parts shipment data, later indicates additional potentially defective engines, under this proposal the information must be aggregated for the purpose of determining whether the threshold for submitting a defect report has been met. If a manufacturer has actual knowledge from any source that the threshold for submitting a defect report has been met, a defect report would have to be submitted even if the trigger for investigating has not yet been met. For example, if manufacturers receive information from their dealers, technical staff or other field personnel showing conclusively that there is a recurring emission-related defect, they would have to submit a defect report if the submission threshold is reached.

For both the investigation and reporting thresholds, § 1068.501 specifies lower thresholds for very large engines. A defect in these engines can have a much greater impact than defects in smaller engines due to their higher g/hr emission rates and the increased likelihood that such large engines will be used more continuously.

Under this proposal at specified times the manufacturer would also have to report open investigations as well as recently closed investigations that did not require a defect report. We are not proposing a fixed time limit for manufacturers to complete their investigations. The periodic reports required by the regulations, however, will allow us to monitor these investigations and determine if it is necessary or appropriate for us to take further action.

We are requesting comment on this approach, especially with respect to the thresholds. Should we adopt slightly higher thresholds for nonroad engines given their relatively small engine family sizes? Should we focus the defect reporting requirements more on aftertreatment defects since such defects will generally have more significant impacts than other defects? We are also requesting comment on whether these reporting requirements should also apply to the current Tier 2/Tier 3 compliance program, and if so, when these provisions should be applied.

L. Rated Power

We are proposing to add a definition of ''maximum engine power'' to the regulations. This term would be used instead of previously undefined terms such as ''rated power'' or ''power rating'' to specify the applicability of the standards. The addition of this definition is intended to allow for more objective applicability of the standards. More specifically, we are proposing that:

Maximum engine power means the measured maximum brake power output of an engine. The maximum engine power of an engine configuration is the average maximum engine power of the engines within the configuration. The maximum engine power of an engine family is the highest maximum engine power of the engines within the family.

Currently, since rated power and power rating are undefined, they are determined by the engine manufacturer. This makes the applicability of the standards too subjective and confusing. One manufacturer may choose to define rated power as the maximum measured power output, while another may define it as the maximum measured power at a specific engine speed. Using this second approach, an engine's rated power may be somewhat less than the true maximum power output of the engine. Given the importance of engine power in defining which standards an engine must meet and when, we believe that it is critical that a singular power value be determined objectively according to a specific regulatory definition.

We are also adding a clarification to the regulations recognizing that actual engine power will vary to some degree during production. The proposed regulations would require manufacturers to specify a range of actual maximum engine power for each engine configuration. As noted above, we would base the applicability of the standards on the average maximum power of the engines.

M. Hydrocarbon Measurement and Definition

Both the existing standards and the proposed Tier 4 standards apply to nonmethane hydrocarbons, rather than total hydrocarbons. Methane emissions generally are considered to be nonreactive with respect to ozone, and are not regulated under part 89. However, excluding methane requires that it be separately measured, which complicates the measurement procedures. While we are not proposing to change the standards to total hydrocarbons we are requesting comment on the need to measure methane and the appropriateness of excluding it from our standards.

N. Auxiliary Emission Control Devices and Defeat Devices

Existing nonroad regulations prohibit the use of a defeat device (*see* 40 CFR 89.107) in nonroad diesel engines. The defeat device prohibition is intended to ensure that engine manufacturers do not use auxiliary emission control devices (AECD) which sense engine operation in a regulatory test procedure and as a result reduce the emission control effectiveness [317] of that procedure. In today's notice we are proposing to supplement existing nonroad test procedures with a transient engine test cycle and NTE emission standards with associated test requirements. As such, the Agency believes that a clarification of the existing nonroad diesel engine regulations regarding defeat devices is required in light of these proposed additional emission test requirements. The defeat device prohibition makes it clear that AECDs which reduce the effectiveness of the emission control system are defeat devices, unless one of several conditions is met. One of these conditions is that an AECD which operates under conditions ''included in the test procedure'' [318] is not a defeat device. While the existing defeat device definition does contain the term ''test procedure'', and therefore should be interpreted as including the supplemental testing requirements, we want to make it clear that both the supplemental transient test cycle and NTE emission test procedures are included within the defeat device regulations as conditions under which an operational AECD will not be considered a defeat device. Therefore, we are proposing to clarify the defeat device regulations by specifying the appropriate test procedures (i.e., the existing steady-state procedures and the supplemental tests).

We are also proposing today to provide clarification regarding the engine manufacturers certification reporting requirements with respect to the description of AECDs. The proposed clarification will aid engine manufacturers in preparing a complete application for certification which will allow EPA to review the application in a timely manner. Under the existing nonroad engine regulations, manufacturers are required to provide a generalized description of how the emissions control system operates and a ''detailed'' description of each AECD installed on the engine (*See* 40 CFR 89.115(d)(2)). This proposal is intended to clarify what is meant by ''detailed.''

Under the nonroad diesel Tier 1 standards there was limited use of AECDs. AECDs have begun to be much more common with the Tier 2 standards, and we expect this trend to continue. Engines designed to meet the significantly more stringent Tier 4 standards will certainly rely on sophisticated technologies that will likely employ very complex AECDs. We have seen a similar trend with highway heavy-duty diesel engines. In the late 1980's, few highway HDDEs had electronic controls and most manufacturers relied on in-cylinder techniques to control emissions. However, with the application of technologies such as electronically controlled fuel systems, electronically controlled EGR systems, and variable geometry turbochargers, highway HDDEs now have numerous AECDs which are used both for performance as well as emissions control.

A thorough disclosure of the presence and purpose of AECDs is essential in allowing EPA to evaluate the AECD and determine whether it represents a defeat device. Clearly, any AECD which is not fully identified in the manufacturer's application for certification cannot be appropriately evaluated by EPA and therefore cannot be determined to be acceptable by EPA. Our proposed clarifications to the certification application requirements include additional detail specific to those AECDs which the manufacturer believes are necessary to protect the engine or the equipment in which it is installed against damage or accident (''engine

[317] Auxiliary emission control device is defined at 40 CFR 89.2 as '' any element of design that senses temperature, vehicle speed, engine RPM, transmission gear, or any other parameter for the purpose of activating, modulating, delaying or deactivating the operation of any part of the emission control system.''

[318] 40 CFR 89.107(b)(1) states ''Defeat device includes any auxiliary emission control device (AECD) that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal operation and use unless such conditions are included in the test procedure.''

protection'' AECDs). While the definition of a defeat device allows as an exception strategies needed to protect the engine and equipment against damage or accident, we intend to continue our policy of closely reviewing the use of this exception. In evaluating whether a reduction in emissions control effectiveness is needed for engine protection, EPA will closely evaluate the actual technology employed on the engine family, as well as the use and availability of other emission control technologies across the industry, taking into consideration how widespread the use is, including its use in similar engines and similar equipment. While we have specified additional information related to engine protection AECDs in the proposed regulations, we reserve the right to request additional information on a case-by-case basis as necessary.

In the last several years, EPA has issued extensive guidance on the disclosure of AECDs for both highway and nonroad diesel engine manufactures.[319] This proposal does not impose any new certification burden on engine manufacturers, rather, it clarifies the existing certification application regulations by specifying what type of information manufacturers must submit regarding AECDs.

Finally, we take this opportunity to emphasize that the information submitted must be specific to each engine family. The practice of describing AECDs in a ''common'' section, wherein the strategies are described in general for all the manufacturer's engines, is acceptable as long as each engine family's application contains specific references to the AECDs in the common section which clearly indicate which AECDs are present on that engine family, and the application contains specific calibration information for that engine family's AECDs. The proposed regulatory requirements can be found at 40 CFR 89.115(d)(2) in today's notice.

We are requesting comment on whether these clarifications should also be applied to the current Tier 2/Tier 3 compliance program, and if so, when these provisions should be applied.

[319] See EPA Dear Manufacturer Letter VPCD–98–13, ''Heavy-duty Diesel Engines Controlled by Onboard Computers: Guidance on Reporting and Evaluating Auxiliary Emission Control Devices and the Defeat Device Prohibition of the Clean Air Act'', October 15, 1998 and EPA Advisory Circular 24–3, ''Implementation of Requirements Prohibiting Defeat Devices for On-Highway Heavy-Duty Diesel Engines.'' A copy of both of these documents is available in EPA Air Docket A–2001–28

O. Other Issues

We are also proposing other minor changes to the compliance program for Tier 4 nonroad engines. For example, we are proposing that engine manufacturers be required to provide installation instructions to equipment manufacturers to ensure that engine cooling systems, aftertreatment exhaust emission controls, and related sensors are properly installed by the equipment manufacturer. Proper installation of these systems is critical to the emission performance of the equipment. Equipment manufacturers would be expected to follow the instructions to avoid improper installation that could render emission controls inoperative, and subject the equipment manufacturer to penalties for t violation of a prohibited act.

Under the existing regulations and the proposed new regulations, engine manufacturers are responsible for all emission-related components, both in terms of emission performance during certification and in-use testing, and emission-related warranties. This requires that engine manufacturers provide their engines with the necessary emission controls before selling them to equipment manufacturers. We are proposing to use the same approach as is used with highway engines, where the engine manufacturer is required to either install catalysts or traps before selling the engine to a vehicle manufacturer, or to ship the catalyst or trap with the engine, with appropriate installation instructions. We are requesting comment on whether this is appropriate for nonroad engines equipped with traps and other aftertreatment exhaust emission controls. We are concerned that allowing engine manufacturers to sell engines without traps included might lead to equipment being introduced into service without the emission controls properly installed. We are requesting comment on whether it is sufficient to require manufacturers to fully describe in their installation instructions all necessary emission control hardware , and whether the engine manufacturer should be held responsible for ensuring the aftertreatment is properly installed, including requiring some management by the engine manufacturers of the installation process, such as auditing the installations and reporting the results to EPA.

In § 89.109, we limit the amount of maintenance that manufacturers can perform during service accumulation. We are proposing to continue these limits in the proposed new § 1039.125. However, we are not carrying over the provisions of § 89.109(h)(2) (iii) and (iv) that are related to allowances for additional maintenance for engines equipped with onboard diagnostic systems that include visible warning lights. We believe that these provisions would be better addressed in a rulemaking addressing onboard diagnostic standards.

Both the existing regulations and the proposed regulations specify default criteria to define engine family groups, but allow exceptions for cases where other groups would more appropriately represent similar emission characteristics. The proposed regulations specify the same criteria as part 89, plus two new criteria. We are proposing that mechanically controlled engines and electronically controlled engines generally be certified in separate engine families. We are also proposing that engines in different power categories generally must be in separate engine families.

We are proposing to clarify the applicability of the nonroad CI standards to engines operating on alcohols and other oxygenated fuels. As part of this, we are proposing to add a requirement that compression-ignition alcohol-fueled engines be required to comply with the evaporative emission control requirements in 40 CFR 1048.105. That section allows manufacturers to comply with the requirement by incorporating simple emission controls. This requirement is not expected to have a significant impact on manufacturers since we are not aware of any alcohol-fueled nonroad engines currently in production. The proposed provision is merely intended to prevent new emission problem from occurring in the future.

We are proposing to change the way in which manufacturers specify deterioration factors (DFs) for Tier 4 trap-equipped engines. The current regulations specify that the DFs for engines with aftertreatment devices must be multiplicative. They must be expressed as a proportion of the engine's initial emission rate. Manufacturers have indicated in past discussions that, given the general operating mechanism of PM traps and the very low PM levels emitted, trap deterioration is not expected to depend on the initial emission rate, as increased emissions from deterioration that tend to be non-sulfate PM, and therefore not related to the initial emissions rate. Therefore, we are proposing to specify additive DFs for PM that account for a fixed amount of deterioration and are independent of the engine's initial emission rate.

We are proposing to extend to CI engines that operate on unrefined natural gas the same provisions we have adopted for similar SI engines. Such engines are sometimes used to operate pumps at oil fields where unrefined natural gas is a readily available and inexpensive fuel source. This provision would allows manufacturers greater flexibility with respect to engine adjustment to address variability in fuel properties.

In addition, we are proposing to require that manufacturers label uncertified engines that they import for stationary applications. Because these engines look the same as or very similar to regulated nonroad engines, it can be difficult to distinguish the two without labels. These labels will also help manufacturers and others who import these engines to avoid potential problems with customs inspections.

Another labeling issue relates to the primary emission control information label that engine manufacturers put on every certified engine they produce. The current regulations require equipment manufacturers to put a duplicate label on the equipment if the engine is installed in a way that obscures the label on the engine. We are proposing to clarify this requirement for duplicate labels to ensure that labels are accessible without creating a supply of duplicate labels that are not authentic and used appropriately. Specifically, we are proposing to require engine manufacturers to supply duplicate labels to equipment manufacturers that request them and keep records to show how many labels they supply. Similarly, we are proposing to require equipment manufacturers to request from engine manufacturers a specific number of duplicate labels, with a description of which engine and equipment models are involved and why the duplicate labels are necessary. Equipment manufacturers would need to destroy any excess labels and keep records to show the disposition of all the labels they receive. We request comment on these provisions. In addition, we request comment on an alternative approach to labeling equipment. If equipment manufacturers were required to add a label to each piece of equipment with basic information related to the engine's emission controls, the information would be most accessible in all situations. Such a label would need to at least identify the engine manufacturer, engine family and serial number, manufactured date, power rating, and any important engine specifications. This would make it easier for us to verify that engines are meeting requirements and it would be easier for U.S. Customs (Bureau of Customs and Border Protection) to clear imported equipment with certified engines. Note that some equipment manufacturers have already been voluntarily attaching such labels or plates to their equipment. We request comment on a uniform requirement to apply labels to equipment using nonroad diesel engines to uniquely identify the installed engine.

We are also clarifying the general requirement that all engines subject to this final rule may not cause or contribute to an unreasonable risk to public health, welfare, or safety, especially with respect to noxious or toxic emissions that may increase as a result of emission-control technologies. The proposed regulatory language, which addresses the same general concept as the existing § 89.106, implements sections 202(a)(4) and 206(a)(3) of the Act and clarifies that the purpose of this requirement is to prevent control technologies that would cause unreasonable risks, rather than to prevent trace emissions of any noxious compounds. This requirement prevents the use of emission-control technologies that produce high levels of pollutants for which we have not set emission standards, but nevertheless pose a risk to the public.

In the part 89 regulations we use the same definition for ''aircraft'' as is used in 40 CFR part 87. The definition, which is used to exclude aircraft engines from the part 89 regulations, states that aircraft means ''any airplane a U.S. airworthiness certificate or equivalent foreign airworthiness certificate has is issued.'' We are proposing to use this same definition for the new part 1039 regulations. We believe that this definition encompasses all vehicles that are capable of sustained air travel above treetop heights using compression ignition engines. We request comment on whether there are any aircraft that do not meet this definition, and use compression-ignition engines, but that should not be regulated under part 1039.

Finally, we are not revising at this time the regulation on preemption of state and local controls currently found in Part 89. This regulation will continue in effect. We are, however, considering whether we should clarify the binding regulatory nature of this language, consistent with the decision of the court in *Engine Manufacturers Association* v. *EPA,* 88 F.3d 1075 (D.C. Cir. 1996).

VIII. Nonroad Diesel Fuel Program: Compliance and Enforcement Provisions

Section IV above describes the proposed program for the reduction of sulfur in nonroad, locomotive and marine (NRLM) diesel fuel. In general, this proposal would require refiners and importers to meet a 500 ppm sulfur standard for nonroad, locomotive, and marine diesel fuel starting June 1, 2007 and to meet a 15 ppm standard for nonroad diesel fuel beginning June 1, 2010. Locomotive and marine diesel fuel would remain subject to the 500 ppm standard. Among other provisions, Section IV also describes a temporary non-highway distillate baseline percentage method to differentiate volumes of diesel fuel subject to the NRLM standards and volumes of diesel fuel subject to the highway fuel standards; provisions to identify unregulated fuel such as heating oil; provisions for diesel fuel credit generation and use; and special provisions for small refiners, refiners seeking hardship relief, and parties supplying diesel fuel to Alaska and U.S. territories.

As with earlier fuel programs, we have developed a comprehensive set of compliance and enforcement provisions designed to promote effective and efficient implementation of this fuel program and thus to achieve the full environmental potential of the program. The proposed compliance provisions are designed to ensure that nonroad, locomotive, and marine diesel fuel sulfur content requirements are met throughout the distribution system, from the refiner or importer through the end user, subject to certain provisions applicable during the early transition years. Several of these provisions are described in Section IV above, and others are summarized in this section. The full details of all proposed provisions are found in the regulatory language associated with today's notice.

The proposed compliance and enforcement provisions discussed in this section fall into several broad categories:

- Fuel uses covered and not covered under the proposed program;
- Provisions not described in Section IV applicable to refiners and importers;
- Provisions not described in Section IV applicable to parties downstream of the refinery or importer;
- Special provisions regarding additives, kerosene, and the use of motor oil in fuel;
- Fuel testing and sampling requirements;
- Records required to be kept (including those applying under the

small refiner and refiner hardship provisions);

- Reporting requirements;
- Exemptions from the program; and
- Provisions concerning liability, defenses, and penalties for noncompliance.

A. Fuel Covered and Not Covered by this Proposal

1. Covered Fuel

As discussed in section IV.A.1 above, this proposed standards generally cover all the diesel fuel that is intended or likely to be used in nonroad, locomotive, and marine (NRLM) applications that is not already covered by the standards for highway diesel fuel. For the purposes of this preamble, this fuel is defined primarily by the type of engine which it is used to power: land-based nonroad, locomotive, and marine diesel engines.

2. Special Fuel Provisions and Exemptions

Section IV.A.1 above also describes several types of petroleum distillate that are not covered by this proposal, including jet fuel and heating oil. In addition, the next paragraphs discuss several provisions and exemptions for nonroad diesel fuel that we propose to apply in special circumstances.

a. Fuel Used in Military Applications

We propose to treat NRLM diesel fuel used in military applications in the same manner as the recent highway diesel rule. We propose to define NRLM diesel fuel so that JP–5 and JP–8 military fuel that is used or intended for use in NRLM diesel engines would be subject to all of the requirements applicable to NRLM diesel fuel. However, we also propose to exempt JP–5 and JP–8 fuels from the proposed diesel fuel content and other requirements in certain circumstances. First, these fuels would be exempt if they were used in tactical military equipment that have a national security exemption. Due to national security considerations, EPA's existing regulations allow the military to request and receive national security exemptions (NSE) for their NRLM diesel engines from emissions regulations if the operational requirements for such engines warrant such an exemption. This proposal would not change these provisions. Second, these fuels would also be exempt if they were used in tactical military equipment that is not covered by a national security exemption but for national security reasons, needs to be fueled on the same fuel as motor vehicles or nonroad equipment with a national security exemption such as the need to be ready for immediate deployment overseas. Use of JP–5 and JP–8 fuel not meeting the proposed NRLM diesel fuel standards in a NRLM diesel engine other than the tactical military equipment described above would be prohibited under today's rule.

EPA and the Department of Defense will develop a process to address the tactical nonroad equipment to be covered by the diesel fuel exemption. Based on data provided by the Department of Defense to date in the context of implementing a similar exemption provision in the highway program, EPA believes that providing an exemption for JP–5 and JP–8 fuel used in tactical nonroad equipment would not have any significant environmental impact.

b. Fuel Used in Research and Development

This proposed rule would permit parties to request an exemption from the sulfur or other standards for NRLM diesel fuel used for research, development and testing purposes (''R & D exemption''). We recognize that there may be legitimate research programs that require the use of diesel fuel with higher sulfur levels than allowed under this proposed rule. As a result, this proposal contains provisions for obtaining an exemption from the prohibitions for persons distributing, transporting, storing, selling, or dispensing NRLM diesel fuel that exceeds the standards, where such diesel fuel is necessary to conduct a research, development, or testing program.

Under the proposed rule, parties seeking an R & D exemption would be required to submit an application for exemption to EPA that describes the purpose and scope of the program, and the reasons why higher-sulfur diesel fuel is necessary. Upon presentation of the required information, an exemption could be granted at the discretion of the Administrator, with the condition that EPA could withdraw the exemption in the event the Agency determines the exemption is not justified. In addition, an exemption based on false or inaccurate information could be considered void ab initio. Fuel subject to an exemption would be exempt from certain provisions of this proposed rule, including the sulfur standards, provided certain requirements are met. These requirements include the segregation of the exempt fuel from non-exempt NRLM and highway diesel fuel, identification of the exempt fuel on product transfer documents, pump labeling, and where appropriate, the replacement, repair, or removal from service of emission systems damaged by the use of the high sulfur fuel.

c. Fuel Used in Racing Equipment

This proposed rule would provide no exemption from the sulfur or other content standard and other requirements of the proposal for diesel fuel used in racing. Under certain conditions, racing vehicles would not be considered nonroad vehicles. *See,* for example, 40 CFR 89.2, definition of ''nonroad vehicle''. The fuel used by such racing vehicles would not necessarily be considered nonroad diesel fuel. However, we believe that there is a realistic chance that such fuel also could be used in NRLM equipment, and therefore, should be considered NRLM diesel fuel. During the highway diesel rulemaking, we received no comments supporting the need for an exemption for racing fuel. We are not aware of any advantage for racing vehicles or racing equipment to use fuel having higher sulfur levels than are required by this proposed rule, and we are concerned about the potential for misfueling of nonroad equipment and motor vehicles that could result from having a high sulfur (*e.g.*, 3,400 ppm) fuel for vehicle or nonroad equipment available in the marketplace. Consequently, as was the case with the highway diesel rule, this proposal does not provide an exemption from the nonroad diesel fuel requirements for fuel used in racing vehicles or equipment.

d. Fuel for Export

Fuel produced for export, and that is actually exported for use in a foreign country, would be exempt from the fuel content standards and other requirements of this proposed rule, such as the non-highway baseline provisions. Such fuel would be considered as intended for use in the U.S. and subject to the proposed standards unless it was designated by the refiner as for export only and product transfer documents stated that the fuel was for export only. Fuel intended for export would need to be segregated from all fuel intended for use in the U.S., and distributing or dispensing such fuel for domestic use would be illegal.

B. Additional Requirements for Refiners and Importers

The primary requirements proposed today for refiners and importers are discussed in Section IV above. In that section, we discuss the general structure of the compliance and enforcement provisions applicable to refiners and importers, including fuel content standards, baseline provisions, and credit provisions. In this subsection, we discuss several additional requirements

for refiners and importers that are not addressed in Section IV. In addition, Sections VIII.D, E, and F below discuss several provisions that apply to all parties in the diesel fuel production and distribution system, including refiners and importers.

1. Transfer of Credits

This proposal includes provisions for diesel sulfur credit transfers that are essentially identical to other fuels rules that have credits provisions. As in other fuels rules, nonroad diesel sulfur credits could only be transferred between the refiner or importer generating the credits and the refiner or importer using the credits. If a credit purchaser could not use all the credits it purchased from the refiner who generated them, the credits could be transferred one additional time. We recognize that there is potential for credits to be generated by one party and subsequently purchased and used in good faith by another party, where the credits are later found to have been calculated or created improperly, or otherwise found to be invalid. As with the reformulated gasoline rule, the Tier 2/Gasoline Sulfur rule, and the highway diesel rule, invalid credits purchased in good faith would not be valid for use by the purchaser. To allow such use would not be consistent with the environmental goals of the regulation. In addition, both the seller and purchaser of invalid credits would have to adjust their credit calculations to reflect the proper credits and either party (or both) could be deemed in violation if the adjusted calculations demonstrated noncompliance. The parties to such a credit transaction can be expected to develop contractual provisions to address these circumstances.

Nevertheless, in a situation where invalid credits are transferred, our strong preference would be to hold the credit seller liable for the violation, rather than the credit purchaser. As a general matter we would expect to enforce a shortfall in credit compliance calculations against the credit seller, and we would expect to enforce a compliance shortfall (caused by the good faith purchase of invalid credits) against a good faith purchaser only in cases where we are unable to recover sufficient valid credits from the seller to cover the shortfall. Moreover, in settlement of such cases we would strongly encourage the seller to purchase credits to cover the good faith purchaser's credit shortfall. EPA would consider the covering of a credit deficit through the purchase of valid credits a very important factor in mitigation of any case against a good faith purchaser, whether the purchase of valid credits is made by the seller or by the purchaser.

2. Additional Provisions for Importers and Foreign Refiners Subject to the Credit Provisions or Hardship Provisions

Since this proposed rule includes several compliance options that could be used by NRLM diesel fuel importers and foreign refiners, we are also proposing specific compliance and enforcement provisions to ensure compliance for imported NRLM diesel fuel. These additional foreign refiner provisions are similar to those under the conventional gasoline regulations, the gasoline sulfur regulations and the highway diesel fuel regulations (see 40 CFR 80.94, 80.410 and 80.620).

Under this proposal, standards for NRLM diesel fuel produced by refineries owned by foreign refiners must be met by the importer, unless the foreign refiner has been approved to produce NRLM diesel fuel under the credit provisions, small refiner provisions or hardship provisions of this proposal. If the foreign refiner is approved under any of these provisions, the volume requirements would be met by the foreign refiner's refinery(s) and the foreign refinery(s) would be the entity(s) generating, using, banking or trading credits for the NRLM diesel fuel produced for and imported into the U.S. We are proposing that importers themselves not be eligible for small refiner or hardship relief. Importers may participate in the proposed credit programs; however, an importer and a foreign refiner may not generate credits for the same fuel.

Any foreign refiner that applies for and obtains approval to produce NRLM diesel fuel subject to credit provisions, small refiner provisions or the hardship provisions would be subject to the same requirements as domestic refiners operating under the same provisions. Additionally, we are proposing provisions for foreign refiners similar to the provisions at 40 CFR 80.94, 80.410, and 80.620, which include:

- Segregation of NRLM diesel fuel produced at the foreign refinery until it reaches the U.S. and separate tracking of volumes imported into each PADD;
- Controls on product designation;
- Load port and port of entry testing; and
- Requirements regarding bonds and sovereign immunity.

These provisions would aid the Agency in tracking NRLM diesel fuel from the foreign refinery to its point of import into this country. We believe these provisions would be necessary and sufficient to ensure that foreign refiners' compliance could be monitored and that the proposed diesel fuel requirements could be enforced against foreign refiners. For more discussion of the rationale for these enforcement provisions, see preamble to the final Anti-Dumping Foreign Refiners rule (see 62 FR 45533, Aug. 28, 1997) and the gasoline sulfur rule (*see* 65 FR 6698, February 10, 2000).

3. Proposed Provisions for Transmix Facilities

In the petroleum products distribution system, certain types of interface mixtures in product pipelines cannot be added in any significant quantity to either of the adjoining products that produced the interface. These mixtures are known as ''transmix.'' The pipeline and terminal industry's practice is to transport transmix via truck, pipeline, or barge to a facility with an on-site fractionator that is designed to separate the products. The owner or operator of such a facility is called a ''transmix processor.'' Such entities are generally considered to be a refiner under existing EPA fuel regulations.

Under the non-highway baseline percentage approach proposed in today's diesel rule, absent special treatment transmix processors that wished to commingle highway and NRLM fuel would need to comply with the baseline percentage requirements. Transmix processors, as with conventional refiners, are also currently subject to the ''80 percent/20 percent'' production requirements for 15 ppm and 500 ppm highway diesel fuel. In both of these cases, producing fuel in set percentages appears to be inconsistent with the inherent nature of the transmix processors' business. Unlike conventional refiners, transmix processors refine shipments of fuel that vary in volume and timing—largely unpredictably. Complying with set percentages of different highway and NRLM sulfur grades would be very difficult, probably resulting in either a need to purchase credits or to postpone processing of some shipments.

In light of this disproportionate burden on transmix processors, we propose that transmix processors could choose to not be covered by both the proposed non-highway baseline provision and the TCO provisions for highway diesel fuel. This would only be an option for diesel fuel produced according to typical operational practices involving separation of transmix and not, for example, diesel fuel produced due to the blending of blend stocks. If the processor chooses not to be covered by these provisions,

then the processor could produce highway or NRLM diesel fuel without these limits on production or percentages. For example, the processor could choose whether to produce 15 ppm highway, 500 ppm highway, 500 ppm NRLM, or 15 ppm NR in any proportions, during the time periods when the non-highway baseline volume percentage or the highway TCO are applicable. We are concerned that to discourage abuse, some reasonable limit on a transmix processor's production volume that could be exempted from the requirements may be necessary. Thus, we propose to limit it to 105% of its 2003–2005 average production but seek comment on whether additional flexibility is warranted.

The processor would still need to properly designate its fuel with the proper product transfer documents and, in the case of heating oil between 2007 and 2014 and locomotive and marine fuel between 2010 and 2014, to apply the specified marker and comply with other reporting and recordkeeping requirements applicable to refiners. A processor choosing this approach would not be eligible to generate or use NRLM or highway sulfur credits.

Because the volume of fuel involved would be small and the fuel processed would already have been ''off-spec,'' we believe that providing these options for transmix processors would have essentially no environmental impact and would not affect the efficient functioning of the proposed program or the existing highway diesel program. Rather, these options would allow fuel volume to remain in the highway and/or NRLM markets that might otherwise be forced into the heating oil market.

4. Highway or Nonroad Diesel Fuel Treated as Blendstock (DTAB)

Under the proposed program, a situation could arise for importers where that was expected to comply with the 15 ppm NR or highway standard is found to be slightly higher in sulfur than the standard. Rather than require that importer to account for, and report, that fuel as 500 ppm fuel, we propose to allow the importer to designate the non-complying fuel as blendstock—''diesel fuel treated as blendstock'' or DTAB—rather than as either highway or nonroad diesel fuel. In its capacity as a refiner, the party could blend this DTAB fuel with lower sulfur diesel fuel to cause the sulfur level of the combined product to meet the 15 ppm nonroad or highway standard.

Where previously certified diesel fuel is used to reduce the sulfur level of the DTAB to 15 ppm or less, the party, in its refiner capacity, would report only the volume of the imported DTAB as the amount of diesel fuel produced. This avoids the double counting that would result if the same diesel fuel is reported twice. If the product that is blended with the DTAB is not previously certified diesel fuel, but is also blendstock, the total combined volume of the DTAB and other blendstock would constitute the batch produced.

When an importer classifies diesel fuel as DTAB, that DTAB would not count toward the importer's calculations under the highway diesel rule's temporary compliance option, toward credit generation or use, or for compliance calculations under the non-highway baseline approach.[320] The same party, however, would include the DTAB in such calculations in its capacity as refiner. We believe such an approach would increase the supply of 15 ppm fuel by reducing the volume of near-compliant fuel that is downgraded to higher sulfur designations. In essence, it allows importers the same flexibility that refiners have within their refinery gate.

C. Requirements for Parties Downstream of the Refinery or Import Facility

In order for the environmental benefits of the proposed program to be ensured, parties in the fuel distribution system downstream of the refinery (including pipelines, terminals, bulk plants, wholesale purchaser-consumers, and retailers) must in most cases keep the various grades of fuel in the system separate. Owners and operators of nonroad diesel equipment must also be required in certain circumstances to use fuels meeting specific sulfur content standards. The following paragraphs discuss several provisions that we propose to apply to these parties: segregation of various fuel sulfur grades; diesel fuel pump labeling; use of used motor oil in diesel fuel; use of kerosene in diesel fuel; use of additives in diesel fuel; requirements for end users; and provisions covering downgrading of undyed diesel fuel to different grades of fuel. These provisions are analogous to similar provisions that apply to highway diesel fuel under the highway program.

1. Product Segregation and Contamination

This subsection discusses the various grades and uses of NRLM fuel under the proposed program and when these fuel grades must be segregated from each other. In later subsections, we discuss related requirements for product transfer documents to identify fuels throughout the distribution system and provisions relating to the liability all parties in the distribution face for preventing contamination of these different fuel sulfur grades.

a. The Period From June 1, 2007 through May 31, 2010

Starting June 1, 2007, NRLM fuel having a sulfur content exceeding 500 ppm that is produced or imported under the credit, small refiner, or hardship provisions would need to be segregated from other NRLM fuel subject to the 500 ppm standard, until the point where IRS dye is added. After that point the 500 ppm NRLM fuel could be mixed with NRLM small refiner, hardship or credit fuel, but could not be mixed with heating oil without changing the designation to heating oil. However, during this period there would also be nonroad equipment equipped with engines subject to emission standards, where some of this equipment is expected to be equipped with sulfur sensitive technology that needs to operate on 500 ppm or less sulfur fuel in order to meet the proposed emission standards in-use. Fuels sold for use in, or dispensed into, these engines would need to be identified as meeting the 15 ppm standard or the 500 ppm standard, as applicable, and if so identified it would need to meet such standard, and avoid being contaminated with higher sulfur fuels.

We are proposing an additional segregation requirement for heating oil. As provided in Section IV of the preamble, such fuel would be required to be identified by a marker and segregated throughout the distribution system to the end user. It could not be used as nonroad, locomotive or marine fuel but could only be used as heating oil. NRLM fuel could, however, be used as heating oil. To be able to effectively enforce the segregation of heating oil, we are proposing that heating oil be marked by the refiner or importer by the addition of 6 mg/L of solvent yellow 124.

b. The Period From June 1, 2010 through May 31, 2014

Because of the extreme sulfur sensitivity of the expected engine emission control systems beginning in model year 2011 for nonroad diesel engines, it would be imperative that the distribution system segregate nonroad diesel fuel subject to the 15 ppm sulfur standard from higher sulfur distillate products, such as 500 ppm diesel fuel produced by small refiners or through the use of credits, heating oil, and jet fuel.

[320] Importer/refiners availing themselves of the DTAB provisions would still be subject to the non-highway distillate baseline provisions, downgrading provisions, and other provisions applicable to any importer or refiner.

We are also concerned about potential misfueling of engines requiring 15 ppm fuel at retail or wholesale purchaser-consumer facilities as defined under this proposal, or other end-user facilities, even when segregation of 15 ppm fuel from the higher-sulfur grades of diesel fuel has been maintained in the distribution system. Thus, downstream compliance and enforcement provisions of the proposed rule are aimed at both preventing contamination of nonroad diesel fuel subject to the 15 ppm sulfur standard and preventing misfueling of new nonroad equipment.

As proposed in Section IV above, small refiners would be able to continue to produce 500 ppm nonroad fuel, until June 1, 2014. Other refiners could also produce fuel under the 500 ppm nonroad standard, through the use of credits, but only until June 1, 2012. In either case, we are proposing that during this period the 500 ppm fuel must be segregated from 15 ppm nonroad fuel throughout the distribution system, including the end user. We are also proposing that refiners and importers wishing to distribute 500 ppm nonroad diesel fuel during this period be required to petition the Agency for approval of a plan demonstrating the segregation of such fuel. The plan would also be required to include a quality assurance program that would ensure that the 500 ppm fuel would not cause fuel subject to the 15 ppm standard to be contaminated, and to ensure that model year 2011 and later nonroad diesel engines would not be misfueled.

As discussed in section IV above, we propose that during this period, locomotive and marine fuel be segregated using the same marker as was used for heating oil before June 1, 2010. During this time, heating oil would not be marked but would be segregated based on its sulfur content, since no other fuel could exceed 500 ppm.

c. After May 31, 2014

After all regulatory flexibilities have expired, the three remaining fuels (15 ppm highway and nonroad fuel, 500 ppm locomotive and marine fuel, and heating oil) would be segregated based on their sulfur content and identifying information on product transfer documents.

2. Diesel Fuel Pump Labeling To Discourage Misfueling

For any multiple-fuel program like the two-step program proposed today, we believe that the clear labeling of nonroad diesel fuel pumps would be vital so that end users could readily distinguish between the several grades of fuel that may be available at fueling facilities, and properly fuel their nonroad equipment. Section VII above describes the labels that manufacturers would be required to place on model year 2011 and later nonroad equipment, and information that would be provided to nonroad equipment owners. Today's proposal includes requirements for labeling fuel pump stands at retail facilities, including bulk plants or portable fuel storage facilities used as a fueling facility, and wholesale purchaser-consumer facilities.

To help prevent misfueling of nonroad, locomotive and marine engines, and to thus assure the environmental benefits of the program are realized, we are proposing pump labeling requirements similar to those adopted in the highway diesel rule (40 CFR 80.570). These labels would apply to diesel fuel dyed for tax purposes, and thus generally could not be used in highway vehicles. The proposed fuel pump dispenser labeling requirements would supersede the non-highway labeling requirement established by the highway diesel rule on June 1, 2007. These pump dispenser labeling requirements are discussed separately for each of four time periods: Beginning June 1, 2006, June 1, 2007–August 31, 2010; September 1, 2010–August 31, 2014; and September 1, 2014 forward.

We are also proposing to amend the pump dispenser labeling language in the highway diesel regulations for consistency with this proposal. Because the highway diesel rule prohibits highway diesel fuel with sulfur levels above 500 ppm, the highway diesel rule and this proposal have different meanings for the terms ''low sulfur'' and ''high sulfur'', and the highway diesel rule does not use the term ''ultra low-sulfur.'' Further, because the highway diesel rule did not need to categorize the different uses of non-highway diesel fuel, the highway diesel rule and this proposal have different meanings for the term ''nonroad''.[321] The proposed amendments to the highway pump dispenser labeling language are to avoid confusion at the fuel pumps caused by labels with terms that would otherwise have different meanings depending on whether the pump dispenser is designated to dispense highway or non-highway diesel fuel. We are also proposing to add effective dates to each paragraph of the labeling provisions of the highway diesel rule for consistency with the additional pump labeling sections of this proposal, and to distinguish the non-highway labeling requirement effective June 1, 2006 under the highway diesel rule from the non-highway labeling requirements of this proposal effective 2007.

a. Pump Labeling Requirements for 2006

We propose to amend the pump dispenser labeling language of the highway diesel rule for consistency with this proposal, and to avoid confusion at the fuel pumps caused by labels with terms that would otherwise have different meanings depending on whether the pump dispenser is dispensing highway or non-highway diesel fuel.

For pumps dispensing highway diesel fuel subject to the 500 ppm sulfur standard of § 80.520(c), we propose that the label read as follows:

LOW-SULFUR HIGHWAY DIESEL FUEL (500 ppm Maximum)

WARNING

May damage model year 2007 and later highway vehicles and engines.

Federal Law *prohibits* use in these vehicles

For pumps dispensing highway diesel fuel subject to the 15 ppm sulfur standard of § 80.520(a)(1), we propose that the label read as follows:

ULTRA LOW-SULFUR HIGHWAY DIESEL FUEL (15 ppm Maximum)

Recommended for use in all diesel vehicles and engines.

Required for model year 2007 and later highway diesel vehicles and engines.

For pumps dispensing diesel fuel for non-highway equipment that does not meet the standards for motor vehicle diesel fuel, we propose that the label read as follows:

NON-HIGHWAY DIESEL FUEL (May Exceed 500 ppm Sulfur)

WARNING

May damage or destroy highway engines and their emission controls.

Federal Law *prohibits use* in any highway vehicle or engine

b. Pump Labeling Requirements for 2007–2010

As discussed in section IV of the preamble, between June 1, 2007 and August 31, 2010, this proposal would

[321] In the highway diesel rule, the term ''high-sulfur'' means diesel fuel with a sulfur level greater than 15 ppm, whereas in this proposal it means diesel fuel with a sulfur level greater than 500 ppm. In the highway diesel rule, the term ''low-sulfur'' means diesel fuel with a sulfur level of no greater than 15 ppm, whereas in this proposal it means diesel fuel with a sulfur level of no greater than 500 ppm. In addition, the term ''nonroad'' as used in the highway diesel rule means ''non-highway'' (*i.e.*, all fuel that is not highway fuel), but the term ''nonroad'' as used in this proposal excludes locomotive diesel, marine diesel and heating oil.

not require end users to dispense fuel meeting the 500 ppm sulfur standard into nonroad, equipment, locomotives or marine vessels. During this time period, small refiner fuel and fuel produced under the credit provisions with sulfur levels exceeding 500 ppm would still exist in the distribution system. Furthermore, this fuel could be mixed downstream at the point where the fuels are dyed for IRS tax purposes with fuel meeting the 500 ppm standard and introduced into nonroad, locomotive and marine engines. During this time period, there would also be nonroad equipment with engines subject to ''pull-ahead'' emission standards (*i.e.*, engines equipped with emission controls that allow them to meet standards earlier than required). Some of this pull-ahead equipment is expected to be equipped with sulfur sensitive technology that would need to operate on fuel of 500 ppm or less sulfur in order to meet the proposed emission standards in-use. For this reason, it is important that NRLM end users be able to know the sulfur level of the fuel they are purchasing and dispensing. Therefore, fuel pump dispensers for the various sulfur grades would also need to be properly labeled.

For pumps dispensing 500 ppm (maximum) sulfur content diesel fuel for nonroad equipment engines subject to pull-ahead standards, we propose that the label read as follows:

LOW-SULFUR NON-HIGHWAY DIESEL FUEL

(500 ppm Maximum)

WARNING

Not for Use In Highway Vehicles or Engines

It is also likely that prior to June 1, 2010 some 15 ppm (maximum) diesel fuel will be introduced into the nonroad market early. Both the engine and fuel credit provisions envision such early introduction of 2011-compliant engines and 15 ppm fuel. Thus, it is important that nonroad end users be able to know when they are purchasing diesel fuel with 15 ppm or less sulfur. For pumps dispensing 15 ppm (maximum) sulfur content diesel fuel for nonroad equipment engines subject to pull-ahead standards, we propose that the label read as follows:

ULTRA-LOW SULFUR NON-HIGHWAY DIESEL FUEL

(15 ppm Maximum)

Required for All Model Year 2011 and Newer Nonroad Diesel Engines

Recommended for Use in All Nonroad, Locomotive and Marine Diesel Engines

WARNING

Not for Use in Highway Vehicles or Engines

For all other nonroad equipment, locomotive, and marine engine diesel fuel pumps (that is, pumps dispensing diesel fuel having a sulfur content greater than 500 ppm) we propose that the label read as follows:

HIGH-SULFUR NON-HIGHWAY DIESEL FUEL

(May Exceed 500 ppm)

WARNING

Not for Use In Highway Vehicles or Engines

Not for Use in Nonroad, Locomotive, or Marine Engines after August 31, 2010

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel

During this time period, as discussed in section IV.B.2.b, it would be necessary to segregate heating oil from nonroad, locomotive and marine diesel fuel to avoid circumventing the intent of the first step of the proposed nonroad standards—that PM and SO_3 benefits be achieved by producing fuel to the NRLM diesel fuel standards in an amount that fully corresponds to the amount of fuel used in these engines. Consequently, for pumps dispensing non-highway diesel fuel for use other than in nonroad, locomotive or marine engines, such as for use in stationary diesel engines or as heating oil, we propose that the label read as follows:

HEATING OIL (May Exceed 500 ppm Sulfur)

WARNING

Federal Law *Prohibits* Use in Highway Vehicles or Engines, or in Nonroad, Locomotive, or Marine Engines

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel

c. Pump Labeling Requirements for 2010–2014

Beginning September 1, 2010, with certain exceptions, all fuel introduced into any nonroad engine, regardless of year of manufacture, would be required to meet the 15 ppm standard. The exceptions are that segregated small refiner nonroad diesel fuel and credit nonroad diesel fuel would be allowed to meet the 500 ppm sulfur standard only for use in pre-model year 2011 engines. This limited use of 500 ppm fuel would continue through August 31, 2014,[322] after which all nonroad fuel would have to meet the 15 ppm standard. Fuel for use in locomotive and marine engines would be required to meet the 500 ppm standard without exception. As discussed in section IV.B.3.b, during this time period, it would be necessary to segregate the 500 ppm (maximum) locomotive and marine diesel fuel from the small refiner and credit 500 ppm (maximum) nonroad diesel fuel to ensure an adequate supply of ultra low-sulfur (15 ppm maximum) nonroad diesel fuel for nonroad purposes.

For pumps dispensing 15 ppm (maximum) sulfur content nonroad diesel fuel, we propose that the label read as follows:

ULTRA-LOW SULFUR NON-HIGHWAY DIESEL FUEL

(15 ppm Maximum)

Required for all Model Year 2011 and Newer Nonroad Diesel Engines

Recommended for Use in All Nonroad, Locomotive and Marine Diesel Engines

WARNING

Not for Use in Highway Vehicles or Engines

For pumps dispensing segregated small refiner or credit 500 ppm (maximum) nonroad diesel fuel, as discussed in section IV.B.3.b, we propose that the label read as follows:

LOW-SULFUR NON-HIGHWAY DIESEL FUEL

(500 ppm Maximum)

WARNING

May Damage Model Year 2011 and Newer Nonroad Engines

Federal Law *Prohibits* Use in All Model Year 2011 and Newer Nonroad Engines

Not for Use In Highway Vehicles or Engines

For pumps dispensing marked 500 ppm sulfur (maximum) locomotive and marine diesel fuel, as discussed in section IV.B.3.b, we propose that the label read as follows:

[322] Production of 500 ppm fuel under the credit provisions would be allowed until June 1, 2012, but small refiner fuel subject to the 500 ppm standard could continue to be produced until June 1, 2014 and would be available to end users until September 1, 2014.

LOW-SULFUR LOCOMOTIVE OR MARINE DIESEL FUEL

(500 ppm Maximum)

WARNING

Federal Law *Prohibits* Use in Other Nonroad Engines or in Highway Vehicles or Engines

May Damage Model Year 2007 and Newer Highway Diesel Engines and 2011 and Newer Nonroad Diesel Engines

For pumps dispensing high-sulfur fuel for use as heating oil, we propose that the label read as follows:

HEATING OIL (May Exceed 500 ppm Sulfur)

WARNING

Federal Law *Prohibits* Use in Highway Vehicles or Engines, or in Nonroad, Locomotive, or Marine Engines

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel

d. Pump Labeling Requirements for 2014 and Beyond

Beginning September 1, 2014, all nonroad fuel distributed to end-users would be required to meet the 15 ppm standard, without exception. Locomotive and marine fuel would continue to be subject to the 500 ppm standard, without exception. The pump labels for heating oil would continue to be the same as for the period 2010 through 2014.

For pumps dispensing nonroad diesel fuel, we propose that the label read as follows:

ULTRA-LOW SULFUR NON-HIGHWAY DIESEL FUEL

(15 ppm Maximum)

Required for all Nonroad Diesel Engines

Recommended for Use in All Nonroad, Locomotive and Marine Diesel Engines

WARNING

Not for Use in Highway Vehicles or Engines

For pumps dispensing locomotive or marine diesel fuel, we propose that the label read as follows:

LOW-SULFUR LOCOMOTIVE OR MARINE DIESEL FUEL

(500 ppm maximum)

WARNING

Federal Law *Prohibits* Use in Other Nonroad Engines or in Highway Vehicles or Engines

May Damage Model Year 2007 and Newer Highway Diesel Engines and 2011 and Newer Nonroad Diesel Engines

For pumps dispensing high-sulfur fuel for use as heating oil, we propose that the label read the same as for that same fuel during the 2010–2014 time period, as follows:

HEATING OIL (May Exceed 500 ppm Sulfur)

WARNING

Federal Law *Prohibits* Use in Highway Vehicles or Engines, or in Nonroad, Locomotive, or Marine Engines

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel

e. Nozzle Size Requirements or Other Requirements To Prevent Misfueling

Like the highway diesel fuel program, the proposed NRLM diesel fuel program does not include a nozzle size requirement. In part this is because we are not aware of an effective and practicable scheme to prevent misfueling through the use of different nozzle sizes or shapes, and in part because we do not believe that improper fueling would be a significant enough problem to warrant such an action. In the preamble to the highway diesel fuel rule, we stated our belief that the use of unique nozzles, color-coded scuffguards, or dyes to distinguish the grades of diesel fuel may be useful in preventing accidental use of the wrong fuel. (*See* 66 FR 5119, January 18, 2001.) However, we did not finalize any such requirements, for the reasons described in the RIA for that final rule (Chapter IV.E.).

Similar reasoning applies to the proposed NRLM diesel fuel program. For example, 15 ppm diesel fuel would be the dominant fuel in the market by 2010, likely comprising more than 80 percent of all number 2 distillate. Furthermore, after 2010, we believe that 500 ppm diesel fuel would have limited availability until 2014. High-sulfur distillate for heating oil uses would remain, but will only exist in significant volumes in certain parts of the country. In any event, we believe that most owners and operators of new nonroad diesel engines and equipment would not risk voiding the general warranty and the emissions warranty by misfueling.

Although in the highway diesel fuel rule we did not finalize any provisions beyond fuel pump labeling requirements, we recognized that some potential for misfueling would still exist. Consequently, we expressed a desire to continue to explore with industry simple, cost-effective approaches that could further minimize misfueling potential such as color-coded nozzles/scuff guards. Since the highway diesel rule was promulgated, we have had discussions with fuel retailers, wholesale purchaser-consumers, vehicle manufacturers, and nozzle manufacturers and continue to examine different methods for preventing accidental or intentional misfueling under the highway diesel fuel sulfur program. To date, no consensus exists among the affected stakeholders, including engine and truck manufacturers, truck operators, fuel retailers, and fuel nozzle manufacturers. However, we will continue discussions with these and other stakeholders. We will consider any new developments that result from these highway discussions in a future nonroad action.

3. Use of Used Motor Oil in New Nonroad Diesel Equipment

We understand that used motor oil is sometimes blended with diesel fuel for use as fuel in nonroad diesel equipment. Such practices include blending used motor oil directly into the equipment fuel tank, blending it into the fuel storage tanks, and blending small amounts of motor oil from the engine crank case into the fuel system as the equipment is operated.

However, motor oil normally contains high levels of sulfur. Thus, the addition of used motor oil to nonroad diesel fuel could substantially impair the sulfur-sensitive emissions control equipment expected to be used by engine manufacturers to meet the emissions standards proposed in today's NPRM. Depending on how the oil is blended, it could increase the sulfur content of the fuel by as much as 200 ppm. As a result, we believe blending used motor oil into nonroad diesel fuel could render inoperative the expected emission control technology and potentially cause driveability problems. It should be prohibited as a violation of the tampering prohibition in the Act. *See* CAA Sections 203(a)(3), 213(d).

Therefore, like the highway diesel rule, this proposal would prohibit any person from introducing or causing or allowing the introduction of used motor oil, or diesel fuel containing used motor

oil, into the fuel delivery systems of nonroad equipment engines manufactured in model year 2011 and later. The only exception to this would be where the engine was explicitly certified to the emission standard with used motor oil added and the oil was added in a manner consistent with the certification.

4. Use of Kerosene in Diesel Fuel

As we discussed in the highway diesel final rule, kerosene is commonly added to diesel fuel to reduce fuel viscosity in cold weather (see 66 FR 5120, January 18, 2001). This proposal would not limit this practice with regard to 500 ppm NRLM diesel fuel. However the resulting blend would still be subject to the 500 ppm sulfur standard. Consistent with the highway diesel fuel rule, kerosene that is used, intended for use, or made available for use as, or for blending with, 15 ppm sulfur nonroad diesel fuel would itself be required to meet the 15 ppm standard starting June 1, 2010 and must be itself classified as ''nonroad diesel fuel'' unless it was already classified as ''motor vehicle diesel fuel.'' This classification as nonroad diesel fuel use could be made by the kerosene fuel's refiner or could be made by a downstream party at the point when that party chooses to use the kerosene in its possession for use as nonroad diesel fuel subject to the 15 ppm sulfur standard.

To help ensure that only distillates that comply with the proposed 15 ppm nonroad diesel fuel standard are blended into 15 ppm nonroad diesel fuel, this proposal would require that kerosene meeting the 15 ppm standard and distributed by the transferring party for use in nonroad equipment engines must be accompanied by PTDs accurately stating that the product meets the 15 ppm sulfur standard. (*See* Section VIII.E.7, below.)

As a general matter, any party who would blend kerosene, or any blendstock, into nonroad diesel fuel, or who would produce nonroad diesel fuel by mixing blendstocks, would be a refiner and would be subject to the requirements and prohibitions applicable to refiners under the proposed rule. However, under this proposal, in deference to the longstanding and widespread practice of blending kerosene into diesel fuel at downstream locations, downstream parties who only blend kerosene into nonroad diesel fuel will not be subject to the requirements applicable to other refiners, provided that they do not alter the fuel in any other way. This activity is treated the same way under the final highway diesel rule.

In order to ensure the continued compliance of 15 ppm fuel with the 15 ppm standard, downstream parties choosing to blend kerosene into 15 ppm nonroad diesel fuel would be required to either have a PTD for that kerosene indicating compliance with the 15 ppm standard, or to have test results for the kerosene establishing such compliance. Further, downstream parties choosing to blend kerosene into 15 ppm nonroad diesel fuel would be entitled to the 2 ppm adjustment factor discussed above for both the kerosene and the diesel fuel into which it is blended at downstream locations, provided that the kerosene had been transferred to the party with a PTD indicating compliance with that standard. Sulfur test results from downstream locations of parties who do not have such a PTD for their kerosene will not be subject to this adjustment factor, either for the kerosene itself, or for the nonroad diesel fuel into which it is blended.

Any party who causes the sulfur content of nonroad diesel fuel subject to the 15 ppm sulfur standard to exceed 15 ppm by blending kerosene into nonroad diesel fuel, or by using high sulfur kerosene as nonroad diesel fuel, would be subject to liability for violating the sulfur standard. Similarly, parties who cause the sulfur level of nonroad diesel fuel subject to the 500 ppm nonroad diesel fuel to exceed that standard by blending kerosene into the fuel, would also be subject to liability.

The proposed rule would not require refiners or importers of kerosene to produce or import kerosene meeting the 15 ppm sulfur standard. However, we believe that refiners will produce low sulfur kerosene in the same refinery processes that they use to produce low sulfur diesel fuel, and that the market will drive supply of low sulfur kerosene for those areas where, and during those seasons when, the product is needed for blending with nonroad, as well as highway, diesel fuel. We request comments regarding this proposed provision.

5. Use of Diesel Fuel Additives

Diesel fuel additives include lubricity improvers, corrosion inhibitors, cold-operability improvers, and static dissipaters. Use of such additives is distinguished from the use of kerosene by the low concentrations at which they are used and their relatively more complex chemistry.[323] The suitability of diesel fuel additives for use in diesel fuel meeting a 500 ppm sulfur specification has been well established due to the existence of 500 ppm highway diesel fuel in the marketplace since 1993. The suitability of additives for use in 15 ppm diesel fuel was addressed in the highway diesel program, which requires highway diesel fuel to meet a 15 ppm sulfur standard beginning in 2006. Our review of data submitted by additive and fuel manufacturers to comply with EPA's Fuel and Fuel Additive Registration requirements indicates that additives to meet every purpose, including static dissipation, are currently in common use which meet a 15 ppm cap on sulfur content.[324] Since such low-sulfur additives are currently in use side-by-side with high-sulfur additives, it is reasonable to conclude that there is not a significant difference in their cost. The ability of industry to provide low-sulfur additives is supported by the fact that diesel fuel meeting a 10 ppm cap on sulfur content has been marketed in Sweden for some time and is beginning to be marketed in other countries such as Germany. Fifteen ppm diesel fuel is also being made available to a number of centrally fueled fleets across the U.S.

Even if not yet available for certain purposes, we believe that it is reasonable to assume that low-sulfur additives will become available before the 15 ppm sulfur standard for highway diesel fuel becomes effective in 2006. This will be well in advance of the proposed 2010 implementation date for a 15 pm sulfur standard on nonroad diesel fuel.

As discussed in section V of today's preamble, we expect that reducing the sulfur content of NRLM diesel fuel to meet proposed sulfur standards would not have a disproportionate impact on fuel lubricity compared to the reduction in lubricity associated with desulfurizing highway diesel fuel. We have no reason to expect that this situation would be any different with respect to the potential impact on nonroad diesel fuel properties other than fuel lubricity which might require the use of additives such as cold flow, and susceptibility to static build up. Consequently, our estimate of the increase in additive use that would

[323] Diesel fuel additives are used at concentrations commonly expressed in parts per million. Diesel fuel additives can include specially-formulated polymers and other complex chemical components. Kerosene is used at much higher concentrations, expressed in volume percent. Unlike diesel fuel additives, kerosene is a narrow distillation fraction of the range of hydrocarbons normally contained in diesel fuel.

[324] *See* Chapter IV.D. of the RIA for the highway diesel fuel rule for more information on diesel fuel additives, EPA Air docket A–99–06, docket item V–B–01. Also *See* 40 CFR part 79.

result from the adoption of the proposed rule parallels that under the highway program. We estimate that the use of lubricity additives would increase, and that the use of other additives would be unaffected.[325] We request comment on this assessment.

Similar to the highway diesel rule, this proposed rule would allow the use of diesel fuel additives with a sulfur content greater than 15 ppm in nonroad diesel fuel. However, nonroad diesel fuel containing such additives would remain subject to the proposed 15 ppm sulfur cap. We believe that it is most appropriate for the market to determine how best to accommodate increases in the fuel sulfur content from the refinery gate to the end user, while maintaining the 15 ppm cap, and whether such increases result from contamination in the distribution system or diesel additive use. By providing this flexibility, we anticipate that market forces will encourage an optimal balance between the competing demands of manufacturing fuel lower than the 15 ppm sulfur cap, limiting contamination in the distribution system, and limiting the additive contribution to fuel sulfur content.

As in the highway diesel program, additive manufacturers that market additives with a sulfur content higher than 15 ppm and blenders that use them in nonroad diesel fuel subject to the proposed 15 ppm sulfur standard would have additional requirements to ensure that the 15 ppm sulfur cap is not exceeded. The 15 ppm sulfur cap on highway diesel fuel that becomes effective in 2006 may encourage the gradual retirement of additives that do not meet a 15 ppm sulfur cap. The proposed 15 ppm sulfur cap for nonroad diesel fuel in 2010 may further this trend. However, we do not anticipate that this will result in disruption to additive users and producers or a significant increase in cost. Additive manufacturers commonly reformulate their additives on a periodic basis as a result of competitive pressures. We anticipate that any reformulation that might need to occur to meet a 15 ppm sulfur cap will be accomplished prior to the implementation of the 15 ppm sulfur cap on highway diesel fuel in 2006.

Like the highway diesel fuel rule, this proposed rule would limit the continued use in nonroad diesel fuel that is subject to the proposed 15 ppm sulfur standard of additives that exceed 15 ppm sulfur. These additives would be limited to use in concentrations of less than one volume percent. We believe that this limitation is appropriate and would not cause any undue burden because the diesel fuel additives for which this flexibility was included are always used today at concentrations well below one volume percent. Further, one volume percent is the threshold above which the blender of an additive becomes subject to all the requirements applicable to a refiner. See 40 CFR 79.2(d)(1).

The specific proposed requirements regarding the use of diesel fuel additives in nonroad diesel fuel subject to the proposed 15 ppm standard are as follows:

- Additives that have a sulfur content at or below 15 ppm must be accompanied by a PTD that states: ''The sulfur content of this additive does not exceed 15 ppm.''
- Additives that exceed 15 ppm sulfur could continue to be used in nonroad diesel fuel subject to the proposed 15 ppm sulfur standard provided that they are used at a concentration of less than one volume percent and their transfer is accompanied by a PTD that lists the following:

(1) A warning that the additive's sulfur content may exceed 15 ppm,

(2) The additive's maximum sulfur concentration,

(3) The maximum recommended concentration for use of the additive in diesel fuel, and,

(4) The contribution to the sulfur level of the fuel that would result if the additive is used at the maximum recommended concentration.

Blenders of additives that exceed 15 ppm in sulfur content would be liable if their actions caused the sulfur content of the finished nonroad diesel fuel to exceed 15 ppm. In some cases, blenders may not find it feasible to conduct testing, or otherwise obtain information on the sulfur content of the fuel either before or after additive blending, without incurring substantial cost. We anticipate that blenders would manage the risk associated with the use of additives above 15 ppm in sulfur content under such circumstances with actions such as the following:

- Selecting an additive with minimal sulfur content above 15 ppm that is used at a low concentration, and
- Working with their upstream suppliers to provide fuel of sufficiently low sulfur content to accommodate the small increase in sulfur content which results from the use of the additive.

This is similar to the way distributors would manage contamination from their distribution hardware, such as tank trucks. Distributors would not necessarily test for fuel sulfur content after each opportunity for contamination, but rather will rely on mechanisms set up to minimize the contamination, and to obtain fuel sufficiently below the standard to accommodate the increase in sulfur content from the contamination.

The recordkeeping, reporting, and PTD provisions associated with these proposed requirements are discussed in Section VIII.E below. The liability provisions are discussed in Section VIII.F below.

The 1993 and 2007 highway diesel programs did not contain any requirements regarding the maximum sulfur content of additives used in highway diesel fuel subject to a 500 ppm sulfur cap.[326] Our experience under the highway program indicates that application of the 500 ppm sulfur cap throughout the distribution system to the end-user has been sufficient to prevent the use of additives from jeopardizing compliance with the 500 ppm sulfur standard. The potential increase of several ppm in the sulfur content of diesel fuel which might result from the use of diesel additives raises substantial concerns regarding the impact on compliance with a 15 ppm sulfur cap. However, this is not the case with respect to the potential impact on compliance with a 500 ppm sulfur cap. The current average sulfur content of highway diesel fuel of 340 ppm provides ample margin for the minimal increase in the fuel sulfur content which might result from the use of additives. We expect that this would also be the case for NRLM fuel subject to the proposed 500 ppm sulfur standard. Therefore, we are not proposing any requirements regarding the sulfur content of additives used in NRLM fuel subject to the proposed 500 ppm sulfur standard. We believe that the proposed requirement that NRLM fuel comply with the 500 ppm sulfur cap throughout the distribution system to the end-user would be sufficient to ensure that entities who introduce additives into such fuel take into account the potential increase in fuel sulfur content.

6. End User Requirements

In light of the importance of ensuring that the proper fuel is used in nonroad, locomotive, and marine engines covered

[325] *See* Section IV.G. of today's preamble for a discussion of the potential impact of the proposed sulfur standards on fuel lubricity.

[326] The 500 ppm highway diesel final rule contains the requirement that highway diesel fuel not exceed 500 ppm in sulfur content at any point in the fuel distribution system including after the blending of additives. Fuel Quality Regulations for Highway Diesel Fuel Sold in 1993 and Later Calendar Years, Final Rule, 55 FR 34120, August 21, 1990.

by the proposed program, we propose to prohibit any person from fueling such an engine with fuel not meeting the applicable sulfur standard.

We propose that (1) no person may introduce, or permit the introduction of, fuel that exceeds 15 ppm sulfur content into nonroad equipment with a model year 2011 or later engine; (2) beginning December 1, 2010, no person may introduce, or permit the introduction of locomotive or marine fuel into any nonroad diesel engine; (3) beginning December 1, 2010, no person may introduce, or permit the introduction of any fuel exceeding 15 ppm sulfur content into any nonroad diesel engine regardless of year of manufacture, except that segregated 500 ppm nonroad diesel fuel produced by qualified small refiners, hardship refiners, or refiners using credits may be introduced into pre-2011 model year nonroad diesel engines; (4) beginning December 1, 2010, no person may introduce, or permit the introduction of fuel exceeding 500 ppm sulfur content into any locomotive or marine diesel engine; and (5) beginning December 1, 2014, no person may introduce, or permit the introduction of, fuel exceeding 15 ppm sulfur content into any nonroad diesel engine.

7. Anti-Downgrading Provisions

The highway diesel rule restricts downgrading of 15 ppm highway diesel fuel to 500 ppm highway diesel fuel, from June 1, 2006–May 31, 2010 by preventing downstream entities from intentionally downgrading 15 ppm highway fuel. This is to protect the nationwide availability of 15 ppm highway fuel. The concern was that since both 15 ppm highway fuel and 500 ppm highway fuel were expected to be comparably priced, entities downstream of the refinery could simply take delivery of whichever fuel was cheapest and commingle the two fuel grades into a single pool of 500 ppm highway fuel. We chose not to restrict downgrading to non-highway fuel grades, however, for three reasons. First, in order to avoid reprocessing costs, an outlet was needed for legitimately downgraded fuel produced through contamination in the distribution system. Second, the price differential between 15 ppm fuel and high sulfur non-highway fuel was expected to be sufficient to deter any intentional downgrading. Third, many of the entities such as retailers and fleets that might have an incentive to downgrade 15 ppm highway fuel do not market non-highway fuel, and therefore would have no opportunity to do so.

With this proposal, however, all NRLM diesel fuel would also be required to meet the 500 ppm sulfur standard beginning June 1, 2007 and it could be mixed fungibly with 500 ppm sulfur highway fuel up to the point where dye was added for IRS excise tax purposes. As a result, application of the current anti-downgrading provision in the highway diesel rule is ambiguous with respect to what would and would not be allowed under this proposal. Furthermore, the assumption in the highway rule that the price differential between 15 ppm highway and non-highway fuel would be sufficient to deter intentional downgrading would not necessarily be valid any longer, given the application of the 500 ppm sulfur standard to NRLM diesel fuel. For these reasons, we propose that the anti-downgrading provisions contained in 40 CFR 80.527 be modified to restrict downgrading of undyed 15 ppm diesel fuel to any 500 ppm diesel fuel, whether the 500 ppm sulfur fuel is intended for highway purposes or NRLM purposes. We would continue to allow unrestricted downgrading of undyed 15 ppm diesel fuel to fuel which is marked as heating oil.

We further propose that the downgrading restriction apply to any undyed 15 ppm diesel fuel produced. Since the two fuels would be distributed together, this modification to the downgrading limitations would be needed to enable enforcement of the highway diesel fuel downgrading limitations. We are not proposing any extension of that the anti-downgrading provisions beyond their current set date of June 1, 2010. The purpose of the anti-downgrading provisions is to ensure availability of 15 ppm highway fuel nationwide, and we do not anticipate this as a concern after June 1, 2010. This proposal allows early credit for 15 ppm NRLM diesel fuel produced beginning June 1, 2009. Although availability is not an issue for this fuel, it will be fungible with highway fuel subject to the 15 ppm sulfur standard. Consequently, we seek comment on whether the anti-downgrading provision could expire then as well without negatively impacting the availability of 15 ppm diesel fuel for highway vehicles. We request comment on these proposed revisions of the anti-downgrading provisions.[327]

While these proposed downgrading provisions apply primarily to parties in the distribution system downstream of the refiners and importers, these requirements would also apply to refiners and importers.

D. Diesel Fuel Sulfur Sampling and Testing Requirements

1. Testing Requirements

As part of today's action, we are proposing a new approach for fuel sulfur measurement. The details of this approach are described below, followed by a description of who would be required to conduct fuel sulfur testing as well as what fuel they would be required to test.

a. Test Method Approval, Recordkeeping, and Quality Control Requirements

Most current and past EPA fuel programs designated specific analytical methods which refiners, importers, and downstream parties use to analyze fuel samples at all points in the fuel distribution system for regulatory compliance purposes. Some of these programs have also allowed certain specific alternative methods which may be used as long as the test results are correlated to the designated test method. The highway diesel rule (66 FR 5002, January 18, 2001), for example, specifies one designated test method and three alternative methods for measuring the sulfur content of highway diesel fuel subject to the 15 ppm sulfur standard. The rule also specifies one designated method and three alternative methods for measuring the sulfur content of highway diesel fuel subject to the 500 ppm sulfur standard.

The highway diesel fuel sulfur rule also announced the Agency's intention to adopt a performance-based test method approach in the future, as well as our intention to continue working with the industry to develop and improve sulfur test methods. Under today's action, we are proposing to adopt a performance-based test method approach for diesel fuel subject to the 15 ppm sulfur standard. We are also proposing to adopt such an approach as an option for diesel fuel subject to the 500 ppm sulfur standard. The current approach for measuring the sulfur content of diesel fuel subject to the 500 ppm sulfur standard, *i.e.*, using the designated sulfur test method or one of the alternative test methods with correlation could continue to be used.

[327] Since the time of the highway diesel final rule, we have become aware of the need for several other clarifications of the anti-downgrading provisions. We intend to address these general issues through a future amendment to the highway diesel rule.

TABLE IV–D–1.—DESIGNATED AND ALTERNATIVE SULFUR TEST METHODS ALLOWED UNDER THE HIGHWAY DIESEL PROGRAM

Sulfur test method	500 ppm	15 ppm
ASTM D 2622–98 as modified, Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry.	Designated	Alternative.
ASTM D 3120–96, Standard Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Microcoulometry.		Alternative.
ASTM D 4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-ray Fluorescence Spectrometry.	Alternative.	
ASTM D 5453–00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence.	Alternative	Alternative.
ASTM D 6428–99, Test Method for Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative Combustion and Electrochemical Detection.	Alternative	Designated.

Under the performance-based approach, a given test method would be approved for use in a specific laboratory by meeting certain precision and accuracy criteria specified in the regulations. The method would be approved for use by that laboratory as long as appropriate quality control procedures were followed. Properly selected precision and accuracy values potentially would allow multiple methods and multiple commercially available instruments to be approved, thus providing greater flexibility in method and instrument selection while also encouraging the development and use of better methods and instrumentation in the future. Under this approach, there would be no designated sulfur test method as specified under previous regulations.

Since any test method that meets the specified performance criteria may qualify, this type of approach does not conflict with the ''National Technology Transfer and Advancement Act of 1995'' (NTTAA), section 12(d) of Public Law 104–113, and the Office of Management and Budget (OMB) Circular A–119. Both of these documents are designed to encourage the adoption of standards developed by ''voluntary consensus bodies'' and to reduce reliance on government-unique standards where such consensus standards would suffice. Under the performance criteria approach proposed today, methods developed by consensus bodies as well as methods not yet approved by a consensus body would qualify for approval provided they met the specified performance criteria as well as the recordkeeping and reporting requirements for quality control purposes.

i. How Can a Given Method Be Approved?

Under the proposed performance criteria approach, a given test method would be approved for use under today's program by meeting certain precision and accuracy criteria. Approval would apply on a laboratory/facility-specific basis. If a company chose to employ more than one laboratory for fuel sulfur testing purposes, then each laboratory would have to separately seek approval for each method it intends to use. Likewise, if a laboratory chose to use more than one sulfur test method, then each method would have to be approved separately. Separate approval would not be necessary for individual operators or laboratory instruments within a given laboratory facility.

The specific precision and accuracy criteria that we are proposing were derived from existing sulfur test methods that are either required or allowed under the highway diesel fuel sulfur program. The first criterion, precision, refers to the consistency of a set of measurements and is used to determine how closely analytical results can be duplicated based on repeat measurements of the same material under prescribed conditions. To demonstrate the precision of a given sulfur test method under the performance-based approach, a laboratory facility would perform 20 repeat tests over 20 days on samples taken from a homogeneous supply of a commercially available diesel fuel. We request comment on an alternative number of days over which these 20 repeat tests should be conducted. Using the test results [328] of ASTM D 3120 for diesel fuel subject to the 15 ppm sulfur standard, the precision would have to be less than 0.72 ppm.[329] Similarly, using the test results of ASTM D 2622 for diesel fuel subject to the 500 ppm sulfur standard, the precision would have to be less than 9.68 ppm.

The second criterion, accuracy, refers to the closeness of agreement between a measured or calculated value and the actual or specified value. To demonstrate the accuracy of a given test method under the performance-based approach, a laboratory facility would be required to perform 10 repeat tests on a standard sample, the mean of which for diesel fuel subject to the 15 ppm sulfur standard could not deviate from the Accepted Reference Value (ARV) of the standard by more than 0.54 ppm and for diesel fuel subject to the 500 ppm sulfur standard could not deviate from the ARV of the standard by more than 7.26 ppm.[330] These tests would be performed using commercially available gravimetric sulfur standards. Ten tests would be required using each of two different sulfur standards—one in the range of 1–10 ppm sulfur and the other in the range of 10–20 ppm sulfur for 15 ppm fuel and one in the range of 100–200 ppm sulfur and the other in the

[328] Sulfur Repeatability of Diesel by Method at 15 ppm, ASTM Report on Low Level Sulfur Determination in Gasoline and Diesel Interlaboratory Study—A Status Report, June 2002.

[329] 0.72 ppm is equal to 1.5 times the standard deviation of ASTM D 3120, where the standard deviation is equal to the repeatability of ASTM D 3120 (1.33) divided by 2.77. 9.68 ppm is equal to 1.5 times the standard deviation of ASTM D 2622, where the standard deviation is equal to the repeatability of ASTM D 2622 (26.81) divided by 2.77. Since the conditions of the precision qualification test admit more sources of variability than the conditions under which ASTM repeatability is determined (longer time span, different operators, environmental conditions, etc.) the repeatability standard deviation derived from the round robin was multiplied by what we believe to be a reasonable adjustment factor, 1.5, to compensate for the difference in conditions.

[330] 0.54 and 7.26 are equal to 0.75 times the precision values of 0.72 for 15 ppm sulfur diesel and 9.68 for 500 ppm sulfur diesel, respectively.

range of 400–500 ppm sulfur for 500 ppm sulfur diesel fuel. Therefore, a minimum of 20 total tests would be required for sufficient demonstration of accuracy for a given sulfur test method at a given laboratory facility. Finally, any known interferences for a given test method would have to be mitigated.

These requirements are not intended to be overly burdensome. Indeed, we believe these requirements are equivalent to what a laboratory would do during the normal start up procedure for a given test method. In addition, we believe this approach would allow regulated entities to know that they are measuring diesel fuel sulfur levels accurately and within reasonable site reproducibility limits. Nevertheless, we request comment on this performance criteria approach and the specific precision and accuracy criteria we are proposing.

ii. What Information Would Have To Be Reported to the Agency?

For test methods that have already been approved by a voluntary consensus standards body [331] (VCSB), such as ASTM or the International Standards Organization (ISO), each laboratory facility would be required to report to the Agency the precision and accuracy results as described above for each method for which it is seeking approval. Such submissions to EPA, as described elsewhere, would be subject to the Agency's review for 90 days, and the method would be considered approved in the absence of EPA comment. Laboratory facilities would be required to retain the fuel samples used for precision and accuracy demonstration for 30 days. We seek comment on an alternative number of days for which such fuel samples should be retained.

For test methods that have not been approved by a VCSB, full test method documentation, including a description of the technology/instrumentation that makes the method functional, as well as subsequent EPA approval of the method would also be required. These submissions would also be subject to the Agency's review for 90 days, and the method would be considered approved in the absence of EPA comment. Submission of VCSB methods would not be required since they are available in the public domain. In addition, industry and the Agency have likely had substantial experience with such methods. The approval of non-VCSB methods would be valid for five years. After this time period, the approval would be rescinded unless the method had been adopted by a consensus body. If, a consensus body does not ultimately approve the method then the method could no longer be used as an approved method.

As described above, federal government and EPA policy is to use standards developed by voluntary consensus bodies when available. The purpose of the NTTAA, at least in part, is to foster consistency in regulatory requirements, to take advantage of the collective industry wisdom and wide-spread technical evaluation required before a test method is approved by a consensus body, and to take advantage of the ongoing oversight and evaluation of a test method by the consensus body that results from wide-spread use of an approved method *e.g.*, the ongoing round-robin type analysis and typical annual updating of the method by the consensus body. These goals are not met where the Agency allows use of a non-consensus body test method in perpetuity. Moreover, it is not possible to realize many of the advantages that result from consensus status where a test method is used by only one or a few companies. It will not have the practical scrutiny that comes from ongoing wide-spread use, or the independent scrutiny of the consensus body and periodic updating. In addition, EPA does not have the resources to conduct the degree of initial scrutiny or ongoing scrutiny that are practiced by consensus bodies. Nevertheless, EPA believes it is appropriate to allow limited use of a proprietary test method for a limited time, even though the significant advantages of consensus test methods are absent, because EPA can evaluate the initial quality of a method and a company may have invested significant resources in developing a method. However, if after a reasonable time a test method fails to gain consensus body approval, EPA believes approval of the method should be withdrawn because of the absence of ongoing consensus oversight. Accordingly, we propose that a non-VCSB method will cease to be qualified five years from the date of its original approval by EPA in the absence of VCSB approval.

To assist the Agency in determining the performance of a given sulfur test method, non-VCSB methods, in particular, we propose to reserve the right to send samples of commercially available fuel to laboratories for evaluation. Such samples would be intended for situations in which the Agency had concerns regarding a test method and, in particular, its ability to measure the sulfur content of a random commercially available diesel fuel. Laboratory facilities would be required to report their results from three tests of this material to the Agency.

iii. What Quality Control Provisions Would Be Required?

We are proposing to require ongoing Quality Control (QC) procedures for sulfur measurement instrumentation. These are procedures used by laboratory facilities to ensure that the test methods they have qualified and the instruments on which the methods are run are yielding results with appropriate accuracy and precision, *e.g.*, that the results from a particular instrument do not ''drift'' over time to yield unacceptable values. It is our understanding that most laboratories already employ QC procedures, and that these are commonly viewed as important good laboratory practices. Under the performance-based approach, laboratories would be required, at a minimum, to abide by the following QC procedures for each instrument used to certify batches of diesel fuel under these regulations:

(1) Follow the mandatory provisions of ASTM D 6299–02, Standard Practice for Applying Statistical Quality Assurance Techniques to Evaluate Analytical Measurement System Performance. Laboratories would be required to construct control charts from the mandatory QC sample testing prescribed in paragraph 7.1, following the guidelines under A 1.5.1 for individual observation charts and A 1.5.2 for moving range charts.

(2) Follow ASTM D6299–02 paragraph 7.3.1 (check standards) using a standard reference material. Check standard testing would be required to occur at least monthly and should take place following any major change to the laboratory equipment or test procedure. Any deviation from the accepted reference value of the check standard greater than 1.44 ppm for diesel fuel subject to the 15 ppm sulfur standard and 19.36 ppm for diesel fuel subject to the 500 ppm sulfur standard [332] would have to be investigated.

(3) Upon discovery of any QC testing violation of A 1.5.2.1 or A 1.5.3.2 or check standard deviation greater than 1.44 ppm and 19.36 ppm for 15 ppm sulfur diesel and 500 ppm sulfur diesel, respectively, as provided in item 2 above, any measurement made while the system was out of control would be required to be tagged as suspect and an

[331] These are standard-setting organizations, like ASTM, and ISO that have broad representation of all interested stakeholders and make decisions by consensus.

[332] 1.44 ppm is equal to two times the proposed precision of 0.72 ppm for 15 ppm diesel and 19.36 is equal to two times the proposed precision of 9.68 ppm for 500 ppm diesel.

investigation conducted into the reasons for this anomalous performance. We also propose that refiners and importers would be required to retain batch samples for a limited amount of time. For example, a retain period could be equal to the interval between QC sample tests. If an instrument was found to be out of control, we propose that all of the retained samples since the last time the instrument was shown to be in control would have to be retested. We seek comment on alternative ways to handle situations in which a method goes out of control at some unknown point in time between check standard tests or between QC sample tests.

(4) QC records, including investigations under item 3 above would be required to be retained for five years and to be provided to the Agency upon request.

b. Requirements To Conduct Fuel Sulfur Testing.

Given the importance of assuring that nonroad diesel fuel designated to meet the 15 ppm sulfur standard in fact meets that standard, we are proposing that refiners and importers must test each batch of nonroad diesel fuel designated to meet the 15 ppm sulfur standard and to maintain records of such testing. Requiring that refiners and importers test each batch of fuel subject to the 15 ppm nonroad standard would assure that compliance could be confirmed through testing records, and even more importantly, would assure that nonroad diesel fuel exceeding the 15 ppm standard was not introduced into commerce as fuel for use in nonroad equipment having sulfur-sensitive emission control devices. Batch testing is currently not required under the highway diesel rule, and instead such testing is typically performed to establish a defense to potential liability. However, for the same reasons discussed above, we propose to extend this batch testing requirement to 15 ppm sulfur highway diesel fuel beginning in 2006.

We are not proposing to require downstream parties to conduct every-batch testing. However, we believe most downstream parties would voluntarily conduct ''periodic'' sampling and testing for quality assurance purposes if they wanted to establish a defense to presumptive liability, as discussed in VIII.G below.

2. Two Part-Per-Million Downstream Sulfur Measurement Adjustment

We believe that it would be appropriate to recognize sulfur test variability in determining compliance with the proposed nonroad diesel fuel sulfur standard downstream of a refinery or import facility. Thus, we propose that for all 15 ppm sulfur nonroad diesel fuel at locations downstream of the refinery or import facility, sulfur test results could be adjusted by subtracting two ppm. The sole purpose of this downstream compliance provision is to address test variability concerns. We anticipate that the reproducibility of sulfur test methods is likely to improve to two ppm or even less by the time the 15 ppm sulfur standard for highway diesel fuel is implemented—four years before implementation date of the proposed 15 ppm standard for nonroad diesel fuel. With this provision, we anticipate that refiners would be able to produce diesel fuel with an average sulfur level of approximately 7–8 ppm and some contamination could occur throughout the distribution system, without fear of causing a downstream violation due solely to test variability. As test methods improve in the future, we propose to reevaluate whether two ppm is the appropriate allowance for purposes of this compliance provision.

3. Sampling Requirements

This proposed rule would adopt the same sampling methods adopted by the highway diesel rule (66 FR 5002, January 18, 2001). The requirement to use these methods would be effective for nonroad diesel fuel June 1, 2007. These same methods were also adopted for use in the Tier 2/Gasoline Sulfur rule.[333] These sampling methods are American Society for Testing and Materials (ASTM) D 4057–95 (manual sampling) and D 4177–95 (automatic sampling from pipelines/in-line blending).

4. Alternative Sampling and Testing Requirements for Importers of Diesel Fuel Who Transport Diesel Fuel By Tanker Truck

We understand that importers who transport diesel fuel into the U.S. by tanker truck are frequently relatively small businesses that could be subject to a substantial burden if they were required to sample and test each batch of nonroad or highway diesel fuel imported by truck, especially where a trucker imports many small loads of diesel fuel. Therefore, we are proposing that truck importers could comply with an alternative sampling and testing requirement, involving a sampling and testing program of the foreign truck loading terminal, if certain conditions were met. For an importer to be eligible for the alternative sampling and testing requirement, the terminal would have to conduct sampling and testing of the nonroad or highway diesel fuel immediately after each receipt into its terminal storage tank or immediately before loading product into the importer's tanker truck storage compartments. Moreover, the importer would be required to allow EPA to conduct periodic quality assurance testing of the terminal's diesel fuel, and the importer would be required to assure that EPA would be allowed to make unannounced inspections and audits, to sample and test fuel at the foreign terminal facility, to assure that the terminal maintained sampling and testing records, and to submit such records to EPA upon request. We request comment on this proposal.

E. Fuel Marker Test Method

As discussed in section IV.B.2.a.i above, we propose the use of solvent yellow 124 to differentiate diesel fuel intended for different uses. This marker is currently use in Europe. However, there is currently no test procedure recognized by the European Union to quantify the presence of the solvent yellow 124 in distillate fuels. The most commonly accepted method used in the European Union is based on the chemical extraction of the Euromarker using hydrocloric acid solution and cycloxane, and the subsequent evaluation of the extract using a visual spectrometer to determine the concentration of the marker.[334] This test is inexpensive and easy to use for field inspections. However, the test involves reagents that require some safety precautions and the small amount of fuel required in the test must be disposed of as hazardous waste. Nevertheless, we believe that such safety concerns are manageable here in the U.S. just as they are in Europe and that the small amount of waste generated can be handled along with other similar waste generated by the company conducting the test, and that the associated effort/costs would be negligible.

Similar to the approach proposed regarding the measurement of fuel sulfur content discussed in Section VIII.D. above, we are proposing a performance-based procedure to measure the concentration of solvent yellow 124 in distillate fuel. Section VIII.D above describes our rationale for

[333] 65 FR 6833–34 (Feb. 10, 2000). These methods are also proposed for use under the RFG and CG rules. See 62 FR 37337 *et seq.* (July 11, 1997).

[334] Memorandum to the docket entitled ''Use of a Visible Spectrometer Based Test Method in Detecting the Presence and Determining the Concentration of Solvent Yellow 124 in Diesel Fuel.''

proposing performance-based test procedures. Under the performance-based approach, a given test method could be approved for use in a specific laboratory or for field testing by meeting certain precision and accuracy criteria. Properly selected precision and accuracy values potentially would allow multiple methods and multiple commercially available instruments to be approved, thus providing greater flexibility in method and instrument selection while also encouraging the development and use of better methods and instrumentation in the future. For example, we are hopeful that with more time and effort a simpler test can be developed that can avoid the use of reagents and the generation of hazardous waste that is by product of the current commonly accepted method.

Under the performance criteria approach proposed today, methods developed by consensus bodies as well as methods not yet approved by a consensus body would qualify for approval provided they met the specified performance criteria as well as the recordkeeping and reporting requirements for quality control purposes. There would be no designated marker test method. We request comment on whether it would be more appropriate to adopt a designated marker test method. Such comments would be most useful if they include complete details on a suitable designated marker test method.

1. How Could a Given Marker Test Method Be Approved?

Under the proposed performance criteria approach, a given marker test method would be approved for use under today's program by meeting certain precision and accuracy criteria. Approval would apply on a laboratory/facility-specific basis. If a company chose to employ more than one laboratory for fuel marker testing purposes, then each laboratory would have to separately seek approval for each method it intends to use. Likewise, if a laboratory chose to use more than one marker test method, then each method would have to be approved separately. Separate approval would not be necessary for individual operators or laboratory instruments within a given laboratory facility. The method would be approved for use by that laboratory as long as appropriate quality control procedures were followed.

In developing the precision and accuracy criteria for the sulfur test method, EPA drew upon the results of an interlaboratory study conducted by the American Society for Testing and Materials (ASTM) to support ASTM's standardization of the sulfur test method. Unfortunately, there has not been sufficient time for industry to standardize the test procedure used to measure the concentration of solvent yellow 124 in distillate fuels or to conduct an interlaboratory study regarding the variability of the method. Nevertheless, the European Union has been successful in implementing its marker requirement while relying on the marker test procedures which are currently available, as noted above. We are proposing to use this procedure to establish the precision and accuracy criteria on which a marker test procedure would be approved under the performance-based approach. We request comment on the suitability of the proposed reference marker test method, including whether standardized acceptability criteria exist regarding the visible spectrometer apparatus and associated measurement procedure used in performing the test.

There has been substantial experience in the use of the proposed reference market test method since the August 2002 effective date of the European Union's marker requirement. However, EPA is aware of only limited summary data on the variability of the reference test method from a manufacturer of the visible spectrometer apparatus used in the testing.[335] The stated resolution of the test method from in the materials provided by this equipment manufacturer is 0.1 mg/L, with a repeatability of plus or minus 0.08 mg/L and a reproducibility of plus or minus 0.2 mg/L.[336] In the lack of more extensive data, we propose to use these available data as the basis of our proposed precision and accuracy criteria as discussed below. We request that comments which suggest that these data are unsuitable for the intended use also include additional test data where possible to improve the derivation of precision and accuracy criteria.

Using a similar methodology to that employed in deriving the proposed sulfur test procedure precision value results in a precision value for the marker test procedure of 0.043 mg/L.[337] However, we are concerned that the use of this precision value, because it is based on very limited data, might preclude the acceptability of test procedures that would be adequate for the intended regulatory use. In addition, the lowest measurement of marker concentration that would have relevance under the regulations is 0.1 mg per liter. Consequently, we are proposing that the precision of a marker test procedure would need to be less than 0.1 mg/L for it to qualify. We request comment on this proposed precision level.

We are proposing that to demonstrate the accuracy of a given test method, a laboratory facility would be required to perform 10 repeat tests, the mean of which could not deviate from the Accepted Reference Value (ARV) of the standard by more than 0.05 mg/L. We believe that the proposed accuracy level is not overly restrictive, while being sufficiently protective considering that the lowest marker level of regulatory significance would be 0.1 mg/L. Ten tests would be required using each of two different marker standards, one in the range of 0.1 to 1 mg/L and the other in the range of 4 to 10 mg/L of solvent yellow 124. Therefore, a minimum of 20 total tests would be required for sufficient demonstration of accuracy for a given marker test method at a given laboratory facility. Finally, any known interferences for a given test method would have to be mitigated. We are proposing that these tests be performed using commercially available solvent yellow 124 standards. Since the European Union's marker requirement would have been in effect for over six years and we expect this requirement to continue indefinitely, we believe that such standards would be available by the implementation date for this proposed rule. We request comment on this assessment and on whether we should allow facilities that conduct the proposed tests to blend up their own marker standards using a pure supply of the fuel marker.

We request comment on the proposed precision and accuracy criteria described above. These requirements are not intended be overly burdensome. To the contrary, we believe these requirements are equivalent to what a laboratory would do during the normal start up procedure for a given test

[335] Technical Data on Fuel/Dye/Marker & Color Analyzers, as downloaded from the Petroleum Analyzer Company L.P. Web site at *http://www.petroleum-analyzer.com/product/PetroSpec/lit_pspec/DTcolor.pdf*.

[336] Repeatability and reproducibility are terms related to test variability. ASTM defines repeatability as the difference between successive results obtained by the same operator with the same apparatus under constant operating conditions on identical test materials that would, in the long run, in the normal and correct operation of the test method be exceeded only in one case in 20. Reproducibility is defined by ASTM as the difference between two single and independent results obtained by different operators working in different laboratories on identical material that would, in the long run, be exceeded only in one case in twenty.

[337] See Section VIII.D. of this proposal for a discussion of the methodology used in deriving the proposed precision and accuracy values for the sulfur test method.

method. In addition, we believe this approach would allow regulated entities to know that they are measuring fuel marker levels accurately and within reasonable site reproducibility limits.

2. What Information Would Have To Be Reported to the Agency?

As noted above, the European Union's (EU) marker requirement would have been in effect for over six years prior to the effective data for the proposed marker requirements and we expect the EU requirement to continue indefinitely. Thus, we anticipate that the European testings standards community will likely have standardized a test procedure to measure the concentration of solvent yellow 124 in distillate fuels prior to the implementation of the proposed marker requirement. Given the limited duration of the proposed marker requirements, we do not anticipate that the United States testing standards community would enact such a standardized test procedure. To the extent that marker test methods that have already been approved by a voluntary consensus standards body [338] (VCSB), such as the International Standards Organization (ISO) or the American Society for Testing and Materials (ASTM), each laboratory facility would be required to report to the Agency the precision and accuracy results as described above for each method for which it is seeking approval. Such submissions to EPA, as described elsewhere, would be subject to the Agency's review for 30 days, and the method would be considered approved in the absence of EPA comment. Laboratory facilities would be required to retain the fuel samples used for precision and accuracy demonstration for a limited amount of time (*e.g.*, 30 days).

For test methods that have not been approved by a VCSB, full test method documentation, including a description of the technology/instrumentation that makes the method functional, as well as subsequent EPA approval of the method would also be required. These submissions would also be subject to the Agency's review for 60 days, and the method would be considered approved in the absence of EPA comment. Submission of VCSB methods would not be required since they are available in the public domain. In addition, industry and the Agency have likely had substantial experience with such methods.

To assist the Agency in determining the performance of a given marker test method (non-VCSB methods, in particular), we propose to reserve the right to send samples of commercially available fuel to laboratories for evaluation. Such samples would be intended for situations in which the Agency had concerns regarding a test method and, in particular, its ability to measure the marker content of a random commercially available diesel fuel. Laboratory facilities would be required to report their results from three tests of this material to the Agency.

Given the limited duration of the proposed marker requirements, we are proposing that qualified test methods would remain valid for as long as the marker requirements remained in effect, provided that additional faults with the test method were not discovered. We are also proposing that ongoing Quality Control (QC) procedures for marker measurement instrumentation similar to those that we proposed for the sulfur test procedures in Section VIII.D above. We request comment on whether such QC procedures are needed for the marker test method.

F. Requirements for Recordkeeping, Reporting, and Product Transfer Documents

1. Registration of Refiners and Importers

By December 31, 2004, refiners and importers that may produce or supply NRLM diesel fuel by June 1, 2007 would be required to register with EPA. There would be no need to register if a refiner (and all its refineries), or an importer, is already registered under the highway diesel program. The registration would include the following information:

- Corporate name and address of the refiner or importer and any parent companies and a contact person.
- Name and address of all refineries or import facilities (including, for importers, the PADD(s)).
- A contact person.
- Location of records.
- Business activity (refiner or importer).
- Capacity of each refinery in barrels of crude oil per calendar day.

2. Application for Small Refiner Status

We propose that an application of a refiner for small refiner status be submitted to EPA by June 1, 2005 and include the following information:

- The name and address of each location at which any employee of the company, including any parent companies or subsidiaries,[339] worked during the 12 months preceding January 1, 2003;
- The average number of employees at each location, based on the number of employees for each of the company's pay periods for the 12 months preceding January 1, 2003;
- The type of business activities carried out at each location; and
- The total crude oil refining capacity of the corporation. We define total capacity as the sum of all individual refinery capacities for multiple-refinery companies, including any and all subsidiaries, as reported to the Energy Information Administration (EIA) for 2002, or in the case of a foreign refiner, a comparable reputable source, such as professional publication or trade journal.[340] Refiners do not need to include crude oil capacity used in 2002 through a lease agreement with another refiner in which it has no ownership interest.

The crude oil capacity information reported to the EIA or comparable reputable source is presumed to be correct. However, in cases where a company disputes this information, we propose to allow 60 days after the company submits its application for small refiner status for that company to petition us with detailed data it believes shows that the EIA or other source's data was in error. We would consider this data in making a final determination about the refiner's crude oil capacity.

Small refinery facilities could not be approved for small refiner status unless the refinery produces diesel fuel from crude oil. This is because a small refiner's relief is intended to address the hardship encountered in making capital improvements to a crude oil refinery. No such costs are involved in operations that only blend previously refined products.

3. Applying for Refiner Hardship Relief

As discussed above in Section IV.C.2, a refiner seeking general hardship relief under the proposed program would apply to EPA and provide several types of financial and technical information, such as internal cash flow data and information on bank loans, bonds, and assets as well as detailed engineering and construction plans and permit status. Applications for hardship relief would be due June 1, 2005.

[338] These are standard-setting organizations, like ASTM, and ISO that have broad representation of all interested stakeholders and make decisions by consensus.

[339] ''Subsidiary'' here covers entities of which the parent company has 50 percent or greater ownership.

[340] We will evaluate each foreign refiner's documentation of crude oil capacity on an individual basis.

4. Applying for a Non-Highway Distillate Baseline Percentage

As discussed in section IV above, we are proposing that refiners or importers wishing to fungibly distribute highway and NRLM fuel from any refinery or import facility apply to EPA for a non-highway baseline percentage for each such refinery or facility. Refiners or importers would provide EPA with data to quantify its annual average production or importation of distillate that was dyed for use in any non-highway application for each year during the period from January 1, 2003 through December 31, 2005. Specifically, this data would consist of the following for each batch of diesel fuel during this period:

- The date the refiner finished production of the batch
- The volume of the batch
- Whether the fuel in the batch was dyed

We propose that applications for non-highway baselines be submitted to EPA by February 28, 2006. We would act on these baselines by June 1, 2006, in time for the refiner or importer to earn early credits if they wished.

5. Pre-Compliance Reports

We believe that an early general understanding of the progress of the refining industry in complying with the proposed requirements would be valuable to both the affected industries and EPA. As with the highway diesel program, we propose that each refiner and importer provide annual reports on the progress of and plans for each of their refineries or import facilities. These pre-compliance reports would be required by June 1 of each year beginning in 2005 and continuing up through 2010, or until the entity produced or imported any 15 ppm nonroad fuel, whichever is later.

EPA would maintain the confidentiality of information submitted in pre-compliance reports to the full extent authorized by law. We would report generalized summaries of this data following the receipt of the pre-compliance reports. We recognize that plans may change for many refiners or importers as the compliance dates approach. Thus, submission of the report would not impose an obligation to follow through on plans projected in the pre-compliance reports.

Pre-compliance reports could, at the discretion of the refiner/importer, be submitted in conjunction with the annual compliance reports proposed below and/or the pre-compliance and annual compliance reports required under the highway diesel program, so long as all information required in all reports is clearly provided.

In their pre-compliance reports, refiners and importers would need to include the following information:

- Any changes in their basic corporate or facility information since registration.
- Estimates of the volumes (in gallons) of each sulfur grade of highway and non-highway fuel produced (or imported) at each refinery (or facility). These volume estimates would be provided both for fuel produced from crude oil, as well as any fuel produced from other sources.
- For entities expecting to participate in the credit program, estimates of numbers of credits to be earned and/or used.
- Information regarding engineering plans such as design and construction, the status of obtaining any necessary permits, and capital commitments for making the necessary modifications to produce low sulfur nonroad diesel fuel, and actual construction progress.
- The pre-compliance reports in 2006 and later years must provide an update of the progress in each of these areas.

6. Annual Compliance Reports and Batch Reports for Refiners and Importers

After the nonroad diesel sulfur requirements begin on June 1, 2007, refiners and importers would be required to submit annual compliance reports for each refinery that demonstrated compliance with the proposed requirements. If a refiner produces 15 ppm or 500 ppm fuel early under the credit provisions, its annual compliance reporting requirement would begin on June 1 following the beginning of the early fuel production. These reporting requirements would sunset after all flexibility provisions end (i.e., 2012 for non-small refiners and 2014 for small refiners). Annual compliance reports would be due on August 31 of the year.

A refiner's (for each refinery) or importer's annual compliance report would include the following information:

- Report demonstrating compliance with the applicable sulfur content requirements using the non-highway baseline percentage approach or demonstrating compliance using an alternative compliance option *e.g.,* a small refiner option or the option to dye all nonroad, locomotive/marine diesel fuel at the refinery, as applicable.
- Report on the generation, use, transfer and retirement of diesel sulfur credits. Credit transfer information would include the identification of the number of credits obtained from, or transferred to, each entity. Reports would also show the credit balance at the start of the period, and the balance at the end of the period. NRLM or nonroad diesel sulfur credit information would be required to be stated separately from highway diesel credit information since the 2 credit programs would be treated separately.
- Batch reports for each batch produced or imported providing information regarding volume, sulfur level, cetane/aromatics standard compliance and whether the fuel was dyed and/or marked. The certification that fuel was marked with the specified chemical marker at the refinery or import facility would apply to heating oil for the period June 1, 2007 through June 1, 2010 and to locomotive and marine fuel for the period June 1, 2010 through June 1, 2014.
- For a small refiner that elects to produce 15 ppm nonroad diesel fuel by June 1, 2006 and therefore is eligible for a limited relaxation in its interim small refiner gasoline sulfur standards, the annual reports would also include specific information on gasoline sulfur levels and progress toward highway and nonroad diesel desulfurization.

7. Product Transfer Documents (PTDs)

Today we are proposing that refiners and importers must provide information on commercial PTDs that would identify diesel fuel distributed for use in nonroad, locomotive, or marine equipment or motor vehicles, as appropriate, and state which sulfur standard the fuel is subject to. PTDs must state whether NRLM fuel complies with the 500 ppm sulfur standard or the 15 ppm sulfur standard. This would continue to be necessary even after 2010, since locomotive and marine engines could still use 500 ppm diesel fuel after all nonroad equipment would have to use 15 ppm fuel. Until all highway fuel sulfur content must meet the 15 ppm sulfur standard in 2010, it would be necessary for PTDs to indicate if 500 ppm fuel is dyed or undyed, and in all cases, PTDs would need to indicate if 15 ppm fuel is dyed or undyed, so that its appropriate use can be determined by transferees. Moreover, some nonroad diesel fuel, such as segregated small refiner fuel, could exceed the 15 ppm standard until as late as August 31, 2014; however, it could only be used in model year 2010 and earlier nonroad diesel engines.

We believe this additional information on commercial PTDs is necessary because of the importance of keeping the several sulfur grades and uses of diesel fuel separate from one

another in the distribution system. Each party in the system would better be able to identify which type of fuel it is dealing with and could more effectively ensure that they were meeting the proposed requirements of the program. This in turn would help ensure that misfueling of sulfur sensitive engines does not occur and that the program would otherwise result in the needed emission reductions.

Except for transfers to truck carriers, retailers and wholesale purchaser-consumers, this proposal would allow use of product codes to convey the information. We believe that more explicit language on PTDs to these parties is necessary since employees of such parties are less likely to be aware of the meaning of product codes. PTDs would not be required for transfers of product into nonroad, locomotive, or marine equipment at retail outlets or wholesale purchaser-consumer facilities.

a. The Period From June 1, 2007 through May 31, 2010

During the first years of the program, unique PTDs would be required to distinguish the types of fuel that could be produced and sold and any restrictions on its use [341]:

- Undyed 500 ppm fuel.
- Undyed 15 ppm fuel.
- Dyed 500 ppm fuel (not for use in highway vehicles).
- Dyed 15 ppm fuel (not for use in highway vehicles).
- Dyed high-sulfur fuel (not for use in highway vehicles or certain nonroad engines).
- Marked heating oil (not for use in NRLM equipment or highway vehicles).

b. The Period from June 1, 2010 through May 31, 2014

Beginning June 1, 2010, unique PTDs would be required to distinguish the types of fuel that could be produced and sold during this period:

- Undyed 15 ppm.
- Dyed 15 ppm fuel (not for use in highway vehicles).
- Dyed 500 ppm fuel (not for use in model year 2011 and later nonroad engines, or highway vehicles).
- Marked 500 ppm locomotive and marine fuel (not for use in nonroad equipment or highway vehicles).
- Heating oil (not for use in NRLM equipment or highway vehicles).

c. The Period After May 31, 2014

Beginning June 1, 2014, unique PTDs would be required to distinguish remaining types of fuel that could be produced and sold during this period.

- Undyed 15 ppm fuel.
- Dyed 15 ppm fuel (not for use in highway vehicles).
- 500 ppm locomotive and marine fuel (not for use in nonroad equipment or highway vehicles).
- Heating oil (not for use in highway vehicles or NRLM equipment).

d. Kerosene and Other Distillates To Reduce Viscosity

To assure that downstream parties can determine the sulfur level of kerosene or other distillates that may be distributed for use for blending into 15 ppm highway or NRLM diesel fuel, e.g. to reduce viscosity in cold weather, this proposal would require that PTDs identify distillates specifically distributed for such use as meeting the 15 ppm standard.

e. Exported Fuel

Consistent with other fuels rules, NRLM diesel fuel to be exported from the U.S. would not be required to meet the sulfur content requirements of the proposed regulations. For example, where a refiner designates a batch of diesel fuel for export, and can demonstrate through commercial documents that the fuel was exported, that volume would not be used in calculating compliance with applicable baselines. Product transfer documents accompanying the transfer of custody or title to such fuel at each point in the distribution system would be required to state that the fuel is for export only and may not be used in the United States.

f. Additives

This proposal would require that PTDs for additives for use in nonroad diesel fuel state whether the additive complies with the 15 ppm sulfur standard. Like the highway diesel rule, this proposal would allow the sale of additives, for use by fuel terminals or other parties in the diesel fuel distribution system, that have a sulfur content greater than 15 ppm under specified conditions.

Under this proposal for additives that have a sulfur content not exceeding 15 ppm, the PTD would state: ''The sulfur content of this additive does not exceed 15 ppm.''. For additives that have a sulfur content exceeding 15 ppm, the additive manufacturer's PTD, and PTDs accompanying all subsequent transfers, would provide: a warning that the additive's sulfur content exceeds 15 ppm; the maximum sulfur content of the additive; the maximum recommended concentration for use of the additive in diesel fuel, stated as gallon of additive per gallon of diesel fuel; and the increase in sulfur concentration of the fuel the additive will cause when used at the maximum recommended concentration.

We are also proposing provisions for additives sold to owner/operators for use in diesel powered nonroad equipment. This is because of the concern that additives designed for engines not requiring 15 ppm sulfur content fuel, such as locomotives or marine engines, could accidentally be introduced into nonroad engines if they have no label stating appropriate use. Under this proposal, end user additives for use in highway or NRLM diesel engines would be required to be accompanied by information that states that the additive either: complies with the 15 ppm sulfur content requirements or that it has a sulfur content exceeding 15 ppm and is not for use in model year 2011 or later nonroad diesel equipment. We believe this information is necessary for end users to determine if an additive is appropriate for nonroad equipment use.

8. Recordkeeping Requirements

Under the highway rule, refiners that produce or importers that import highway diesel fuel must maintain the following records for each batch of diesel fuel produced or imported) The batch designations; the applicable sulfur content standard; whether the fuel is dyed or undyed; whether the fuel is marked or unmarked; the batch volumes; whether the fuel was dyed or undyed, and sampling and testing records. The refiner or importer would also be required to maintain records regarding credit generation, use, transfer, purchase, or termination, separately for highway and nonroad credit programs.

We propose that these requirements from the highway rule be applied to all nonroad, locomotive, and marine diesel fuel subject to this rule as well.

9. Record Retention

This proposal would adopt a retention period of 5 years for all records required to be kept by the rule. This is the same period of time required in other fuels rules, and it coincides with the applicable statute of limitations. We believe that for other reasons, most parties in the distribution system would maintain some or all of these records for this length of time even without the requirement.

This retention period would apply to PTDs, records of any test results performed by any regulated party for quality assurance purposes or otherwise

[341] Note that for each time period discussed in this subsection, we expect few if any areas would be supplied with all the potential types of fuel listed.

(whether or not such testing was required by this rule), along with supporting documentation such as date of sampling and testing, batch number, tank number, and volume of product. Business records regarding actions taken in response to any violations discovered would also be required to be maintained for 5 years.

All records required to be maintained by refiners or importers participating in the generation or use of credits, hardship options (or by importers of diesel fuel produced by a foreign refiner approved for the temporary compliance option or a hardship option), including small refiner options, would also be covered by the retention requirement.

G. Liability and Penalty Provisions for Noncompliance

1. General

The liability and penalty provisions of the proposed NRLM diesel sulfur rule would be very similar to the liability and penalty provisions found in the highway diesel sulfur rule, the gasoline sulfur rule, the RFG rule and other EPA fuels regulations.[342] Regulated parties would be subject to prohibitions which are typical in EPA fuels regulations, such as prohibitions on selling or distributing fuel that does not comply with the applicable standard, and causing others to commit prohibited acts. Liability would also arise under the NRLM diesel rule for prohibited acts specific to the diesel sulfur control program, such as introducing nonroad diesel fuel not meeting the 15 ppm sulfur standard into model year 2011 or later nonroad equipment. In addition, parties would be liable for a failure to meet certain requirements, such as the recordkeeping, reporting, or PTD requirements, or causing others to fail to meet such requirements.

Under this proposal, the party in the diesel fuel distribution system that controls the facility where a violation occurred, and other parties in that fuel distribution system (such as the refiner, reseller, and distributor), would be presumed to be liable for the violation.[343] As in the Tier 2 gasoline sulfur rule and the highway diesel fuel rule, the proposed rule would explicitly prohibit causing another person to commit a prohibited act or causing non-conforming diesel fuel to be in the distribution system. Non-conforming includes: (1) diesel fuel with sulfur content above 15 ppm incorrectly designated as appropriate for model year 2011 or later nonroad equipment or other engines requiring 15 ppm fuel; (2) diesel fuel with sulfur content above 500 ppm incorrectly designated as appropriate for nonroad equipment or locomotives or marine engines after the applicable date for the 500 ppm standard for these pieces of equipment; or (3) distillates not containing required markers or otherwise not complying with the requirements of this proposal. Parties outside the diesel fuel distribution system, such as diesel additive manufacturers and distributors, would also be subject to liability for those diesel rule violations which could have been caused by their conduct.

This proposal also would provide affirmative defenses for each party presumed liable for a violation, and all presumptions of liability would be rebuttable. In general, in order to rebut the presumption of liability, parties would be required to establish that: (1) the party did not cause the violation; (2) PTD(s) exist which establish that the fuel or diesel additive was in compliance while under the party's control; and (3) the party conducted a quality assurance sampling and testing program. As part of their affirmative defense diesel fuel refiners or importers, diesel fuel additive manufacturers, and blenders of high sulfur additives into diesel fuel, would also be required to provide test results establishing the conformity of the product prior to leaving that party's control. Branded refiners would have additional affirmative defense elements to establish. The proposed defenses under the nonroad diesel sulfur rule are similar to those available to parties for violations of the highway diesel sulfur, RFG, gasoline volatility, and the gasoline sulfur regulations. This proposed rule would also clarify that parent corporations are liable for violations of subsidiaries, in a manner consistent with the gasoline sulfur rule and the highway diesel sulfur rule. Finally, the proposed NRLM diesel sulfur rule mirrors the gasoline sulfur rule and the highway diesel sulfur rule by clarifying that each partner to a joint venture would be jointly and severally liable for the violations at the joint venture facility or by the joint venture operation.

As is the case with the other EPA fuels regulations, the proposed diesel sulfur rule would apply the provisions of section 211(d)(1) of the Clean Air Act (Act) for the collection of penalties. These penalty provisions currently subject any person that violates any requirement or prohibition of the diesel sulfur rule to a civil penalty of up to $31,500 for every day of each such violation and the amount of economic benefit or savings resulting from the violation. A violation of a NRLM diesel sulfur standard would constitute a separate day of violation for each day the diesel fuel giving rise to the violation remains in the fuel distribution system. Under the proposed regulation, the length of time the diesel fuel in question remains in the distribution system is deemed to be twenty-five days unless there is evidence that the fuel remained in its distribution system a lesser or greater amount of time. This is the same time presumption that is incorporated in the RFG, gasoline sulfur and highway diesel sulfur rules. The penalty provisions would also be similar to the penalty provisions for violations of these regulations.

EPA has included in this proposal two prohibitions for ''causing'' violations: (1) causing another to commit a violation; and (2) causing non-complying diesel fuel to be in the distribution system. These causation prohibitions are like similar prohibitions included in the gasoline sulfur and the highway diesel sulfur regulations, and, as discussed in the preamble to those rules, EPA believes they are consistent with EPA's implementation of prior motor vehicle fuel regulations. See the liability discussion in the preamble to the gasoline sulfur final rule, at 65 FR 6812 *et seq.*

The prohibition against causing another to commit a violation would apply where one party's violation is caused by the actions of another party. For example, EPA may conduct an inspection of a terminal and discover that the terminal is offering for sale nonroad diesel fuel designated as complying with the 15 ppm sulfur standard, while it, in fact, had an actual sulfur content greater than the standard.[344] In this scenario, parties in the fuel distribution system, as well as parties in the distribution system of any diesel additive that had been blended into the fuel, would be presumed liable

[342] See section 80.5 (penalties for fuels violations); section 80.23 (liability for lead violations); section 80.28 (liability for gasoline volatility violations); section 80.30 (liability for highway diesel violations); section 80.79 (liability for violation of RFG prohibited acts); section 80.80 (penalties for RFG/CG violations); section 80.395 (liability for gasoline sulfur violations); section 80.405 (penalties for gasoline sulfur regulations).; and section 80.610–614 (prohibited acts, liability for violations, and penalties for highway diesel sulfur regulations).

[343] An additional type of liability, vicarious liability, is also imposed on branded refiners under the proposal.

[344] At downstream locations the violation would occur if EPA's test result showed a sulfur content of greater than 17 ppm, which takes into account the two ppm adjustment factor for testing reproducibility for downstream parties.

for causing the terminal to be in violation. Each party would have the right to present an affirmative defense to rebut this presumption.

The prohibition against causing non-complying diesel fuel to be in the distribution system would apply, for example, if a refiner transfers non-complying diesel fuel to a pipeline. This prohibition could encompass situations where evidence shows high sulfur diesel fuel was transferred from an upstream party in the distribution system, but EPA may not have test results to establish that parties downstream also violated a prohibited act with this fuel.

The Agency would expect to enforce the liability scheme of the NRLM diesel sulfur rule in the same manner that we have enforced the similar liability schemes in our prior fuels regulations. As in other fuels programs, we would attempt to identify the party most responsible for causing the violation, recognizing that party should primarily be liable for penalties for the violation.

2. What Are the Proposed Liability Provisions for Additive Manufacturers and Distributors, and Parties That Blend Additives Into Diesel Fuel?

a. General

The final highway diesel rule permits the blending of diesel additives with sulfur content in excess of 15 ppm into 15 ppm highway diesel fuel under limited circumstances. As more fully discussed earlier in this preamble, this proposed rule would permit downstream parties to blend fuel additives having a sulfur content exceeding 15 ppm into 15 ppm nonroad diesel, provided that: (1) The blending of the additive does not cause the diesel fuel's sulfur content to exceed the 15 ppm sulfur standard; (2) the additive is added in an amount no greater than one volume percent of the blended product; and (3) the downstream party obtained from its additive supplier a product transfer document (''PTD'') with the additive's sulfur content and the recommended treatment rate, and that it complied with such treatment rate.

Since the proposed rule would permit the limited use in nonroad diesel fuel of additives with high sulfur content, the Agency believes it would be more likely that a diesel fuel sulfur violation could be caused by the use of high sulfur additives. This could result from the additive manufacturer's misrepresentation or inaccurate statement of the additive's sulfur content or recommended treat rate on the additive's PTD, or an additive distributor's contamination of low sulfur additives with high sulfur additives during transportation. The increased probability that parties in the diesel additive distribution system could cause a violation of the sulfur standard warrants the imposition by the Agency of increased liability for such parties. Therefore, the proposed rule, like the final highway diesel rule, would explicitly make parties in the diesel additive distribution system liable for the sale of nonconforming diesel fuel additives, even if such additives have not yet been blended into diesel fuel. In addition, the proposed rule would impose presumptive liability on parties in the additive distribution system if diesel fuel into which the additive has been blended is determined to have a sulfur level in excess of its permitted concentration. This presumptive liability would differ depending on whether the blended additive was designated as meeting the 15 ppm sulfur standard (a ''15 ppm additive'') or designated as a greater than 15 ppm sulfur additive (a ''high sulfur additive''), as discussed below.

b. Liability When the Additive Is Designated as Complying With the 15 ppm Sulfur Standard

Additives blended into diesel fuel downstream of the refinery would be required to have a sulfur content no greater than 15 ppm, and be accompanied by PTD(s) accurately identifying them as complying with the 15 ppm sulfur standard, with the sole exception of diesel additives blended into nonroad diesel fuel at a concentration no greater than one percent by volume of the blended fuel.

All parties in the fuel and additive distribution systems would be subject to presumptive liability if the blended fuel exceeds the sulfur standard. The two ppm downstream adjustment would apply when EPA tests the fuel subject to the 15 ppm sulfur standard. Low sulfur additives present a less significant threat to diesel fuel sulfur compliance than would occur with the use of additives designated as possibly exceeding 15 ppm sulfur. Thus, parties in the additive distribution system of the low sulfur additive could rebut the presumption of liability by showing the following: (1) Additive distributors would only be required to produce PTDs stating that the additive complies with the 15 ppm sulfur standard; (2) additive manufacturers would also be required to produce PTDs complying in an accurate manner with the regulatory requirements, as well as producing test results, or retained samples on which tests could be run, establishing the additive's compliance with the 15 ppm sulfur standard prior to leaving the manufacturer's control. Once their presumptive liability was refuted by producing such documentation in a convincing manner, these additive system parties would only be held responsible for the diesel fuel non-conformity in situations in which EPA can establish that the party actually caused the violation.

Under this proposed rule, parties in the diesel fuel distribution system would have the typical affirmative defenses of other fuels rules. For parties blending an additive into their diesel fuel, the requirement of producing PTDs showing that the product complied with the regulatory standards would necessarily include PTDs for the additive that was used, affirming the compliance of the additive and the fuel.

c. Liability When The Additive Is Designated as Having a Possible Sulfur Content Greater Than 15 ppm

Under this proposed rule, a nonroad diesel additive would be permitted to have a maximum sulfur content above 15 ppm if the blended fuel continues to meet the 15 ppm standard and the additive is used at a concentration no greater than one volume percent of the blended fuel. However, if nonroad diesel fuel containing that additive is found by EPA to have high sulfur content, then all the parties in both the additive and the fuel distribution chains would be presumed liable for causing the nonroad diesel fuel violation.

Since this type of high sulfur additive presents a much greater probability of causing diesel fuel non-compliance, parties in the additive's distribution system would have to satisfy an additional element to establish an affirmative defense. In addition to the elements of an affirmative defense described above, parties in the additive distribution system for such a high sulfur additive would also be required to establish that they did not cause the violation, an element of an affirmative defense that is typically required in EPA fuel programs to rebut presumptive liability.

Parties in the diesel fuel distribution system would essentially have to establish the same affirmative elements as in other fuels rules, with an addition comparable to the highway diesel rule. Blenders of high sulfur additives into 15 ppm sulfur nonroad diesel fuel, would have to establish a more rigorous quality control program than would exist without the addition of such a high sulfur additive. The Agency believes that parties blending high sulfur additives into their 15 ppm sulfur nonroad diesel fuel should be required

to produce test results establishing that the blended fuel was in compliance with the 15 ppm sulfur standard after being blended with the high sulfur additive. This additional defense element would be required as an added safeguard to ensure nonroad diesel fuel compliance, since the blender has voluntarily chosen to use an additive which increases the risk of diesel fuel non-compliance.

H. How Would Compliance With the Sulfur Standards Be Determined?

EPA is today proposing that compliance with the diesel sulfur standards would be determined based on the sulfur level of the diesel fuel, as measured using a testing methodology approved under the provisions discussed in Section VIII.D of this preamble. We further propose that any evidence from any source or location could be used to establish the diesel fuel sulfur level, provided that such evidence is relevant to whether the level would have been in compliance if the regulatory sampling and testing methodology had been correctly performed. This is consistent with the approach taken under the gasoline sulfur rule and the highway diesel sulfur rule.

The proposed regulations would provide that the primary determinant of compliance with the sulfur standards would be use of an approved test method. Additionally, other information could be used under the proposed rule, including test results using a non-approved method, if the evidence is relevant to determining whether the sulfur level would meet applicable standards had compliance been determined using an approved test methodology. While the use of such a non-approved method might produce results relevant to determining sulfur content, this would not remove any liability for failing to conduct required batch testing using an approved test method.

For example, the Agency might not have sulfur results derived from an approved test method for diesel fuel sold by a terminal, yet the terminal's own test results, based on testing using methods other than those approved under the regulations, could reliably show an exceedence of the sulfur standard. Under this proposed rule, evidence from the non-approved test method could be used to establish the diesel fuel's sulfur level that would have resulted if an approved test method had been conducted. This type of evidence is available for use by either the EPA or the regulated party, and could be used to show either compliance or noncompliance. Similarly, absent the existence of sulfur test results using an approved method, commercial documents asserting the sulfur level of diesel fuel or additive could be used as some evidence of what the sulfur level of the fuel would be if the product would have been tested using an approved method.

The Agency believes that the same statutory authority for EPA to adopt the gasoline sulfur rule's evidentiary provisions, Clean Air Act section 211(c), provides appropriate authority for our proposal of the evidentiary provisions of today's diesel sulfur rule. For a fuller explanation of this statutory authority, see Section VI(I) of the gasoline sulfur final rule preamble, 65 FR 6815, February 10, 2000.

IX. Public Participation

We request comment on all aspects of this proposal. This section describes how you can participate in this process.

A. How and to Whom Do I Submit Comments?

We are opening a formal comment period by publishing this document. We will accept comments for the period indicated under **DATES** above. If you have an interest in the program described in this document, we encourage you to comment on any aspect of this rulemaking. We request comment on various topics throughout this proposal.

Your comments will be most useful if you include appropriate and detailed supporting rationale, data, and analysis. If you disagree with parts of the proposed program, we encourage you to suggest and analyze alternate approaches to meeting the air quality goals described in this proposal. You should send all comments, except those containing proprietary information, to our Air Docket (see **ADDRESSES**) before the end of the comment period.

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked ''late.'' EPA is not required to consider these late comments. If you wish to submit CBI or information that is otherwise protected by statute, please follow the instructions in Section IX.B. Do not use EPA Dockets or e-mail to submit CBI or information protected by statute.

1. Electronically

If you submit an electronic comment as prescribed below, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

i. EPA Dockets

Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at *http://www.epa.gov/edocket,* and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet Home Page, select ''Information Sources,'' ''Dockets,'' and ''EPA Dockets.'' Once in the system, select ''Quick Search,'' and then key in Docket ID No. OAR–2003–0012. The system is an ''anonymous access'' system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

ii. E-mail

Comments may be sent by electronic mail (e-mail) to *nrt4@epa.gov,* Attention Docket ID No. A–2001–28. In contrast to EPA's electronic public docket, EPA's e-mail system is not an ''anonymous access'' system. If you send an e-mail comment directly to the Docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

iii. Disk or CD ROM

You may submit comments on a disk or CD ROM that you mail to the mailing address identified in Section IX.A.2 below. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

2. By Mail

Send your comments to: Air Docket, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW., Washington, DC, 20460, Attention Docket ID No. A–2001–28.

3. By Hand Delivery or Courier

Deliver your comments to: EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC., Attention Docket ID No. A–2001–28. Such deliveries are only accepted during the Docket's normal hours of operation from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.

B. How Should I Submit CBI to the Agency?

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: U.S. Environmental Protection Agency, Assessment and Standards Division, 2000 Traverwood Drive, Ann Arbor, MI, 48105, Attention Docket ID No. A–2001–28. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

C. Will There Be a Public Hearing?

We will hold three public hearings; in Los Angeles, Chicago, and New York City. The hearings will be held on the following dates and start at the following times, and continue until everyone present has had an opportunity to speak.

Hearing location	Date	Time
New York, New York, Park Central New York, 870 Seventh Avenue at 56th Street, New York, NY 10019, Telephone: (212) 247–8000, Fax: (212) 541–8506.	June 10, 2003	9:00 a.m. EDT.
Chicago, Illinois, Hyatt Regency O'Hare, 9300 W. Bryn Mawr Avenue, Rosemont, IL 60018, Telephone: (847) 696–1234, Fax: (847) 698–0139.	June 12, 2003	9:00 a.m. CDT.
Los Angeles. California, Hyatt Regency Los Angeles, 711 South Hope Street, Los Angeles, California, USA. 90017, Telephone: (213) 683–1234, Fax: (213) 629–3230.	June 17, 2003	9:00 a.m. PDT.

If you would like to present testimony at a public hearing, we ask that you notify the contact person listed above at least ten days before the hearing. You should estimate the time you will need for your presentation and identify any needed audio/visual equipment. We suggest that you bring copies of your statement or other material for the EPA panel and the audience. It would also be helpful if you send us a copy of your statement or other materials before the hearing.

We will make a tentative schedule for the order of testimony based on the notifications we receive. This schedule will be available on the morning of each hearing. In addition, we will reserve a block of time for anyone else in the audience who wants to give testimony.

We will conduct the hearing informally, and technical rules of evidence won't apply. We will arrange for a written transcript of the hearing and keep the official record of the hearing open for 30 days to allow you to submit supplementary information. You may make arrangements for copies of the transcript directly with the court reporter.

We will conduct the hearing informally, and technical rules of evidence won't apply. We will arrange for a written transcript of the hearing and keep the official record of the hearing open for 30 days to allow you to submit supplementary information. You may make arrangements for copies of the transcript directly with the court reporter.

D. Comment Period

The comment period for this rule will end on August 20, 2003.

E. What Should I Consider as I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.
2. Describe any assumptions that you used.
3. Provide any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at your estimate.
5. Provide specific examples to illustrate your concerns.
6. Offer alternatives.
7. Make sure to submit your comments by the comment period deadline identified.
8. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your response. It would also be helpful if you provided the name, date, and **Federal Register** citation related to your comments.

X. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is ''significant'' and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of this Executive Order.

The Executive Order defines a ''significant regulatory action'' as any regulatory action that is likely to result in a rule that may:

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, Local, or Tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

A draft Regulatory Impact Analysis has been prepared and is available in the docket for this rulemaking and at the internet address listed under ''How Can I Get Copies of This Document and Other Related Information?'' above. This action was submitted to the Office of Management and Budget for review under Executive Order 12866. Estimated annual costs of this rulemaking are estimated to be $1.2 billion per year, thus this proposed rule is considered economically significant. Written comments from OMB and responses from EPA to OMB comments are in the public docket for this rulemaking.

B. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq*. The Agency proposes to collect information to ensure compliance with the provisions in this rule. This includes a variety of requirements, both for engine manufacturers and for fuel producers. Information-collection requirements related to engine manufacturers are in EPA ICR #1897.05; requirements related to fuel producers are in EPA ICR #1718.05. Section 208(a) of the Clean Air Act requires that manufacturers provide information the Administrator may reasonably require to determine compliance with the regulations; submission of the information is therefore mandatory. We will consider confidential all information meeting the requirements of section 208(c) of the Clean Air Act.

As shown in Table X–1, the total annual burden associated with this proposal is about 215,000 hours and $16 million, based on a projection of 470 respondents. The estimated burden for engine manufacturers is a total estimate for both new and existing reporting requirements. The fuel-related requirements represent our first regulation of nonroad diesel fuel, so those burden estimates reflect only new reporting requirements. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; and transmit or otherwise disclose the information.

TABLE X–1.—ESTIMATED BURDEN FOR REPORTING AND RECORDKEEPING REQUIREMENTS

Industry sector	Number of respondents	Annual burden hours	Annual costs (in millions)
Engines	95	160,000	$12.5
Fuels	375	55,000	3.7
Total	470	215,000	16.2

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, Collection Strategies Division; U.S. Environmental Protection Agency (2822); 1200 Pennsylvania Ave., NW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW., Washington, DC 20503, marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after May 23, 2003, a comment to OMB is best ensured of having its full effect if OMB receives it by July 23, 2003. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

1. Overview

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis for any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For the purposes of assessing the impacts of today's rule on small entities, a small entity is defined as: (1) A small business that meets the definitions based on the Small Business Administration's (SBA) size standards (see table below); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. The following table provides an overview of the primary SBA small business categories potentially affected by this regulation:

Industry	Defined as small entity by SBA if:	Major SIC [a] codes
Engine manufacturers	Less than 1,000 employees	Major Group 35.
Equipment manufacturers:.		
—construction equipment	Less than 750 employees	Major Group 35.
—industrial truck manufacturers (*i.e.* forklifts)	Less than 750 employees	Major Group 35.
—all other nonroad equipment manufacturers	Less than 500 employees	Major Group 35.
Fuel refiners	Less than 1500 [b]	2911.
Fuel distributors	(varies)	(varies).

Notes:
[a] Standard Industrial Classification
[b] EPA has included in past fuels rulemakings a provision that, in order to qualify for the small refiner flexibilities, a refiner must also have a company-wide crude refining capacity of no greater than 155,000 barrels per calendar day. EPA has included this criterion in the small refiner definition for a nonroad diesel sulfur program as well.

2. Background

Controlling emissions from nonroad engines and equipment, in conjunction with diesel fuel quality controls, has very significant public health and welfare benefits, as explained in Section II of this preamble. We are proposing new engine standards and related provisions under sections 213(a)(3) and (4) of the Clean Air Act which, among other things, direct us to establish (and from time to time revise) emission standards for new nonroad diesel engines. Similarly, section 211(c)(1) authorizes EPA to regulate fuels if any emission product of the fuel causes or contributes to air pollution that may endanger public health or welfare, or that may impair the performance of emission control technology on engines and vehicles.

In accordance with Section 603 of the RFA, EPA prepared an initial regulatory flexibility analysis (IRFA) that examines the impact of the proposed rule on small entities along with regulatory alternatives that could reduce that impact. The IRFA is available for review as part of the draft RIA for the rule. This is available in the public docket and is summarized below.

3. Summary of Regulated Small Entities

The following section discusses the small entities directly regulated by this proposed rule.

a. Nonroad Diesel Engine Manufacturers

Using information from the industry profile that was conducted for the nonroad diesel sector, EPA identified a total of 61 engine manufacturers. The top 10 engine manufacturers comprise 80 percent of the total market, while the other 51 companies make up the remaining 20 percent.[345] Of the 61 manufacturers, four fit the SBA definition of a small entity. These four manufacturers were Anadolu Motors, Farymann Diesel GMBH, Lister-Petter Group, and V & L Tools (parent company of Wisconsin Motors LLC, formerly ''Wis-Con Total Power''). These businesses comprise 8 percent of the total engine sales for the year 2000.

b. Nonroad Diesel Equipment Manufacturers

To determine the number of equipment manufacturers, EPA also used the industry profile that was conducted. From this, EPA identified over 700 manufacturers with sales and/or employment data that could be included in the screening analysis. These businesses included manufacturers in the construction, agricultural, and outdoor power equipment (mainly, lawn and garden equipment) sectors of the nonroad diesel market. The equipment produced by these manufacturers ranged from small walk-behind equipment (sub-25 hp engines) to large mining and construction equipment (using engines in excess of 750 hp). Of the manufacturers with available sales and employment data (approximately 500 manufacturers), small equipment manufacturers represent 68 percent of total equipment manufacturers (and these manufacturers account for 11 percent of nonroad diesel equipment industry sales). Thus, the majority of the small entities that could potentially experience a significant impact as a result of this rulemaking are in the nonroad equipment manufacturing sector.

c. Nonroad Diesel Fuel Refiners

Our current assessment is that 26 refiners (collectively owning 33 refineries) meet SBA's definition of a small business for the refining industry. The 33 refineries appear to meet both the employee number and production volume criteria mentioned above. These small refiners currently produce approximately 6 percent of the total high-sulfur diesel fuel. It should be noted that because of the dynamics in the refining industry (*e.g.*, mergers and acquisitions), the actual number of refiners that ultimately qualify for small refiner status under a future nonroad diesel sulfur program could be different than this initial estimate.

d. Nonroad Diesel Fuel Distributors and Marketers

The industry that transports, distributes, and markets nonroad diesel fuel encompasses a wide range of businesses, including bulk terminals, bulk plants, fuel oil dealers, and diesel fuel trucking operations, and totals thousands of entities that have some role in this activity. More than 90 percent of these entities would meet small entity criteria. Common carrier pipeline companies are also a part of the distribution system; 10 of them are small businesses.

4. Potential Reporting, Recordkeeping, and Compliance

As with any emission control program, the Agency must have the assurance that the regulated entities will meet the emissions standards and all related provisions. For engine and equipment manufacturers, EPA is proposing to continue the reporting, recordkeeping, and compliance requirements prescribed for these categories in 40 CFR part 89. Key among these are certification requirements and provisions related to reporting of production, emissions information, use of transition provisions, etc.

For any fuel control program, EPA must have the assurance that fuel produced by refiners meets the applicable standard, and that the fuel continues to meet the standard as it passes downstream through the distribution system to the ultimate end user. This is particularly important in the case of diesel fuel, where the aftertreatment technologies expected to be used to meet the engine standards under consideration are highly sensitive to sulfur. The recordkeeping, reporting and compliance provisions of the proposed rule are fairly consistent with those in place today for other fuel programs, including the current 15 ppm highway diesel regulation. For example,

[345] All sales information used for this analysis was 2000 data.

recordkeeping involves the use of product transfer documents, which are already required under the 15 ppm highway diesel sulfur rule (40 CFR 80.560).

5. Relevant Federal Rules

The proposed certification fees rule, through the Agency's Certification and Compliance Division (CCD), may have some impact on the upcoming rule, and the Panel recommended that we take into consideration the effects that this rule may have on small businesses.

The fuel regulations that we expect to propose would be similar in many respects to the existing sulfur standard for highway diesel fuel. We are not aware of any area where the regulations under consideration would directly duplicate or overlap with the existing federal, state, or local regulations; however, several small refiners will also be subject to the gasoline sulfur and highway diesel sulfur control requirements, as well as air toxics requirements.

More stringent nonroad diesel sulfur standards may require some refiners to obtain permits from state and local air pollution control agencies under the Clean Air Act's New Source Review program prior to constructing the desulfurization equipment needed to meet the standards.

The Internal Revenue Service (IRS) has an existing rule that levies taxes on highway diesel fuel only. The rule requires that nonroad diesel (un-taxed) fuel be dyed so that regulators and customers will know which type of fuel is which. Because of the need to separate dyed from undyed diesel fuel, some marketers may choose to install extra tanks. Therefore, fuel marketers have claimed that, if two grades of nonroad fuel are allowed in the marketplace, they may decide to maintain two segregated tanks for both nonroad (dyed 500 ppm and dyed 15 ppm) and highway diesel fuels (undyed 500 ppm and undyed 15 ppm), during the transition periods for both of these fuels.

6. Summary of SBREFA Panel Process and Panel Outreach

a. Significant Panel Findings

The Small Business Advocacy Review Panel (SBAR Panel, or the Panel) considered many regulatory options and flexibilities that would help mitigate potential adverse effects on small businesses as a result of this rule. During the SBREFA Panel process, the Panel sought out and received comments on the regulatory options and flexibilities that were presented to SERs and Panel members. The major flexibilities and hardship relief provisions that are recommended by the Panel, along with specific recommendations by individual Panel members, are described below and are also located in Section 9 of the SBREFA Final Panel Report which is available in the public docket.[346]

b. Panel Process

As required by section 609(b) of the RFA, as amended by SBREFA, we also conducted outreach to small entities and convened a SBAR Panel to obtain advice and recommendations of representatives of the small entities that potentially would be subject to the rule's requirements.

On October 24, 2002, EPA's Small Business Advocacy Chairperson convened a Panel under Section 609(b) of the RFA. In addition to the Chair, the Panel consisted of the Deputy Director of EPA's Office of Transportation and Air Quality, the Chief Counsel for Advocacy of the Small Business Administration, and the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget. As part of the SBAR Panel process, we conducted outreach with representatives from the various small entities that would be affected by the proposed rulemaking. We met with these Small Entity Representatives (SERs) to discuss the potential rulemaking approaches and ways to decrease the impact of the rulemaking on their industries. We distributed outreach materials-including background on the nonroad diesel sector, possible regulatory approaches, and possible rulemaking alternatives to the SERs on October 30, 2002. On November 13, 2002 the Panel met with the SERs to discuss the outreach materials and receive initial feedback on the approaches and alternatives detailed in the outreach packet. The Panel received written comments from the SERs following the meeting in response to discussions had at the meeting and the questions posed to the SERs by the Agency. The SERs were specifically asked to provide comment on regulatory alternatives that could help to minimize the impact on small businesses as a result of the rulemaking.

In general, SERs representing the nonroad diesel equipment manufacturers raised concerns about the added cost of compliance and the increase in size of compliant engines (and how this would affect their products). SERs representing the nonroad diesel fuel industry raised comments that generally included anticipated difficulty in going to a lower grade of fuel and the need for increased tankage to carry interim grades of fuel. All SERs raised concerns that small entities do not have the capital and have fewer resources which make compliance difficult. Thus, they maintain that there is a need to provide alternatives and provisions to address these issues, as (per their view) more stringent emission standards could impose more significant adverse impacts on small entities than on large businesses. (For the most part, EPA has not found the facts to support these contentions in this proposal, and thus is not proposing separate provisions applicable only to small entities.)

The Panel's findings and discussions are based on the information that was available during the term of the Panel and issues that were raised by the SERs during the outreach meetings and in their comments. It was agreed that EPA should consider the issues raised by the SERs (and discussions had by the Panel itself) and that EPA should consider comments on flexibility alternatives that would help to mitigate any negative impacts on small businesses. Alternatives discussed throughout the Panel process include those offered in previous or current EPA rulemakings, as well as alternatives suggested by SERs and Panel members, and the Panel recommended that all be considered in the development of the rule. Though some of the flexibilities suggested may be appropriate to apply to all entities affected by the rulemaking, the Panel's discussions and recommendations are focused mainly on the impacts, and ways to mitigate adverse impacts, on small businesses. In addition some of the provisions, such as the equipment manufacturer transition provision, that apply to all entities also help to mitigate the effects on small entities. A summary of these recommendations is detailed below, and a full discussion of the regulatory alternatives and hardship provisions discussed and recommended by the Panel can be found in the SBREFA Final Panel Report. A complete discussion of the transition and hardship provisions that we are proposing in today's action can be found in Sections VII.C and III.A of this preamble. Also, the Panel Report includes all comments received from SERs (Appendix B of the Report), a summary of those comments (Section 8), and summaries of the two outreach meetings that were held with the SERs

[346] Final Panel Report of the Small Business Advocacy Review Panel on EPA's Proposed Rule-Control of Emissions of Air Pollution From Land-Based Nonroad Compression Ignition Engines, December 23, 2003.

(Appendices C and D). In accordance with the RFA/SBREFA requirements, the Panel evaluated the aforementioned materials and SER comments on issues related to the Initial Regulatory Flexibility Analysis (IRFA). The following sections describe the Panel recommendations, along with specific recommendations by individual Panel members, from the SBAR Panel Report.

c. Transition Flexibilities

The Panel recommended that EPA consider and seek comment on a wide range of regulatory alternatives to mitigate the impacts of the rulemaking on small businesses, including those flexibility options described below. As previously stated, the following discussion is a summary of the SBAR Panel recommendations; our proposals regarding these recommendations are located in earlier sections of this rule preamble.

i. Nonroad Diesel Engines

(a) Transition Flexibility Alternatives for Small Engine Manufacturers

The Panel recommended the following transition flexibilities to be considered, which were dependent upon what approach, or approaches, EPA proposes for the rulemaking.

- For an approach with two phases of standards:
- An engine manufacturer could skip the first phase and comply on time with the second; or,
- a manufacturer could delay compliance with each phase of standards.
- For an approach that entails only one phase of standards, the manufacturer could opt to delay compliance. The Panel recommended that the length of the delay be a three year period; the Panel also recommended that EPA take comment on whether this delay period should be two, three, or four years. Each delay would be pollutant specific (*i.e.*, the delay would apply to each pollutant as it is phased in).

(b) Hardship Provisions for Small Engine Manufacturers

The Panel also recommended that two types of hardship provisions be extended to small engine manufacturers. These provisions are:

- For the case of a catastrophic event, or other extreme unforseen circumstances, beyond the control of the manufacturer that could not have been avoided with reasonable discretion (*i.e.* fire, tornado, supplier not fulfilling contract, etc.); and
- For the case where a manufacturer has taken all reasonable business, technical, and economic steps to comply but cannot do so.

Either relief provision would provide lead time for up to 2 years—in addition to the transition flexibilities listed above—and a manufacturer would have to demonstrate to the Agency's satisfaction that failure to sell the noncompliant engines would jeopardize the company's solvency. EPA could require that the manufacturer make up the lost environmental benefit through the use of programs such as supplemental environmental projects.

For the transition flexibilities listed above, the Panel recommended that engine manufacturers and importers must have certified engines in model year 2002 or earlier in order to take advantage of these provisions. Each manufacturer would be limited to 2500 units per year. This number allows for some market growth. The Panel recommended these provisions in order to prohibit the misuse of these transition provisions as a tool to enter the nonroad diesel market or to gain unfair market position relative to other manufacturers.

(c) Other Small Engine Manufacturer Issues

It was also recommended by the SBAR Panel that an averaging, banking, and trading (ABT) program be included as part of the overall rulemaking program, and, as discussed above, ABT has been included in the program.

During the SBREFA panel process several alternative approaches for engine standards were examined and considered by the panel. See Section 3.1.1 of the SBAR panel report. The SBA Chief Counsel for the Office of Advocacy also offered some observations about the impacts of the standards for engines less than 70 hp on affected small engine and equipment manufacturers which are based on the performance of PM or NO_X advanced aftertreatment devices. While the other Panel members did not join in these observations, the Panel recommended that the Administrator carefully consider these points and examine further the factual, legal and policy questions raised here in developing the proposed rule. First, given the available information, the Office of Advocacy stated that they had substantial doubts about the technical feasibility and cost of engineering aftertreatment devices into a wide diversity of nonroad diesel applications for engines less than 70 hp. They stated that considerable concern has been raised regarding the technical feasibility of PM and NO_X advanced aftertreatment devices, even for larger engines, and particularly in the case of NO_X adsorbers. Second, the low retail cost and low annual production for many of these applications make it extremely difficult for the equipment manufacturer to absorb these additional costs. The Office of Advocacy believes that, based on the available information, the Agency does not have a sufficient basis to move forward with a proposal that would require nonroad engines under 70 hp to use aftertreatment devices. Based on the SERs' concerns about the technical feasibility of the Tier 4 standards, and the technical information discussed in the Panel report, SBA recommended that we include a technological review of the standards in the 2008 time frame in the rulemaking proposal. The Panel recommended that we consider this recommendation.

The SBA Office of Advocacy stated that considerable concern has been raised regarding the technical feasibility of PM and NO_X aftertreatment devices, particularly in the case of NO_X adsorbers. As explained in the preamble, we have found no factual basis for this statement with respect to PM controls based on use of advanced aftertreatment for engines between 25 and 75 hp. We are not proposing standards based on performance of advanced aftertreatment for engines under 25 hp, and for NO_X, for engines 75 hp and under.

With respect to the PM standards for these engines, however, EPA disagrees with the statement made by the Office of Advocacy that, based on available information, we do not have a sufficient basis to move forward with this proposed rulemaking requiring nonroad engines under 70 hp to use aftertreatment devices. As we have documented in the preamble and elsewhere in this Draft RIA, EPA believes that the standards for PM for engines in these power ranges are feasible at reasonable cost, and will help to improve very important air quality problems, especially by reducing exposure to diesel PM and by aiding in attainment of the PM 2.5 National Ambient Air Quality Standards (NAAQS). Indeed, given these facts, EPA is skeptical that an alternative of no PM standards for these engines would be appropriate under section 213(a)(4). Moreover, the statement regarding cost impacts fails to account for transition flexibilities provided all equipment manufacturers as part of the proposal.

Further discussion of alternative engine standards below 75 hp can be found in Section VI of this preamble and Chapter 11 and 12 of the draft RIA, specifically the discussion of Options 5a and 5b. EPA invites comment on these specific small engine alternatives, as

well as all other alternative options discussed in Section VI of this preamble. We invite comments specifically on the costs of using advanced aftertreatment devices, particularly on engines below 75 hp.

ii. Nonroad Diesel Equipment

(a) Transition Flexibility Alternatives for Small Equipment Manufacturers

The Panel recommended that EPA propose to continue the transition flexibilities offered for the Tier 1 and Tier 2 nonroad diesel emission standards, as set out in 40 CFR 89.102, with some potential modifications. The recommended transition flexibilities are:

• Percent-of-Production Allowance: Over a seven model year period, equipment manufacturers may install engines not certified to the new emission standards in an amount of equipment equivalent to 80 percent of one year's production. This is to be implemented by power category with the average determined over the period in which the flexibility is used.

• Small Volume Allowance: A manufacturer may exceed the 80 percent allowance in seven years as described above, provided that the previous Tier engine use does not exceed 700 total over seven years, and 200 in any given year. This is limited to one family per power category. Alternatively, at the manufacturer's choice by hp category, a program that eliminates the ''single family provision'' restriction with revised total and annual sales limits as shown below:

• For categories ≤175 hp—525 previous Tier engines (over 7 years) with an annual cap of 150 units (these engine numbers are separate for each hp category defined in the regulations)

• For categories of >175hp—350 previous Tier engines (over 7 years) with an annual cap of 100 units (these engine numbers are separate for each hp category defined in the regulations).

The Panel recommended that EPA seek comment on the total number of engines and annual cap values listed above. Specifically, the SBA and OMB Panel members recommended that EPA seek comment on implementing the small volume allowance (700 engine provision) for small equipment manufacturers without a limit on the number of engine families which could be covered in any hp category.

• In addition, due to the changing nature of the technology as the manufacturers transition from Tier 2 to Tier 3 and Tier 4, the Panel recommended that the equipment manufacturers be permitted to borrow from the Tier 3/Tier 4 transition flexibilities for use in the Tier 2/Tier 3 time frame.

To maximize the likelihood that the application of these transition provisions will result in the availability of previous Tier engines for use by the small equipment manufacturers, the Panel recommended that these three provisions be provided to all equipment manufacturers. As explained earlier in the preamble, this is essentially the approach that EPA is proposing.

(b) Hardship Provisions for Small Equipment Manufacturers

The Panel also recommended that two types of hardship provisions be extended to small equipment manufacturers. These are generally the same as provided above for small engine manufacturers:

• For the case of a catastrophic event, or other extreme unforseen circumstances, beyond the control of the manufacturer that could not have been avoided with reasonable discretion (*i.e.* fire, tornado, supplier not fulfilling contract, etc.); and

• For the case where a manufacturer has taken all reasonable business, technical, and economic steps to comply but cannot. In this case relief would have to be sought before there is imminent jeopardy that a manufacturer's equipment could not be sold and a manufacturer would have to demonstrate to the Agency's satisfaction that failure to get permission to sell equipment with a previous Tier engine would create a serious economic hardship. Hardship relief of this nature cannot be sought by a manufacturer which also manufactures the engines for its equipment.

Hardship relief would not be available until other allowances have been exhausted. Either relief provision would provide additional lead time for up to 2 model years based on the circumstances, but EPA could require recovery of the lost environmental benefit. To be eligible for the hardship provisions listed above (as well as the flexibilities detailed above), the Panel recommended that equipment manufacturers and importers must have reported equipment sales using certified engines in model year 2002 or earlier. This requirement is to prohibit the misuse of these flexibilities as a loophole to enter the nonroad diesel equipment market or to gain unfair market position relative to other manufacturers.

iii. Nonroad Diesel Fuel Refiners

(a) Regulatory Flexibility Alternatives for Diesel Fuel Refiners

The Panel considered a range of options and regulatory alternatives for providing small refiners with flexibility in complying with new sulfur standards for nonroad diesel fuel. Taking into consideration the comments received on these ideas, as well as additional business and technical information gathered about potentially affected small entities, the Panel recommended that whether EPA proposes a one-step or a two-step approach, EPA should provide for delayed compliance for small refiners as shown below.

SMALL REFINER OPTIONS UNDER 2-STEP NONROAD DIESEL BASE PROGRAMS RECOMMENDED SULFUR STANDARDS

[in parts per million (ppm)] [a]

Under 2-step program	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+
Non-Small [b]	.....	500	500	500	15	15	15	15	15	15
Small	.....	.....	.....	.....	500	500	500	500	15	15

Notes:
[a] New standards are assumed to take effect June 1 of the applicable year.
[b] Assumes 500 ppm standard for marine + locomotive fuel for non-small refiners for 2007 and later and for small refiners for 2010 and later.

(b) Small Refiner Incentives for Early Compliance

In addition to these standards, the Panel recommended that EPA propose certain transition provisions to encourage early compliance with the diesel fuel sulfur standards. The Panel recommended that EPA propose that small refiners be eligible to select one of the two following options:

• Credits for Early Desulfurization: The Panel recommended that the

Agency propose, as part of an overall trading program, a credit trading system that allows small refiners to generate and sell credits for nonroad diesel fuel that meets the small refiner standards earlier than that required in the above table. Such credits could be used to offset higher sulfur fuel produced by that refiner or by another refiner that purchases the credits.

• Limited Relief on Small Refiner Interim Gasoline Sulfur Standards: The Panel recommended that a small refiner producing its entire nonroad diesel fuel pool at 15 ppm sulfur by June 1, 2006, and that chooses not to generate nonroad credits for its early compliance, receive a 20 percent relaxation in its assigned small refiner interim gasoline sulfur standards. However, the Panel recommended that the maximum per-gallon sulfur cap for any small refiner remain at 450 ppm.

(c) Refiner Hardship Provisions

The Panel recommended that EPA propose refiner hardship provisions modeled after those established under the gasoline sulfur and highway diesel fuel sulfur program (see 40 CFR 80.270 and 80.560). Specifically, the Panel recommended that EPA propose a process that, like the hardship provisions of the gasoline and highway diesel rules, allows refiners to seek case-by-case approval of applications for temporary waivers to the nonroad diesel sulfur standards, based on a demonstration to the Agency of extreme hardship circumstances. This provision would allow domestic and foreign refiners, including small refiners, to request additional flexibility based on a showing of unusual circumstances that result in extreme hardship and significantly affect the ability of the refiner to comply by the applicable date, despite its best efforts.

iv. Nonroad Diesel Fuel Distributors and Marketers

The diesel fuel approach being considered by the Agency includes the possibility of there being two grades of nonroad diesel fuel (500/15 ppm) in the market place for at least a transition period. The distributors support a one-step approach because it has no significant impact on their operations. The distributors offered some suggestions on how they might deal with this issue, but indicated that there would be adverse impact in some circumstances. The Panel recommended that EPA study this issue further. The costs and related issues relevant to fuel distributors are further discussed in Chapter 7 of the proposed rule Regulatory Impact Analysis.

EPA invites comments on all aspects of the proposal and its impacts on the regulated small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

This rule contains no federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule imposes no enforceable duties on any of these governmental entities. Nothing in the rule would significantly or uniquely affect small governments.

EPA has determined that this rule contains federal mandates that may result in expenditures of more than $100 million to the private sector in any single year. EPA believes that the proposal represents the least costly, most cost-effective approach to achieve the air quality goals of the rule. The costs and benefits associated with the proposal are discussed above and in the Draft Regulatory Impact Analysis, as required by the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

Section 4 of the Executive Order contains additional requirements for rules that preempt State or local law, even if those rules do not have federalism implications (*i.e.*, the rules will not have substantial direct effects on the States, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government). Those requirements include providing all affected State and local officials notice and an opportunity for appropriate participation in the development of the regulation. If the preemption is not based on express or implied statutory authority, EPA also must consult, to the extent practicable, with appropriate State and local officials regarding the conflict between State law and Federally protected interests within the agency's area of regulatory responsibility.

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national

government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

Although Section 6 of Executive Order 13132 does not apply to this rule, EPA did consult with representatives of various State and local governments in developing this rule. EPA has also consulted representatives from STAPPA/ALAPCO, which represents state and local air pollution officials.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.''

This proposed rule does not have tribal implications as specified in Executive Order 13175. This rule will be implemented at the Federal level and impose compliance costs only on engine manufacturers and ship builders. Tribal governments will be affected only to the extent they purchase and use equipment with regulated engines. Thus, Executive Order 13175 does not apply to this rule. EPA specifically solicits additional comment on this proposed rule from tribal officials.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997) applies to any rule that (1) is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, Section 5–501 of the Order directs the Agency to evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This proposed rule is not subject to the Executive Order because it does not involve decisions on environmental health or safety risks that may disproportionately affect children.

The effects of ozone and PM on children's health were addressed in detail in EPA's rulemaking to establish the NAAQS for these pollutants, and EPA is not revisiting those issues here. EPA believes, however, that the emission reductions from the strategies proposed in this rulemaking will further reduce air toxic emissions and the related adverse impacts on children's health.

H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

This rule is not a ''significant energy action'' as defined in Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. If promulgated, this proposed rule would decrease fuel production by less than 4000 barrels per day and would increase fuel production costs, distribution costs, and prices by less than ten percent. The reader is referred to Section V above for the estimated cost, price and production impacts of the proposed fuel program.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rule involves technical standards. The following paragraphs describe how we specify testing procedures for engines subject to this proposal.

The International Organization for Standardization (ISO) has a voluntary consensus standard that can be used to test nonroad diesel engines. However, the current version of that standard (ISO 8178) is applicable only for steady-state testing, not for transient testing. As described in the Draft Regulatory Impact Analysis, transient testing is an important part of the proposed emission-control program for these engines. We are therefore not proposing to adopt the ISO procedures in this rulemaking.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

J. Plain Language

This document follows the guidelines of the June 1, 1998 Executive Memorandum on Plain Language in Government Writing. To read the text of the regulations, it is also important to understand the organization of the Code of Federal Regulations (CFR). The CFR uses the following organizational names and conventions.

Title 40—Protection of the Environment

Chapter I—Environmental Protection Agency

Subchapter C—Air Programs. This contains parts 50 to 99, where the Office of Air and Radiation has usually placed emission standards for motor vehicle and nonroad engines.

Subchapter U—Air Programs Supplement. This contains parts 1000 to 1299, where we intend to place regulations for air programs in future rulemakings.

Part 1039—Control of Emissions from New Nonroad Compression-ignition Engines. Most of the provisions in this part apply only to engine manufacturers.

Part 1065—General Test Procedures for Engine Testing. Provisions of this part apply to anyone who tests engines to show that they meet emission standards.

Part 1068—General Compliance Provisions for Engine Programs. Provisions of this part apply to everyone.

Each part in the CFR has several subparts, sections, and paragraphs. The following illustration shows how these fit together.

Part 1039

Subpart A

§ 1039.1
(a)
(b)
(1)
(2)
(i)
(ii)

A cross reference to § 1039.1(b) in this illustration would refer to the parent paragraph (b) and all its subordinate paragraphs. A reference to ''§ 1039.1(b) introductory text'' would refer only to the single, parent paragraph (b).

XI. Statutory Provisions and Legal Authority

Statutory authority for the engine controls proposed today can be found in sections 213 (which specifically authorizes controls on emissions from nonroad engines and vehicles), 203–209, 216 and 301 of the CAA, 42 U.S.C. 7547, 7522, 7523, 7424, 7525, 7541, 7542, 7543, 7550 and 7601.

Statutory authority for the proposed fuel controls is found in sections 211(c) and 211(i) of the CAA, which allow EPA to regulate fuels that either contribute to air pollution which endangers public health or welfare or which impair emission control equipment which is in general use or has been in general use. 42 U.S.C. 7545 (c) and (i). Additional support for the procedural and enforcement-related aspects of the fuel controls in the proposed rule, including the record keeping requirements, comes from sections 114(a) and 301(a) of the CAA. 42 U.S.C. sections 7414(a) and 7601(a).

List of Subjects

40 CFR Part 69

Environmental protection, Air pollution controls.

40 CFR Part 80

Fuel additives, Gasoline, Imports, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

40 CFR Part 89

Environmental protection, Administrative practice and procedure, Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Vessels, Warranties.

40 CFR Part 1039

Environmental protection, Administrative practice and procedure, Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Vessels, Warranties.

40 CFR Part 1065

Environmental protection, Administrative practice and procedure, Incorporation by reference, Reporting and recordkeeping requirements, Research.

40 CFR Part 1068

Environmental protection, Administrative practice and procedure, Confidential business information, Imports, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements, Warranties.

Dated: April 15, 2003.

Christine Todd Whitman,

Administrator.

For the reasons set forth in the preamble, we propose to amend parts 69, 80, 89, 1039, 1065, and 1068 of title 40 of the Code of Federal Regulations as follows:

PART 69—SPECIAL EXEMPTIONS FROM THE REQUIREMENTS OF THE CLEAN AIR ACT

1. The authority citation for part 69 is revised to read as follows:

Authority: 42 U.S.C. 7545(c), (g) and (i), and 7625–1.

Subpart E—[Amended]

2. Section 69.51 is revised to read as follows:

§ 69.51 Motor vehicle diesel fuel.

(a) Diesel fuel that is designated for use only in Alaska and is used only in Alaska, is exempt from the sulfur standard of 40 CFR 80.29(a)(1) and the dye provisions of 40 CFR 80.29(a)(3) and 40 CFR 80.29(b) until the implementation dates of 40 CFR 80.500, provided that:

(1) The fuel is segregated from nonexempt diesel fuel from the point of such designation; and

(2) On each occasion that any person transfers custody or title to the fuel, except when it is dispensed at a retail outlet or wholesale purchaser-consumer facility, the transferor must provide to the transferee a product transfer document stating:

This diesel fuel is for use only in Alaska. It is exempt from the federal low sulfur standards applicable to highway diesel fuel and red dye requirements applicable to non-highway diesel fuel only if it is used in Alaska.

(b) Beginning on the implementation dates in 40 CFR 80.500, motor vehicle diesel fuel that is designated for use in Alaska or is used in Alaska, is subject to the applicable provisions of 40 CFR part 80, Subpart I, except the language of product transfer documents under 40 CFR 80.590 and pump dispenser labels under 40 CFR 80.570(a) and (b) may be modified, as applicable, to reflect the fact that certain motor vehicle and non-motor vehicle diesel fuels or heating oil that would otherwise be required to be segregated due to the red dye requirement for non-motor vehicle fuels under §§ 80.510(c) and 80.520(b)(2) are permitted to be commingled, distributed and dispensed as one fuel, due to the exemption from the red dye requirement under 40 CFR 69.52(b) and (c), if they meet the same sulfur and cetane and/or aromatics standards as the motor vehicle diesel fuel.

(c) The Governor of Alaska may submit for EPA approval, by April 1, 2002, a plan for implementing the motor vehicle sulfur standard in Alaska as an alternative to the temporary compliance option provided under §§ 80.530–80.532. If EPA approves an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel fuel subject to this paragraph (b).

3. A new § 69.52 is added to read as follows:

§ 69.52 Non-motor vehicle diesel fuel.

(a) *Definitions.* (1) *Areas accessible by the Federal Aid Highway System* are the geographical areas of Alaska designated by the State of Alaska as being accessible by the Federal Aid Highway System.

(2) *Areas not accessible by the Federal Aid Highway System* are all other geographical areas of Alaska.

(3) *Nonroad, locomotive, or marine diesel fuel* shall have the same meaning as provided in 40 CFR 80.2.

(b) Non-motor vehicle diesel fuel and heating oil that is used or intended for use in areas of Alaska accessible by the Federal Aid Highway System is subject to the provisions of 40 CFR Part 80, Subpart I, except:

(1) The fuel is exempt from the red dye requirements, and the presumptions associated with the red dye requirements, under §§ 80.510(c) and 80.520(b)(2). Exempt fuel under this paragraph (b) must be segregated from motor vehicle diesel fuel, unless it meets the same sulfur standard and applicable cetane and/or aromatics standards as the motor vehicle diesel fuel and it is not marked by yellow solvent 124 under §§ 80.510 and 80.511.

(2) The language of product transfer documents under 40 CFR 80.590 and pump dispenser labels under 40 CFR 80.570—80.573 may be modified, as applicable, to reflect the fact that the fuel is exempt from the red dye requirement under paragraph (b) (1) of this section, and that the exempt fuel that would otherwise be required to be segregated from motor vehicle diesel fuel is permitted to be commingled, distributed and dispensed with the motor vehicle fuel if it meets the same sulfur standard and applicable cetane and/or aromatics standards as the motor vehicle fuel and is not marked by

yellow solvent 124 under §§ 80.510 and 80.511. Further, the following language shall be added to the product transfer documents: ''Exempt from red dye requirement applicable to diesel fuel for non-highway purposes if it is used only in Alaska.''

(3) For purposes of calculating a non-highway baseline percentage under 40 CFR 80.533, Alaska refiners and importers:

(i) Must declare under 40 CFR 80.533(c)(i)(C), as applicable, that the fuel was exempt under 69.52 from the dye provisions and did not meet the definition of motor vehicle diesel fuel; and

(ii) As an alternative to the submission of batch data for the baseline period under 40 CFR 80.533(c), may assume 30 percent for the non-highway baseline percentage.

(c) Non-motor vehicle diesel fuel and heating oil that is designated for use only in areas of Alaska not accessible by the Federal Aid Highway System, or is used only in areas of Alaska not accessible by the Federal Aid Highway System, is excluded from the applicable provisions of 40 CFR Part 80, Subpart I; except that:

(1) All model year 2011 and later nonroad diesel engines and equipment must be fueled only with diesel fuel that meets the specifications of § 80.510(b), and the product transfer document requirements under 40 CFR 80.590 and pump dispenser labels under 40 CFR 80.570—80.573, except that, (i) The language of product transfer documents under 40 CFR 80.590 and pump dispenser labels under 40 CFR 80.570—80.573 may be modified, as applicable, to reflect the fact that the fuel is undyed and unmarked, and that diesel fuel for motor vehicles, nonroad equipment, locomotive or marine engines, and heating oil that meet the same sulfur, cetane and/or aromatics standards that would otherwise be required to be segregated are permitted to be commingled, distributed and dispensed as one fuel under this section (c), and

(ii) The following language shall be added to the product transfer documents: ''Exempt from red dye requirement applicable to diesel fuel for non-highway purposes if it is used only in Alaska.''

(2) Diesel fuel that is exempt under this section, except when paragraph (c)(1) of this section applies, must meet the requirements for product transfer documents under 40 CFR 80.590, except the following language shall be substituted for the language specified under (a)(5) of that section:

(i) Until August 31, 2010:

This diesel fuel is for use only in those areas of Alaska not accessible by the Federal Aid Highway System. It is exempt from the federal sulfur standards applicable to highway, nonroad, locomotive and marine diesel fuel, and the red dye requirements applicable to non-highway diesel fuel. It may not be used in model year 2007 and newer highway vehicles.

(ii) After August 31, 2010:

This diesel fuel is for use only in those areas of Alaska not accessible by the Federal Aid Highway System. It is exempt from the federal sulfur standards applicable to highway, nonroad, locomotive and marine diesel fuel, and the red dye requirements applicable to non-highway diesel fuel. It may not be used in model year 2007 and newer highway vehicles or in model year 2011 and newer nonroad equipment.

(3) Diesel fuel that is exempt under this section, except when paragraph (c)(1) of this section applies, must meet the labeling requirements under §§ 80.570–80.573, except the following language shall be substituted for the language on the labels:

(i) Until August 31, 2010:

HIGH-SULFUR DIESEL FUEL

(May Exceed 500 ppm)

WARNING

Federal Law *Prohibits* Use in Model Year 2007 and Newer Highway Vehicles.

(ii) After August 31, 2010

HIGH-SULFUR DIESEL FUEL

(May Exceed 500 ppm)

WARNING

Federal Law *Prohibits* Use in Any Highway Vehicle or in Any Model Year 2011 and Newer Nonroad Engine.

PART 80—REGULATION OF FUELS AND FUEL ADDITIVES

4. The authority citation for part 80 continues to read as follows:

Authority: 42 U.S.C. 7414, 7545 and 7601(a).

5. Section 80.2 is amended by revising paragraphs (f), (j), (o), (x), (y), (nn), and (xx) and adding paragraphs (yy) through (ooo) to read as follows:

§ 80.2 Definitions

* * * * *

(f) *Previously certified diesel fuel* or *PCD* means diesel fuel that previously has been included by a refiner or importer in a batch for purposes of complying with the standards and requirements of subpart I of this part.

* * * * *

(j) *Retail outlet* means any establishment, whether stationary or mobile, at which gasoline, diesel fuel, methanol, natural gas or liquified petroleum gas is sold or offered for sale for use in motor vehicles, nonroad engines, locomotive engines or marine engines.

* * * * *

(o) *Wholesale purchaser-consumer* means any organization that is an ultimate consumer of gasoline, diesel fuel, methanol, natural gas, or liquified petroleum gas and which purchases or obtains gasoline, diesel fuel, natural gas or liquified petroleum gas from a supplier for use in motor vehicles, nonroad engines, locomotive engines or marine engines and, in the case of gasoline, diesel fuel, methanol or liquified petroleum gas, receives delivery of that product into a storage tank of at least 550-gallon capacity substantially under the control of that organization.

* * * * *

(x) *Diesel fuel* means any fuel sold in any State or Territory of the United States and suitable for use in diesel engines, and which is commonly or commercially known or sold as number 1 or number 2 diesel fuel, or any distillate or nondistillate fuel that has comparable physical or chemical properties.

* * * * *

(nn) *Batch of diesel fuel* means a quantity of diesel fuel which is homogeneous with regard to those properties that are specified for motor vehicle, nonroad, locomotive or marine diesel fuel under subpart I of this part.

* * * * *

(xx) *Diesel fuel additive* means any substance not composed solely of carbon and/or hydrogen, or of diesel blendstocks, that is added, intended for adding, used, or offered for use in motor vehicle diesel fuel or NRLM diesel fuel subsequent to the production of diesel fuel by processing crude oil from refinery processing units, or in diesel motor vehicle or NRLM fuel systems.

(yy) [Reserved]

(zz) [Reserved]

(aaa) [Reserved]

(bbb) *Nonroad (NR) diesel fuel* means any diesel fuel, or any distillate product, that is used, intended for use, or made available for use, as a fuel in land based diesel engines subject to the provisions of either 40 CFR part 89 or part 1039.

(ccc) *Locomotive and marine (LM) diesel fuel* means any diesel fuel, or any distillate product, that is used, intended for use, or made available for use, as a fuel in diesel engines subject to the provisions of either 40 CFR part 92 or part 94, or marine diesel engines subject to the provisions of part 89.

(ddd) *Nonroad, locomotive, and marine (NRLM) diesel fuel* means any diesel fuel, or any distillate product, that is used, intended for use, or made available for use, as a fuel in diesel engines subject to the provisions of either 40 CFR part 89, part 92, part 94, or part 1039.

(eee) *Heating oil* means any number 1 or number 2 distillate (other than jet fuel) that does not meet the definitions of motor vehicle, nonroad, locomotive, marine or NRLM diesel fuel. For example, heating oil can include fuel suitable for use in furnaces, boilers, stationary diesel engines, and similar applications and which is commonly or commercially known or sold as heating oil, fuel oil, and similar trade names.

(fff) *Diesel fuel blending stock, blendstock, or component* means any liquid compound which is blended with other liquid compounds to produce diesel fuel.

(ggg) *Transmix* means an interface mixture in a product pipeline that cannot practicably be added to either of the adjoining products that produced the interface and still meet product specifications and standards. For example, a mixture of gasoline and diesel fuel would generally be considered transmix.

(hhh)–(iii) [Reserved]

(jjj) *Fuel marker* means the fuel marker required in heating oil from 2007 through 2010 pursuant to § 80.510(c)(1) and in locomotive and marine diesel fuel from 2010 through 2014 pursuant to the requirements of § 80.510(c)(2).

(kkk) *Solvent yellow 124* means N-ethyl-N-[2-[1-(2-methylpropoxy)ethoxyl]-4-phenylazo]-benzeneamine.

(lll) *Nonroad diesel engine* means, for the purposes of subpart I of this part only, a land-based nonroad diesel engine subject to the provisions of either 40 CFR part 89 or part 1039.

(mmm) *Locomotive diesel engine* means, for purposes of subpart I of this part only, a diesel engine subject to the provisions of 40 CFR part 92.

(nnn) *Marine diesel engine* means, for purposes of subpart I of this part only, a marine diesel engine subject to the provisions of either 40 CFR part 89 or 40 CFR part 94.

(ooo) *Transmix processor* means a refiner who produces diesel fuel or gasoline from transmix.

6. Section 80.230 is amended by revising paragraphs (b)(1) and (b)(2) to read as follows:

§ 80.230 Who is not eligible for the hardship provisions for small refiners?

* * * * *

(b)(1)(i) Refiners who qualify as small under § 80.225, and subsequently employ more than 1,500 people as a result of merger with or acquisition of or by another entity, or exceed the 155,000 bpcd crude capacity limit as a result of merger with or acquisition of or by another entity after January 1, 2004, are disqualified as small refiners. If this occurs the refiner shall notify EPA in writing no later than 20 days following this disqualifying event.

(ii) Except as provided under paragraph (b)(1)(iii) of this section, any refiner whose status changes under this paragraph shall meet the applicable standards of § 80.195 within a period of up to 24 months of the disqualifying event for any of its refineries that were previously subject to the small refiner standards of § 80.240(a). However, such period shall not extend later than December 31, 2007, or, for refineries for which the Administrator has approved an extension of the small refiner gasoline sulfur standards under § 80.553(c), December 31, 2010.

(iii) A refiner may apply to EPA for additional time to comply with the standards of § 80.195 if more than 24 months would be required for the necessary engineering, permitting, construction, and start-up work to be completed. Such applications must include detailed technical information supporting the need for additional time and a proposed amount of additional time. EPA will base a decision to approve additional time on information provided by the refiner and on other relevant information. In no case will EPA extend the compliance date beyond December 31, 2007, or, for refineries for which the Administrator has approved an extension of the small refiner gasoline sulfur standards under § 80.553(c), December 31, 2010.

(2) Any refiner who qualifies as small under § 80.225 may elect to meet the standards under § 80.195 by notifying EPA in writing no later than November 15 prior to the year the change will occur. Any refiner whose status changes under this paragraph shall meet the standards under § 80.195 beginning with the first averaging period subsequent to the status change.

* * * * *

7. Section 80.240 is amended by adding paragraph (f) to read as follows:

§ 80.240 What are the small refiner gasoline sulfur standards?

* * * * *

(f)(1) In the case of a refiner without approved small refiner status under § 80.235 who acquires a refinery from a refiner with approved small refiner status, the applicable small refiner standards under paragraph (a) of this section will apply to the acquired small refinery for a period up to 24 months from the date of acquistion of the refinery, but no later than December 31, 2007, or, for a refinery for which the Administrator has approved an extension of the small refinery gasoline sulfur standards under § 80.553(c), December 31, 2010, after which time the standards of § 80.195 shall apply to the acquired refinery.

(2) A refiner may apply to EPA for additional time to comply with the standards of § 80.195 for the acquired refinery if more than 24 months would be required for the necessary engineering, permitting, construction, and start-up work to be completed. Such applications must include detailed technical information supporting the need for additional time and a proposed amount of additional time. EPA will base a decision to approve additional time on information provided by the refiner and on other relevant information. In no case will EPA extend the compliance date beyond December 31, 2007, or, for a refinery for which the Administrator has approved an extension of the small refiner gasoline sulfur standards under § 80.553(c), December 31, 2010.

8. Section 80.500 is amended by revising the section heading to read as follows:

§ 80.500 What are the implementation dates for the motor vehicle diesel fuel sulfur control program?

9. Section 80.501 is amended by revising paragraph (a) to read as follows:

§ 80.501 What diesel fuel is subject to the provisions of this subpart?

(a) *Included fuel and additives.* The provisions of this subpart apply to motor vehicle diesel fuel as defined in § 80.2(y); nonroad, locomotive, or marine diesel fuel as defined in § 80.2(ddd); diesel fuel additives as defined in § 80.2(xx), heating oil as defined in § 80.2(eee), and motor oil that is used as or intended for use as fuel in diesel motor vehicles or nonroad, locomotive, or marine engines or is blended with diesel fuel for use in diesel motor vehicles or nonroad, locomotive, or marine engines at any downstream location, as provided in § 80.522.

* * * * *

10. A new § 80.510 is added to read as follows:

§ 80.510 What are the standards and marker requirements for nonroad, locomotive, and marine diesel fuels?

(a) *Beginning June 1, 2007.* Except as otherwise specifically provided in this

subpart, all NRLM diesel fuel is subject to the following per-gallon standards:

(1) Sulfur content. 500 parts per million (ppm) maximum.

(2) Cetane index and aromatic content.

(i) A minimum cetane index of 40; or

(ii) A maximum aromatic content of 35 volume percent.

(b) *Beginning June 1, 2010.* Except as otherwise specifically provided in this subpart, all NR diesel fuel is subject to the following per-gallon standards:

(1) Sulfur content. 15 parts per million (ppm) maximum.

(2) Cetane index and aromatic content.

(i) A minimum cetane index of 40; or

(ii) A maximum aromatic content of 35 volume percent.

(c) *Marker provisions.* (1) Beginning June 1, 2007, or June 1, 2006, as applicable under § 80.534, and prior to June 1, 2010:

(i) A refiner or importer shall add 6 milligrams per liter of solvent yellow 124 to any heating oil.

(ii) All NRLM and motor vehicle diesel fuel produced by a refiner or imported by an importer shall be free of solvent yellow 124.

(iii) Any diesel fuel that contains greater than or equal to 0.1 milligrams per liter of solvent yellow 124 shall be deemed to be heating oil and shall be prohibited from use in any motor vehicle, nonroad, locomotive, or marine diesel engine.

(iv) Any diesel fuel that contains less than 0.1 milligrams per liter of solvent yellow 124 shall be considered motor vehicle diesel fuel, NR, LM, or NRLM, as appropriate.

(2) Beginning June 1, 2010 and prior to June 1, 2014:

(i) A refiner or importer shall add 6 milligrams per liter of solvent yellow 124 to any LM diesel fuel.

(ii) All NR produced by a refiner or imported by an importer shall be free of solvent yellow 124.

(iii) Any diesel fuel which contains greater than or equal to 0.1 milligrams per liter of solvent yellow 124 shall be deemed to be LM diesel and shall be prohibited from use in any motor vehicle or nonroad diesel engine.

(iv) Any diesel fuel which contains less than 0.1 milligrams per liter of solvent yellow 124 shall be considered other than locomotive and marine diesel fuel and subject to the applicable requirements.

(d) Pursuant and subject to the provisions of §§ 80.536, 80.554, 80.560, and 80.561:

(1) Until June 1, 2010, nonroad, locomotive, and marine NRLM diesel fuel produced or imported in full compliance with the requirements of those sections is exempt from the per-gallon sulfur content standard and cetane or aromatics standard of paragraph (a) of this section;

(2) Until June 1, 2014, NR diesel fuel produced or imported in full compliance with the requirements of those sections is exempt from the per-gallon standards of paragraph (b) of this section but is subject to a per-gallon standards for sulfur content, cetane, and aromatics of paragraph (a) of this section.

11. A new § 80.511 is added to read as follows:

§ 80.511 What are the per-gallon and marker requirements that apply to nonroad, locomotive, and marine diesel fuels and heating oil downstream of the refinery or importer?

(a) *Applicable dates for marker requirements at downstream locations.* (1) From June 1, 2006 through May 31, 2010, all NRLM shall contain less than 0.10 milligrams per liter of the marker solvent yellow 124.

(2) Beginning June 1, 2010, all NR diesel fuel shall contain less than 0.10 milligrams per liter of the marker solvent yellow 124.

(b) *Applicable dates for per-gallon standards at downstream locations.* All NR, LM, and NRLM diesel fuel at any downstream location shall comply with the same per-gallon sulfur content and cetane index or aromatics standard (''per-gallon standards'' for purposes of this section) of § 80.510, except as follows:

(1)(i) The per-gallon standards of § 80.510(a) shall apply beginning August 1, 2007 for all downstream locations other than retail outlets or wholesale purchaser-consumer facilities, and shall apply starting October 1, 2007 for retail outlets and wholesale purchaser-consumer facilities.

(ii) The per-gallon standards of of § 80.510(b) shall apply beginning July 15, 2010 for all downstream locations other than retail outlets or wholesale purchaser-consumer facilities, and shall apply starting September 1, 2010 for retail outlets and wholesale purchaser-consumer facilities.

(2) Prior to July 15, 2010 at all downstream locations other than retail outlets and wholesale purchaser-consumer facilities and prior to September 1, 2010 at retail outlets and wholesale purchaser-consumer facilities, the 500 ppm per-gallon standard of § 80.510(a) shall not apply at downstream locations once the diesel fuel has been dyed red per Internal Revenue Service Code (26 U.S.C. 4082) for any fuel that was produced or imported pursuant to the provisions of § 80.536(f) or § 80.554(a) or mixed with fuel produced pursuant to these provisions.

(3) Beginning December 1, 2014, all NR diesel fuel at all downstream locations shall comply with the sulfur standard of § 80.510(b).

(c) *Fuel redesignated at a downstream location.* Subject to the provisions of § 80.527, nonroad, locomotive, and marine diesel fuel may be redesignated at a downstream location to diesel fuel subject to a different § 80.510 per-gallon standard, high sulfur NRLM diesel fuel, LM diesel fuel, or heating oil, provided that the PTD reflects the standard of the new designation and:

(1) The new PTD complies with the appropriate PTD provisions of § 80.590;

(2) Fuel redesignated as high sulfur NRLM diesel fuel complies with the requirements of § 80.536(f)(1) (i) through (iv); and

(3) Fuel redesignated as 500 ppm NR diesel fuel after June 1, 2010 complies with the requirements of § 80.536(g)(2) (i) through (iii).

12. A new § 80.512 is added to read as follows:

§ 80.512 May an importer treat diesel fuel as blendstock?

An importer may exclude diesel fuel that it imports from its calculations under the motor vehicle diesel fuel temporary compliance option and credit calculations under §§ 80.530–80.532, and from its non-highway baseline and nonroad, locomotive and marine diesel fuel credit calculations under §§ 80.534–80.536, and instead the importer may designate such diesel fuel as diesel fuel treated as blendstock (DTAB), if all the following conditions are met:

(a) The DTAB must be included in all applicable baseline, credit and compliance calculations for diesel fuel for a refinery operated by the same company that is the importer. That company must meet all refiner standards and requirements.

(b) The importer-company may not transfer title to the DTAB to another party until the DTAB has been used to produce diesel fuel and all refiner standards and requirements have been met for the diesel fuel produced.

(c) The refinery at which the DTAB is used to produce diesel fuel must be physically located at either the same terminal at which the DTAB first arrives in the U.S., the import facility, or at a facility to which the DTAB is directly transported from the import facility.

(d) The DTAB must be completely segregated from any other diesel fuel,

including any diesel fuel tank bottoms, prior to the point of blending, sampling and testing in the importer company's refinery operation. The DTAB may, however, be added to a diesel fuel blending tank where the diesel fuel tank bottom is not included as part of the batch volume for the prior batch. In addition, the DTAB may be placed into a storage tank that contains other DTAB imported by that importer. The DTAB also may be discharged into a tank containing finished diesel fuel of the same category as the diesel fuel which will be produced using the DTAB (*e.g.*, 15 ppm undyed or 15 ppm dyed diesel fuel) provided the blending process is performed in that same tank.

(e) The company must account for the volume of diesel fuel produced using DTAB in a manner that excludes the volume of any previously certified diesel fuel. The diesel fuel tank bottom may not be included in the company's refinery compliance calculations for that batch of diesel fuel. This exclusion of previously-accounted-for diesel fuel must be accomplished using the following approach:

(1) Determine the volume of any tank bottom that is previously certified diesel fuel before any diesel fuel production begins.

(2) Add the DTAB plus any blendstock to the storage tank, and completely mix the tank.

(3) Determine the volume and sulfur content of the diesel fuel contained in the storage tank after blending is complete. Mathematically subtract the volume of the tank bottom to determine the volume of the DTAB plus blendstock added, which is reported to EPA as a batch of diesel fuel produced.

(4) If previously certified diesel fuel having a sulfur content of 15 ppm or less is blended to DTAB, and the combined product after blending has a sulfur content that exceeds 15 ppm, the refiner must count the volume of previously certified diesel fuel against its downgrading limitation under § 80.527.

(5) As an alternative to paragraphs (e)(1) through (e)(4) of this section, where an importer company has a ''blending'' tank that is used only to combine DTAB and blending components, and no previously certified diesel fuel is added to the tank, the importer company, in its refiner capacity, may account for the diesel fuel produced in such a blending tank by sampling and testing for the sulfur content of the batch after DTAB and blendstock are added and mixed, and reporting the volume of diesel fuel shipped from that tank, up to the point a new blend is produced by adding new DTAB and blendstock.

(f) The importer must include the volume and sulfur content of each batch of DTAB in the annual importer reports to EPA, but with a notation that the batch is not included in the importer compliance calculations because the product is DTAB. Any DTAB that ultimately is not used in the importer company's refinery operation (*e.g.*, a tank bottom of DTAB at the conclusion of the refinery operation), must be treated as newly imported diesel fuel, for which all required sampling and testing, and recordkeeping must be accomplished, and included in the company's importer compliance calculations for the averaging period when this sampling and testing occurs.

(g) The importer must retain records that reflect the importation, sampling and testing, and physical movement of any DTAB, and must make these records available to EPA, on request.

13. A new § 80.513 is added to read as follows:

§ 80.513 What provisions apply to transmix processors?

(a) Beginning June 1, 2006, transmix processors may elect to utilize the provisions of § 80.552(a) in lieu of complying with the standards of this subpart.

(b) Beginning June 1, 2007, transmix processors may elect to use the provisions of § 80.554(a) in complying with the standards of this subpart.

(c) Beginning June 1, 2010, transmix processors may elect to use the provisions of § 80.554(b) in complying with the standards of this subpart.

(d) The provisions of paragraphs (a) through (c) apply only to that volume of fuel produced by transmix processors from previously certified diesel fuel (PCD) that no longer complies with the applicable standards (*i.e.*, contaminated product).

14. Section 80.520 is revised to read as follows:

§ 80.520 What are the standards and dye requirements for motor vehicle diesel fuel?

(a) *Standards.* All motor vehicle diesel fuel is subject to the following per-gallon standards:

(1) *Sulfur content.* 15 parts per million (ppm) maximum, except as provided in paragraph (c) of this section;

(2) *Cetane index and aromatic content.* (i) A minimum cetane index of 40; or

(ii) A maximum aromatic content of 35 volume percent.

(b) *Dye requirements.* (1) All motor vehicle diesel fuel shall be free of visible evidence of dye solvent red 164 (which has a characteristic red color in diesel fuel), except for motor vehicle diesel fuel that is used in a manner that is tax exempt under section 4082 of the Internal Revenue Code. All motor vehicle diesel fuel shall be free of yellow solvent 124.

(2) Except as provided in § 80.534 and until June 1, 2010 per § 80.510(c), any diesel fuel that does not show visible evidence of dye solvent red 164 shall be considered to be motor vehicle diesel fuel and subject to all the requirements of this subpart for motor vehicle diesel fuel, except for diesel fuel designated or classified for use only in:

(i) The State of Alaska as provided under 40 CFR 69.51; or

(ii) Jet aircraft, a research and development testing program exempted under § 80.600, or motor vehicles covered by an exemption under § 80.602.

(c) Pursuant and subject to the provisions of §§ 80.530–80.532, 80.552(a), 80.560–80.561, and 80.620, only motor vehicle diesel fuel produced or imported in full compliance with the requirements of those provisions is subject to the following per-gallon standard for sulfur content: 500 ppm maximum.

(d) Kerosene and any other distillate product, that meets the definition of motor vehicle diesel fuel, is subject to the standards and requirements under this section.

15. Section 80.521 is revised to read as follows:

§ 80.521 What are the standards and identification requirements for diesel fuel additives?

(a) Except as provided in paragraph (b) of this section, any diesel fuel additive that is added, intended for adding, used, or offered for use in diesel fuel subject to the 15 ppm sulfur content standards of §§ 80.510(b) or 80.520(a) at any downstream location must:

(1) Have a sulfur content not exceeding 15 ppm; and

(2) Be accompanied by a product transfer document pursuant to § 80.591 indicating that the additive complies with the 15 ppm standard for diesel fuel, except for those diesel fuel additives which are only sold in containers for use by the ultimate consumer of diesel fuel and which are subject to the requirements of § 80.591(d).

(b) Any diesel fuel additive that is added, intended for adding, used, or offered for use in diesel fuel subject to the 15 ppm sulfur content standards of § 80.510(b) or § 80.520(a) may have a

sulfur content exceeding 15 ppm provided that:

(1) The additive is added or used in the diesel fuel in a quantity less than 1% by volume of the resultant additive/diesel fuel mixture;

(2) The product transfer document pursuant to § 80.591 indicates that the additive may exceed the 15 ppm sulfur standards of § 80.510(b) or § 80.520(a), that improper use of the additive may result in non-complying fuel, and that the additive complies with the sulfur information requirements of § 80.591(b)(3); and

(3) The additive is not used or intended for use by an ultimate consumer in diesel motor vehicles or nonroad, locomotive, or marine engines.

16. Section 80.522 is revised to read as follows:

§ 80.522 May used motor oil be dispensed into diesel motor vehicles or nonroad, locomotive, or marine diesel engines?

No person may introduce used motor oil, or used motor oil blended with diesel fuel, into the fuel system of model year 2007 or later diesel motor vehicles or model year 2011 or later nonroad diesel engines, unless both of the following requirements have been met:

(a) The vehicle or engine manufacturer has received a Certificate of Conformity under 40 CFR Parts 86 or 89 and the certification of the vehicle or engine configuration is explicitly based on emissions data with the addition of motor oil; and

(b) The oil is added in a manner and rate consistent with the conditions of the Certificate of Conformity.

17. Section 80.523 is revised to read as follows:

§ 80.523 What diesel fuel designation requirements apply to refiners and importers?

Any refiner or importer shall accurately and clearly designate all fuel it produces or imports for use in diesel motor vehicles as either motor vehicle diesel fuel meeting the 15 ppm sulfur standard under § 80.520(a)(1) or as motor vehicle diesel fuel meeting the 500 ppm sulfur standard under § 80.520(c). Starting June 1, 2007, or June 1, 2006 under the provisions of § 80.535, any refiner or importer shall accurately and clearly designate all other diesel fuel it produces or imports as NR diesel fuel, LM diesel fuel, or NRLM diesel fuel meeting the sulfur standard, if any, applicable to that batch under this subpart, and any heating oil it produces or imports as heating oil.

18. Section 80.527 is revised to read as follows:

§ 80.527 Under what conditions may motor vehicle or nonroad diesel fuel subject to the 15 ppm sulfur standard be downgraded as diesel fuel subject to the 500 ppm sulfur standard?

(a) *Definitions.* (1) As used in this section, *downgrade* means changing the classification of undyed diesel fuel subject to the 15 ppm sulfur standard under §§ 80.523 and 80.510(b) or 80.520(a)(1) to diesel fuel subject to the 500 ppm sulfur standard under §§ 80.510(a) or 80.520(c). A downgrade occurs when the change in classification takes place. Changing the classification of undyed diesel fuel subject to the 15 ppm sulfur standard under §§ 80.510(b) or 80.520(a)(1) to heating oil is not a *downgrade* for purposes of this section and is not limited by the provisions of this section.

(2) As used in this section *undyed diesel fuel* means diesel fuel not containing visible evidence of dye solvent red 164.

(b) *Who may downgrade.* Any person in the diesel fuel distribution system who has custody or title to diesel fuel may downgrade it.

(c) *Downgrading limitation.* (1) Except as provided in paragraphs (d) and (e) of this section, a person described in paragraph (c)(4) of this section may not downgrade a total of more than 20% of the undyed diesel fuel (by volume) that is subject to the 15 ppm sulfur standard of §§ 80.510(b) or 80.520(a)(1) while such person has title to or custody of such fuel. In addition, a refiner or importer may only downgrade (subject to the 20% limit) undyed diesel fuel designated under § 80.523 as subject to 15 ppm sulfur standard under §§ 80.510(b) or 80.520(a)(1) after it has been so designated and after it has been moved from the refinery's, or import facility's, storage tank or other vessel where the diesel fuel batch was designated as subject to the sulfur standard of § 80.520(a) or § 80.510(b) under § 80.523.

(2) The limitation of paragraph (c)(1) of this section applies separately to each person who has custody or title of the fuel when it is downgraded.

(3) Compliance with the limitation of paragraph (c)(1) of this section shall be on an annual, calendar year basis (except in 2006 compliance shall be for the period June 1, 2006 through December 31, 2006, and in 2010 compliance shall be for the period January 1 through May 31).

(4) The limitation of this section applies to persons who sell, offer for sale, dispense, supply, store or transport diesel fuel. The limitation does not apply to persons who are transferred custody or title to diesel fuel when it is dispensed into motor vehicles or nonroad engine equuipment at retail outlets.

(d) *Diesel fuel in violation of the 15 ppm standard.* Where diesel fuel subject to the 15 ppm sulfur standard of §§ 80.510(b) or 80.520(a)(1) is found to be in violation of any standard under §§ 80.510 (b) or 80.520(a) and is consequently downgraded, the person, or persons, having custody and title to the fuel at the time it is found to be in violation must include the volume of such fuel toward its 20% volume limitation under paragraph (c)(1) of this section, unless the person, or persons, demonstrates that it did not cause the violation.

(e) *Special provisions for retail outlets and wholesale purchaser-consumer facilities.* Notwithstanding the provisions of paragraph (c)(1) of this section, retailers and wholesale purchaser-consumers shall comply with the downgrading limitation as follows:

(1) Retailers and wholesale purchaser-consumers who sell, offer for sale, or dispense undyed diesel fuel that is subject to the 15 ppm sulfur standard under § 80.520(a)(1) are exempt from the volume limitations of paragraph (c)(1) of this section.

(2) A retailer or wholesale purchaser-consumer who does not sell, offer for sale, or dispense diesel fuel subject to the 15 ppm sulfur standard under §§ 80.510(b) or 80.520(a)(1) may not downgrade a volume of diesel fuel classified as subject to the 15 ppm sulfur standard greater than 20% of the total volume of motor vehicle diesel fuel that it sells, offers for sale, or dispenses annually.

(f) *Product transfer documents.* If the custody or title to any diesel fuel that is downgraded under this section is transferred, the product transfer documents under § 80.590 for such fuel must reflect the change in classification to diesel fuel subject to the 500 ppm sulfur standard.

(g) *Recordkeeping requirement.* Any person subject to the provisions of this section, as described in paragraph (c)(4) of this section, who downgrades any undyed diesel fuel previously classified as subject to the 15 ppm sulfur standard under §§ 80.510(b) or 80.520(a)(1) during any calendar year, must make and maintain records sufficient to show compliance with the requirements and limitations of this section.

(h) *Termination of downgrading limitations.* The provisions of this section shall not apply after May 31, 2010.

19. Section 80.530 is revised to read as follows:

§ 80.530 Under what conditions can 500 ppm motor vehicle diesel fuel be produced or imported?

(a) Beginning June 1, 2006, a refiner or importer may produce or import motor vehicle diesel fuel subject to the 500 ppm sulfur content standard of § 80.520(c) if all of the following requirements are met:

(1) Each batch of motor vehicle diesel fuel subject to the 500 ppm sulfur content standard must be designated by the refiner or importer as subject to such standard, pursuant to § 80.523.

(2) The refiner or importer must meet the requirements for product transfer documents in § 80.590 for each batch subject to the 500 ppm sulfur content standard.

(3)(i) The volume V500 of motor vehicle diesel fuel that is produced or imported during a compliance period, as provided in paragraph (a)(5) of this section, may not exceed the following volume limit:

(A) For compliance periods prior to 2010, 20% of the volume Vt of motor vehicle diesel fuel that is produced or imported during a compliance period plus an additional volume of motor vehicle diesel fuel represented by credits properly generated and used pursuant to the requirements of §§ 80.531 and 80.532.

(B) For the compliance period of January 1, 2010 through May 31, 2010, the volume of motor vehicle diesel fuel represented by credits properly generated and used pursuant to the requirements of §§ 80.531 and 80.532.

(ii) The terms V500 and Vt have the meaning specified in § 80.531(a)(2).

(4) Compliance with the volume limit in paragraph (a)(3) of this section must be determined separately for each refinery. For an importer, such compliance must be determined separately for each Credit Trading Area (as defined in § 80.531) into which motor vehicle diesel fuel is imported. If a party is both a refiner and an importer, such compliance shall be determined separately for the refining and importation activities.

(5) Compliance with the volume limit in paragraph (a)(3) of this section shall be determined on a calendar year basis, where the calendar year period is from January 1 through December 31. For the year 2006, compliance shall be determined for the period June 1, 2006 through December 31, 2006. For the year 2010, compliance shall be determined for the period of January 1, 2010 through May 31, 2010.

(6) Any motor vehicle diesel fuel produced or imported above the volume limit in paragraph (a)(3) of this section shall be subject to the 15 ppm sulfur content standard. However, for any compliance period prior to and including 2009, a refiner or importer may exceed the volume limit in paragraph (a)(3) of this section by no more than 5 percent of the volume Vt of diesel fuel produced or imported during the compliance period, provided that for the immediately following calendar year:

(i) The refiner or importer complies with the volume limit in paragraph (a)(3) of this section; and

(ii) The refiner or importer produces or imports a volume of motor vehicle diesel fuel subject to the 15 ppm sulfur standard, or obtains credits properly generated and used pursuant to the requirements of §§ 80.531 and 80.532 that represent a volume of motor vehicle diesel fuel, equal to the volume of the exceedence for the prior compliance period.

(b) After May 31, 2010, no refiner or importer may produce or import motor vehicle diesel fuel subject to the 500 ppm sulfur content standard pursuant to this section.

20. Section 80.531 is amended by revising paragraphs (a)(1) and (a)(2) to read as follows:

§ 80.531 How are motor vehicle diesel fuel credits generated?

(a) * * *

(1) A refiner or importer may generate credits during the period June 1, 2006 through December 31, 2009, for motor vehicle diesel fuel produced or imported that is designated as subject to the 15 ppm sulfur content standard under § 80.520(a)(1). Credits may be generated only if the volume of motor vehicle diesel fuel designated under § 80.523 as subject to the 15 ppm sulfur standard of § 80.520(a) exceeds 80% of the total volume of motor vehicle diesel fuel produced or imported as described in paragraph (a)(2) of this section.

(2) The number of motor vehicle diesel fuel credits generated shall be calculated for each compliance period (as specified in § 80.530(a)(5)) as follows:

$$C = V15 - (0.80 \times Vt)$$

Where:

C = the positive number of motor vehicle diesel fuel credits generated, in gallons.

V15 = the total volume in gallons of diesel fuel produced or imported that is designated under § 80.523 as motor vehicle diesel fuel and subject to the standards of § 80.520(a) during the compliance period.

V500 = the total volume in gallons of diesel fuel produced or imported that is designated under § 80.523 as motor vehicle diesel fuel and subject to the 500 ppm sulfur standard under § 80.520(c) plus the total volume of any other diesel fuel (not including V15, diesel fuel that is dyed in accordance with § 80.520(b) at the refinery or import facility where the diesel fuel is produced or imported, or that diesel fuel that is designated as NRLM under § 80.523) represented as having a sulfur content not exceeding 500 ppm.

$$Vt = V15 + V500.$$

* * * * *

21. Section 80.532 is revised to read as follows:

§ 80.532 How are motor vehicle diesel fuel credits used and transferred?

(a) *Credit use.* Motor vehicle diesel fuel credits generated under § 80.531 may be used to meet the volume limit of § 80.530(a)(3) provided that:

(1) The motor vehicle diesel fuel credits were generated and reported according to the requirements of this subpart; and

(2) The requirements of paragraphs (b), (c), (d), and (e) of this section are met.

(b) Motor vehicle diesel fuel credits generated under § 80.531 may be used by a refinery or by an importer to comply with § 80.530 by applying one credit for every gallon of motor vehicle diesel fuel needed to meet compliance with the volume limit of § 80.530(a)(3).

(c) Motor vehicle diesel fuel credits generated may be banked for use or transfer in a later compliance period or may be transferred to another refinery or importer for use as provided in paragraph (d) of this section.

(d) *Credit transfers.* (1) Motor vehicle diesel fuel credits obtained from another refinery or from another importer, including early motor vehicle diesel fuel credits and small refiner motor vehicle diesel fuel credits as described in § 80.531 (b), (c) (d), and (e), may be used to satisfy the volume limit of § 80.530(a)(3) if all the following conditions are met:

(i) The motor vehicle diesel fuel credits were generated in the same CTA as the CTA in which motor vehicle diesel fuel credits are used to achieve compliance;

(ii) The motor vehicle diesel fuel credits are used in compliance with the time period limitations for credit use in this subpart;

(iii) Any credit transfer takes place no later than the last day of February following the compliance period when the motor vehicle diesel fuel credits are used;

(iv) No credit may be transferred more than twice, as follows: The first transfer by the refiner or importer who generated the credit may only be made to a refiner or importer who intends to use the credit; if the transferee cannot use the credit, it may make a second and final transfer only to a refiner or importer who intends to use the credit. In no case may a credit be transferred more than twice before being used or terminated;

(v) The credit transferor must apply any motor vehicle diesel fuel credits necessary to meet the transferor's annual compliance requirements before transferring motor vehicle diesel fuel credits to any other refinery or importer;

(vi) No motor vehicle diesel fuel credits may be transferred that would result in the transferor having a negative credit balance; and

(vii) Each transferor must supply to the transferee records indicating the year the motor vehicle diesel fuel credits were generated, the identity of the refiner (and refinery) or importer who generated the motor vehicle diesel fuel credits, the CTA of credit generation, and the identity of the transferring party, if it is not the same party who generated the motor vehicle diesel fuel credits.

(2) In the case of motor vehicle diesel fuel credits that have been calculated or created improperly, or are otherwise determined to be invalid, the following provisions apply:

(i) Invalid motor vehicle diesel fuel credits cannot be used to achieve compliance with the transferee's volume requirements regardless of the transferee's good faith belief that the motor vehicle diesel fuel credits were valid.

(ii) The refiner or importer who used the motor vehicle diesel fuel credits, and any transferor of the motor vehicle diesel fuel credits, must adjust their credit records, reports and compliance calculations as necessary to reflect the proper motor vehicle diesel fuel credits.

(iii) Any properly created motor vehicle diesel fuel credits existing in the transferor's credit balance after correcting the credit balance, and after the transferor applies motor vehicle diesel fuel credits as needed to meet the compliance requirements at the end of the compliance period, must first be applied to correct the invalid transfers before the transferor trades or banks the motor vehicle diesel fuel credits.

(e) *Limitations on credit use.* (1) Motor vehicle diesel fuel credits may not be used to achieve compliance with any requirements of this subpart other than the volume limit of § 80.530(a)(3), unless specifically approved by the Administrator pursuant to a hardship relief petition under § 80.560 or § 80.561.

(2) A refiner or importer possessing motor vehicle diesel fuel credits must use all motor vehicle diesel fuel credits in its possession prior to applying the credit deficit provisions of § 80.530(a)(6).

(3) No motor vehicle diesel fuel credits may be used to meet compliance with this subpart subsequent to the compliance period ending May 31, 2010.

22. A new § 80.533 is added to read as follows:

§ 80.533 How does a refiner or importer apply for a non-highway baseline percentage?

(a) The refiner or importer must submit an application to EPA that includes the information required under paragraph (c) of this section by the dates specified in paragraph (f) of this section. A refiner must apply for a non-highway baseline percentage for each refinery. An importer must apply for a non-highway baseline percentage for each CTA, as defined in § 80.531(a)(5), into which it imports NRLM fuel.

(b) The non-highway baseline percentage application must be sent to the following address: U.S. EPA—Attn: Non-highway Baseline (6406J), 1200 Pennsylvania Avenue, NW, Washington, DC 20460 (regular mail) or U.S. EPA, Attn: Non-highway Baseline, Transportation and Regional Programs Division, 501 3rd Street, NW (6406J), Washington, DC 20001 (express mail).

(c) A non-highway baseline percentage application must be submitted for each refinery or importer and include the following information:

(1) A listing of the names and addresses of all refineries or importersowned by the corporation for which the refiner or importer is applying for non-highway baseline percentages.

(2)(i) For refiners or importers, the non-highway baseline percentage for produced during the three calendar years beginning January 1 of 2003, 2004, and 2005, as calculated under paragraph (d)(1) of this section.

(ii) For refiners that so choose, in addition to the baseline percentage under paragraph (c)(2)(i) of this section, an alternate non-highway baseline percentage for fuel produced during the period from June 1, 2006 through May 31, 2007, as calculated under paragraph (d)(2) of this section.

(3) A letter signed by the president, chief operating officer of the company, or his/her delegate, stating that the information contained in the non-highway baseline determination is true to the best of his/her knowledge.

(4) Name, address, phone number, facsimile number and E-mail address of a corporate contact person.

(5) For each batch of diesel fuel or heating oil produced or imported during each 12-month baseline calculation period:

(i) The date that production was completed or importation occurred for the batch and the batch designation under § 80.523.

(ii) The batch volume; and

(iii) Whether the batch was dyed or not dyed, and if not dyed, whether the batch was exempt from the dye provisions of § 80.520(b)(2) and not defined as motor vehicle diesel fuel.

(6) Other appropriate information as requested by EPA.

(d) *Calculation of the Non-Highway Baseline Percentage, B%.* (1) Under paragraph (c)(2)(i) of this section, B% equals the average annual volume of diesel fuel and heating oil produced or imported during the three baseline calendar years that was dyed with solvent red 164 (or if exempt from the dye provision of § 80.520(b)(2), does not meet the definition of motor vehicle diesel fuel) divided by the total volume of diesel fuel and heating oil produced or imported during this period, multiplied by 100.

(2) Under paragraph (c)(2)(ii) of this section, B% equals the average annual volume of diesel fuel and heating oil produced during the period from June 1, 2006 through May 31, 2007 that was dyed with solvent red 164 (or if exempt from the dye provision of § 80.520(b)(2), does not meet the definition of motor vehicle diesel fuel) divided by the total volume of diesel fuel and heating oil produced during this period, multiplied by 100.

(3) For purposes of this section, fuel produced for export, jet fuel (JetA), and fuel specifically produced to meet military specification (such as JP–4, JP–8, and F–76), shall not be included in baseline calculations.

(e) Refineries that did not produce or import facilities that did not import diesel fuel for at least 12 months during the period from January 1, 2003 through December 31, 2005 shall be assigned a non-highway baseline percentage based on their location, as specified in the following table:

[In percentages]

PADD 1	PADD 2	PADD 3	PADD 4	Oregon and Washington	Alaska	Hawaii i	California
41	20	26	13	21	68	40	0

(f)(1) Applications submitted under paragraph (c)(2)(i) of this section must be postmarked by February 28, 2006.

(2) Applications submitted under paragraph (c)(2)(ii) of this section must be postmarked by August 1, 2007.

(g)(1) For applications submitted under paragraph (c)(2)(i) of this section, EPA will notify refiners or importers by June 1, 2006 of approval of the baselines for each of the refiner's refineries or importer's import facilities or of any deficiencies in the refiner's or importer's application.

(2) For applications submitted under paragraph (c)(2)(ii) of this section, EPA will notify refiners by December 1, 2007 regarding approval of the baselines for each of the refiner's refineries or of any deficiencies in the refiner's application.

(g) If at any time the non-highway baseline percentage submitted in accordance with the requirements of this section is determined to be incorrect, EPA will notify the refiner of the corrected baseline.

23. A new § 80.534 is added to read as follows:

§ 80.534 Use of the non-highway baseline percentage.

(a) Beginning June 1, 2007—or June 1, 2006 pursuant to the provisions of § 80.535(a)—and until June 1, 2010, a refiner or importer may use the following provisions in lieu of the dye requirements of § 80.520(b) if it has an EPA-approved non-highway baseline percentage under § 80.533.

(1) A refiner or importer must notify EPA of its intention to use these provisions by April 1, 2006, or by April 1 of any subsequent year during which it intends to use the these provisions for the first time.

(2) A separate notification is required for each refinery or each importer by the CTA into which it imports NRLM diesel fuel.

(3) The decision to use or not use these provisions shall apply for the entire calculation period, as defined below, and for the refinery's entire production volume or for the importer's entire import volume by the CTA into which it imports NRLM fuel.

(4) EPA will presume no change from the previous year in the refiner's or importer's decision to use or not use these provisions unless the refiner or importer notifies EPA by April 1 of any year during which such a change would apply.

(b) For purposes of this section:

(1) ''Calculation period'' means a 12-month period from June 1 through May 31 beginning in 2007, 2008, or 2009.

(2) ''Vtotal'' means the total volume of diesel fuel and heating oil produced or imported during a calculation period by a refinery or importer CTA, respectively.

(3) ''Vmarked'' means the total volume of heating oil produced or imported and marked with solvent yellow 124 by the refiner or importer pursuant to § 80.510(c) during a calculation period.

(4) ''B%'' is the non-highway baseline percentage approved by EPA for a refinery or importer CTA pursuant to § 80.533(d).

(5) ''Vnrlm'' = (Vtotal × B%/100) − Vmarked).

(6) ''Vmotorvehicle'' = Vtotal * (100% − B%)/100.

(c) For each calculation period:

(1) The total volume of diesel fuel designated as NRLM (including both 500 ppm diesel fuel and any high sulfur diesel fuel produced pursuant to the provisions of §§ 80.535 and 80.536) whether dyed or undyed may not be greater than Vnrlm.

(2) The volume of diesel fuel designated by a refiner or importer as motor vehicle diesel fuel pursuant to § 80.523 shall not be less than Vmotorvehicle.

(d)(1) All the requirements of this subpart applicable to motor vehicle diesel fuel shall apply to diesel fuel designated as motor vehicle diesel fuel under the provisions of this section. Except for the provisions of § 80.510(c) concerning solvent red 164, all the requirements of this subpart applicable to nonroad, locomotive and marine diesel fuel shall apply to diesel fuel designated as NRLM diesel fuel under the provisions of this section.

(2) Diesel fuel designated as motor vehicle diesel fuel and diesel fuel designated as NRLM diesel fuel under the provisions of this section may be mixed after they have been designated, or may remain commingled if designated without the fuels being physically separated, as long as the resulting fuel or mixture of fuels complies with all of the requirements that were applicable to each batch contained in the mixture.

24. A new § 80.535 is added to read as follows.

§ 80.535 How are nonroad, locomotive and marine (NRLM) diesel fuel credits generated?

(a) *Generation of high sulfur NRLM credits from June 1, 2006 through May 31, 2007.* (1) During the period June 1, 2006 through May 31, 2007, a refiner or importers may generate credits pursuant to the provisions of this section if all of the following conditions are met:

(i) The refiner or importer notifies EPA of its intention to generate credits and the period during which it will generate credits. This notification must be received by EPA at least 120 calendar days prior to the date it begins generating credits under this section;

(ii) Each batch or partial batch of NRLM diesel fuel for which credits are claimed shall be subject to all of the provisions of this subpart for NRLM diesel fuel as if it had been produced after June 1, 2007 and before June 1, 2010.

(iii) The number of nonroad high-sulfur credits (HSC) in gallons that are generated shall be a positive number.

(2) The refiner or importer shall choose one of the following methods for calculating credits for each calculation period.

(i) For fuel that is dyed per the requirements of § 80.510(c)(1)(i), HSC equals the volume of fuel in gallons produced or imported during the period identified in paragraph (a)(1)(i) of this section that is designated as NRLM diesel fuel and that is subject to and complies with the provisions of § 80.510(a); or

(ii) For dyed or undyed fuel that complies with the provisions of § 80.534 for a calculation period of June 1, 2006 through May 31, 2007, determine HSC as follows:

$$HSC = V_{510} + V_{520} - Vmotorvehicle$$

Where:

V_{510} = The total volume of fuel produced or imported during the period identified in paragraph (a)(1)(i) of this section that complies with the standards of § 80.510(a) or (b).

V_{520} = The total volume of fuel produced or imported during the period identified in paragraph (a)(1)(i) of this section that complies

with the standards of § 80.520(a) or (c).

Vmotorvehicle = Vtotal * (100% − B%)/100.

(3) High-sulfur nonroad credits shall be generated and designated as follows:

(i) Credits shall be generated separately for each importer by CTA or each refinery of a refiner.

(ii) Credits may not be generated by both a foreign refiner and by an importer for the same motor vehicle diesel fuel.

(iii) Credits shall not be generated under both § 80.531 and this section for the same diesel fuel.

(iv) Any credits generated by a foreign refiner shall be generated as provided in § 80.620(c) and this section.

(4) No credits may be generated under this paragraph after May 31, 2007.

(5) The refiner or importer must submit a report to the Administrator no later than July 31, 2007. The report must demonstrate that all the nonroad, locomotive, and marine diesel fuel produced or imported which generated credits met the applicable requirements of paragraphs (a)(1) through (a)(4) of this section. If the Administrator finds that such credits did not in fact meet the requirements of paragraphs (a)(1) through (a)(4) of this section, as applicable, or if the Administrator determines that there is insufficient information to determine the validity of such credits, the Administrator may deny the credits submitted in whole or in part.

(b) *Generation of high-sulfur NRLM credits by small refiners from June 1, 2006 through May 31, 2010.* (1) Notwithstanding the dates specified in paragraph (a) of this section, a refiner that is approved by the EPA as a small refiner under § 80.551 may generate credits under paragraph (a) of this section during any calculation period beginning June 1 of 2006, 2007, 2008, or 2009 for diesel fuel produced or imported that is designated as NRLM diesel fuel and complies with the provisions of § 80.510(a).

(2) The small refiner must submit a report to the Administrator no later than July 31 after the end of each calculation period during which credits were generated. The report must demonstrate that all the NRLM diesel fuel produced or imported which generated credits met the applicable requirements of paragraphs (a)(1) through (a)(4) of this section. If the Administrator finds that such credits did not in fact meet the requirements of paragraphs (a)(1) through (a)(4) of this section, as applicable, or if the Administrator determines that there is insufficient information to determine the validity of such credits, the Administrator may deny the credits submitted in whole or in part.

(3) In addition, a foreign refiner that is approved by the Administrator to generate credits under § 80.554 shall comply with the requirements of § 80.620.

(c) *Generation of 500 ppm nonroad credits from June 1, 2009 through May 31, 2010.* (1) During the calculation period of June 1, 2009 through May 31, 2010, a refiner or importer may generate credits pursuant to the provisions of this section if all of the following conditions are met:

(i) The refiner or importer notifies EPA of its intention to generate credits and the period during which it will generate credits. This notification must be received by EPA at least 120 calendar days prior to the date it begins generating credits under this section;

(ii) Each batch or partial batch of NRLM diesel fuel for which credits are claimed shall be subject to all of the provisions of this subpart for NR diesel fuel as if it had been produced after June 1, 2010.

(iii) The number of 500 ppm nonroad credits in gallons that are generated, C500, shall be a positive number calculated as follows:

C500 = V15 − [(100% − B%)/100 × Vtotal]

Where:

V15 = The total volume in gallons of 15 ppm diesel fuel produced or imported during the period stated under paragraph (c)(1)(i) of this section that is designated as either motor vehicle diesel fuel or nonroad diesel fuel.

Vtotal= As defined in § 80.534.

B% = As determined in § 80.534.

(2) 500 ppm nonroad credits shall be generated and designated as follows:

(i) Credits shall be generated separately for each importer by CTA or each refinery of a refiner.

(ii) Credits may not be generated by both a foreign refiner and by an importer for the same diesel fuel.

(iii) Credits shall not be generated under both § 80.531 and this section for the same diesel fuel.

(iv) Any credits generated by a foreign refiner shall be generated as provided in § 80.620(c) and this section.

(3) No credits may be generated under this paragraph after May 31, 2010.

(4) The refiner or importer must submit a report to the Administrator no later than July 31, 2010. The report must demonstrate that all the 15 ppm NR diesel fuel produced or imported which generated credits met the applicable requirements of paragraphs (c)(1) through (c)(4) of this section. If the Administrator finds that such credits did not in fact meet the requirements of paragraphs (c)(1) through (c)(4) of this section, as applicable, or if the Administrator determines that there is insufficient information to determine the validity of such credits, the Administrator may deny the credits submitted in whole or in part.

(d) *Generation of 500 ppm nonroad credits by small refiners from June 1, 2009 through May 31, 2012.* (1) Notwithstanding the dates specified in paragraph (c) of this section, a refiner that is approved by the EPA as a small refiner under § 80.551 may generate credits under paragraph (c) of this section during any calculation period beginning June 1 of 2009, 2010, or 2011 for diesel fuel produced or imported that is designated as NR diesel fuel and complies with the provisions of § 80.510(a).

(2) The small refiner must submit a report to the Administrator no later than July 31 after the end of each calculation period during which credits were generated. The report must demonstrate that all the 15 ppm NR diesel fuel produced or imported for which credits were generated met the applicable requirements of paragraphs (c)(1) through (c)(3) of this section. If the Administrator finds that such credits did not in fact meet the requirements of paragraphs (c)(1) through (c)(3) of this section, as applicable, or if the Administrator determines that there is insufficient information to determine the validity of such credits, the Administrator may deny the credits submitted in whole or in part.

(3) In addition, a foreign refiner that is approved by the Administrator to generate credits under § 80.554 shall comply with the requirements of § 80.620.

25. A new § 80.536 is added to read as follows:

§ 80.536 How are nonroad, locomotive, and marine diesel fuel credits used and transferred?

(a) *Credit use.* Credits generated under § 80.535(a) and (b) may be used to meet the nonroad, locomotive, and marine NRLM diesel fuel sulfur standard of § 80.510(a), and credits generated under § 80.535(c) and (d) may be used to meet the NR diesel fuel sulfur standard of § 80.510(b), provided that:

(1) The credits were generated and reported according to the requirements of this subpart; and

(2) The requirements of paragraphs (b), (c), (d), (e), (f), and (g) of this section are met.

(b) Credits generated under § 80.535 may be used by a refinery or an importer to comply with the diesel fuel standards of § 80.510(a) and (b) by applying one credit for every gallon of diesel fuel that does not comply with the applicable standard.

(c) Credits generated may be banked for use at a later time or may be transferred to any other refinery or importer nationwide for use as provided in paragraph (d) of this section.

(d) *Credit transfers.* (1) Credits generated under § 80.535 that are obtained from another refinery or importer may be used to comply with the diesel fuel sulfur standards of § 80.510(a) and (b) if all the following conditions are met:

(i) The credits are used in compliance with the time period limitations for credit use in this subpart;

(ii) Any credit transfer is completed no later than the last day of February following the calendar year when the credits are used to comply with a standard under paragraph (a) of this section;

(iii) No credit is transferred more than twice, as follows: The first transfer by the refiner or importer who generated the credit may only be made to a refiner or importer that intends to use the credit; if the transferee cannot use the credit, it may make a second and final transfer only to a refiner or importer who intends to use the credit. In no case may a credit be transferred more than twice before it is used or it expires;

(iv) The credit transferor applies any credits necessary to meet the transferor's annual compliance requirements before transferring credits to any other refinery or importer;

(v) No credits are transferred that would result in the transferor having a negative credit balance; and

(vi) Each transferor supplies to the transferee records indicating the year the credits were generated, the identity of the refiner (and refinery) or importer that generated the credits, and the identity of the transferor, if it is not the same party that generated the credits.

(2) In the case of credits that have been calculated or created improperly, or are otherwise determined to be invalid, the following provisions apply:

(i) Invalid credits cannot be used to achieve compliance with the transferee's volume requirements regardless of the transferee's good faith belief that the credits were valid.

(ii) The refiner or importer that used the credits, and any transferor of the credits, must adjust its credit records, reports and compliance calculations as necessary to reflect the proper credits.

(iii) Any properly created credits existing in the transferor's credit balance after correcting the credit balance, and after the transferor applies credits as needed to meet the compliance requirements at the end of the calendar year, must first be applied to correct the invalid transfers before the transferor trades or banks the credits.

(e) *Limitations on credit use.* (1) Credits may not be used to achieve compliance with any requirements of this subpart other than the standards of § 80.510(a) and (b), unless specifically approved by the Administrator pursuant to a hardship relief petition under § 80.560 or § 80.561.

(2) No credits may be used after May 31, 2012.

(f) *Use of high sulfur NRLM credits.* (1) High sulfur nonroad credits (HSC) generated under § 80.535(a) or (b) may be used on a one for one basis to meet the NRLM diesel fuel sulfur standard of § 80.510(a) from June 1, 2007 through May 31, 2010 subject to the following restrictions. Any high sulfur NRLM diesel fuel produced after June 1, 2007 through the use of credits must:

(i) Be dyed red per the provisions of § 80.510(c)(1)(i) at the point of production, importation, or redesignation under § 80.511(c);

(ii) Be associated with a product transfer document that bears a unique product code as specified in § 80.590;

(iii) Be segregated in the distribution system from any 15 ppm sulfur diesel fuel throughout the distribution system to the end-user; and

(iv) Be segregated from any 500 ppm sulfur diesel fuel in the distribution system up to the point where both fuels are dyed red per Internal Revenue Service Code (26 U.S.C. 4082).

(2) No high sulfur NRLM credits may be used subsequent to the compliance period ending May 31, 2010.

(3) Any high sulfur NRLM credits not used under the provisions of paragraph (f)(1) may be converted into 500 ppm nonroad credits on a one for one basis.

(g) *Use of 500 ppm nonroad credits.* (1) 500 ppm nonroad credits (C500) generated under § 80.535(c) or (d) or converted from high sulfur nonroad credits under paragraph (f)(3) of this section may be used on a one for one basis to meet the NR diesel fuel sulfur standard of § 80.510(b) from June 1, 2010 through May 31, 2012, subject to the restrictions in paragraphs (g)(2) and (g)(3) of this section.

(2) Any 500 ppm nonroad diesel fuel produced or imported after June 1, 2010 through the use of these credits would have to:

(i) Be dyed red per the provisions of § 80.510(c)(1)(i) at the point of production, importation, or redesignation under § 80.511(c);

(ii) Bear a unique product code as specified in § 80.590; and

(iii) Be segregated in the distribution system from any 15 ppm sulfur diesel fuel or 500 ppm sulfur locomotive and marine diesel fuel throughout the distribution system to the end-user.

(3) Refiners or importers wishing to produce or import 500 ppm sulfur nonroad diesel fuel and sell it as nonroad diesel fuel after May 31, 2010 would first have to provide EPA with a plan for EPA approval demonstrating that they will ensure the product segregation described in paragraph (g)(2)(iii) of this section.

(4) No 500 ppm sulfur credits may be used after May 31, 2012.

26. Section 80.550 is revised to read as follows:

§ 80.550 What is the definition of a motor vehicle diesel fuel small refiner or a NRLM diesel fuel small refiner under this subpart?

(a) A motor vehicle diesel fuel small refiner is defined as any person, as defined by 42 U.S.C. 7602(e), who:

(1) Produces diesel fuel at a refinery by processing crude oil through refinery processing units; and

(2) Employed an average of no more than 1,500 people, based on the average number of employees for all pay periods from January 1, 1999, to January 1, 2000; and

(3) Had an average crude capacity less than or equal to 155,000 barrels per calendar day (bpcd) for 1999; or

(4) Has been approved by EPA as a small refiner under § 80.235 and continues to meet the criteria of a small refiner under § 80.225.

(b) A NRLM diesel fuel small refiner is defined as any person, as defined by 42 U.S.C. 7602(e), who:

(1) Produces diesel fuel at a refinery by processing crude oil through refinery processing units; and

(2) Employed an average of no more than 1,500 people, based on the average number of employees for all pay periods from January 1, 2002, to January 1, 2003; and

(3) Had an average crude capacity less than or equal to 155,000 barrels per calendar day (bpcd) for 2002.

(c) For the purpose of determining the number of employees and crude capacity under paragraph (a) of this section:

(1) The refiner shall include the employees and crude capacity of any subsidiary companies, any parent company and subsidiaries of the parent company in which the parent has 50% or greater ownership, and any joint venture partners.

(2) For any refiner owned by a governmental entity, the number of employees and total crude capacity as specified in paragraph (a) of this section shall include all employees and crude production of the government to which the governmental entity is a part.

(3) Any refiner owned and controlled by an Alaska Regional or Village Corporation organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601—1629) is not considered an affiliate of such entity, or with other concerns owned by such entity solely because of their common ownership.

(d) For the purpose of determining the number of employees and crude capacity under paragraph (b) of this section:

(1) The refiner shall include the employees and crude capacity of any subsidiary companies, any parent company and subsidiaries of the parent company in which the parent has 50% or greater ownership, and any joint venture partners.

(2) For any refiner owned by a governmental entity, the number of employees and total crude capacity as specified in paragraph (b) of this section shall include all employees and crude production of the government to which the governmental entity is a part.

(3) Any refiner owned and controlled by an Alaska Regional or Village Corporation organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601—1629) is not considered an affiliate of such entity, or with other concerns owned by such entity solely because of their common ownership.

(e)(1) Notwithstanding the provisions of paragraph (a) of this section, a refiner that acquires a refinery after January 1, 2000, or reactivates a refinery that was shut down or was non-operational between January 1, 1999, and January 1, 2000, may apply for motor vehicle diesel fuel small refiner status in accordance with the provisions of § 80.551(c)(1)(ii).

(2) Notwithstanding the provisions of paragraph (b) of this section, a refiner that acquires a refinery after January 1, 2003, or reactivates a refinery that was shutdown or was non-operational between January 1, 2002, and January 1, 2003, may apply for NRLM diesel fuel small refiner status in accordance with the provisions of § 80.551(c)(2)(ii).

(f) *Ineligible parties*. The following are ineligible for the small refiner provisions:

(1)(i) For motor vehicle diesel fuel, refiners with refineries built or started up after January 1, 2000;

(ii) For NRLM diesel fuel, refiners with refineries built or started up after January 1, 2002;

(2)(i) For motor vehicle diesel fuel, persons who exceed the employee or crude oil capacity criteria under this section on January 1, 2000, but who meet these criteria after that date, regardless of whether the reduction in employees or crude oil capacity is due to operational changes at the refinery or a company sale or reorganization;

(ii) For NRLM diesel fuel, persons who exceed the employee or crude oil capacity criteria under this section on January 1, 2003, but who meet these criteria after that date, regardless of whether the reduction in employees or crude oil capacity is due to operational changes at the refinery or a company sale or reorganization;

(3) Importers; and

(4) Refiners who produce motor vehicle diesel fuel or NRLM diesel fuel other than by processing crude oil through refinery processing units.

(g)(1)(i) Refiners who qualify as motor vehicle diesel fuel small refiners under this section and subsequently employ more than 1,500 people as a result of merger with or acquisition of or by another entity, or exceed the 155,000 bpcd crude capacity limit as a result of merger with or acquisition of or by another entity after January 1, 2004, are disqualified as small refiners. If this occurs, the refiner shall notify EPA in writing no later than 20 days following this disqualifying event.

(ii) Except as provided under paragraph (g)(3) of this section, any refiner whose status changes under this paragraph shall meet the applicable standards of § 80.520 within a period of up to 24 months of the disqualifying event for any of its refineries that were previously subject to the small refiner standards of § 80.552, but no later than May 31, 2010.

(2)(i) Refiners who qualify as NRLM diesel fuel small refiners under this section and subsequently employ more than 1,500 people as a result of merger with or acquisition of or by another entity, or exceed the 155,000 bpcd crude capacity limit as a result of merger with or acquisition of or by another entity after January 1, 2004, are disqualified as small refiners. If this occurs, the refiner shall notify EPA in writing no later than 20 days following this disqualifying event.

(ii) Except as provided under paragraph (g)(3) of this section, any refiner whose status changes under this paragraph shall meet the applicable standards of § 80.510 within a period of up to 24 months of the disqualifying event for any of its refineries that were previously subject to the small refiner standards of § 80.552, but no later than the dates specified in §§ 80.554(a) or 80.554(b), as applicable.

(3) A refiner may apply to EPA for additional time to comply with the standards of §§ 80.520 or 80.510 if more than 24 months would be required for the necessary engineering, permitting, construction, and start-up work to be completed. Such applications must include detailed technical information supporting the need for additional time and a proposed amount of additional time. EPA will base a decision to approve additional time on information provided by the refiner and on other relevant information. In no case will EPA extend the compliance date beyond May 31, 2010 for a motor vehicle diesel fuel small refiner or beyond the dates specified in §§ 80.554(a) or 80.554(b), as applicable, for a NRLM diesel fuel small refiner.

27. Section 80.551 is revised to read as follows:

§ 80.551 How does a refiner obtain approval as a small refiner under this subpart?

(a)(1)(i) Applications for motor vehicle diesel fuel small refiner status must be submitted to EPA by December 31, 2001.

(ii) Applications for NRLM diesel fuel small refiner status must be submitted to EPA by December 31, 2004.

(2)(i) In the case of a refiner who acquires a refinery after January 1, 2000, or reactivates a refinery that was shutdown between January 1, 1999, and January 1, 2000, the application for motor vehicle diesel fuel small refiner status must be submitted to EPA by June 1, 2003.

(ii) In the case of a refiner who acquires a refinery after January 1, 2003, or reactivates a refinery that was shutdown between January 1, 2002, and January 1, 2003, the application for NRLM diesel fuel small refiner status must be submitted to EPA by June 1, 2006.

(b) Applications for small refiner status must be sent via certified mail with return receipt or express mail with return receipt to: U.S. EPA—Attn: Diesel Small Refiner Status (6406J), 1200 Pennsylvania Avenue, NW (6406J), Washington, DC 20460 (certified mail/return receipt) or Attn: Diesel Small Refiner Status, Transportation and Regional Programs Division (6406J), 501 3rd Street, NW, Washington, DC 20001 (express mail/return receipt).

(c) The small refiner status application must contain the following information for the company seeking small refiner status, plus any subsidiary companies, any parent company and subsidiaries of the parent company in

which the parent has 50% or greater ownership, and any joint venture partners:

(1) For motor vehicle diesel fuel small refiners:

(i) A listing of the name and address of each location where any employee worked during the 12 months preceding January 1, 2000; the average number of employees at each location based upon the number of employees for each pay period for the 12 months preceding January 1, 2000; and the type of business activities carried out at each location; or

(ii) In the case of a refiner who acquires a refinery after January 1, 2000, or reactivates a refinery that was shutdown between January 1, 1999, and January 1, 2000, a listing of the name and address of each location where any employee of the refiner worked since the refiner acquired or reactivated the refinery; the average number of employees at any such acquired or reactivated refinery during each calendar year since the refiner acquired or reactivated the refinery; and the type of business activities carried out at each location.

(2) For NRLM diesel fuel small refiners:

(i) A listing of the name and address of each location where any employee worked during the 12 months preceding January 1, 2003; the average number of employees at each location based upon the number of employees for each pay period for the 12 months preceding January 1, 2003; and the type of business activities carried out at each location; or

(ii) In the case of a refiner who acquires a refinery after January 1, 2003, or reactivates a refinery that was shutdown between January 1, 2002, and January 1, 2003, a listing of the name and address of each location where any employee of the refiner worked since the refiner acquired or reactivated the refinery; the average number of employees at any such acquired or reactivated refinery during each calendar year since the refiner acquired or reactivated the refinery; and the type of business activities carried out at each location.

(3) The total corporate crude capacity of each refinery as reported to the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE) for the most recent 12 months of operation. The information submitted to EIA is presumed to be correct. In cases where a company disagrees with this information, the company may petition EPA with appropriate data to correct the record when the company submits its application for small refiner status. EPA may accept such alternate data at its discretion.

(4) For motor vehicle diesel fuel, an indication of whether the refiner, for each refinery, is applying for:

(i) The ability to produce motor vehicle diesel fuel subject to the 500 ppm sulfur content standard under § 80.520(c) or generate credits under § 80.531, pursuant to the provisions of § 80.552(a) or (b); or

(ii) An extension of the duration of its small refiner gasoline sulfur standard under § 80.553, pursuant to the provisions of § 80.552(c).

(5) For NRLM diesel fuel, an indication of whether the refiner, for each refinery, is applying for:

(i) The ability delay compliance under § 80.554(a) or (b) or to generate NRLM diesel sulfur credits under § 80.535, pursuant to the provisions of § 80.554(c); or

(ii) An adjustment to its small refiner gasoline sulfur standard under § 80.240(a), pursuant to the provisions of § 80.554(d).

(6) A letter signed by the president, chief operating or chief executive officer of the company, or his/her designee, stating that the information contained in the application is true to the best of his/her knowledge.

(7) Name, address, phone number, facsimile number and e-mail address (if available) of a corporate contact person.

(d) For joint ventures, the total number of employees includes the combined employee count of all corporate entities in the venture.

(e) For government-owned refiners, the total employee count includes all government employees.

(f) Approval of small refiner status for refiners who apply under § 80.550(e) will be based on all information submitted under paragraph (c) of this section, except as provided in § 80.550(e).

(g) EPA will notify a refiner of approval or disapproval of small refiner status by letter. If disapproved, the refiner must comply with the sulfur standards in § 80.520 or § 80.510, as appropriate, except as otherwise provided in this subpart.

(h) If EPA finds that a refiner provided false or inaccurate information on its application for small refiner status, upon notice from EPA the refiner's small refiner status will be void *ab initio.*

(i) Upon notification to EPA, an approved small refiner may withdraw its status as a small refiner. Effective on January 1 of the year following such notification, the small refiner will become subject to the sulfur standards in § 80.520 or § 80.510, as appropriate, unless one of the other hardship provisions of this subpart apply.

28. Section 80.552 is amended by revising the section heading and paragraphs (a), (b), (c), and (e) to read as follows:

§ 80.552 What compliance options are available to motor vehicle diesel fuel small refiners?

(a) A refiner that has been approved by EPA as a motor vehicle diesel fuel small refiner under § 80.551(g) may produce motor vehicle diesel fuel subject to the 500 ppm sulfur content standard pursuant to the provisions of § 80.530, except that the volume limits of § 80.530(a)(3) shall only apply to that volume V_{500} of diesel fuel that is produced or imported during a calendar year that exceeds 105% of the baseline volume established under § 80.595. The calendar year period shall be from January 1st through December 31st. For the period June 1, 2006 through December 31, 2006, the volume limits shall only apply to that volume V_{500} that exceeds 60% of the baseline volume.

(b) A refiner that has been approved by EPA as a motor vehicle diesel fuel small refiner under § 80.551(g) may generate motor vehicle diesel fuel credits pursuant to the provisions of § 80.531, except that for purposes of § 80.531(a) the term ''Credit'' shall equal $V_{15,}$ without further adjustment.

(c) A refiner that has been approved by EPA as a motor vehicle diesel fuel small refiner under § 80.551(g) may apply for an extension of the duration of its small refiner gasoline sulfur standards pursuant to § 80.553.

* * * * *

(e) The provisions of this section shall apply separately for each refinery owned or operated by a motor vehicle diesel fuel small refiner.

29. A new § 80.554 is added to read as follows:

§ 80.554 What compliance options are available to NRLM diesel fuel small refiners?

(a) *Option 1.* A refiner that has been approved by EPA as a NRLM diesel fuel small refiner under § 80.551(g) may produce NRLM diesel fuel from June 1, 2007 through May 31, 2010 that is exempt from the standards of § 80.510(a).

(1) The volume of NRLM diesel fuel that is exempt from § 80.510(a) must be less than or equal to 105 percent of V_{NRLM} as defined in § 80.534.

(2) Any volume of NRLM diesel fuel in excess of 105 percent of V_{NRLM} will be subject to the 500 ppm sulfur standard of § 80.510(a).

(3) High-sulfur NRLM produced under this paragraph must:

(i) Be dyed red per the provisions of § 80.510(c)(1)(i) at the point of production, importation, or redesignation under § 80.511(c);

(ii) Be associated with a product transfer document that bears a unique product code as specified in § 80.590;

(iii) Be segregated in the distribution system from any 15 ppm sulfur diesel fuel throughout the distribution system to the end-user; and

(iv) Be segregated from any 500 ppm sulfur diesel fuel in the distribution system up to the point where both fuels are dyed red per Internal Revenue Service Code (26 U.S.C. 4082).

(b) *Option 2*. A refiner that has been approved by EPA as a NR diesel fuel small refiner under § 80.551(g) may produce from June 1, 2010, through May 31, 2014, NR diesel fuel subject to the standards of § 80.510(a).

(1) The volume of NR diesel fuel that may be subject to the 500 ppm sulfur standard must be equal to or less than 105 percent of V_{NRLM} as defined in § 80.534, less any volume of marked locomotive and marine diesel fuel pursuant to § 80.510(c).

(2) NR diesel fuel produced in excess of the volume allowed under paragraph (b)(1) of this section will be subject to the standards of § 80.510(b)(1).

(3) 500 ppm NR fuel produced under this paragraph must:

(i) Be dyed red per the provisions of § 80.510(c)(1)(i) at the point of production, importation, or redesignation under § 80.511(c);

(ii) Bear a unique product code as specified in § 80.590; and

(iii) Be segregated in the distribution system from any 15 ppm sulfur diesel fuel or 500 ppm sulfur locomotive and marine diesel fuel throughout the distribution system to the end-user.

(4) Refiners or importers wishing to produce or import 500 ppm sulfur NR diesel fuel and sell it as NR diesel fuel after May 31, 2010 would first have to provide EPA with a plan for EPA approval demonstrating that they will ensure the product segregation described in paragraph (3)(iii) of this section.

(c) *Option 3*. A refiner that has been approved by EPA as a NRLM diesel fuel small refiner under § 80.551(g) may generate diesel fuel credits under the provisions of § 80.535(b) and (d), except as provided in paragraph (d)(1) of this section.

(d)(1) *Option 4*. In lieu of Options 1, 2, and 3 of this section, a refiner that has been approved by EPA as a NRLM diesel fuel small refiner under § 80.551(g) may choose to adjust its small refiner gasoline sulfur standards, subject to the following conditions:

(i) The refiner must produce NRLM diesel fuel meeting the standards of § 80.510(b) by June 1, 2006 and every year thereafter until the expiration of the refiner's small refiner gasoline sulfur standards (*i.e.*, through calendar years 2007 or 2010);

(ii) The refiner must produce NRLM fuel each year or partial year under paragraph (d)(1)(i) of this section at a volume that is equal to at least 85% of $V_{NRLM,}$ as defined in § 80.534, calculated on an annual basis.

(2)(i) For a refiner meeting the conditions of (d)(1) of this section, beginning January 1, 2004, the applicable small refiner's annual average and per-gallon cap gasoline sulfur standards will be the standards of § 80.240(a) increased by a factor of 1.20 for the duration of the refiner's small refiner gasoline sulfur standards under § 80.240(a) or § 80.553 (*i.e.*, through calendar years 2007 or 2010).

(ii) In no case may the per-gallon cap exceed 450 ppm.

(3)(i) If the refiner fails to produce the necessary volume of 15 ppm NRLM fuel by June 1, 2006 under paragraph (d)(1)(i) of this section, the refiner must report this in its annual report under § 80.599, and the adjustment of gasoline sulfur standards under paragraph (d)(2)(i) of this section will be considered void as of January 1, 2004.

(ii) If such a refiner had produced gasoline above its interim gasoline sulfur standard of § 80.240(a) prior to June 1, 2006, such fuel will not be considered in violation of the small refiner standards under § 80.240(a), provided the refiner obtains and uses a quantity of gasoline sulfur credits equal to the volume of gasoline exceeding the small refiner standards multiplied by the number of parts per million by which the gasoline exceeded the small refiner standards.

(e) The provisions of this section shall apply separately for each refinery owned or operated by a NRLM diesel fuel small refiner.

30. A new § 80.555 is added to read as follows:

§ 80.555 What provisions are available to a large refiner that acquires a small refiner or one or more of its refineries?

(a) In the case of a refiner without approved small refiner status who acquires a refinery from a refiner with approved status as a motor vehicle diesel fuel small refiner or a NRLM diesel fuel small refiner under § 80.551(g), the applicable small refiner provisions of §§ 80.552 and 80.554 may apply to the acquired small refinery for a period of up to 24 months from the date of acquisition of the refinery. In no case shall this period extend beyond May 31, 2010 for a motor vehicle diesel fuel small refiner or beyond the dates specified in § 80.554(a) or (b), as applicable, for a NRLM diesel fuel small refiner.

(2) A refiner may apply to EPA for additional time to comply with the standards of §§ 80.520 or 80.510 for the acquired refinery if more than 24 months would be required for the necessary engineering, permitting, construction, and start-up work to be completed. Such applications must include detailed technical information supporting the need for additional time and a proposed amount of additional time. EPA will base a decision to approve additional time on information provided by the refiner and on other relevant information. In no case will EPA extend the compliance date beyond May 31, 2010 for a motor vehicle diesel fuel small refiner or beyond the dates specified in § 80.554(a) or (b), as applicable, for a NRLM diesel fuel small refiner.

31. Section 80.560 is amended by revising paragraphs (a), (b), (d), (e), (h), (i), (k) and (l) to read as follows:

§ 80.560 How can a refiner seek temporary relief from the requirements of this subpart in case of extreme hardship circumstances?

(a) EPA may, at its discretion, grant a refiner, for one or more of its refineries, temporary relief from some or all of the provisions of this subpart. Such relief shall be no less stringent than the small refiner compliance options specified in § 80.552 for motor vehicle diesel fuel and § 80.554 for NRLM diesel fuel. EPA may grant such relief provided that the refiner demonstrates that:

(1) Unusual circumstances exist that impose extreme hardship and significantly affect the refiner's ability to comply by the applicable date; and

(2) It has made best efforts to comply with the requirements of this subpart.

(b)(i) For motor vehicle diesel fuel, applications must be submitted to EPA by June 1, 2002 to the following address: Applications for small refiner status must be sent via certified mail with return receipt or express mail with return receipt to: U.S. EPA—Attn: Diesel Hardship (6406J), 1200 Pennsylvania Avenue, NW (6406J), Washington, DC 20460 (certified mail/return receipt) or Attn: Diesel Hardship, Transportation and Regional Programs Division, 501 3rd Street, NW (6406J), Washington, DC 20001 (express mail/return receipt). EPA reserves the right to deny applications for appropriate reasons, including unacceptable environmental impact. Approval to distribute motor

vehicle diesel fuel not subject to the 15 ppm sulfur standard may be granted for such time period as EPA determines is appropriate, but shall not extend beyond May 31, 2010.

(ii) For NRLM diesel fuel, applications must be submitted to EPA by June 1, 2005 to the following address: U.S. EPA—Attn: Diesel Hardship, 1200 Pennsylvania Avenue, NW (6406J), Washington, DC 20460 (certified mail/return receipt) or Attn: Diesel Hardship, Transportation and Regional Programs Division, 501 3rd Street, NW (6406J), Washington, DC 20001 (express mail/return receipt). EPA reserves the right to deny applications for appropriate reasons, including unacceptable environmental impact. Approval to distribute NRLM diesel fuel not subject to the 500 ppm sulfur standard may be granted for such time period as EPA determines is appropriate, but shall not extend beyond May 31, 2010. Approval to distribute NR diesel fuel not subject to the 500 ppm sulfur standard may be granted for such time period as EPA determines is appropriate, but shall not extend beyond May 31, 2014.

* * * * *

(d) Applicants must provide, at a minimum, the following information:

(1) Detailed description of efforts to obtain capital for refinery investments and efforts made to obtain credits for compliance under § 80.531 for motor vehicle diesel fuel or §§ 80.535–80.536 for NRLM or NR diesel fuel;

(2) Bond rating of entity that owns the refinery (in the case of joint ventures, include the bond rating of the joint venture entity and the bond ratings of all partners; in the case of corporations, include the bond ratings of any parent or subsidiary corporations); and

(3) Estimated capital investment needed to comply with the requirements of this subpart by the applicable date.

(e) In addition to the application requirements of paragraph (b) of this section, a refiner's application for temporary relief under this paragraph must also include a compliance plan. Such compliance plan shall demonstrate how the refiner will engage in a quality assurance testing program to ensure that the following conditions are met:

(1) Its motor vehicle diesel fuel subject solely to the sulfur standards under § 80.520(c) has not caused motor vehicle diesel fuel subject to the 15 ppm standard § 80.520(a)(1) to fail to comply with that standard; or

(2) Its NR diesel fuel subject solely to the sulfur standards under § 80.510(a) has not caused NR diesel fuel subject to the 15 ppm standard under § 80.510(b) to fail to comply with that standard.

(3) The quality assurance program must at least include periodic sampling and testing at the party's own facilities and at downstream facilities in the refiner's or importer's diesel fuel distribution system, to determine compliance with the applicable sulfur standards for both categories of motor vehicle diesel fuel; examination at the party's own facilities and at applicable downstream facilities, of product transfer documents to confirm appropriate transfers and deliveries of both products; and inspection of retailer and wholesale purchaser-consumer pump stands for the presence of the labels and warning signs required under this section. Any violations that are discovered shall be reported to EPA within 48 hours of discovery.

* * * * *

(h)(1) Refiners who are granted a hardship relief standard for any refinery, and importers of fuel subject to temporary refiner relief standards, may not distribute the diesel fuel subject to the sulfur standard under § 80.520(c) for use in model year 2007 and later vehicles and must comply with all applicable provisions of this subpart.

(2) Refiners who are granted a hardship relief standard for any refinery, and importers of fuel subject to temporary refiner relief standards, may not distribute the diesel fuel subject to the sulfur standard under § 80.510(a) for use in model year 2011 and later nonroad engines and must comply with all applicable provisions of this subpart.

(i) EPA may impose any reasonable conditions on waivers under this section, including limitations on the refinery's volume of motor vehicle diesel fuel and NRLM diesel fuel subject to temporary refiner relief standards.

* * * * *

(k) The individual refinery sulfur standard and the compliance plan will be approved or disapproved by the Administrator, and approval will be effective when the refiner (or importer, as applicable, in the case of compliance plans) receives an approval letter from EPA. If disapproved, the refiner or importer must comply with the motor vehicle diesel fuel standard under § 80.520(a)(1) by the appropriate compliance date specified in § 80.500 or the NRLM standards and compliance dates under § 80.510(a) and (b) as applicable.

(l) If EPA finds that a refiner provided false or inaccurate information on its application for hardship relief, EPA's approval of the refiners application will be void ab initio.

32. Section 80.561 is amended by revising the introductory text and paragraphs (c), (d) and (f) to read as follows:

§ 80.561 How can a refiner or importer seek temporary relief from the requirements of this subpart in case of extreme unforseen circumstances?

In appropriate extreme, unusual, and unforseen circumstances (*e.g.*, natural disaster or refinery fire) which are clearly outside the control of the refiner or importer and which could not have been avoided by the exercise of prudence, diligence and due care, EPA may permit a refiner or importer, for a brief period, to distribute motor vehicle diesel fuel or NRLM diesel fuel which does not meet the requirements of this subpart if:

* * * * *

(c) The refiner or importer can show how the requirements for motor vehicle diesel fuel or NRLM diesel fuel will be expeditiously achieved;

(d) The refiner or importer agrees to make up any air quality detriment associated with the nonconforming motor vehicle diesel fuel or NRLM diesel fuel, where practicable;

* * * * *

(f)(1) In the case of motor vehicle diesel fuel distributed under this section that does not meet the 15 ppm sulfur standard under § 80.520(a)(1), such diesel fuel shall not be distributed for use in model year 2007 or later motor vehicles, and must meet all the requirements and prohibitions of this subpart applicable to diesel fuel meeting the sulfur standard under § 80.520(c), or to diesel fuel that is not motor vehicle diesel fuel, as applicable.

(2) In the case of NR diesel fuel distributed under this section after May 31, 2010 that does not meet the 15 ppm sulfur standard under § 80.510(b), such diesel fuel shall not be distributed for use in model year 2011 or later nonroad engines, and must meet all the requirements and prohibitions of this subpart applicable to diesel fuel meeting the sulfur standard under § 80.510(a) for NRLM fuel.

(3) In the case of NR diesel fuel distributed under this section during the period June 1, 2007 and May 31, 2010 that does not meet the 500 ppm sulfur standard under § 80.510(a), such diesel fuel must meet all the requirements and prohibitions applicable to high sulfur NRLM credit fuel under § 80.536(f).

33. Section 80.570 is revised to read as follows:

§ 80.570 What labeling requirements apply to retailers and wholesale purchaser-consumers of diesel fuel beginning June 1, 2006?

(a) Any retailer or wholesale purchaser-consumer who sells,

dispenses, or offers for sale or dispensing, motor vehicle diesel fuel subject to the 500 ppm sulfur standard of § 80.520(c), must prominently and conspicuously display in the immediate area of each pump stand from which motor vehicle fuel subject to the 500 ppm standard is offered for sale or dispensing, the following legible label, in block letters of no less than 36-point bold type, printed in a color contrasting with the background:

LOW-SULFUR HIGHWAY DIESEL FUEL (500 ppm maximum)

WARNING

May damage model year 2007 and later highway vehicles and engines.

Federal Law *prohibits* use in these vehicles.

(b) Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing, motor vehicle diesel fuel subject to the 15 ppm sulfur standard of § 80.520(a)(1), must affix the following conspicuous and legible label, in block letters of no less than 36-point bold type, and printed in a color contrasting with the background, to each pump stand:

ULTRA LOW-SULFUR HIGHWAY DIESEL FUEL (15 ppm maximum)

Recommended for use in all diesel vehicles and engines.

Required for model year 2007 and later highway diesel vehicles and engines.

(c) Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing, diesel fuel for non-highway equipment that does not meet the standards for motor vehicle diesel fuel, must affix the following conspicuous and legible label, in block letters of no less than 36-point bold type, and printed in a color contrasting with the background, to each pump stand:

NON-HIGHWAY DIESEL FUEL (May Exceed 500 ppm Sulfur)

WARNING

May damage or destroy highway engines and their emission controls.

Federal Law *prohibits* use in any highway vehicle or engine.

(d) The labels required by paragraphs (a) through (c) of this section must be placed on the vertical surface of each pump housing and on each side that has gallonage and price meters. The labels shall be on the upper two-thirds of the pump, in a location where they are clearly visible.

34. A new § 80.571 is added to read as follows:

§ 80.571 What labeling requirements apply to retailers and wholesale purchaser-consumers of NR, LM, or NRLM diesel fuel or heating oil beginning June 1, 2007?

Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing, nonroad (NR), locomotive or marine (LM), or nonroad, locomotive or marine (NRLM) diesel fuel, or heating oil, must prominently and conspicuously display in the immediate area of each pump stand from which non-highway diesel fuel is offered for sale or dispensing, one of the following legible labels, as applicable, in block letters of no less than 36-point bold type, printed in a color contrasting with the background:

(a) For pumps dispensing nonroad, locomotive or marine diesel fuel meeting the 500 ppm sulfur standard of § 80.510(a):

LOW-SULFUR NON-HIGHWAY DIESEL FUEL (500 ppm Maximum)

WARNING

Not for Use In Highway Vehicles or Engines.

(b) For pumps dispensing nonroad, locomotive or marine diesel fuel meeting the 15 ppm sulfur standard of § 80.510(b):

ULTRA-LOW SULFUR NON-HIGHWAY DIESEL FUEL (15 ppm Maximum)

Required for All Model Year 2011 and Newer Nonroad Diesel Engines.

Recommended for Use in All Nonroad, Locomotive and Marine Diesel Engines.

WARNING

Not for Use in Highway Vehicles or Engines.

(c) For pumps dispensing nonroad, locomotive or marine diesel fuel not meeting, or not offered as meeting, the 500 ppm sulfur standard of § 80.510(a) or the 15 ppm sulfur standard of § 80.510(b):

HIGH-SULFUR NON-HIGHWAY DIESEL FUEL (May Exceed 500 ppm)

WARNING

Not for Use In Highway Vehicles or Engines.

Not for Use in Nonroad, Locomotive, or Marine Engines after August 31, 2010.

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel.

(d) For pumps dispensing non-highway diesel fuel for use other than in nonroad, locomotive or marine engines, such as for use in stationary diesel engines or as heating oil:

HEATING OIL (May Exceed 500 ppm Sulfur)

WARNING

Federal Law *Prohibits* Use in Highway Vehicles or Engines, or in Nonroad, Locomotive, or Marine Engines.

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel.

(e) The labels required by paragraphs (a) through (d) of this section must be placed on the vertical surface of each pump housing and on each side that has gallonage and price meters. The labels shall be on the upper two-thirds of the pump, in a location where they are clearly visible.

35. A new § 80.572 is added to read as follows:

§ 80.572 What labeling requirements apply to retailers and wholesale purchaser-consumers of NR or LM diesel fuel and heating oil beginning June 1, 2010?

Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing, nonroad (NR) or locomotive or marine (LM) diesel fuel, or heating oil, must prominently and conspicuously display in the immediate area of each pump stand from which non-highway diesel fuel is offered for sale or dispensing, one of the following legible labels, as applicable, in block letters of no less than 36-point bold type, printed in a color contrasting with the background:

(a) For pumps dispensing NR diesel fuel subject to the 500 ppm sulfur standard of § 80.510(a):

LOW-SULFUR NON-HIGHWAY DIESEL FUEL (500 ppm Maximum)

WARNING

May Damage Model Year 2011 and Newer Nonroad Engines.

Federal Law *Prohibits* Use in All Model Year 2011 and Newer Nonroad Engines.

Not for Use In Highway Vehicles or Engines.

(b) For pumps dispensing NR diesel fuel subject to the 15 ppm sulfur standard of § 80.510(b):

ULTRA-LOW SULFUR NON-HIGHWAY DIESEL FUEL (15 ppm Maximum)

Required for All Model Year 2011 and Newer Nonroad Diesel Engines.

Recommended for Use in All Nonroad, Locomotive and Marine Diesel Engines.

WARNING

Not for Use in Highway Vehicles or Engines.

(c) For pumps dispensing locomotive or marine diesel fuel subject to the 500 ppm sulfur standard of § 80.510(a):

LOW-SULFUR LOCOMOTIVE OR MARINE DIESEL FUEL (500 ppm Maximum)

WARNING

Federal Law *Prohibits* Use in Other Nonroad Engines or in Highway Vehicles or Engines.

May Damage Model Year 2007 and Newer Highway Diesel Engines and 2011 and Newer Nonroad Diesel Engines.

(d) For pumps dispensing non-highway diesel fuel for use other than in nonroad, locomotive or marine engines, such as for use in stationary diesel engines or as heating oil:

HEATING OIL (May Exceed 500 ppm Sulfur)

WARNING

Federal Law *Prohibits* Use in Highway Vehicles or Engines, or in Nonroad, Locomotive, or Marine Engines.

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel.

(e) The labels required by paragraphs (a) through (d) of this section must be placed on the vertical surface of each pump housing and on each side that has gallonage and price meters. The labels shall be on the upper two-thirds of the pump, in a location where they are clearly visible.

36. A new § 80.573 is added to read as follows:

§ 80.573 What labeling requirements apply to retailers and wholesale purchaser-consumers of NR, LM, or NRLM diesel fuel, or heating oil beginning June 1, 2014?

Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing, nonroad (NR) or locomotive or marine (LM) diesel fuel, or heating oil, must prominently and conspicuously display in the immediate area of each pump stand from which non-highway diesel fuel is offered for sale or dispensing, one of the following legible labels, as applicable, in block letters of no less than 36-point bold type, printed in a color contrasting with the background:

(a) For pumps dispensing LM diesel fuel subject to the 500 ppm sulfur standard of § 80.510(a), but not later than December 1, 2014:

LOW-SULFUR LOCOMOTIVE OR MARINE DIESEL FUEL (500 ppm Maximum)

WARNING

Federal Law *Prohibits* Use in Other Nonroad Engines or in Highway Vehicles or Engines.

May Damage Model Year 2007 and Newer Highway Diesel Engines and 2011 and Newer Nonroad Diesel Engines.

(b) For pumps dispensing NR diesel fuel subject to the 15 ppm sulfur standard of § 80.510(b), but not later than December 1, 2014:

ULTRA-LOW SULFUR NON-HIGHWAY DIESEL FUEL (15 ppm Maximum)

Required for all Nonroad Diesel Engines.

Recommended for Use in All Nonroad, Locomotive and Marine Diesel Engines.

WARNING

Not for Use in Highway Vehicles or Engines.

(c) For pumps dispensing non-highway diesel fuel for use other than in nonroad, locomotive or marine engines, such as for use in stationary diesel engines or as heating oil:

HEATING OIL (May Exceed 500 ppm Sulfur)

WARNING

Federal Law *Prohibits* Use in Highway Vehicles or Engines, or in Nonroad, Locomotive, or Marine Engines.

May Damage Engines Certified for Use on Low-Sulfur or Ultra-Low Sulfur Diesel Fuel.

(d) The labels required by paragraphs (a) through (c) of this section must be placed on the vertical surface of each pump housing and on each side that has gallonage and price meters. The labels shall be on the upper two-thirds of the pump, in a location where they are clearly visible.

37. Section 80.580 is amended by revising paragraphs (a) introductory text, (a)(2), (a)(3), (a)(4), and (b) to read as follows:

§ 80.580 What are the sampling and testing methods for sulfur?

(a) *Diesel fuel and diesel fuel additives.* The sulfur content of diesel fuel and diesel fuel additives is to be determined in accordance with this section.

* * * * *

(2) *Test method for sulfur.* (i) Until July 22, 2003, for motor vehicle diesel fuel and diesel fuel additives subject to the 15 ppm sulfur standard of § 80.520(a)(1), American Society for Testing and Materials (ASTM) standard test method D 6428–99, entitled ''Test Method for Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative Combustion and Electrochemical Detection.''

(ii) For motor vehicle diesel fuel and diesel fuel additives subject to the 500 ppm sulfur standard of § 80.520(c), and non-road, locomotive and marine diesel fuel subject to the 500 ppm sulfur standard of § 80.510(a)(1), ASTM standard test method D 2622–98, entitled ''Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry.''

(iii) Starting July 22, 2003, for motor vehicle diesel fuel and diesel fuel additives subject to the 15 ppm sulfur standard of § 80.520(a)(1), any test method approved under § 80.585.

(iv) For nonroad diesel fuel and diesel fuel additives subject to the 15 ppm standard of § 80.510(b), any test method approved under § 80.585.

(3) *Alternative test methods for sulfur.* (i) Until July 22, 2003, for motor vehicle diesel fuel and diesel fuel additives subject to the 15 ppm standard of § 80.520(a)(1), sulfur content may be determined using ASTM standard test method D 5453–00e1, entitled ''Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence,'' or ASTM D 3120–96, entitled ''Standard Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Micrcoulometry,'' provided that the refiner or importer test result is correlated with the appropriate method specified in paragraph (a)(2) of this section.

(ii) *Options for testing sulfur content of 500 ppm diesel fuel.* (A) For motor vehicle diesel fuel and diesel fuel additives subject to the 500 ppm standard of § 80.520(c), and for nonroad, locomotive and marine diesel fuel subject to the 500 ppm standard of § 80.510(a), sulfur content may be determined using ASTM D 4294–02, entitled ''Standard Test Method for Sulfur in Petroleum Products by Energy Dispersive X-Ray Fluorescence Spectrometry;'' ASTM D 5453–00e1, ''Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence,'' or ASTM D 6428–99, entitled ''Test Method for Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative Combustion and Electrochemical Detection,'' provided that the refiner or importer test result is correlated with the appropriate method

specified in paragraph (2)(ii) of this section; or

(B) For motor vehicle diesel fuel and diesel fuel additives subject to the 500 ppm standard of § 80.520(c), and for nonroad, locomotive and marine diesel fuel subject to the 500 ppm standard of § 80.510(a), sulfur content may be determined using any test method approved under § 80.585.

(4) *Adjustment Factor for downstream test results.* An adjustment factor of negative 2 ppm shall be applied to the test results, to account for test variability, but only for testing of motor vehicle diesel fuel or nonroad diesel fuel identified as subject to the 15 ppm sulfur standard of §§ 80.510(b) or 80.520(a)(1), at a downstream location as defined in § 80.500(f).

(b) *Incorporation by reference.* ASTM standard methods D 2622–98, entitled ''Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry,'' D 3120–96, entitled ''Standard Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Micrcoulometry;'' D 4294–02, entitled ''Standard Test Method for Sulfur in Petroleum Products by Energy Dispersive X-Ray Fluorescence Spectrometry;'' D 5453–00e1, entitled ''Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence;'' and D 6299–02, entitled ''Standard Practice for Applying Statistical Quality Assurance Techniques to Evaluate Analytical Measurement System Performance;'' D 6428–99, entitled ''Test Method for Total Sulfur in Light Aromatic Hydrocarbons and their Derivatives by Oxidative Combustion and Electrochemical Detection;'' are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428. Copies may be inspected at the Air Docket Section (LE–131), room M–1500, U.S. Environmental Protection Agency, Docket No. A–99–06, 401 M Street, SW., Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

38. A new § 80.581 is added to read as follows:

§ 80.581 What are the batch testing and sample retention requirements for motor vehicle and nonroad, locomotive and marine diesel fuel?

(a) Beginning on June 1, 2006 or earlier pursuant to § 80.531 for motor vehicle diesel fuel and June 1, 2010 or earlier pursuant to § 80.535 for NR, LM, or NRLM diesel fuel, each refiner and importer shall collect a representative sample from each batch of motor vehicle, NR, LM, or NRLM diesel fuel produced or imported and subject to the 15 ppm sulfur content standard. The refiner or importer shall test each sample to determine its sulfur content for compliance with the requirements of this subpart prior to the diesel fuel leaving the refinery or import facility, using an appropriate sampling and testing method as specified in § 80.580.

(b) All test results under this paragraph shall be retained for five years and must be provided to EPA upon request.

39. A new § 80.582 is added to read as follows:

§ 80.582 What are the sampling and testing methods for the fuel marker?

(a)*Sampling and testing for methods for the fuel marker.* For heating oil and LM diesel fuel subject to the fuel marker requirement in § 80.510(c), the identification of the presence and concentration of the fuel marker in diesel fuel may be determined using the test procedures qualified in accordance with the requirements in this section. For NRLM or NR subject to the provisions of §§ 80.510(c)(1)(iv) or 80.510(c)(2)(iv) the identification of the presence and concentration of the fuel marker in diesel fuel may be determined using the test procedures qualified in accordance with the requirements in this section.

(1) The sampling, sample preparation, and testing methods qualified for use in accordance with the requirements of this section may involve the use of hazardous materials, operations and equipment. This section does not address the associated safety problems which may exist. It is the responsibility of the user of the procedures specified in this section to establish appropriate safety and health practices prior their use. It is also the responsibility of the user to dispose of any byproducts which might result from conducting these procedures in a manner consistent with applicable safety and health requirements.

(2) [Reserved]

(b) *What are the precision and accuracy criteria for qualification of fuel marker test methods?* (1) Precision means the consistency of a set of measurements and is used to determine how closely analytical results can be duplicated based on repeat measurements of the same material under prescribed conditions. A precision of <0.1 mg per liter is required, as determined by performing a minimum of 20 repeat tests over a minimum of four days on samples taken from a homogeneous commercially available diesel fuel which meets the applicable industry consensus and federal regulatory specifications and which contains the fuel marker at a concentration in the range of 0.1 to 8 mg per liter. In order to qualify, the 20 results must be a series of tests on the same material and there must be a sequential record of the analysis with no omissions.

(2) Accuracy means the closeness of agreement between a measured or calculated value and the actual or specified value. An accuracy of ±0.05 mg per liter is required, as determined by performing a minimum of 10 repeat tests on each of at least two commercially available solvent yellow 124 standards, as follows:

(i) The arithmetic average of a continuous series of at least 10 tests performed on a commercially available solvent yellow 124 standard in the range of 0.1 to 1 mg per liter; and

(ii) The arithmetic average of a continuous series of at least 10 tests performed on a commercially available solvent yellow 124 standard in the range of 4 to 10 mg per liter.

(iii) In applying the tests of paragraphs (b)(2)(i) and (b)(2)(ii) of this section, individual test results shall be compensated for any known chemical interferences.

(c) *What process must a test facility follow in order to qualify a test method for determining the fuel marker content of distillate fuels and how will EPA qualify or decline to qualify a test method?*—(1) *Qualification of test methods approved by voluntary consensus-based standards bodies.* Any standard test method developed by a Voluntary Consensus-Based Standards Body, such as the American Society for Testing and Materials (ASTM) or International Standards Organization (ISO), shall be considered a qualified test method for determining the fuel marker content of distillate fuel provided that it meets the precision and accuracy criteria under paragraph (b) of this section. The qualification of a test method is limited to the single test facility that performed the testing for accuracy and precision. The individual facility must submit the accuracy and precision results for each method

following procedures established by the Administrator.

(2) *Qualification of test methods that have not been approved by a voluntary consensus-based standards body.* (i) A test method that has not been approved by a voluntary consensus-based standards body may be qualified upon approval by the Administrator. The following information must be submitted in the application for approval:

(A) Full test method documentation, including a description of the technology and/or instrumentation that makes the method functional.

(B) Information demonstrating that the test method meets the accuracy and precision criteria under paragraph (b) of this section.

(C) If requested by the Administrator, test results utilizing the method and performed on a sample of commercially available distillate fuel which meets the applicable industry consensus and federal regulatory specifications and which contains the fuel marker.

(D) Any additional information requested by the Administrator and necessary to render a decision as to qualification of the test method.

(E) The qualification of a test method is limited to the single test facility that performed the testing for accuracy and precision and any other required testing.

(3)(i) Within 90 days of receipt of all materials required to be submitted under paragraph (c)(1) or (c)(2) of this section, the Administrator shall determine whether to qualify the test method under this section. The Administrator shall qualify the test method if all materials required under this section are received and the test method meets the accuracy and precision criteria of paragraph (b) of this section.

(ii) If the Administrator does not act within 90 days of receipt, the test method shall be deemed qualified until such time as the Administrator provides written notification declining to qualify the method.

(iii) If the Administrator finds that an individual test facility has provided false or inaccurate information under this section, upon notice from the Administrator, the qualification shall be void ab initio.

(iv) The qualification of any test method under this paragraph (c) shall be valid for the duration of when the fuel marker requirements remain applicable under this subpart.

(d) *Quality control procedures for fuel marker measurement instrumentation.* A test shall not be considered a test using a qualified test method unless the following quality control procedures are performed separately for each instrument used to make measurements:

(1) Follow all mandatory provisions of ASTM D 6299–02, ''Standard Practice for Applying Statistical Quality Assurance Techniques to Evaluate Analytical Measurement System Performance,'' and construct control charts from the mandatory quality control testing prescribed in paragraph 7.1 of the method, following guidelines under A 1.5.1 for individual observation charts and A 1.5.2 for moving range charts.

(2) Follow paragraph 7.3.1 of ASTM D 6299–02 (check standards) using a standard reference material at least monthly or following any major change to the laboratory equipment or test procedure. Any deviation from the accepted reference value of a check standard greater than 0.1 mg per liter must be investigated.

(3) Retain batch samples for batches of diesel fuel subject to the fuel marker requirement for a period at least as long as the period between quality control material or check standard testing.

(4) Upon discovery of any quality control testing violation of paragraph A 1.5.1.3 or A 1.5.2.1 of ASTM D 6299–02, or any check standard deviation greater than 0.1 mg per liter, conduct an investigation and retest retained samples for fuel batches tested since the last satisfactory quality control material or check standard testing.

(5) Retain results of quality control testing and retesting of retained samples under paragraph (d)(3) of this section for five years.

(e) *Incorporation by reference.* ASTM Standard Methods D 6299–02, entitled ''Standard Practice for Applying Statistical Quality Assurance Techniques to Evaluate Analytical Measurement System Performance''. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Society for Testing and Materials, 100 Bar Harbor Dr., West Conshohocken, PA 19428. Copies may be inspected at the Air Docket Section (LE–131), room M–1500, U.S. Environmental Protection Agency, Docket No. A–99–06, 401 M Street, SW., Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

40. A new § 80.583 is added to read as follows:

§ 80.583 What alternative sampling and testing requirements apply to importers who transport motor vehicle diesel fuel or nonroad diesel fuel by truck?

Importers who import diesel fuel subject to the standard under § 80.510(b) or § 80.510(a) into the United States by truck may comply with the following requirements instead of the requirements to sample and test each batch of fuel designated as subject to the 15 ppm sulfur standard under § 80.581 otherwise applicable to importers:

(a) *Terminal testing.* For purposes of determining compliance with the 15 ppm sulfur standard, the importer may use test results for sulfur content testing conducted by the foreign truck-loading terminal operator for diesel fuel contained in the storage tank from which trucks used to transport diesel fuel designated as subject to the15 ppm sulfur content standard into the United States are loaded, provided the following conditions are met:

(1) The sampling and testing shall be performed after each receipt of diesel fuel into the storage tank, or immediately before each transfer of diesel fuel to the importer's truck.

(2) The sampling and testing shall be performed according to § 80.580.

(3) At the time of each transfer of diesel fuel to the importer's truck for import to the U.S., the importer must obtain a copy of the terminal test result that indicates the sulfur content of the truck load, or truck compartment load, as applicable.

(b) *Quality assurance program.* The importer must conduct a quality assurance program, as specified in this paragraph, for each truck loading terminal.

(1) Quality assurance samples must be obtained from the truck-loading terminal and tested by the importer, or by an independent laboratory, and the terminal operator must not know in advance when samples are to be collected.

(2) The sampling and testing must be performed using the methods specified in § 80.580.

(3) The frequency of the quality assurance sampling and testing must be at least one sample for each 50 of an importer's trucks that are loaded at a terminal, or one sample per month, whichever is more frequent.

(c) *Party required to conduct quality assurance testing.* The quality assurance program under paragraph (b) of this section shall be conducted by the importer. In the alternative, this testing may be conducted by an independent laboratory that meets the criteria under § 80.65(f)(2)(iii), provided the importer receives copies of all results of tests

conducted no later than 21 days after the sample was taken.

(d) *Assignment of batch numbers.* The importer must treat each compartment of each truck load of imported diesel fuel as a separate batch for purposes of assigning batch numbers and maintaining records under § 80.592(d), and reporting under § 80.599, except that where different compartments contain homogeneous product of identical designation (including dye or marker status, as well as the sulfur content designation), the total volume of those compartments may be treated as a single batch.

(e) *EPA inspections of terminals.* EPA inspectors or auditors must be given full and immediate access to the truck-loading terminal and any laboratory at which samples of diesel fuel collected at the terminal are analyzed, and must be allowed to conduct inspections, review records, collect diesel fuel samples and perform audits. These inspections or audits may be either announced or unannounced.

(f) *Certified Sulfur-FRDiesel and Certified Sulfur-FRNRDiesel.* This section does not apply to Certified Sulfur-FRDiesel or Certified Sulfur-FRNRDiesel as defined in § 80.620.

(g) *Effect of noncompliance.* If any of the requirements of this section are not met, all motor vehicle diesel fuel and nonroad diesel fuel imported by the truck importer during the time the requirements are not met is deemed in violation of the diesel fuel sulfur standards in § 80.510 or § 80.529(a), as applicable. Additionally, if any requirement is not met, EPA may notify the importer of the violation, and, if the requirement is not fulfilled within 10 days of notification, the truck importer may not in the future use the sampling and testing provisions in this section in lieu of the provisions in § 80.581.

41. A new § 80.584 is added to read as follows:

§ 80.584 What are the precision and accuracy criteria for approval of test methods for determining the sulfur content of diesel fuel?

(a) *Precision.* (1) For motor vehicle diesel fuel and diesel fuel additives subject to the 15 ppm sulfur standard of § 80.520(a)(1) and nonroad diesel fuel and diesel fuel additives subject to the 15 ppm standard of § 80.510(b), a standard deviation less than 0.72 ppm, computed from the results of a minimum of 20 repeat tests made over a minimum of four days on samples taken from a single homogeneous commercially available diesel fuel with a sulfur content in the range of 5–15 ppm. The 20 results must be a series of tests with a sequential record of the analyses and no omissions.

(2) For motor vehicle diesel fuel and diesel fuel additives subject to the 500 ppm standard of § 80.520(c), and for nonroad, locomotive and marine diesel fuel subject to the 500 ppm standard of § 80.510(a), of a standard deviation less than 9.68 ppm, computed from the results of a minimum of 20 repeat tests made over a minimum of four days on samples taken from a single homogeneous commercially available diesel fuel with a sulfur content in the range of 200–500 ppm. The 20 results must be a series of tests with a sequential record of the analyses and no omissions.

(b) *Accuracy.* (1) For motor vehicle diesel fuel and diesel fuel additives subject to the 15 ppm sulfur standard of § 80.520(a)(1) and nonroad diesel fuel and diesel fuel additives subject to the 15 ppm sulfur standard of § 80.510(b):

(i) The arithmetic average of a continuous series of at least 10 tests performed on a commercially available gravimetric sulfur standard in the range of 1–10 ppm sulfur shall not differ from the accepted reference value (ARV) of that standard by more than 0.54 ppm sulfur; and

(ii) The arithmetic average of a continuous series of at least 10 tests performed on a commercially available gravimetric sulfur standard in the range of 10–20 ppm sulfur shall not differ from the ARV of that standard by more than 0.54 ppm sulfur.

(iii) In applying the tests of paragraphs (b)(1)(i) and (b)(1)(ii) of this section, individual test results shall be compensated for any known chemical interferences.

(2) For motor vehicle diesel fuel and diesel fuel additives subject to the 500 ppm sulfur standard of § 80.520(c), and for nonroad, locomotive and marine diesel fuel subject to the 500 ppm sulfur standard of § 80.510(a):

(i) The arithmetic average of a continuous series of at least 10 tests performed on a commercially available gravimetric sulfur standard in the range of 100–200 ppm sulfur shall not differ from the ARV of that standard by more than 7.26 ppm sulfur; and

(ii) The arithmetic average of a continuous series of at least 10 tests performed on a commercially available gravimetric sulfur standard in the range of 400–500 ppm sulfur shall not differ from the ARV of that standard by more than 7.26 ppm sulfur.

(iii) In applying the tests of paragraphs (b)(2)(i) and (b)(2)(ii) of this section, individual test results shall be compensated for any known chemical interferences.

42. A new § 80.585 is added to read as follows:

§ 80.585 What is the process for approval of a test method for determining the sulfur content of diesel?

(a) *Approval of test methods approved by voluntary consensus-based standards bodies.* For such a method to be approved, the following information must be submitted to the Administrator by each test facility for each test method that it wishes to have approved: Any test method approved by a voluntary consensus-based standards body, such as the American Society for Testing and Materials (ASTM) or International Standards Organization (ISO), shall be approved as a test method for determining the sulfur content of diesel fuel if it meets the applicable accuracy and precision criteria under § 80.584. The approval of a test method is limited to the single test facility that performed the testing for accuracy and precision. The individual facility must submit the accuracy and precision results for each method following procedures established by the Administrator.

(b) *Approval of test methods not approved by a voluntary consensus-based standards body.* For such a method to be approved, the following information must be submitted to the Administrator by each test facility for each test method that it wishes to have approved:

(1) Full test method documentation, including a description of the technology and/or instrumentation that makes the method functional.

(2) Information demonstrating that the test method meets the applicable accuracy and precision criteria of § 80.584.

(3) If requested by the Administrator, test results from use of the method to analyze samples of commercially available fuel provided by EPA.

(4) Any additional information requested by the Administrator and necessary to render a decision as to approval of the test method.

(c)(1) Within 90 days of receipt of all materials required to be submitted under paragraphs (a) or (b) of this section, the Administrator shall determine whether the test method is approved under this section.

(2) If the Administrator determines that the test method is not approvable, within 90 days of receipt of all materials required to be submitted under paragraph (a) or (b) of this section, the Administrator will notify the applicant of the reasons for not approving the method. If the Administrator does not notify the applicant within 90 days of receipt of the application, that the test

method is not approved, then the test method shall be deemed approved.

(3) If the Administrator finds that an individual test facility has provided false or inaccurate information under this section, upon notice from the Administrator the approval shall be void *ab initio.*

(4) The approval of any test method under paragraph (b) of this section shall be valid for five (5) years from the date of approval by the Administrator and shall not be extended. If the method is later approved by a voluntary consensus-based standards body, the approval shall remain valid as long as the conditions of paragraph (a) of this section are met.

(d) *Quality assurance procedures for sulfur measurement instrumentation.* A test shall not be considered a test using an approved test method unless the following quality control procedures are performed separately for each instrument used to make measurements:

(1) Follow all mandatory provisions of ASTM D 6299–02, ''Standard Practice for Applying Statistical Quality Assurance Techniques to Evaluate Analytical Measurement System Performance,'' and construct control charts from the mandatory quality control testing prescribed in paragraph 7.1 of the practice, following guidelines under A 1.5.1 for individual observation charts and A 1.5.2 for moving range charts.

(2) Follow paragraph 7.3.1 of ASTM D 6299–02 (check standards) using a standard reference material at least monthly or following any major change to the laboratory equipment or test procedure. Any deviation from the accepted reference value of a check standard greater than 1.44 ppm (for diesel fuel subject to the 15 ppm sulfur standard) or 19.36 ppm (for diesel fuel subject to the 500 ppm sulfur standard) must be investigated.

(3) Retain samples of tested batches of diesel fuel for a period at least as long as the period between quality control material or check standard testing occasions.

(4) Upon discovery of any quality control testing violation of paragraph A 1.5.1.3 or A 1.5.2.1 of ASTM D 6299–02, or any check standard deviation greater than 1.44 ppm (for diesel fuel subject to the 15 ppm sulfur standard) or 19.36 ppm (for diesel fuel subject to the 500 ppm sulfur standard), conduct an investigation into the cause of such violation or deviation and, after restoring method performance to statistical control, retest retained samples from batches originally tested since the last satisfactory quality control material or check standard testing occasion.

43. A new § 80.586 is added to read as follows:

§ 80.586 What are record retention requirements for test methods approved under this subpart?

Each individual test facility must retain records related to the establishment of accuracy and precision values, all test method documentation, and any quality control testing and analysis under §§ 80.584–80.585, for five (5) years.

44. Section 80.590 is revised to read as follows:

§ 80.590 What are the product transfer document requirements for motor vehicle diesel fuel; nonroad, locomotive and marine diesel fuel; and heating oil?

(a) On each occasion that any person transfers custody or title to diesel fuel or heating oil, including distillates used or intended to be used as diesel fuel or heating oil, except when such fuel is dispensed into motor vehicles, nonroad equipment, or locomotives at a retail outlet or wholesale purchaser-consumer facility, the transferor must provide to the transferee documents which include the following information:

(1) The name and address of the transferor and transferee;

(2) The volume of diesel fuel which is being transferred;

(3) The location of the diesel fuel at the time of the transfer;

(4) The date of the transfer;

(5) An accurate statement of the applicable fuel designation and uses, as follows:

(i) *Undyed 15 ppm diesel fuel.* (A) For the period of June 1, 2006 and later, ''15 ppm (maximum) Undyed Ultra-Low Sulfur Diesel Fuel. For use in all diesel vehicles and engines.''

(B) [Reserved]

(ii) *Dyed 15 ppm diesel fuel.* (A) For the period of June 1, 2006 and later, ''15 ppm (maximum) Dyed Ultra-Low Sulfur Diesel Fuel. For use in all nonroad, locomotive and marine diesel engines. Not for use in highway vehicles or engines except for tax-exempt use in accordance with sec. 4082 of the Internal Revenue Code.''

(B) [Reserved]

(iii) *Undyed 500 ppm diesel fuel.* (A) For the period of June 1, 2006 through November 30, 2010, ''500 ppm (maximum) Undyed Low Sulfur Diesel Fuel. For use in Model Year 2006 and older diesel highway vehicles and engines. Also for use in nonroad, locomotive or marine diesel engines. Not for use in 2007 and newer highway vehicles or engines.''

(B) [Reserved]

(iv) *Dyed 500 ppm diesel fuel.* (A) For the period of June 1, 2006 through August 31, 2010, ''500 ppm (maximum) Dyed Low Sulfur Nonroad, Locomotive and Marine Diesel Fuel. Not for use in highway vehicles or engines except for use in Model Year 2006 and older highway diesel vehicles or engines for tax-exempt use in accordance with Sec. 4082 of the Internal Revenue Code.''

(B) For the period of September 1, 2010 through August 31, 2014, ''500 ppm (maximum) Dyed Low Sulfur Nonroad Diesel Fuel. For use in 2010 and older nonroad diesel engines. May be used in locomotive and marine diesel engines. Not for use in highway vehicles and engines or model year 2011 or later nonroad engines.''

(C) For dyed and marked locomotive and marine fuel, during the period June 1, 2010 through August 31, 2014, ''500 ppm (maximum) Dyed and Marked Low Sulfur Locomotive and Marine diesel fuel. Not for use in highway or nonroad vehicles and engines.''.

(D) For dyed locomotive and marine fuel after August 31, 2014, ''500 ppm (maximum) Dyed Low Sulfur Locomotive and Marine diesel fuel. Not for use in highway or nonroad vehicles and engines.''

(v) Dyed High Sulfur NLRM Fuel under section 80.510(d)(1), including any mixture of low sulfur and/or ultra-low sulfur diesel fuel with high sulfur NRLM Diesel Fuel.

(A) For the period June 1, 2006 through August 31, 2010, ''High Sulfur Dyed Nonroad, Locomotive, and Marine Engine Diesel fuel—sulfur content may exceed 500 ppm. Not for use in highway vehicles or engines. Not for use in any nonroad engines.''

(vi) *Heating oil.* (A) For heating oil produced or imported at any time beginning June 1, 2006, or beginning June 1, 2006 under section 80.534, ''Heating Oil. Not for use in highway vehicles or engines, nonroad engines, or locomotive or marine engines.''

(B) [Reserved]

(b) The following may be substituted for the descriptions in paragraph (a) of this section, as appropriate:

(1) ''This is high sulfur diesel fuel for use only in Guam, American Samoa, or the Northern Mariana Islands.'';

(2) ''This diesel fuel is for export use only.'';

(3) ''This diesel fuel is for research, development, or testing purposes only.'';

(4) ''This diesel fuel is for use in diesel highway vehicles or nonroad, locomotive, or marine engine equipment having an EPA-approved national security exemption only.''

(c) If undyed and/or unmarked diesel fuel is dyed and/or marked subsequent to the issuance of a product transfer document, at the time the diesel fuel is dyed and/or marked, a new product transfer document must be prepared with the language under paragraph (a)(5) of this section applicable to the changed fuel and provided to subsequent transferees.

(d) Except for transfers to truck carriers, retailers or wholesale purchaser-consumers, product codes may be used to convey the information required under this section if such codes are clearly understood by each transferee. Codes used to convey the statement in paragraphs (a)(5)(i) and (a)(5)(ii) of this section must contain the number ''15'', and codes used to convey the statement in paragraphs (a)(5)(iii) and (a)(5)(iv) of this section must contain the number ''500''. Codes used to convey the statement in paragraph (a)(5)(v) must contain the statement ''greater than 500'' or ''>500''.

(e) Beginning June 1, 2001 and ending May 31, 2005, any transfer subject to this section, which is also subject to the early credit provisions of § 80.531(b), must comply with all applicable requirements of this section.

(f) Beginning June 1, 2005 and ending May 31, 2006, any transfer subject to this section, which is also subject to the early credit requirements of § 80.531(c), must comply with all applicable requirements of this section.

45. Section 80.591 is revised to read as follows:

§ 80.591 What are the product transfer document requirements for additives to be used in diesel fuel?

(a) Except as provided in paragraphs (b) and (d) of this section, on each occasion that any person transfers custody or title to a diesel fuel additive to a party in the additive distribution system or in the diesel fuel distribution system for use downstream of the diesel fuel refiner, the transferor must provide to the transferee documents which identify the additive, and:

(1) Identify the name and address of the transferor and transferee; the date of transfer; the location at which the transfer took place; the volume of additive transferred; and

(2) Indicates compliance with the 15 ppm sulfur standard by inclusion of the following statement: ''The sulfur content of this diesel fuel additive does not exceed 15 ppm.''

(b) On each occasion that any person transfers custody or title to a diesel fuel additive subject to the requirements of § 80.521(b), to a party in the additive distribution system or in the diesel fuel distribution system for use in diesel fuel downstream of the diesel fuel refiner, the transferor must provide to the transferee documents which identify the additive, and:

(1) Identify the name and address of the transferor and transferee; the date of transfer; the location at which the transfer took place; the volume of additive transferred; and

(2) Indicate the high sulfur potential of the additive by inclusion of the following statement:

''This diesel fuel additive may exceed the federal 15 ppm sulfur standard. Improper use of this additive may result in non-complying diesel fuel.'';

(3) Includes the following information:

(i) The additive's maximum sulfur concentration;

(ii) The maximum recommended concentration in volume percent for use of the additive in diesel fuel; and

(iii) The contribution to the sulfur level of the fuel, in ppm, that would result if the additive is used at the maximum recommended concentration.

(c) Except for transfers of diesel fuel additives to truck carriers, retailers or wholesale purchaser-consumers, product codes may be used to convey the information required under paragraphs (a) and (b) of this section, if such codes are clearly understood by each transferee. Codes used to convey the statement in paragraph (a)(2) of this section must contain the number ''15'' and codes used to convey the statement in paragraph (b)(2) of this section may not contain such number.

(d) For those diesel fuel additives which are sold in containers for use by the ultimate consumer of diesel fuel, each transferor must have displayed on the additive container, in a legible and conspicuous manner, either of the following statements, as applicable:

(1) ''This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and nonroad, locomotive, and marine diesel equipment engines.''; or

(2) For those additives sold in containers for use by the ultimate consumer, with a sulfur content in excess of 15 ppm the following statement: ''This diesel fuel additive does not comply with federal ultra-low sulfur content requirements for use in model year 2007 and newer diesel motor vehicles or model year 2011 and newer diesel nonroad equipment engines.''

46. Section 80.592 is amended by revising paragraphs (a), (b)(4), and (b)(7) introductory text, redesignating paragraphs (c) through (e) as paragraphs (e) through (g), and adding new paragraphs (c) and (d) to read as follows:

§ 80.592 What records must be kept?

(a) *Records that must be kept by parties in the motor vehicle diesel fuel and diesel fuel additive distribution systems.* Beginning June 1, 2006, or for a refiner the first compliance period in which the refiner is generating early credits under § 80.531(b) or (c), whichever is earlier, any person who produces, imports, sells, offers for sale, dispenses, distributes, supplies, offers for supply, stores, or transports motor vehicle diesel fuel subject to the provisions of this subpart, must keep the following records:

(1) The applicable product transfer documents required under §§ 80.590 and 80.591;

(2) For any sampling and testing for sulfur content under §§ 80.580 and 80.581 for a batch of motor vehicle diesel fuel produced or imported and subject to the 15 ppm sulfur standard or any sampling and testing for sulfur content or as part of a quality assurance testing program, and any sampling and testing for the cetane index or aromatics content of motor vehicle diesel fuel or motor vehicle diesel fuel additives:

(i) The location, date, time and storage tank or truck identification for each sample collected;

(ii) The name and title of the person who collected the sample and the person who performed the testing; and

(iii) The results of the tests for sulfur content (including where applicable the test results with and without application of the adjustment factor under § 80.580(a)(6) or other standard content, and the volume of product in the storage tank or container from which the sample was taken; and

(3) The actions the party has taken, if any, to stop the sale or distribution of any motor vehicle diesel fuel found not to be in compliance with the sulfur standards specified in this subpart, and the actions the party has taken, if any, to identify the cause of any noncompliance and prevent future instances of noncompliance.

(b) * * *

(4) A record designating the batch as motor vehicle diesel fuel meeting the 500 ppm sulfur standard or as motor vehicle diesel fuel meeting the 15 ppm sulfur standard.

* * * * *

(7) Information regarding credits, kept separately for each calendar year compliance period, kept separately for each refinery and in the case of importers, kept separately for imports into each CTA, and designated as motor vehicle diesel fuel credits and kept

separately from NRLM credits, as follows:

* * * * *

(c) *Records that must be kept by parties in the nonroad, locomotive, and marine diesel fuel and diesel fuel additive distribution systems.* Beginning June 1, 2007, or beginning June 1, 2006 for NRLM diesel fuel produced or imported by a refiner or importer subject to the non-highway baseline starting June 1, 2006 under §§ 80.534 and 80.535, whichever is earlier, any person who produces, imports, sells, offers for sale, dispenses, distributes, supplies, offers for supply, stores, or transports nonroad, locomotive and marine diesel fuel subject to the provisions of this subpart, must keep the following records:

(1) The applicable product transfer documents required under § 80.590;

(2) For any sampling and testing for sulfur content under §§ 80.580 and 80.581 for a batch of NRLM diesel fuel produced or imported and subject to the 15 ppm sulfur standard or any sampling and testing for sulfur content as part of a quality assurance testing program, and any sampling and testing for the cetane index, aromatics content or marker under § 80.582, of NRLM diesel fuel, NRLM fuel additives or heating oil:

(i) The location, date, time and storage tank or truck identification for each sample collected;

(ii) The name and title of the person who collected the sample and the person who performed the testing;

(iii) The results of the tests for sulfur content (including where applicable the test results with and without application of the adjustment factor under § 80.580(a)(6) or other standard content, and the volume of product in the storage tank or container from which the sample was taken; and

(3) The actions the party has taken, if any, to stop the sale or distribution of any nonroad, locomotive or marine diesel fuel found not to be in compliance with the sulfur standards specified in this subpart, and the actions the party has taken, if any, to identify the cause of any noncompliance and prevent future instances of noncompliance.

(d) *Additional records to be kept by refiners and importers of nonroad, locomotive and marine diesel fuel subject to non-highway baseline, credit provisions or small refiner or hardship provisions.* Beginning June 1, 2007, or June 1, 2006, pursuant to the provisions of §§ 80.534 and 80.535, as applicable, any refiner producing diesel fuel subject to a sulfur standard under §§ 80.510, 80.536, 80.554, 80.660 or 80.561 for each of its refineries, and any importer importing such diesel fuel for each area under § 80.531(a)(5), shall keep records that include the following information for each batch of NRLM diesel fuel or heating oil produced or imported:

(1) The batch volume;

(2) The batch number, assigned under the batch numbering procedures under § 80.65(d)(3).

(3) The date of production or import.

(4) A record designating the batch as:

(i) NRLM, NR, LM or heating oil, as applicable;

(ii) Meeting the 500 ppm requirements of § 80.510(a), the 15 ppm requirements of § 80.510(b), the applicable standard under § 80.536, the applicable small refiner standard under § 80.554, or other applicable standard;

(iii) Dyed or undyed with visible evidence of dye solvent red 164; or

(iv) Marked or unmarked with solvent yellow 124.

(5) For foreign refiners, the designations and other records required to be kept under § 80.620.

(6) In the case of importers, the designations and other records required under § 80.592.

(7) Information regarding credits, kept separately for each calendar year calculation period, kept separately for each refinery and importer, and for importers, kept separately for each CTA under § 80.531(a)(5), and kept separately from motor vehicle diesel fuel credits.

(i) The number in the refiner's or importer's possession at the beginning of the of the calendar year;

(ii) The number generated;

(iii) The number used;

(iv) If any were obtained from or transferred to other parties, for each other party, its name, its EPA refiner or importer registration number consistent with § 80.597, in the case of credits generated by an importer the port and CTA of import of the diesel fuel that generated the credits, and the number obtained from, or transferred to, the other party;

(v) The number in the refiner's or importer's possession that will carry over into the subsequent calendar year compliance period; and

(vi) Commercial documents that establish each transfer of credits from the transferor to the transferee.

(8) The calculations used to determine compliance with the volume percentage requirements of this subpart;

(9) The calculations used to determine the number of credits generated;

(10) A copy of reports submitted to EPA under § 80.599.

(e) *Additional records importers must keep.* Any importer shall keep records that identify and verify the source of each batch of certified diesel fuel program foreign refiner (DFR)-Diesel and non-certified DFR-Diesel imported and demonstrate compliance with the requirements under § 80.620.

(f) *Length of time records must be kept.* The records required in this section shall be kept for five years from the date they were created, except that records relating to credit transfers shall be kept by the transferor for 5 years from the date the credits were transferred, and shall be kept by the transferee for 5 years from the date the credits were transferred, used or terminated, whichever is later.

(g) *Make records available to EPA.* On request by EPA, the records required in this section must be made available to the Administrator or the Administrator's representative. For records that are electronically generated or maintained, the equipment and software necessary to read the records shall be made available, or if requested by EPA, electronic records shall be converted to paper documents which shall be provided to the Administrator's authorized representative.

47. Section 80.594 is amended by revising the section heading to read as follows:

§ 80.594 What are the pre-compliance reporting requirements for motor vehicle diesel fuel?

48. Section 80.597 is revised to read as follows:

§ 80.597 What are the registration requirements?

The following registration requirements apply under this subpart:

(a) *Registration for motor vehicle diesel fuel.* Refiners having any refinery that is subject to a sulfur standard under § 80.520(a), and importers importing such diesel fuel, must provide EPA the information under § 80.76 no later than December 31, 2001, if such information has not been provided under the provisions of 40 CFR Part 80. In addition, for each import facility, the same identifying information as required for each refinery under § 80.76(c) must be provided.

(b) *Registration for nonroad, locomotive and marine diesel.* Refiners and importers that may produce or supply nonroad, locomotive and/or diesel fuel by June 1, 2007, must provide EPA the information under § 80.76 no later than December 31, 2004, if such information has not been provided under the provisions of 40 CFR Part 80. In addition, for each import facility, the same identifying information as required for each refinery under § 80.76(c) must be provided.

49. A new § 80.598 is added to read as follows:

§ 80.598 What are the pre-compliance reporting requirements for nonroad, locomotive and marine diesel?

(a) Beginning on June 1, 2005, and for each year until June 1, 2009, or until the entity produces or imports nonroad fuel meeting the 15 ppm standard of § 80.510(b), all refiners and importers planning to produce or import nonroad, locomotive or marine diesel fuel, shall submit the following information to EPA:

(1) Any changes to the information submitted for the company registration;

(2) Any changes to the information submitted for any refinery or import facility registration;

(3) An estimate of the annual production or importation, in gallons, of motor vehicle and nonroad, locomotive or marine fuel produced or imported at each refinery or import facility for diesel fuels produced from crude oil, and the volumes of each grade of these fuels from other sources;

(4) If expecting to participate in the credit trading program, estimates of the number of credits to be generated and/or used each year the program;

(5) Information regarding engineering plans (*e.g.*, design and construction), the status of obtaining any necessary permits, and capital commitments for making the necessary modifications to produce low sulfur nonroad, locomotive or marine fuel, and actual construction progress. The pre-compliance reports due in 2006 and later years must provide an update of the progress in each of these areas.

(b) Reports under this section may be submitted in conjunction with reports submitted under § 80.594.

50. A new § 80.599 is added to read as follows:

§ 80.599 What are the annual reporting requirements for refiners and importers of nonroad, locomotive and marine diesel fuel?

Beginning with the annual compliance period that begins June 1, 2007, or June 1, 2006 for refiners or importers who elects not to dye NRLM fuel starting June 1, 2006, any refiner or importer who produces or imports nonroad, locomotive or marine diesel fuel must submit annual compliance reports for each refinery, or for importer, that contain the information required in this section, and such other information as EPA may require.

(a) *All refiners and importers.* (1) The refiner or importer's company name and the EPA company and refinery registration number, or CTA of import information.

(2) A declaration whether the refiner or importer is electing to dye its NRLM fuel with visible evidence of dye solvent red 164 or whether it is electing to utilize the non-highway baseline under §§ 80.534–80.535 for the compliance period, and if the refiner is a small refiner, a statement of which small refiner option it is subject to.

(b) *Refiners and importers subject to the non-highway baseline.* Refiners for each refinery, or for each importer separately for each CTA, that elects to not dye its NRLM fuel and instead utilize the non-highway baseline:

(1) The total volumes of the following types of fuel produced or imported during the compliance period:

(i) 15 ppm sulfur content motor vehicle diesel fuel and NRLM diesel fuel.

(ii) 500 ppm sulfur content motor vehicle diesel fuel, nonroad diesel fuel or locomotive and marine diesel fuel.

(iii) Heating oil.

(iv) High sulfur NRLM diesel fuel.

(2) The volume percentages under § 80.534 and compliance with the requirement of § 80.534(d)(2).

(c) *Small refiners.* (1) For each refinery of small refiners subject to the provisions of §§ 80.551(g) and 80.554(a) for each compliance period starting June 1, 2007 and ending May 31, 2010, report:

(i) The total volume of NRLM diesel fuel produced that is exempt from the sulfur standard of § 80.510(a).

(ii) The total volume NRLM diesel fuel produced as defined in § 80.534.

(iii) The volume of NRLM diesel fuel produced having a sulfur content of 500 ppm or less.

(iv) The total volume, if any, of NRLM diesel fuel subject to the 500 ppm sulfur standard that had a sulfur content exceeding 500 ppm.

(2) For each refinery of small refiners subject to the provisions of §§ 80.551(g) and 80.554(b), for each compliance period starting June 1, 2010 and ending May 31, 2014, report:

(i) The total volume of NRLM diesel fuel produced subject to the 500 ppm sulfur standard of § 80.510(a).

(ii) The total volume NRLM diesel fuel produced as defined in § 80.534.

(iii) The total volume of locomotive or marine diesel fuel marked under § 80.510(c).

(iv) The volume of NRLM diesel fuel produced having a sulfur content of 15 ppm or less.

(v) The total volume, if any, of NRLM diesel fuel subject to the 15 ppm sulfur standard that had a sulfur content in excess of 15 ppm.

(3) For each refinery of a small refiner that elects to produce NRLM diesel fuel subject to the 15 ppm nonroad diesel fuel starting June 1, 2006 under §§ 80.551(g) and 80.554(d) for each compliance period report:

(i) The total volume of NRLM diesel fuel produced having a sulfur content of 15 ppm or less.

(ii) The total volume of NRLM diesel fuel produced as defined under § 80.534.

(iii) The total percentage of NRLM as defined under § 80.534 produced having a sulfur content of 15 ppm or less.

(iv) The number of credits purchased, if any, to cover any deficit as provided in § 80.554(d)(3).

(v) A report of the small refiner's progress toward compliance with the gasoline standards under §§ 80.240 and 80.255.

(d) *Credit generation and use.* Information regarding the generation, use, transfer and retirement of credits, separately by refinery and for importers separately by CTA, including:

(1) The number of credits at the beginning of the compliance period;

(2) The number of credits generated;

(3) The number of credits used;

(4) If any credits were obtained from or transferred to other refineries or import ports, for each other refinery or importer, the name, address, the EPA company registration number, and the number of credits obtained from or transferred to the other party;

(5) The number of credits retired; and

(6) The credit balance at the start and end of the compliance period.

(e) *Batch reports.* For each batch of motor vehicle diesel fuel, nonroad, locomotive and marine diesel fuel and heating oil produced or imported during the compliance period under paragraphs (b) and (c) of this section:

(1) The batch volume.

(2) The batch number assigned using the batch numbering conventions under § 80.65(d)(3) and the appropriate designation under § 80.523.

(3) The date of production or import.

(4) For each batch provide the information specified in paragraph (b)(1) of this section.

(5) The sulfur content and cetane and aromatics content of the fuel;

(6) Whether the batch was dyed with visible evidence of dye solvent red 164 before leaving the refinery or import facility or was undyed.

(7) Certification that any batch of heating oil produced or imported under the provisions of § 80.534 starting June 1, 2006 or June 1, 2007, as applicable, through May 31, 2010 was marked with the specified chemical marker pursuant to § 80.510(c) or any batch of locomotive and marine diesel fuel produced or imported starting June 1, 2010 through

May 31, 2014 was marked pursuant to § 80.510(c), before leaving the refinery or import facility.

(f) *Additional reporting requirements for importers.* Importers of NRLM diesel fuel are subject to the following additional requirements:

(1) The reporting requirements under § 80.620, if applicable.

(2) Importers must exclude certified DFR-Diesel from calculations under this section.

(g) *Report submission.* Any report required by this section shall be:

(1) On forms and following procedures specified by the Administrator of EPA;

(2) Signed and certified as meeting all the applicable requirements of this subpart by the owner or a responsible corporate officer of the refiner or importer; and

(3) Except for small refiners subject to § 80.554(d), submitted to EPA no later than August 31 each year for the prior June 1–May 31 period. Small refiners subject to the provisions of § 80.554(d), reports must be submitted the last day of February for the previous reporting period.

(h) *Sunset dates for reporting requirements under this section.*

(1) For small refiners under paragraph (c)(1) of this section, no reports shall be required under this section after August 31, 2010.

(2) For small refiners under paragraph (c)(2) of this section, no reports shall be required under this section after August 31, 2014.

(3) For small refiners under paragraph (c)(3) of this section, no reports shall be required under this section after February 28, 2010.

(4) For all other refiners, no reports shall be required under this section after August 31, 2012.

51. Section 80.600 is amended by revising the section heading and paragraphs (a), (c)(3)(iv), (c)(4)(iv), (d)(3), and (f) to read as follows:

§ 80.600 What are the requirements for obtaining an exemption for motor vehicle diesel fuel or nonroad, locomotive or marine diesel fuel used for research, development or testing purposes?

(a) *Written request for R&D exemption.* Any person may receive an exemption from the provisions of this subpart for diesel fuel used for research, development, or testing (''R&D'') purposes by submitting the information listed in paragraph (c) of this section to:

Director (6406J), Transportation and Regional Programs Division, U.S. Environmental Protection Agency, Ariel Rios Building 1200 Pennsylvania Avenue, NW., Washington, DC 20460 (postal mail); or

Director (6406J), Transportation and Regional Programs Division, U.S. Environmental Protection Agency 501 3rd Street, NW., Washington, DC 20001 (express mail/courier); and

Director (2242A), Air Enforcement Division, U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

* * * * *

(c) * * *

(3) * * *

(iv) The quantity of diesel fuel which does not comply with the requirements of §§ 80.520 through 80.526 for motor vehicle diesel fuel or § 80.510 for nonroad, locomotive or marine diesel.

(4) * * *

(iv) The manner in which the party will ensure that the R&D fuel will be segregated from motor vehicle diesel fuel or nonroad, locomotive or marine fuel, as applicable, and how fuel pumps will be labeled to ensure proper use of the R&D diesel fuel;

* * * * *

(d) * * *

(3) The R&D diesel fuel must be kept segregated from non-exempt motor vehicle diesel and/or from non-exempt nonroad, locomotive or marine fuel, as appropriate, at all points in the distribution system.

* * * * *

(f) *Effects of exemption.* Motor vehicle diesel fuel or nonroad, locomotive or marine diesel fuel that is subject to an R&D exemption under this section is exempt from other provisions of this subpart provided that the fuel is used in a manner that complies with the purpose of the program under paragraph (c) of this section and the requirements of this section.

* * * * *

52. Section 80.601 is revised to read as follows:

§ 80.601 What requirements apply to diesel fuel for use in the Territories?

The sulfur standards of § 80.520(a)(1) and (c) related to motor vehicle diesel fuel, and of § 80.510(a) and (b) related to nonroad, locomotive and marine diesel fuel, do not apply to diesel fuel that is produced, imported, sold, offered for sale, supplied, offered for supply, stored, dispensed, or transported for use in the Territories of Guam, American Samoa or the Commonwealth of the Northern Mariana Islands provided that such diesel fuel is:

(a) Designated by the refiner or importer as high sulfur diesel fuel only for use in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands;

(b) Used only in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands;

(c) Accompanied by documentation that complies with the product transfer document requirements of § 80.590(b)(1); and

(d) Segregated from non-exempt motor vehicle diesel fuel and/or from non-exempt nonroad, locomotive or marine diesel fuel at all points in the distribution system from the point the diesel fuel is designated as exempt fuel only for use in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands, while the exempt fuel is in the United States but outside these Territories.

53. Section 80.602 is amended by revising the section heading, introductory text, and paragraphs (a) and (b)(1) through (b)(4) to read as follows:

§ 80.602 What exemption applies to diesel fuel used in vehicles or nonroad engines having a national security exemption from motor vehicle emissions standards?

The motor vehicle diesel fuel standards of § 80.520(a)(1), (a)(2), and (c) and the nonroad, locomotive and marine diesel standards of § 80.510(a) and (b) do not apply to diesel fuel that is produced, imported, sold, offered for sale, supplied, offered for supply, stored, dispensed, or transported for use in vehicles or nonroad equipment for which EPA has granted a national security exemption under 40 CFR 85.1708 from motor vehicle emissions standards under 40 CFR part 86 or from nonroad emissions standards under 40 CFR Parts 89 or 1068, provided that such fuel is:

(a) Used only in tactical military motor vehicles or tactical military nonroad equipment having an EPA national security exemption from the motor vehicle emissions standards under 40 CFR 85.1708 from motor vehicle emissions standards under 40 CFR Part 86 or from nonroad emissions standards under 40 CFR part 89 or 1068; or

(b) * * *

(1) Used only in vehicles or equipment identified in paragraph (a) of this section or this paragraph (b);

(2) Accompanied by product transfer documents as required under § 80.590.

(3) Segregated from non-exempt motor vehicle diesel fuel or from non-exempt nonroad, locomotive or marine diesel fuel, as applicable at all points in the distribution system; and

(4) Dispensed from a fuel pump stand, fueling truck or tank that is labeled

under the provisions of §§ 80.570(c), 80.571, 80.572, or 80.573. Any such fuel pump stand, fueling truck or tank may also be labeled with the appropriate designation of the fuel, such as ''JP–5'' or ''JP–8''.

54. Section 80.610 is revised to read as follows:

§ 80.610 What acts are prohibited under the diesel fuel sulfur program?

Except as provided in 40 CFR 69.51 and 69.52, and in § 80.601, no person shall:

(a) *Standard, dye, marker or product segregation violation.* (1) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store or transport motor vehicle, nonroad, locomotive or marine diesel fuel, or heating oil that does not comply with the applicable standards, dye, or marker requirements under §§ 80.510 or 80.520 or the product segregation requirements under §§ 80.536 and 80.554.

(2) Except as provided in paragraph (a)(3) of this section, starting June 1, 2006, produce, import, sell, offer for sale, dispense, supply, offer for supply, store or transport any diesel fuel for use in motor vehicle or nonroad, locomotive or marine engines that contains greater than 0.12 milligrams per liter of solvent yellow 124.

(3) Starting June 1, 2010, produce, import, sell, offer for sale, dispense, supply, offer for supply, store or transport any diesel fuel for use in motor vehicles or nonroad engines that contains greater than 0.12 milligrams per liter of solvent yellow 124.

(4) Sell, offer for sale, dispense, supply, offer for supply, store or transport heating oil for use in nonroad, locomotive or marine engines.

(5) Sell, offer for sale, dispense, supply, offer for supply, store or transport locomotive or marine diesel fuel produced or imported under § 80.510(c)(2) for use in nonroad engines.

(b) *Additive violation.* (1) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store or transport any motor vehicle or nonroad diesel fuel additive for use at a downstream location that does not comply with the requirements under § 80.521(a) or (b), as applicable.

(2) Blend or permit the blending into motor vehicle diesel fuel or nonroad diesel fuel at a downstream location, or use, or permit the use, as motor vehicle diesel fuel or nonroad diesel fuel, of any additive which does not comply with the requirements of § 80.521(a) or (b), as applicable.

(c) *Used motor oil violation.* Introduce into the fuel system of model year 2007 or later diesel motor vehicles or model year 2011 or later nonroad engines or other nonroad engines certified for the use of 15 ppm sulfur content fuel, or permit the introduction into the fuel system of such vehicles or nonroad engines of used motor oil, or used motor oil blended with diesel fuel, which does not comply with the requirements of § 80.522.

(d) *Improper fuel usage violation.* (1) Introduce, or permit the introduction of, diesel fuel into model year 2007 or later diesel motor vehicles, and beginning December 1, 2010 into any diesel motor vehicle, which does not comply with the standards and dye requirements of § 80.520(a) and (b);

(2) Produce, import, sell, offer for sale, dispense, offer for supply, store, or transport for use in model year 2007 or later diesel motor vehicles, or introduce or permit the introduction into such motor vehicles, motor vehicle diesel fuel that is identified as other than diesel fuel complying with the 15 ppm sulfur standard; and beginning December 1, 2010, diesel fuel for use in or introduced into any diesel motor vehicle;

(3) Introduce, or permit the introduction of, diesel fuel into nonroad engine equipment or locomotive or marine engines which does not comply with the applicable standards, dye and marker requirements of § 80.510 or § 80.511, as applicable;

(4) Produce, import, sell, offer for sale, dispense, offer for supply, store, or transport for use in model year 2011 or later nonroad equipment diesel engines or other nonroad equipment engines certified for use of 15 ppm sulfur content fuel, or introduce or permit the introduction into such nonroad equipment engines, diesel fuel that is identified as other than diesel fuel complying with the 15 ppm sulfur standard; and beginning December 1, 2014, diesel fuel for use in or introduced into any diesel nonroad equipment;

(5) Produce, import, sell, offer for sale, dispense, offer for supply, store, or transport for use in locomotive or marine engines, or introduce or permit the introduction into locomotive or marine engines, diesel fuel not complying with the 500 ppm sulfur standard, as of the applicable dates specified in §§ 80.510 and 80.511; and beginning December 1, 2010, diesel fuel for use in any locomotive or marine engines.

(e) *Cause another party to violate.* Cause another person to commit an act in violation of paragraphs (a) through (d) of this section.

(f) *Cause violating fuel or additive to be in the distribution system.* Cause motor vehicle diesel fuel, or nonroad, locomotive or marine diesel fuel, to be in the diesel fuel distribution system which does not comply with the applicable standard, dye, marker or product segregation requirements of §§ 80.536 or 80.554 and paragraphs (a)(2) and (a)(3) of this section, or cause any motor vehicle diesel fuel additive or nonroad diesel fuel additive to be in the diesel fuel additive distribution system which does not comply with the applicable sulfur, cetane, and/or aromatics standards of § 80.521.

55. Section 80.611 is revised to read as follows:

§ 80.611 What evidence may be used to determine compliance with the prohibitions and requirements of this subpart and liability for violations of this subpart?

(a) *Compliance with sulfur, cetane, and aromatics standards and marker requirements.* Compliance with the standards in §§ 80.510, 80.520, 80.521, and 80.522 shall be determined based on the level of the applicable component or parameter, using the sampling methodologies specified in § 80.330(b), as applicable, and an approved testing methodology under the provisions of §§ 80.580—80.586 for sulfur; § 80.2(w) for cetane index; § 80.2(z) for aromatic content; and § 80.582 for fuel marker. Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the level of the applicable component or parameter in the diesel fuel or additive, or motor oil to be used in diesel fuel, if the evidence or information is relevant to whether that level would have been in compliance with the standard if the regulatory sampling and testing methodology had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than the compliance methods in this paragraph, business records, and commercial documents.

(b) *Compliance with other requirements.* Determination of compliance with the requirements of this subpart other than the standards described in paragraph (a) of this section and in §§ 80.510, 80.520, 80.521, and 80.522, and determination of liability for any violation of this subpart, may be based on information obtained from any source or location. Such information may include, but is not limited to, business records and commercial documents.

56. Section 80.612 is amended by revising paragraph (a) to read as follows:

§ 80.612 Who is liable for violations of this subpart?

(a) *Persons liable for violations of prohibited acts.* (1) *Standard, dye, marker, product segregation, additives, used motor oil, heating oil and introduction violations.* (i) Any refiner, importer, distributor, reseller, carrier, retailer, or wholesale purchaser-consumer who owned, leased, operated, controlled or supervised a facility where a violation of §§ 80.610(a) through (d) occurred, or any other person who violates § 80.610(a) through (d), is deemed liable for the applicable violation.

(ii) Any person who causes another person to violate §§ 80.610(a) through (d) is liable for a violation of § 80.610(e).

(iii) Any refiner, importer, distributor, reseller, carrier, retailer, or wholesale purchaser-consumer who produced, imported, sold, offered for sale, dispensed, supplied, offered to supply, stored, transported, or caused the transportation or storage of, diesel fuel that violates § 80.610(a), is deemed in violation of § 80.610(e).

(iv) Any person who produced, imported, sold, offered for sale, dispensed, supplied, offered to supply, stored, transported, or caused the transportation or storage of a diesel fuel additive which is used in motor vehicle diesel fuel or nonroad diesel fuel that is found to violate § 80.610(a), is deemed in violation of § 80.610(e).

(2) *Cause violating diesel fuel or additive to be in the distribution system.* Any refiner, importer, distributor, reseller, carrier, retailer, or wholesale purchaser-consumer or any other person who owned, leased, operated, controlled or supervised a facility from which diesel fuel or additive was released into the diesel fuel or additive distribution system which does not comply with the applicable standards or dye requirements of §§ 80.510, 80.511, 80.520, 80.521, 80.536 or 80.554 is deemed in violation of § 80.610(f).

(3) *Branded refiner/importer liability.* Any refiner or importer whose corporate, trade, or brand name, or whose marketing subsidiary's corporate, trade, or brand name appeared at a facility where a violation of § 80.610(a) occurred, is deemed in violation of § 80.610(a).

(4) *Carrier causation.* In order for a diesel fuel or diesel fuel additive carrier to be liable under paragraphs (a)(1)(ii), (iii) or (iv) of this section, as applicable, EPA must demonstrate, by reasonably specific showing by direct or circumstantial evidence, that the carrier caused the violation.

(5) *Parent corporation.* Any parent corporation is liable for any violations of this subpart that are committed by any subsidiary.

(6) *Joint venture.* Each partner to a joint venture is jointly and severally liable for any violation of this subpart that occurs at the joint venture facility or is committed by the joint venture operation.

* * * * *

57. Section 80.613 is revised to read as follows:

§ 80.613 What defenses apply to persons deemed liable for a violation of a prohibited act under Subpart I?

(a) *Presumptive liability defenses.* (1) Any person deemed liable for a violation of a prohibition under § 80.612 (a)(1)(i) or (iii), (a)(2), or (a)(3), will not be deemed in violation if the person demonstrates:

(i) The violation was not caused by the person or the person's employee or agent;

(ii) Product transfer documents account for fuel or additive found to be in violation and indicate that the violating product was in compliance with the applicable requirements when it was under the party's control;

(iii) The person conducted a quality assurance sampling and testing program, as described in paragraph (d) of this section, except for those parties subject to the provisions of paragraph (a)(1)(iv) or (v) of this section. A carrier may rely on the quality assurance program carried out by another party, including the party who owns the diesel fuel in question, provided that the quality assurance program is carried out properly. Retailers, wholesale purchaser-consumers, and ultimate consumers of diesel fuel are not required to conduct quality assurance programs;

(iv) For refiners and importers of diesel fuel subject to the 15 ppm standard under §§ 80.510(b) or 80.520(a)(1), or the 500 ppm sulfur standard under § 80.510(a), test results which:

(A) Were conducted according to an appropriate test methodology approved or designated under §§ 80.580 and 80.584–80.586; and

(B) Establish that, when it left the party's control, the sulfur content of the diesel fuel did not exceed the 15 ppm standard or the 500 ppm standard, as applicable;

(C) In lieu of testing for marker solvent yellow 124 concentration a refiner or importer may present evidence of an oversight program, including records of marker inventory, purchase and additization, and records of periodic inspection and calibration of additization equipment that ensures that marker is added to heating oil under § 80.510(c)(1) or locomotive and marine diesel fuel under § 80.510(c)(2) in the required concentration; and

(v) For refiners and importers of heating oil or LM diesel fuel subject to the marker requirements under § 80.510(c), data which demonstrates that when it left it left the parties custody, the marker content was greater than or equal to 0.6 mg/L; and

(vi) For any person who, at a downstream location, blends a diesel fuel additive subject to the requirements of § 80.521(b) into motor vehicle diesel fuel or nonroad diesel fuel subject to the 15 ppm sulfur standard under §§ 80.520(a) or 80.510(b), except a blender who blends additives into fuel tanker trucks at a truck loading rack subject to the provisions of (d)(2) of this section, test results which are conducted subsequent to the blending of the additive into the fuel, and which comply with the requirements of paragraphs (a)(4)(iv)(A) and (B) of this section.

(2) Any party deemed liable for a violation under § 80.612(a)(1)(iv), in regard to a diesel fuel additive subject to the requirements of § 80.521(a), will not be deemed in violation if the person demonstrates that:

(i) Product transfer document(s) account for the additive in the fuel found to be in violation, which comply with the requirements under § 80.591(a), and indicate that the additive was in compliance with the applicable requirements while it was under the party's control; and

(ii) For the additive's manufacturer or importer, test results which accurately establish that, when it left the party's control, the additive in the diesel fuel determined to be in violation did not have a sulfur content in excess of 15 ppm.

(A) Analysis of the additive sulfur content pursuant paragraph (a)(2) of this section may be conducted at the time the batch was manufactured or imported, or on a sample of that batch which the manufacturer or importer retains for such purpose for a minimum of two years from the date the batch was manufactured or imported;

(B) After two years from the date the additive batch was manufactured or imported, the additive manufacturer or importer is no longer required to retain samples for the purpose of complying with the testing requirements of this paragraph (a)(2) of this section.

(C) The analysis of the sulfur content of the additive must be conducted pursuant to the requirements of § 80.580.

(3) Any person who is deemed liable for a violation under § 80.612(a)(1)(iv) with regard to a diesel fuel additive subject to the requirements of § 80.521(b), will not be deemed in violation if the person demonstrates that:

(i) The violation was not caused by the party or the party's employee or agent;.

(ii) Product transfer document(s) which comply with the additive information requirements under § 80.591(b), account for the additive in the fuel found to be in violation, and indicate that the additive was in compliance with the applicable requirements while it was under the party's control;

(iii) For the additive's manufacturer or importer, test results which accurately establish that, when it left the party's control, the additive in the diesel fuel determined to be in violation was in conformity with the information on the additive product transfer document pursuant to the requirements of § 80.591(b). The testing procedures applicable under paragraph (a)(2) of this section, also apply under paragraph (a)(3) of this section; and

(b) *Branded refiner defenses.* In the case of a violation found at a facility operating under the corporate, trade or brand name of a refiner or importer, or a refiner's or importer's marketing subsidiary, the refiner or importer must show, in addition to the defense elements required under paragraph (a)(1) of this section, that the violation was caused by:

(1) An act in violation of law (other than the Clean Air Act or this Part 80), or an act of sabotage or vandalism;

(2) The action of any refiner, importer, retailer, distributor, reseller, oxygenate blender, carrier, retailer or wholesale purchaser-consumer in violation of a contractual agreement between the branded refiner or importer and the person designed to prevent such action, and despite periodic sampling and testing by the branded refiner or importer to ensure compliance with such contractual obligation; or

(3) The action of any carrier or other distributor not subject to a contract with the refiner or importer, but engaged for transportation of diesel fuel, despite specifications or inspections of procedures and equipment which are reasonably calculated to prevent such action.

(c) *Causation demonstration.* Under paragraph (a)(1) of this section for any person to show that a violation was not caused by that person, or under paragraph (b) of this section to show that a violation was caused by any of the specified actions, the person must demonstrate by reasonably specific showing, by direct or circumstantial evidence, that the violation was caused or must have been caused by another person and that the person asserting the defense did not contribute to that other person's causation.

(d) *Quality assurance and testing program.* To demonstrate an acceptable quality assurance program under paragraph (a)(1)(iii) of this section, a person must present evidence of the following:

(1) A periodic sampling and testing program to ensure the diesel fuel or additive the person sold, dispensed, supplied, stored, or transported, meets the applicable standards; and

(2) For those parties who, at a downstream location, blend diesel fuel additives subject to the requirements of § 80.521(b) into fuel trucks at a truck loading rack, the periodic sampling and testing program required under this paragraph (d) must ensure, by taking into account the greater risk of noncompliance created through use of a high sulfur additive, that the diesel fuel into which the additive was blended meets the applicable standards subsequent to the blending;

(3) On each occasion when diesel fuel or additive is found not in compliance with the applicable standard:

(i) The person immediately ceases selling, offering for sale, dispensing, supplying, offering for supply, storing or transporting the non-complying product; and

(ii) The person promptly remedies the violation and the factors that caused the violation (for example, by removing the non-complying product from the distribution system until the applicable standard is achieved and taking steps to prevent future violations of a similar nature from occurring).

(4) For any carrier who transports diesel fuel or additive in a tank truck, the quality assurance program required under this paragraph (d) need not include its own periodic sampling and testing of the diesel fuel or additive in the tank truck, but in lieu of such tank truck sampling and testing, the carrier shall demonstrate evidence of an oversight program for monitoring compliance with the requirements of this subpart relating to the transport or storage of such product by tank truck, such as appropriate guidance to drivers regarding compliance with the applicable sulfur standard, product segregation and product transfer document requirements, and the periodic review of records received in the ordinary course of business concerning diesel fuel or additive quality and delivery.

58. Section 80.614 is revised to read as follows:

§ 80.614 What penalties apply under this subpart?

(a) Any person liable for a violation under § 80.612 is subject to civil penalties as specified in section 205 of the Clean Air Act for every day of each such violation and the amount of economic benefit or savings resulting from each violation.

(b)(1) Any person liable under § 80.612(a)(1) for a violation of an applicable standard or requirement under §§ 80.510, 80.511, 80.520, 80.524, or 80.554, or of causing another party to violate such standard or requirement, is subject to a separate day of violation for each and every day the non-complying diesel fuel remains any place in the distribution system.

(2) Any person liable under § 80.612(a)(2) for causing motor vehicle diesel fuel or nonroad, locomotive or marine diesel fuel, or heating oil, to be in the distribution system which does not comply with an applicable standard or requirement of §§ 80.510, 80.511, or 80.520 is subject to a separate day of violation for each and every day that the non-complying diesel fuel remains any place in the diesel fuel distribution system.

(3) Any person liable under § 80.612(a)(1) for blending into diesel fuel an additive violating the applicable sulfur standard pursuant to the requirements of § 80.521(a) or (b), as appropriate, or of causing another party to so blend or add such an additive, is subject to a separate day of violation for each and every day the motor vehicle diesel fuel or nonroad diesel fuel into which the noncomplying additive was blended, remains any place in the fuel distribution system.

(4) For purposes of this paragraph (b), the length of time the motor vehicle diesel fuel or nonroad, locomotive or marine diesel fuel, or heating oil in question remained in the diesel fuel distribution system is deemed to be twenty-five days, unless a person subject to liability or EPA demonstrates by reasonably specific showings, by direct or circumstantial evidence, that the non-complying motor vehicle, nonroad, locomotive or marine diesel fuel, or heating oil, remained in the distribution system for fewer than or more than twenty-five days.

(c) Any person liable under § 80.612(b) for failure to meet, or

causing a failure to meet, a provision of this subpart is liable for a separate day of violation for each and every day such provision remains unfulfilled.

59. Section 80.620 is revised to read as follows:

§ 80.620 What are the additional requirements for diesel fuel produced by foreign refineries subject to a temporary refiner compliance option, non-highway baseline, hardship provisions, or motor vehicle or nonroad locomotive and marine diesel fuel credit provisions?

(a) *Definitions.* (1) A foreign refinery is a refinery that is located outside the United States, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (collectively referred to in this section as ''the United States'').

(2) A foreign refiner is a person who meets the definition of refiner under § 80.2(i) for a foreign refinery.

(3) A diesel fuel program foreign refiner (''DFR'') is a foreign refiner that has been approved by EPA for participation in any motor vehicle diesel fuel or nonroad, locomotive or marine diesel fuel provision of §§ 80.530 through 80.536, 80.540, 80.552, 80.553, 80.554, 80.560 or 80.561 (collectively referred to as ''diesel foreign refiner program'').

(4) ''DFR-Diesel'' means diesel fuel produced at a DFR refinery that is imported into the United States.

(5) ''Non-DFR-Diesel'' means diesel fuel that is produced at a foreign refinery that has not been approved as a DFR foreign refiner, diesel fuel produced at a DFR foreign refinery that is not imported into the United States, and diesel fuel produced at a DFR foreign refinery during a period when the foreign refiner has opted to not participate in the DFR-Diesel foreign refiner program under paragraph (c)(3) of this section.

(6) ''Certified DFR-Diesel'' means DFR-Diesel the foreign refiner intends to include in the foreign refinery's compliance calculations under any provisions of §§ 80.530 through 80.536, 80.540, 80.552, 80.553, 80.554, 80.560 or 80.561 and does include in these compliance calculations when reported to EPA.

(7) ''Non-Certified DFR-Diesel'' means DFR-Diesel fuel that a DFR foreign refiner imports to the United States that is not Certified DFR-Diesel.

(b) *Baseline.* For any foreign refiner to obtain approval under the diesel foreign refiner program of subpart I of this part for any refinery, it must apply for approval under the applicable provisions of subpart I of this part. To obtain approval the refiner is required, as applicable, to demonstrate a volume baseline for calendar years 1998 and 1999 for motor vehicle diesel fuel produced for use in the United States under §§ 80.595 and 80.596 or a non-highway baseline for diesel fuel and heating oil produced for use in the United States for the calendar years 2003 through 2005 under §§ 80.533 and 80.534.

(1) The refiner shall follow the procedures, applicable to volume baselines and using diesel fuel, or if applicable, heating oil, instead of gasoline, in §§ 80.91 through 80.93 to establish the volume of motor vehicle diesel fuel that was produced at the refinery and imported into the United States during 1998 and 1999 for purposes of establishing a baseline under §§ 80.595 and 80.596 or of diesel fuel and heating oil produced at the refinery and imported into the United States for the calendar years 2003 through 2005 for the purposes of establishing a baseline under § 80.533.

(2) In making determinations for foreign refinery baselines EPA will consider all information supplied by a foreign refiner, and in addition may rely on any and all appropriate assumptions necessary to make such determinations.

(3) Where a foreign refiner submits a petition that is incomplete or inadequate to establish an accurate baseline, and the refiner fails to correct this deficiency after a request for more information, EPA will not assign an individual refinery motor vehicle diesel fuel volume baseline or a non-highway baseline.

(c) *General requirements for DFR foreign refiners.* A foreign refiner of a refinery that is approved under the diesel foreign refiner program of 40 CFR part 80, subpart I, must designate each batch of diesel fuel produced at the foreign refinery that is exported to the United States as either Certified DFR-Diesel or as Non-Certified DFR-Diesel, except as provided in paragraph (c)(3) of this section. It must further designate all Certified DFR-Diesel as provided in § 80.523, and designate whether the diesel fuel is dyed or undyed, for heating oil whether it is marked under § 80.510(c)(1) and for locomotive or marine fuel, whether it is marked under § 80.510(c)(2). It must further designate any credits earned as either nonroad diesel credits or motor vehicle diesel credits.

(1) In the case of Certified DFR-Diesel, the foreign refiner must meet all requirements that apply to refiners under this subpart I, except that:

(i) For purposes of complying with the compliance option requirements of § 80.530, motor vehicle diesel fuel produced by a foreign refinery must comply separately for each Credit Trading Area of import, as defined in § 80.531(a)(5).

(ii) For purposes of complying with the compliance option requirements of § 80.530, credits obtained from any other refinery or from any importer must have been generated in the same Credit Trading Area as the Credit Trading Area of import of the fuel for which credits are needed to achieve compliance.

(iii) For purposes of generating credits under § 80.531, credits shall be generated separately by Credit Trading Area of import and shall be designated by Credit Trading Area of importation and by port of importation.

(2) In the case of Non-Certified DFR-Diesel, the foreign refiner shall meet all the following requirements:

(i) The designation requirements in this section.

(ii) The reporting requirements in this section and §§ 80.593, 80.598 and 80.599.

(iii) The product transfer document requirements in this section and §§ 80.590 and 80.591.

(iv) The prohibitions in this section and § 80.610.

(3)(i) Any foreign refiner that has been approved to produce diesel fuel subject to the diesel foreign refiner program for a foreign refinery under subpart I may elect to classify no diesel fuel imported into the United States as DFR-Diesel provided the foreign refiner notifies EPA of the election no later than November 1 of the prior calendar year.

(ii) An election under paragraph (c)(3)(i) of this section shall be for an entire calendar year and apply to all diesel fuel that is produced by the foreign refinery that is imported into the United States, and shall remain in effect for each succeeding year unless and until the foreign refiner notifies EPA of the termination of the election. The change in election shall take effect at the beginning of the next calendar year.

(d) *Designation, product transfer documents, and foreign refiner certification.* (1) Any foreign refiner of a foreign refinery that has been approved by EPA to produce diesel fuel subject to the diesel foreign refiner program must designate each batch of DFR-Diesel as such at the time the diesel fuel is produced, unless the refiner has elected to classify no diesel fuel exported to the United States as DFR-Diesel under paragraph (c)(3) of this section.

(2) On each occasion when any person transfers custody or title to any DFR-Diesel prior to its being imported into the United States, it must include

the following information as part of the product transfer document information in this section:

(i) Designation of the diesel fuel as Certified DFR-Diesel or as Non-Certified DFR-Diesel, and if it is Certified DFR-Diesel, further designate the fuel pursuant to § 80.523, and whether the diesel fuel is dyed or undyed, for heating oil whether it is marked under § 80.510(c)(1) and for locomotive or marine fuel, whether it is marked under § 80.510(c)(2), and all other applicable product transfer document information required under § 80.590; and

(ii) The name and EPA refinery registration number (under § 80.593) of the refinery where the DFR-Diesel was produced.

(3) On each occasion when DFR-Diesel is loaded onto a vessel or other transportation mode for transport to the United States, the foreign refiner shall prepare a certification for each batch of the DFR-Diesel that meets the following requirements.

(i) The certification shall include the report of the independent third party under paragraph (f) of this section, and the following additional information:

(A) The name and EPA registration number of the refinery that produced the DFR-Diesel;

(B) The identification of the diesel fuel as Certified DFR-Diesel or Non-Certified DFR-Diesel;

(C) The volume of DFR-Diesel being transported, in gallons;

(D) In the case of Certified DFR-Diesel:

(*1*) The sulfur content as determined under paragraph (f) of this section, and the applicable designations stated in paragraph (d)(2)(i) of this section; and

(*2*) A declaration that the DFR-Diesel is being included in the applicable compliance calculations required by the EPA under subpart I.

(ii) The certification shall be made part of the product transfer documents for the DFR–Diesel.

(e) *Transfers of DFR-Diesel to non-United States markets.* The foreign refiner is responsible to ensure that all diesel fuel classified as DFR-Diesel is imported into the United States. A foreign refiner may remove the DFR-Diesel classification, and the diesel fuel need not be imported into the United States, but only if:

(1)(i) The foreign refiner excludes:

(A) The volume of diesel from the refinery's compliance report under §§ 80.593 or 80.599; and

(B) In the case of Certified DFR-Diesel, the volume of the diesel fuel from the compliance report under § 80.593 or § 80.599.

(ii) The exclusions under paragraph (e)(1)(i) of this section shall be on the basis of the designations under § 80.523 and this section and volumes determined under paragraph (f) of this section; and

(2) The foreign refiner obtains sufficient evidence in the form of documentation that the diesel fuel was not imported into the United States.

(f) *Load port independent sampling, testing and refinery identification.* (1) On each occasion that DFR-Diesel is loaded onto a vessel for transport to the United States a foreign refiner shall have an independent third party:

(i) Inspect the vessel prior to loading and determine the volume of any tank bottoms;

(ii) Determine the volume of DFR-Diesel loaded onto the vessel (exclusive of any tank bottoms before loading);

(iii) Obtain the EPA-assigned registration number of the foreign refinery;

(iv) Determine the name and country of registration of the vessel used to transport the DFR-Diesel to the United States; and

(v) Determine the date and time the vessel departs the port serving the foreign refinery.

(2) On each occasion that Certified DFR-Diesel is loaded onto a vessel for transport to the United States a foreign refiner shall have an independent third party:

(i) Collect a representative sample of the Certified DFR-Diesel from each vessel compartment subsequent to loading on the vessel and prior to departure of the vessel from the port serving the foreign refinery;

(ii) Determine the sulfur content value for each compartment, and if applicable, the marker content under § 80.510(c) using an approved methodology as specified in § 80.580 and § 80.582 by:

(A) The third party analyzing each sample; or

(B) The third party observing the foreign refiner analyze the sample;

(iii) Review original documents that reflect movement and storage of the certified DFR-Diesel from the refinery to the load port, and from this review determine:

(A) The refinery at which the DFR-Diesel was produced; and

(B) That the DFR-Diesel remained segregated from:

(*1*) Non-DFR-Diesel and Non-Certified DFR-Diesel; and

(*2*) Other Certified DFR-Diesel produced at a different refinery;

(3) The independent third party shall submit a report:

(i) To the foreign refiner containing the information required under paragraphs (f)(1) and (f)(2) of this section, to accompany the product transfer documents for the vessel; and

(ii) To the Administrator containing the information required under paragraphs (f)(1) and (f)(2) of this section, within thirty days following the date of the independent third party's inspection. This report shall include a description of the method used to determine the identity of the refinery at which the diesel fuel was produced, assurance that the diesel fuel remained segregated as specified in paragraph (n)(1) of this section, and a description of the diesel fuel's movement and storage between production at the source refinery and vessel loading.

(4) The independent third party must:

(i) Be approved in advance by EPA, based on a demonstration of ability to perform the procedures required in this paragraph (f);

(ii) Be independent under the criteria specified in § 80.65(e)(2)(iii); and

(iii) Sign a commitment that contains the provisions specified in paragraph (i) of this section with regard to activities, facilities and documents relevant to compliance with the requirements of this paragraph (f).

(g) *Comparison of load port and port of entry testing.* (1)(i) Any foreign refiner and any United States importer of Certified DFR-Diesel shall compare the results from the load port testing under paragraph (f) of this section, with the port of entry testing as reported under paragraph (o) of this section, for the volume of diesel fuel and the sulfur content value; except that;

(ii) Where a vessel transporting Certified DFR-Diesel off loads this diesel fuel at more than one United States port of entry, and the conditions of paragraph (g)(2)(i) of this section are met at the first United States port of entry, the requirements of paragraph (g)(2) of this section do not apply at subsequent ports of entry if the United States importer obtains a certification from the vessel owner that meets the requirements of paragraph (s) of this section, that the vessel has not loaded any diesel fuel or blendstock between the first United States port of entry and the subsequent port of entry.

(2)(i) The requirements of this paragraph (g)(2) apply if:

(A) The temperature-corrected volumes determined at the port of entry and at the load port differ by more than one percent; or

(B) The sulfur content value determined at the port of entry is higher than the sulfur content value determined at the load port, and the amount of this difference is greater than the reproducibility amount specified for the port of entry test result by the American Society of Testing and Materials (ASTM) for a test method used

for testing the port of entry sample under the provisions § 80.580.

(ii) The United States importer and the foreign refiner shall treat the diesel fuel as Non-Certified DFR-Diesel, and the foreign refiner shall exclude the diesel fuel volume from its diesel fuel volumes calculations and sulfur standard designations under § 80.523.

(h) *Attest requirements.* Refiners, for each calendar year, must arrange to have an attest engagement performed of the underlying documentation that forms the basis of any report required under this subpart I. The attest engagement must comply with the procedures and requirements that apply to refiners under §§ 80.125 through 80.130 and must be submitted to the Administrator of EPA by May 30 of each year for the prior calendar year. The following additional procedures shall be carried out for any foreign refiner of DFR-Diesel.

(1) The inventory reconciliation analysis under § 80.128(b) and the tender analysis under § 80.128(c) shall include Non-DFR-Diesel.

(2) Obtain separate listings of all tenders of Certified DFR-Diesel and of Non-Certified DFR-Diesel, and obtain separate listings of Certified DFR-Diesel based on whether it is 15 ppm sulfur content diesel fuel, 500 ppm sulfur content diesel fuel or high sulfur fuel having a sulfur content greater than 500 ppm (and if so, whether the fuel is marked heating oil or small refiner diesel fuel or diesel fuel produced through the use of credits). Agree the total volume of tenders from the listings to the diesel fuel inventory reconciliation analysis in § 80.128(b), and to the volumes determined by the third party under paragraph (f)(1) of this section.

(3) For each tender under paragraph (h)(2) of this section, where the diesel fuel is loaded onto a marine vessel, report as a finding the name and country of registration of each vessel, and the volumes of DFR-Diesel loaded onto each vessel.

(4) Select a sample from the list of vessels identified in paragraph (h)(3) of this section used to transport Certified DFR-Diesel, in accordance with the guidelines in § 80.127, and for each vessel selected perform the following:

(i) Obtain the report of the independent third party, under paragraph (f) of this section, and of the United States importer under paragraph (o) of this section.

(A) Agree the information in these reports with regard to vessel identification, diesel fuel volumes and sulfur content test results.

(B) Identify, and report as a finding, each occasion the load port and port of entry sulfur content and volume results differ by more than the amounts allowed in paragraph (g) of this section, and determine whether the foreign refiner adjusted its refinery calculations as required in paragraph (g) of this section.

(ii) Obtain the documents used by the independent third party to determine transportation and storage of the Certified DFR-Diesel from the refinery to the load port, under paragraph (f) of this section. Obtain tank activity records for any storage tank where the Certified DFR-Diesel is stored, and pipeline activity records for any pipeline used to transport the Certified DFR-Diesel, prior to being loaded onto the vessel. Use these records to determine whether the Certified DFR-Diesel was produced at the refinery that is the subject of the attest engagement, and whether the Certified DFR-Diesel was mixed with any Non-Certified DFR-Diesel, Non-DFR-Diesel, or any Certified DFR-Diesel produced at a different refinery.

(5)(i) Select a sample from the list of vessels identified in paragraph (h)(3) of this section used to transport certified and Non-Certified DFR-Diesel, in accordance with the guidelines in § 80.127, and for each vessel selected perform the following:

(ii) Obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure of the vessel, and the port of entry and date of arrival of the vessel. Agree the vessel's departure and arrival locations and dates from the independent third party and United States importer reports to the information contained in the commercial document.

(6) Obtain separate listings of all tenders of Non-DFR-Diesel, and perform the following:

(i) Agree the total volume and sulfur content of tenders from the listings to the diesel fuel inventory reconciliation analysis in § 80.128(b).

(ii) Obtain a separate listing of the tenders under paragraph (h)(6) of this section where the diesel fuel is loaded onto a marine vessel. Select a sample from this listing in accordance with the guidelines in § 80.127, and obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure and the ports and dates where the diesel fuel was off loaded for the selected vessels. Determine and report as a finding the country where the diesel fuel was off loaded for each vessel selected.

(7) In order to complete the requirements of this paragraph (h) an auditor shall:

(i) Be independent of the foreign refiner;

(ii) Be licensed as a certified public accountant in the United States and a citizen of the United States, or be approved in advance by EPA based on a demonstration of ability to perform the procedures required in §§ 80.125 through 80.130 and this paragraph (h); and

(iii) Sign a commitment that contains the provisions specified in paragraph (i) of this section with regard to activities and documents relevant to compliance with the requirements of §§ 80.125 through 80.130 and this paragraph (h).

(i) *Foreign refiner commitments.* Any foreign refiner shall commit to and comply with the provisions contained in this paragraph (i) as a condition to being approved for a temporary refiner diesel fuel program option.

(1) Any United States Environmental Protection Agency inspector or auditor must be given full, complete and immediate access to conduct inspections and audits of the foreign refinery.

(i) Inspections and audits may be either announced in advance by EPA, or unannounced.

(ii) Access will be provided to any location where:

(A) Diesel fuel is produced;

(B) Documents related to refinery operations are kept;

(C) Diesel fuel or blendstock samples are tested or stored; and

(D) DFR-Diesel is stored or transported between the foreign refinery and the United States, including storage tanks, vessels and pipelines.

(iii) Inspections and audits may be by EPA employees or contractors to EPA.

(iv) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.

(v) Inspections and audits by EPA may include review and copying of any documents related to:

(A) Refinery baseline establishment, if applicable, including the volume, sulfur content and dye status of diesel fuel, heating oil and other distillates; transfers of title or custody of any diesel fuel, heating oil or blendstocks whether DFR-Diesel or Non-DFR-Diesel, produced at the foreign refinery during the period January 1, 1998 through the date of the refinery baseline petition or through the date of the inspection or audit if a baseline petition has not been approved, and any work papers related to refinery baseline establishment;

(B) The volume and sulfur content of DFR-Diesel;

(C) The proper classification of diesel fuel as being DFR-Diesel or as not being DFR-Diesel, or as Certified DFR-Diesel or as Non-Certified DFR-Diesel, and all other relevant designations under subpart I, including § 80.523 and this section;

(D) Transfers of title or custody to DFR-Diesel;

(E) Sampling and testing of DFR-Diesel;

(F) Work performed and reports prepared by independent third parties and by independent auditors under the requirements of this section, including work papers; and

(G) Reports prepared for submission to EPA, and any work papers related to such reports.

(vi) Inspections and audits by EPA may include taking samples of diesel fuel, heating oil, diesel fuel additives or blendstock, dyes and chemical markers and interviewing employees.

(vii) Any employee of the foreign refiner must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(viii) English language translations of any documents must be provided to an EPA inspector or auditor, on request, within 10 working days.

(ix) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(2) An agent for service of process located in the District of Columbia shall be named, and service on this agent constitutes service on the foreign refiner or any employee of the foreign refiner for any action by EPA or otherwise by the United States related to the requirements of this subpart.

(3) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations promulgated thereunder shall be governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(4) United States substantive and procedural laws shall apply to any civil or criminal enforcement action against the foreign refiner or any employee of the foreign refiner related to the provisions of this section.

(5) Submitting a petition for participation in the diesel foreign refiner program or producing and exporting diesel fuel or heating oil under any such program, and all other actions to comply with the requirements of this subpart relating to participation in any diesel foreign refiner program, or to establish an individual refinery motor vehicle diesel fuel volume baseline of non-highway baseline (if applicable) constitute actions or activities that satisfy the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign refiner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign refiner under this subpart, including conduct that violates 18 U.S.C. 1001 and section 113(c)(2) of the Clean Air Act.

(6) The foreign refiner, or its agents or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors, whether EPA employees or EPA contractors, for actions performed within the scope of EPA employment related to the provisions of this section.

(7) The commitment required by this paragraph (i) shall be signed by the owner or president of the foreign refiner business.

(8) In any case where DFR-Diesel produced at a foreign refinery is stored or transported by another company between the refinery and the vessel that transports the DFR-Diesel to the United States, the foreign refiner shall obtain from each such other company a commitment that meets the requirements specified in paragraphs (i)(1) through (7) of this section, and these commitments shall be included in the foreign refiner's petition to participate in any diesel foreign refiner program.

(j) *Sovereign immunity*. By submitting a petition for participation in any diesel foreign refiner program under subpart I of this part (and baseline, if applicable) under this section, or by producing and exporting diesel fuel to the United States under any such program, the foreign refiner, and its agents and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign refiner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign refiner under subpart I of this part including conduct that violates 18 U.S.C. 1001 and section 113(c)(2) of the Clean Air Act.

(k) *Bond posting*. Any foreign refiner shall meet the requirements of this paragraph (k) as a condition to approval for any diesel foreign refiner program under subpart I of this part.

(1) The foreign refiner shall post a bond of the amount calculated using the following equation:

$$\text{Bond} = G \times \$0.01$$

Where:

Bond = amount of the bond in U. S. dollars

G = the volume baseline for motor vehicle diesel fuel produced at the foreign refinery and exported to the United States, in gallons, and, if applicable, the volume Vnrlm, as defined in § 80.534.

(2) Bonds shall be posted by:

(i) Paying the amount of the bond to the Treasurer of the United States;

(ii) Obtaining a bond in the proper amount from a third-party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign refiner, provided EPA agrees in advance as to the third party and the nature of the surety agreement; or

(iii) An alternative commitment that results in assets of an appropriate liquidity and value being readily available to the United States, provided EPA agrees in advance as to the alternative commitment.

(3) Bonds posted under this paragraph (k) shall:

(i) Be used to satisfy any judicial judgment that results from an administrative or judicial enforcement action for conduct in violation of this subpart, including where such conduct violates 18 U.S.C. 1001 and section 113(c)(2) of the Clean Air Act,

(ii) Be provided by a corporate surety that is listed in the United States Department of Treasury Circular 570 ''Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds'', and

(iii) Include a commitment that the bond will remain in effect for at least five (5) years following the end of latest annual reporting period that the foreign refiner produces diesel fuel pursuant to the requirements of this Subpart I.

(4) On any occasion a foreign refiner bond is used to satisfy any judgment, the foreign refiner shall increase the bond to cover the amount used within 90 days of the date the bond is used.

(5) If the bond amount for a foreign refiner increases, the foreign refiner shall increase the bond to cover the shortfall within 90 days of the date the bond amount changes. If the bond amount decreases, the foreign refiner may reduce the amount of the bond beginning 90 days after the date the bond amount changes.

(l) [Reserved]

(m) *English language reports*. Any report or other document submitted to

EPA by a foreign refiner shall be in English language, or shall include an English language translation.

(n) *Prohibitions.* (1) No person may combine Certified DFR-Diesel with any Non-Certified DFR-Diesel or Non-DFR-Diesel, and no person may combine Certified DFR-Diesel with any Certified DFR-Diesel produced at a different refinery, until the importer has met all the requirements of paragraph (o) of this section, except as provided in paragraph (e) of this section. No person may violate the product segregation requirements of § 80.511.

(2) No foreign refiner or other person may cause another person to commit an action prohibited in paragraph (n)(1) of this section, or that otherwise violates the requirements of this section.

(o) *United States importer requirements.* Any United States importer shall meet the following requirements.

(1) Each batch of imported diesel fuel and heating oil shall be classified by the importer as being DFR-Diesel or as Non-DFR-Diesel, and each batch classified as DFR-Diesel shall be further classified as Certified DFR-Diesel or as Non-Certified DFR-Diesel, and each batch of Certified DFR-Diesel shall be further designated pursuant to the designation requirements of § 80.523 and this section.

(2) Diesel fuel shall be classified as Certified DFR-Diesel or as Non-Certified DFR-Diesel according to the designation by the foreign refiner if this designation is supported by product transfer documents prepared by the foreign refiner as required in paragraph (d) of this section, unless the diesel fuel is classified as Non-Certified DFR-Diesel under paragraph (g) of this section. Additionally, the importer shall comply with all requirements of subpart I applicable to importers.

(3) For each diesel fuel batch classified as DFR-Diesel, any United States importer shall perform the following procedures.

(i) In the case of both Certified and Non-Certified DFR-Diesel, have an independent third party:

(A) Determine the volume of diesel fuel in the vessel;

(B) Use the foreign refiner's DFR-Diesel certification to determine the name and EPA-assigned registration number of the foreign refinery that produced the DFR-Diesel;

(C) Determine the name and country of registration of the vessel used to transport the DFR-Diesel to the United States; and

(D) Determine the date and time the vessel arrives at the United States port of entry.

(ii) In the case of Certified DFR-Diesel, have an independent third party:

(A) Collect a representative sample from each vessel compartment subsequent to the vessel's arrival at the United States port of entry and prior to off loading any diesel fuel from the vessel;

(B) Obtain the compartment samples; and

(C) Determine the sulfur content value, and if applicable, the marker content, of each compartment sample using an appropriate methodology as specified in §§ 80.580 or 80.582, by:

(*1*) The third party analyzing the sample; or

(*2*) The third party observing the importer analyze the sample;

(4) Any importer shall submit reports within 30 days following the date any vessel transporting DFR-Diesel arrives at the United States port of entry:

(*i*) To the Administrator containing the information determined under paragraph (o)(3) of this section; and

(*ii*) To the foreign refiner containing the information determined under paragraph (o)(3)(ii) of this section, and including identification of the port and Credit Trading Area at which the product was offloaded.

(5)(i) Any United States importer shall meet the requirements specified in §§ 80.510 and 80.520 and all other requirements of subpart I, for any imported diesel fuel or heating oil that is not classified as Certified DFR-Diesel under paragraph (o)(2) of this section.

(ii) [Reserved]

(p) *Truck Imports of Certified DFR-Diesel produced at a Foreign Refinery.* (1) Any refiner whose Certified DFR-Diesel is transported into the United States by truck may petition EPA to use alternative procedures to meet the following requirements:

(i) Certification under paragraph (d)(5) of this section;

(ii) Load port and port of entry sampling and testing under paragraphs (f) and (g) of this section;

(iii) Attest under paragraph (h) of this section; and

(iv) Importer testing under paragraph (o)(3) of this section.

(2) These alternative procedures must ensure Certified DFR-Diesel remains segregated from Non-Certified DFR-Diesel and from Non-DFR-Diesel until it is imported into the United States. The petition will be evaluated based on whether it adequately addresses the following:

(i) Provisions for monitoring pipeline shipments, if applicable, from the refinery, that ensure segregation of Certified DFR-Diesel from that refinery from all other diesel fuel;

(ii) Contracts with any terminals and/or pipelines that receive and/or transport Certified DFR-Diesel, that prohibit the commingling of Certified DFR-Diesel with any of the following:

(A) Other Certified DFR-Diesel from other refineries.

(B) All Non-Certified DFR-Diesel.

(C) All Non-DFR-Diesel.

(D) All diesel fuel or heating oil products required to be segregated under subpart I.

(iii) Procedures for obtaining and reviewing truck loading records and United States import documents for Certified DFR-Diesel to ensure that such diesel fuel is only loaded into trucks making deliveries to the United States;

(iv) Attest procedures to be conducted annually by an independent third party that review loading records and import documents based on volume reconciliation, or other criteria, to confirm that all Certified DFR-Diesel remains segregated throughout the distribution system and is only loaded into trucks for import into the United States.

(3) The petition required by this section must be submitted to EPA along with the application for temporary refiner relief individual refinery diesel sulfur standard under this subpart I and this section.

(q) *Withdrawal or suspension of a foreign refinery's temporary refinery flexibility program approval.* EPA may withdraw or suspend a diesel refiner baseline or standard approval for a foreign refinery where:

(1) A foreign refiner fails to meet any requirement of this section,

(2) A foreign government fails to allow EPA inspections as provided in paragraph (i)(1) of this section;

(3) A foreign refiner asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart; or

(4) A foreign refiner fails to pay a civil or criminal penalty that is not satisfied using the foreign refiner bond specified in paragraph (k) of this section.

(r) *Early use of a foreign refiner motor vehicle diesel fuel baseline.* (1) A foreign refiner may begin using an individual refinery motor vehicle diesel fuel baseline before EPA has approved the baseline, provided that:

(i) A baseline petition has been submitted as required in paragraph (b) of this section;

(ii) EPA has made a provisional finding that the baseline petition is complete;

(iii) The foreign refiner has made the commitments required in paragraph (i) of this section;

(iv) The persons who will meet the independent third party and

independent attest requirements for the foreign refinery have made the commitments required in paragraphs (f)(3)(iii) and (h)(7)(iii) of this section; and

(v) The foreign refiner has met the bond requirements of paragraph (k) of this section.

(2) In any case where a foreign refiner uses an individual refinery baseline before final approval under paragraph (r)(1) of this section, and the foreign refinery baseline values that ultimately are approved by EPA are more stringent than the early baseline values used by the foreign refiner, the foreign refiner shall recalculate its compliance, ab initio, using the baseline values approved by the EPA, and the foreign refiner shall be liable for any resulting violation of the motor vehicle highway diesel fuel requirements.

(s) *Additional requirements for petitions, reports and certificates.* Any petition for approval to produce diesel fuel subject to the diesel foreign refiner program, any alternative procedures under paragraph (p) of this section, any report or other submission required by paragraphs (c), (f)(2), or (i) of this section, and any certification under paragraph (d)(3) of this section shall be:

(1) Submitted in accordance with procedures specified by the Administrator, including use of any forms that may specified by the Administrator.

(2) Be signed by the president or owner of the foreign refiner company, or by that person's immediate designee, and shall contain the following declaration:

''I hereby certify: (1) That I have actual authority to sign on behalf of and to bind [insert name of foreign refiner] with regard to all statements contained herein; (2) that I am aware that the information contained herein is being certified, or submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR part 80, subpart I, and that the information is material for determining compliance under these regulations; and (3) that I have read and understand the information being certified or submitted, and this information is true, complete and correct to the best of my knowledge and belief after I have taken reasonable and appropriate steps to verify the accuracy thereof.

''I affirm that I have read and understand the provisions of 40 CFR part 80, subpart I, including 40 CFR 80.620 apply to [insert name of foreign refiner]. Pursuant to Clean Air Act section 113(c) and Title 18, U.S.C. 1001, the penalty for furnishing false, incomplete or misleading information in this certification or submission is a fine of up to $10,000 U.S., and/or imprisonment for up to five years.''.

PART 89—CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES

60. The authority citation for part 89 continues to read as follows:

Authority: 42 U.S.C. 7521, 7522, 7523, 7524, 7525, 7541, 7542, 7543, 7545, 7547, 7549, 7550, and 7601(a).

61. Section 89.2 is amended by revising the definition of ''United States'' to read as follows:

§ 89.2 Definitions.

* * * * *

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, and the U.S. Virgin Islands.

* * * * *

62. Section 89.112 is amended by revising the introductory text of paragraph (f)(1) to read as follows:

§ 89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

* * * * *

(f) * * *

(1) *Voluntary standards.* Engines may be designated ''Blue Sky Series'' engines by meeting the voluntary standards listed in Table 3, which apply to all certification and in-use testing, as follows:

* * * * *

63. Section 89.330 is amended by adding paragraph (e) to read as follows:

§ 89.330 Lubricating oil and test fuels.

(e) *Low sulfur test fuel.* Upon request, for model years 2006 and/or 2007, the diesel test fuel shall be the diesel test fuel specified in 40 CFR 1065.205, with the following exception: The sulfur content must be 300–500 ppm instead of 7–15 ppm, subject to the provisions of this paragraph (e).

(1) To use this option, the manufacturer must:

(i) Ensure that ultimate purchasers of equipment using these engines are informed that the use of fuel meeting the 500 ppm specification is recommended.

(ii) Provide to equipment manufacturers labels to be applied at the fuel inlet recommending 500 ppm fuel.

(2) None of the engines in the engine family may employ sulfur-sensitive technologies.

(3) For engines at or above 130 kW, this option may be used in 2006 and 2007. For engines at or above 75 kW but less than 130 kW, this option may only be used in 2007.

64. A new part 1039 is added to subchapter U of chapter I, to read as follows:

SUBCHAPTER U—AIR POLLUTION CONTROLS

PART 1039—CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES

Subpart A—Overview and Applicability

Sec.
1039.1 Does this part apply for my engines?
1039.5 Which engines are excluded from this part's requirements?
1039.10 How is this part organized?
1039.15 Do any other regulation parts apply to me?

Subpart B—Emission Standards and Related Requirements

1039.101 What exhaust emission standards must my engines meet?
1039.102 What exhaust emission standards must my engines meet before model year 2014?
1039.104 Are there interim provisions that apply only for a limited time?
1039.105 What smoke standards must my engines meet?
1039.107 What evaporative emissions standards and requirements apply?
1039.110 [Reserved]
1039.115 What other requirements must my engines meet?
1039.120 What emission-related warranty requirements apply to me?
1039.125 What maintenance instructions must I give to buyers?
1039.130 What installation instructions must I give to equipment manufacturers?
1039.135 How must I label and identify the engines I produce?

Subpart C—Certifying Engine Families

1039.201 What are the general requirements for obtaining a certificate of conformity?
1039.205 What must I include in my application?
1039.210 May I get preliminary approval before I complete my application?
1039.220 How do I amend the maintenance instructions in my application?
1039.235 What emission testing must I perform for my application for a certificate of conformity?
1039.240 How do I demonstrate that my engine family complies with exhaust emission standards?
1039.245 How do I determine deterioration factors from exhaust durability testing?
1039.250 What records must I keep and what reports must I send to EPA?
1039.255 What decisions may EPA make regarding my certificate of conformity?

Subpart D—[Reserved]

Subpart E—In-use Testing

1039.401 General provisions.

Subpart F—Test Procedures

1039.501 How do I run a valid emission test?
1039.505 Which duty cycles do I use for steady-state testing?
1039.510 Which duty cycles do I use for transient testing?
1039.515 What are the test procedures related to not-to-exceed standards?
1039.520 What testing must I perform to establish deterioration factors?
1039.525 How do I adjust emission levels to account for infrequently regenerating aftertreatment devices?

Subpart G—Special Compliance Provisions

1039.601 What compliance provisions apply to these engines?
1039.605 What provisions apply to engines already certified under the motor-vehicle program?
1039.610 What provisions apply to vehicles already certified under the motor-vehicle program?
1039.615 What special provisions apply to engines using noncommercial fuels?
1039.620 What are the provisions for exempting engines used solely for competition?
1039.625 What requirements apply under the program for equipment-manufacturer flexibility?
1039.626 What special provisions apply to engines imported under the equipment-manufacturer flexibility program?
1039.630 What are the hardship provisions for equipment manufacturers?
1039.635 What are the hardship provisions for engine manufacturers?
1039.639 What special provisions apply to engines sold in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?
1039.645 What special provisions apply to engines used for transportation refrigeration units?

Subpart H—Averaging, Banking, and Trading for Certification

1039.701 General provisions.
1039.705 How do I generate and calculate emission credits?
1039.710 How do I average?
1039.715 How do I bank emission credits?
1039.720 How do I trade emissions credits?
1039.725 What records must I keep?
1039.730 What must I include in my application for certification?
1039.732 What reports must I submit after the end of the model year?
1039.735 What restrictions apply for using credits?
1039.740 What can happen if I do not comply with the provisions of this subpart?

Subpart I—Definitions and Other Reference Information

1039.801 What definitions apply to this part?
1039.805 What symbols, acronyms, and abbreviations does this part use?
1039.810 What materials does this part reference?
1039.815 How should I request EPA to keep my information confidential?
1039.820 How do I request a hearing?
Appendix I to Part 1039—Nonroad Compression-ignition (CI) Steady-state Cycle for Constant-Speed Engines
Appendix II to Part 1039—[Reserved]
Appendix III to Part 1039—Nonroad Compression-ignition (CI) Steady-state Cycle for Variable-Speed Engines with Maximum Power below 19 kW
Appendix IV to Part 1039—Nonroad Compression-ignition (CI) Steady-state Cycle for Variable-Speed Engines with Maximum Power at or above 19 kW
Appendix V to Part 1039—Nonroad Compression-ignition (CI) Transient Cycle for Constant-Speed Engines

Authority: 42 U.S.C. 7401–7671(q).

Subpart A—Overview and Applicability

§ 1039.1 Does this part apply for my engines?

(a) The regulations in this part 1039 apply for all new, compression-ignition nonroad engines (defined in § 1039.801), except as provided in § 1039.5.

(b) In certain cases, the regulations in this part 1039 apply to engines with maximum brake power at or above 250 kW that would otherwise be covered by 40 CFR part 1048. See 40 CFR 1048.620 for provisions related to this allowance.

(c) The definition of nonroad engine in 40 CFR 1068.30 excludes certain engines used in stationary applications. These engines are not required to comply with this part, but 40 CFR 1068.101 restricts the use of stationary engines for non-stationary purposes and 40 CFR 1068.320 requires that you label imported engines that will be used in stationary applications.

(d)(1) This part 1039 applies for all engines subject to the emissions standards specified in subpart B of this part. See 40 CFR part 89 for earlier model years.

(2) For the other compression-ignition engines that do not become subject to the standards specified in subpart B of this part, this part applies as follows:

(i) The provisions of § 1039.1(c) and § 1039.801 apply for stationary engines beginning January 1, 2006.

(ii) The provisions of § 1039.620 and § 1039.801 apply for engines used solely for competition beginning January 1, 2006.

§ 1039.5 Which engines are excluded from this part's requirements?

(a) This part does not apply to the following nonroad engines:

(1) *Locomotive engines.* Locomotive engines subject to the standards of 40 CFR part 92 are not subject to the provisions of this part 1039. Locomotive engines that are not subject to the standards of 40 CFR part 92 because they have been exempted by provisions of 40 CFR part 92, other than those contained in 40 CFR 92.907, are also not subject to the provisions of this part 1039. See the provisions of 40 CFR part 92 to determine which engines are subject to the standards of that part 92.

(2) *Marine engines.* Marine engines subject to the standards of 40 CFR part 94 are not subject to the provisions of this part 1039. Marine engines that are not subject to the standards of 40 CFR part 94 because they have been exempted by provisions of 40 CFR part 94, other than those contained in 40 CFR 94.907, are also not subject to the provisions of this part 1039. See the provisions of 40 CFR part 94 to determine which engines are subject to the standards of that part 94.

(3) *Mining engines.* Engines used in underground mining or in underground mining equipment and regulated by the Mining Safety and Health Administration (MSHA) in 30 CFR parts 7, 31, 32, 36, 56, 57, 70, and 75 are not subject to the provisions of this part 1039.

(4) *Hobby engines.* Engines with per-cylinder displacement of less than 50 cc are not subject to the provisions of this part 1039.

(b) Aircraft engines are not subject to the provisions of this part 1039. See 40 CFR part 87 for engines used in aircraft.

§ 1039.10 How is this part organized?

The regulations in this part 1039 contain provisions that affect both engine manufacturers and others. However, the requirements of this part are generally addressed to the engine manufacturer. Unless we specifically state otherwise, the term ''you'' means the engine manufacturer, as defined in § 89.801. This part 1039 is divided into the following subparts:

(a) Subpart B of this part describes the emission standards and other requirements that must be met to certify engines under this part. Note that § 1039.104 discusses certain interim requirements and compliance provisions that apply only for a limited time.

(b) Subpart C of this part describes how to apply for a certificate of conformity.

(c) Subpart F of this part describes how to test your engines (including references to other parts of the Code of Federal Regulations).

(d) Subpart G of this part and 40 CFR part 1068 describe requirements, prohibitions, and other provisions that apply to engine manufacturers, equipment manufacturers, owners, operators, rebuilders, and all others.

(e) Subpart H of this part describes how engine manufacturers may generate

and use emission credits to certify their engines.

§ 1039.15 Do any other regulation parts apply to me?

(a) Part 1065 of this chapter describes procedures and equipment specifications for testing engines. Subpart F of this part describes how to apply the provisions of part 1065 of this chapter to show your engines meet the emission standards in this part.

(b) The requirements and prohibitions of part 1068 of this chapter apply to everyone, including anyone who manufactures, imports, installs, owns, operates, or rebuilds any of the engines subject to this part 1039, or equipment containing these engines. Part 1068 of this chapter describes general provisions, including these seven areas:

(1) Prohibited acts and penalties for engine manufacturers, equipment manufacturers, and others.

(2) Rebuilding and other aftermarket changes.

(3) Exclusions and exemption for certain engines.

(4) Importing engines.

(5) Selective enforcement audits of your production.

(6) Defect reporting and recall.

(7) Procedures for hearings.

(c) Other parts of this chapter apply if referenced in this part.

Subpart B—Emission Standards and Related Requirements

§ 1039.101 What exhaust emission standards must my engines meet?

The exhaust emission standards of this section apply for the model years noted and later. See § 1039.102 and 40 CFR 89.112 for exhaust emission standards that apply to earlier model years.

(a) *Emission standards for transient testing.* Transient exhaust emissions from your engines may not exceed the applicable emission standards listed in Table 1 of this section. Measure emissions using the applicable transient test procedures described in subpart F of this part.

(b) *Emission standards for steady-state testing.* Steady-state exhaust emissions from your engines may not exceed the applicable emission standards listed in Table 1 of this section. Measure emissions using the applicable steady-state test procedures described in subpart F of this part.

TABLE 1 OF § 1039.101.—TIER 4 EXHAUST EMISSIONS STANDARDS

Engine power	Model year	Emissions standard g/kW-hr				
		PM	NO_X	NMHC	NO_X+NMHC	CO
kW < 19 [1]	2008	[2] 0.40	.....	.....	7.5	6.6
19 ≤ kW < 56	2013	0.03	.....	.....	4.7	5.0
56 ≤ kW < 130	2014	0.02	0.40	0.19	.....	5.0
130 ≤ kW ≤ 560	2014	0.02	0.40	0.19	.....	3.5
kW > 560	2014	0.02	0.40	0.19	.....	3.5

[1] Paragraph (a) of this section does not apply for engines under 19 kW until model year 2013.
[2] See paragraph (j) of this section for provisions related to an optional PM standard for engines under 8 kW.

(c) *Averaging banking and trading.* In lieu of the NO_X, NO_X+NMHC, or PM standards in Table 1 of this section, you may choose to include an engine family in the averaging, banking, and trading (ABT) program provided in subpart H of this part. This requires that you specify a single family emission limit (FEL) for each pollutant for each engine family included in the ABT program. These FELs are the applicable emission standards for the engine family with respect to both transient testing and steady-state testing under paragraphs (a) and (b) of this section. The FELs will also define the NTE standards for your engine family, as specified in paragraph (d) of this section. The FEL may not be higher than the limits in Table 2 of this section, except as allowed by paragraph (i) of this section.

TABLE 2 OF § 1039.101.—TIER 4 FEL CAPS

Engine power	Emission g/kW-hr		
	PM	NO_X	NO_X+NMHC
kW < 8	0.80	.....	10.5
8 ≤ kW < 19	0.80	.....	9.5
19 ≤ kW < 56	0.05	.....	7.5
56 ≤ kW < 130	0.04	0.80	.....
130 ≤ kW < 560	0.04	0.80	.....
kW ≥ 560	0.04	0.80	.....

(d) *Not-to-exceed standards.* (1) Exhaust emissions from the engine may not exceed the applicable NTE standards. Measure emissions according to the procedures specified § 1039.515.

(2) The NTE standard, rounded to the same number of decimal places as the applicable standard in Table 1 of this section, is determined from the following equation:

NTE standard for each pollutant = (STD) × (M)

Where:

(i) STD = The standard specified for that pollutant in Table 1 of this section if you certify without using ABT for that pollutant, or the FEL for that pollutant if you certify using ABT.

(ii) M = The NTE multiplier for that pollutant, as defined in paragraph (d)(3) of this section.

(3) The NTE multiplier for each pollutant equals 1.25, except in the following cases:

TABLE 3 OF § 1039.101

If . . .	or . . .	then . . .
(i) The engine family is certified to a NO_X standard less than 2.00 g/k-W-hr without using ABT.	The engine famiily is certified to a NO_X FEL less than 2.00 g/kW-hr (or an NO_X +NMHC Fell less than 2.20 g/kW-hr).	The multipliers for NMHC, NO_X and/or NO_X + NMHC are 1.50.
(ii) The engine family is certified to a PM standard less than 0.07 g/kw-hr without using ABT.	The engine family is certified to a PM FEL less than 0.07 g.kw-hr.	The multiplier for PM is 1.50

(4) (i) There are two sets of specifications of ambient operating regions that apply for NTE testing. You must choose one set for each engine family. You may choose separately for each engine family. You must indicate your choice of ambient operating region in your application for certification. The region that you choose will apply for all NTE testing of engines in your engine family. You must choose one of the following two ambient operating regions:

(A) All altitudes less than or equal to 5,500 feet above sea level, during all ambient conditions (temperature and humidity).

(B) All altitudes less than or equal to 5,500 feet above sea level, for temperatures less than or equal to the temperature determined by the following equation at the specified altitude;

$$T = -0.00254 \times A + 100$$

Where:

T = ambient air temperature in degrees Fahrenheit.

A = altitude in feet above sea level (A is negative for altitudes below sea level).

(ii) Temperature and humidity ranges for which correction factors are allowed are specified in 40 CFR 86.1370–2007(e).

(A) If you choose the ambient operating region specified in paragraph (c)(4)(i)(A) of this section, then the temperature and humidity ranges for which correction factors are allowed are defined under 40 CFR 86.1370–2007(e)(1).

(B) If you choose the ambient operating region specified in paragraph (c)(4)(i)(B) of this section, then the temperature and humidity ranges for which correction factors are allowed are defined under 40 CFR 86.1370–2007(e)(2).

(5) For engines equipped with exhaust-gas recirculation, the NTE emission limits of this section do not apply during cold operating conditions as specified in 40 CFR 86.1370–2007(f).

(6) For engines certified to an FEL less than 0.01 g/kW-hr PM, the PM NTE is 0.02 g/kW-hr.

(e) [Reserved]

(f) *Fuel types.* The exhaust emission standards in this section apply for engines using each type of fuel on which the engines in the engine family are designed to operate. You must meet the numerical emission standards for NMHC in this section based on the following types of hydrocarbon emissions for engines powered by the following fuels:

(1) Diesel-fueled engines: NMHC emissions.

(2) Natural gas-fueled engines: NMHC emissions.

(3) Alcohol-fueled engines: THCE emissions.

(g) *Useful life.* (1) Your engines must meet the exhaust emission standards in paragraphs (a) through (d) of this section over their full useful life. The useful life values are shown in the following table:

TABLE 4 OF § 1039.101

If your engine is certified as . . .	And its maximum power is . . .	And its rated speed is . . .	Then its useful life is . . .
Variable speed or constant speed	Less than 19 kW	Any speed	3,000 hours or five years, whichever comes first.
Constant speed	At least 19 kW, but less than 37 kW.	3,000 rpm or higher	3,000 hours or five years, whichever comes first.
Constant speed	At least 19 kW, but less than 37 kW.	Less than 3,000 rpm	5,000 hours or seven years, whichever comes first
Variable speed	At least 19 kW, but less than 37 kW.	Any speed	5,000 hours or seven years, whichever comes first.
Variable speed or constant speed	37kW or higher	Any speed	8,000 hours or ten years, whichever comes first

(2) You may request in your application for certification that we approve a shorter useful life for an engine family. We may approve a shorter useful life if we determine that these engines will rarely operate longer than the alternate useful life. Your demonstration must include documentation from in-use engines. Your demonstration must also include any overhaul interval that you recommend and any mechanical warranty that you offer for the engine.

(h) *Applicability for testing.* The emission standards in this subpart apply to all testing, including certification, selective enforcement audits and in-use testing.

(i) *Alternate FEL caps.* You are allowed to certify a limited number of engines to FELs higher than the caps listed in Table 2 of this section. The FEL caps shown in Table 5 of this section apply instead of the otherwise applicable FEL caps, subject to the sales limits listed in the table.

TABLE 5 OF § 1039.101.—ALTERNATE FEL CAPS

Power category	Model years	Maximum percentage of production that may be certified to using these alternate FEL caps	NO_X FEL cap (g/kW-hr)	PM FEL cap (g/kW-hr)
19 ≤ kW < 56	2013–2016	10	Not applicable	0.30
	2017+	5		
56 ≤ kW <130	2012–2013	10	Not applicable	0.40 for hp <75
	2014–2015	10	4.4 for kW <75	0.30 for hp ≥75
	2016+	5	3.8 for kW ≥75 2014–2015.	
130 ≤ kW ≤ 560	2011–2013	10	Not applicable	0.20
	2014	10	3.8.	
	2015+	5		
kW > 560	2014 – 2017	10	6.2	0.20
	2018+	5		

(j) *Optional PM standard for engines under 8 kW.* You may certify certain engines under 8 kW to the optional Tier 4 PM standard of 0.60 g/kW-hr, instead of the PM standard listed in Table 1 of this section, as described in this paragraph.

(1) The provisions of this paragraph (j) are available only for engines with maximum engine power under 8 kW that are hand-startable, air-cooled, and direct injection. The term hand-startable generally refers to engines that are started using a hand crank or pull cord.

(2) Engines certified under paragraphs (j)(3)(i) or (ii) may not be used to generate positive emission credits under the ABT provisions of subpart H of this part.

(3)(i) The applicable standard for model years 2008 and 2009 under this paragraph (j) is 0.80 g/kW-hr.

(ii) Starting with model year 2010 standard under this paragraph (j) is 0.60 g/kW-hr standard.

(4) The FEL cap for engines certified under this paragraph (j) is 0.80 g/kW-hr.

§ 1039.102 What exhaust emission standards must my engines meet before model year 2014?

The exhaust emission standards of this section apply for the model years specified in Tables 1 through 6 of this section. See § 1039.101 for exhaust emission standards that apply to later model years. See 40 CFR 89.112 for exhaust emission standards that apply to model years before those listed in the tables.

(a) *Emission standards for transient testing.* Transient exhaust emissions from your engines may not exceed the applicable emission standards in Tables 1 through 6 of this section. Measure emissions using the applicable transient test procedures described in subpart F of this part. The transient standards do not apply for the following cases:

(1) Engines less than or equal to 37 kW in model years before 2013.

(2) Phase-out engines over 560 kW that are certified using the carry-over provisions of § 1039.235(d).

(b) *Emission standards for steady-state testing.* Steady-state exhaust emissions from your engines may not exceed the applicable emission standards listed in Tables 1 through 6 of this section. Measure emissions using the applicable steady-state test procedures described in subpart F of this part.

TABLE 1 OF § 1039.102—INTERIM TIER 4 EXHAUST EMISSIONS STANDARDS FOR ENGINES 19≤KW<37

Model years	Emissions standard g/kW-hr		
	PM	NO_X+NMHC	CO
2008–2012	0.30	7.5	5.0

TABLE 2 OF § 1039.102.—INTERIM TIER 4 EXHAUST EMISSIONS STANDARDS FOR ENGINES 37≤KW<56

	Model years	Emissions standard g/kW-hr		
		PM	NO_X+NMHC	CO
Option No. 1	2008–2012	0.30	4.7	5.0
Option No. 2	2012 (optional)	0.03	4.7	5.0

TABLE 3 OF § 1039.102.—INTERIM TIER 4 EXHAUST EMISSIONS STANDARDS FOR ENGINES 56>kW<75

Model years	Phase-in option	Emissions standard g/kW-hr				
		PM	NO_X	NMHC	NO_X+NMHC	CO
2012–2013	Phase-in	0.02	0.40	0.19	.....	5.0
	Phase-out (No more than 50%)	0.02	.....	.....	4.7	5.0

TABLE 4 OF § 1039.102.—INTERIM TIER 4 EXHAUST EMISSIONS STANDARDS FOR ENGINES 75≤kW<130

Model years	Phase-in option	Emissions standard g/kW-hr				
		PM	NO_X	NMHC	NO_X+NMHC	CO
2012–2013	Phase-in	0.02	0.40	0.19	.....	5.0
	Phase-out (No more than 50%)	0.02	.....	.....	4.0	5.0

TABLE 5 OF § 1039.102.—INTERIM TIER 4 EXHAUST EMISSIONS STANDARDS FOR ENGINES 130≤kW≤560

Model years	Phase-in option	Emissions standard g/kW-hr				
		PM	NO_X	NMHC	NO_X+NMHC	CO
2012–2013	Phase-in	0.02	0.40	0.19	.....	3.5
	Phase-out (No more than 50%)	0.02	.....	.....	4.0	3.5

TABLE 6 OF § 1039.102.—INTERIM TIER 4 EXHAUST EMISSIONS STANDARDS FOR ENGINES kW>560

Model years	Phase-in option	Emissions standard g/kW-hr				
		PM	NO_X	NMHC	NO_X+NMHC	CO
2012–2013	Phase-in	0.02	0.40	0.19	.....	3.5
	Phase-out (No more than 50%)	0.02	.....	.....	6.4	3.5

(c) *Phase-in option.* The following phase-in provisions apply for engines with maximum engine power of 56 kW or higher.

(1) For model years noted in Tables 3 through 6 of this section, you may certify some of your engine families to the combined NO_X+NMHC standard specified in the phase-in option instead of to the separate NO_X and NMHC standards otherwise specified in the applicable table.

(2) For engines with maximum engine power over 560 kW for the model years noted in Table 6 of this section, you may certify some of your engine families to the PM standard specified in the phase-in option instead of to the PM standard otherwise specified in the applicable table. Engines certified to the phase-out standards in Table 6 of this section that are not naturally aspirated are not required to meet the crankcase emission standard in 1039.115(a).

(3) Engines certified to the phase-out standards in Tables 3 through 5 must comply with all other requirements applicable to Tier 4 engines, except as specified in paragraph (d) of this section.

(4) The combined number of engines in the engine families certified to phase-out standards may not exceed 50 percent of your U.S.-directed production volume of nonroad CI engines for that power category for any model year, except as explicitly allowed by § 1039.104(c).

(d) *Other provisions.* The provisions of § 1039.101 (c) through (i) apply with respect to the standards of this section with the following exceptions:

(1) *NTE standards.* NTE standards are determined relative to the standards listed in Tables 1 through 7 of this section, instead of the standards listed in Table 1 of § 1039.101. There are no NTE standards for the optional phase-out standards specified in Table 6 of this section for engines over 560 kW that are certified using the carry-over provisions of § 1039.235(d).

(2) The FEL caps listed in Tables 7 and 8 of this section apply instead of the FEL caps in Table 2 of § 1039.101.

TABLE 7 OF § 1039.102.—INTERIM TIER 4 FEL CAPS FOR ENGINES WITH MAXIMUM ENGINE POWER LESS THAN 56 kW AND PHASE-IN ENGINES WITH MAXIMUM ENGINE POWER GREATER THAN OR EQUAL TO 56 kW

Engine power	Emission g/kW-hr		
	PM	NO_X	NO_X+NMHC
19 ≤ kW < 37	0.60	.....	9.5
37 ≤ kW < 56	0.40	.....	7.5

TABLE 7 OF § 1039.102.—INTERIM TIER 4 FEL CAPS FOR ENGINES WITH MAXIMUM ENGINE POWER LESS THAN 56 kW AND PHASE-IN ENGINES WITH MAXIMUM ENGINE POWER GREATER THAN OR EQUAL TO 56 kW—Continued

Engine power	Emission g/kW-hr		
	PM	NO_X	NO_X+NMHC
56 ≤ kW < 75	0.040	4.4	.....
75 ≤ kW ≤ 560	0.040	3.7	.....
kW > 560	0.20	6.1	.....

TABLE 8 OF § 1039.102.—INTERIM TIER 4 FEL CAPS FOR PHASE-OUT ENGINES

Engine power	Emission g/kW-hr	
	PM	NO_X+NMHC
56 ≤ kW < 75	0.040	7.5
75 ≤ kW < 225	0.040	6.6
225 ≤ kW < 560	0.040	6.4
kW ≥ 560	0.54	10.5

(e) *Banked credits for 56 < kW < 130 engines.* The provisions of this paragraph apply for model year 2012–2014 engines with maximum engine power at least 56 kW, but less than 130 kW.

(1) You may use under subpart H of this part banked Tier 2 NO_X + NMHC credits generated from engines rated at least 37 kW.

(2) If you optionally forego during model years 2012–2014 the use banked Tier 2 credits allowed by paragraph (e)(1) of this section, you may certify your 56 ≤ kW < 130 engines according to the alternate phase-in schedule described in this paragraph (e)(2). You may not bank or trade any credits generated from engines certified under this paragraph (e)(2).

TABLE 9 OF § 1039.102.—ALTERNATE PHASE-IN SCHEDULE FOR 56≤kW<130 ENGINES

Model year	Minimum phase-in percentage
2012	25
2013	25
2014:	
First nine months	25
Last three months	100
2015 and later	100

§ 1039.104 Are there interim provisions that apply only for a limited time?

The provisions in this section apply instead of other provisions in this part. This section describes the model years for these interim provisions apply.

(a) *Split Families.* For the purpose of using or generating credits during the phase-in of Tier 4 standards, you may choose to split an engine family into two subfamilies (for example, one that uses credits and one that generates credits).

(1) You must indicate in the application for certification that the engine family is to be split, and may assign the numbers and configurations of engines within the respective subfamilies at any time prior to the submission of the end-of-year report. This option is not available for engine families under 56 kW.

(2) You may exclude the engines within the split family from end-of-year NO_X (or NO_X + NMHC) ABT calculations, provided that the family meets the standards of this paragraph (a)(2) and neither subfamily generates credits for use by other engine families, or uses banked credits, or uses averaging credits from other engine families. All the engines in the split family must be excluded from the phase-in calculations (both from the number of engines complying with the Tier 4 emission standards being phased-in and from the total number of engines in the U.S.-directed production volume). The engines must comply with all other applicable requirements of this part.

(i) Label all the engines within the family with a single NO_X FEL, as listed in the following table:

If the engine family's maximum-power range is . . .	Then the NO_X FEL for the entire family is . . .
(A) At least 56 kW, but less than 130 kW	2.3 g/kW-hr.
(B) At least 130 but less than 560 kW	2.0 g/kW-hr.
(C) 560 kW or higher	3.1 g/kW-hr.

(ii) For split families with maximum engine power over 560 kW, your PM FEL is 0.10 g/kW-hr.

(iii) For engines certified under the alternate phase-in schedule of § 1039.102(e)(2), the NO_X FEL is 3.3 g/kW-hr.

(3) Your engines must comply with all other standards and requirements applicable to Tier 4 engines.

(b) *Incentives for early introduction.* You may reduce the number of engines that are required to meet the standards in §§ 1039.101or 1039.102 by certifying engines to the applicable standards in § 1039.101 (without using the provisions of subpart H of this part) before the model year otherwise required (either by §§ 1039.101 or 1039.102. This option begins in model year 2008.

(1) For engines with maximum engine power at 56 kW or higher:

If you certify . . .	To the . . .	You may reduce the number of engines in the same power category that are required to meet the . . .	In later model years by . . .
Two engines	0.020 g/kW-hr PM standard	0.020 g/kW-hr PM standard	Three engines.

If you certify . . .	To the . . .	You may reduce the number of engines in the same power category that are required to meet the . . .	In later model years by . . .
Two engines	0.020 g/kW-hr PM standard, the 0.40 g/kW-hr NO_X standard, and the 0.19 g/kW-hr NMHC standard.	0.020 g/kW-hr PM standard, the 0.40 g/kW-hr NO_X standard, and the 0.19 g/kW-hr NMHC standard.	Three engines.
One engine	0.020 g/kW-hr PM standard, the 0.20 g/kW-hr NO_X standard, and the 0.19 g/kW-hr NMHC standard.	0.020 g/kW-hr PM standard, the 0.40 g/kW-hr NO_X standard, and the 0.19 g/kW-hr NMHC standard.	Two engines.

(2) For engines with maximum power less than 56 kW:

If you certify . . .	To a . . .	You may reduce the number of engines in any family with maximum power between 19 and 56 kW that are required to meet the . . .	In later model years by . . .
Two engines	0.034 g/kW-hr PM standard	0.034 g/kW-hr PM standard	Three engines.

(3) Example: If you produce 100 56–130 kW engines in 2008 that meet all of the applicable the standards listed in § 1039.101, and you produced 10,000 56–130 kW engines in 2012, then only 9,850 of the engines would need to comply with the standards listed in § 1039.101 in 2012.

(c) *Phase-in projections.* You may initially base compliance with the phase-in requirements of § 1039.102 on projected U.S.-directed production volumes. This is allowed for all phase-in model years, except the last year in which less than 100 percent compliance is required. However, if your actual U.S.-directed production volume of engines that comply with the Tier 4 standards is less than the required amount, you must make up the shortfall (in terms of number of engines) before the end of the phase-in period. For example, if you plan in good faith to produce 50 percent of your projected 10,000 56–130kW engines (*i.e.,* 5,000 engines) in 2012 in compliance with the Tier 4 NO_X and NMHC standards, but are only able to produce 4,500 such engines of an actual 10,000 engines, you would need to produce an extra 500 engines in 2013 in compliance with the Tier 4 NO_X and NMHC standards.

(1) For phase-in schedules other than the alternate schedule described in Table 9 of § 1039.102, the deficit allowed by this paragraph (f) may not exceed 25 percent of your U.S. directed production volume.

(2) For the phase-in schedule described in Table 9 of § 1039.102, the deficit allowed by this paragraph (f) may not exceed 5 percent of your U.S. directed production volume.

(d) *In-use compliance levels.* (1) For purposes of determining compliance after title or custody has transferred to the ultimate purchaser, for model year 2015 or earlier engines having a NO_X FEL no higher than 2.0 g/kW-hr, the applicable NO_X compliance limit shall be determined by adding the following adjustment to the otherwise applicable standard or FEL for NO_X.

In model years . . .	If your engine's maximum power is . . .	The NO_X adjustment in g/kW-hr is . . .
2012–2015	$56 \leq kW < 130$	0.13 for operating hours ≤ 4000. 0.27 for operating hours > 4000.
2011–2015	$kW \geq 130$	0.13 for operating hours ≤ 4000. 0.27 for operating hours > 4000.

(2) For model years before 2014 for engines with maximum power less than 56 kW, and model years before 2015 for engines with maximum power at 56 kW or higher, for purposes of determining compliance after title or custody has transferred to the ultimate purchaser, the applicable PM compliance limit shall be determined by adding 0.01 g/kW-hr to the otherwise applicable standard or FEL for PM.

(e) *Provisions for small-volume manufacturers.* Special provisions apply to you if you are a small-volume engine manufacturer subject to the requirements of this part. You must contact us before 2008 if you intend to use these provisions.

(1) You may delay complying with the following otherwise applicable Tier 4 emission standards for three model years:

(i) PM standard for engines with maximum power less than 19 kW.

(ii) NMHC + NO_X standard for engines with maximum power at least 19 kW but less than 37 kW.

(iii) NMHC + NO_X and PM standards for engines with maximum power at least 56 kW but less than 130 kW.

(2) For engines with maximum power at least 19 kW but less than 56 kW, if you choose to meet the interim PM standard in § 1039.102 by model year 2011 (without using PM credits), you may delay complying with the Tier 4 PM standard in § 1039.101 for engines with maximum power at least 19 kW but less than 56 kW for three model years.

(f) *Deficiencies for NTE emission standards.* (1) For the first three model years during which Tier 4 standards apply for your engines, you may ask us to accept an engine as compliant with the NTE standards even though specific requirements are not fully met. We will grant such deficiencies (*i.e.*, compliance without meeting specific requirements) only if compliance would be infeasible or unreasonable considering such factors as, but not limited to: technical feasibility of the given hardware and lead time and production cycles, including phase-in or phase-out of engines or vehicle designs and programmed upgrades of computers. We will approve deficiencies on an engine-model and/or horsepower-rating basis within an engine family, and each approval is applicable for a single model

year. Your request must include a description of the auxiliary emission control device(s) which will be used to maintain emissions to the lowest practical level, considering the deficiency being requested, if applicable. An application for a deficiency must be made during the certification process; no deficiency will be granted to retroactively cover engines already certified.

(2) For the next four model years after the period covered by paragraph (f)(1) of this section, we may allow up to three deficiencies per engine family. The provisions of paragraphs (f)(1) of this section apply for deficiencies allowed by this paragraph (f)(2). In determining whether to allow the additional deficiencies, we may consider any relevant factors, including the factors identified in paragraph (f)(1) of this section. If we approve additional deficiencies, we may set any additional conditions that we determine to be appropriate.

(3) Unmet requirements should not be carried over from the previous model year, except where unreasonable hardware or software modifications would be necessary to correct the deficiency, and we determine that you have demonstrated an acceptable level of effort toward compliance. The NTE deficiency should only be seen as an allowance for minor deviations from the NTE requirements. The NTE deficiency provisions allow you to apply for relief from the NTE emission requirements under limited conditions. We expect that you should have the necessary functioning emission-control hardware in place to comply with the NTE standards.

(g) *Test fuels.* The diesel test fuel for model years 2008 through 2010 is the diesel test fuel specified in 40 CFR 1065.205, with the following exception: the sulfur content must be 300–500 ppm instead of 7–15 ppm. This paragraph (g) also allows the early use of 7–15 ppm sulfur test fuels in certain cases.

(1) For model years 2008 through 2010, you may use the 7–15 ppm sulfur test fuel for any engine family where you can demonstrate that the engines in the family will operate only on fuel with less than 15 ppm sulfur in-use.

(2) For model years 2008 through 2010, you may use the 7–15 ppm sulfur test fuel for any engine family containing only engines with maximum engine power less than 56 kW, provided:

(i) You ensure that ultimate purchasers of equipment using these engines are informed that the use of fuel meeting the 15 ppm specification is recommended.

(ii) You provide along with your installation instructions to equipment manufacturers labels to be applied at the fuel inlet recommending 15 ppm fuel. This labeling requirement applies instead of the requirement in § 1039.135(f).

(iii) None of the engines in your engine family employ sulfur-sensitive technologies.

(4) For engines certified under § 1039.101(j) in model year 2010, the diesel test fuel is the diesel test fuel specified in 40 CFR 1065.205.

(h) *Requirements for equipment manufacturers.* The provisions of this paragraph (h) apply to equipment manufacturers that use engines certified to the Tier 3 standards under Option #2 of Table 2 of § 1039.102 in any model year from 2008 to 2011. For model year 2012, you must use engines certified under Option #2 of Table 2 of § 1039.102 in any product for which you previously used an engine certified to the Tier 3 standards under Option #2 of Table 2 of § 1039.102. Use of an engine in model year 2012 that was certified under Option #1 of Table 2 of § 1039.102 in such equipment would be a violation of § 1068.101(a)(1).

§ 1039.105 What smoke standards must my engines meet?

Your engines must have less than 22 percent opacity when measured with the smoke test procedure in § 1039.501 throughout its useful life.

§ 1039.107 What evaporative emissions standards and requirements apply?

There are no evaporative emission standards for diesel-fueled engines, or engines using other nonvolatile or nonliquid fuels (for example, natural gas). If your engine uses a volatile liquid fuel, such as methanol, you must meet the evaporative emission requirements of 40 CFR part 1048 that apply to spark-ignition engines, as follows:

(a) Follow the steps in 40 CFR 1048.245 to show that you meet the requirements of 40 CFR 1048.105.

(b) Do the following things in your application for certification:

(1) Describe how your engines control evaporative emissions.

(2) Present test data to show your vehicles meet the evaporative emission standards we specify in subpart B of this part if you do not use design-based certification under 40 CFR 1048.245. Show these figures before and after applying deterioration factors, where applicable.

§ 1039.110 [Reserved]

§ 1039.115 What other requirements must my engines meet?

Your engines must meet the following requirements:

(a) *Crankcase emissions.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any engine, except as follows:

(1) Engines equipped with turbochargers, pumps, blowers, or superchargers for air induction may discharge crankcase emissions to the ambient atmosphere if the emissions are added to the exhaust emissions (either physically or mathematically) during all emission testing.

(2) If you take advantage of this exception, you must:

(i) Manufacture the engines so that all crankcase emission can be routed into the applicable sampling systems specified in 40 CFR part 1065.

(ii) Account for deterioration in crankcase emissions when determining exhaust deterioration factors.

(3) For the purpose of this paragraph (a), crankcase emissions that are routed to the exhaust upstream of exhaust aftertreatment during all operation are not considered to be ''discharged directly into the ambient atmosphere.''

(b)–(d) [Reserved]

(e) *Adjustable parameters.* Engines that have adjustable parameters must meet all the requirements of this part for any adjustment in the physically adjustable range. An operating parameter is not considered adjustable if you permanently seal it or if it is not normally accessible using ordinary tools. We may require that you set adjustable parameters to any specification within the adjustable range during any testing, including certification testing, selective enforcement auditing, or in-use testing.

(f) *Prohibited controls.* You may not design your engines with emission-control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the engine emits a noxious or toxic substance it would otherwise not emit that contributes to such an unreasonable risk.

(g) *Defeat devices.* You may not equip your engines with a defeat device. A defeat device is an auxiliary emission control device that reduces the effectiveness of emission controls under conditions that the engine may reasonably be expected to encounter during normal operation and use. This does not apply to auxiliary emission control devices you identify in your

certification application if any of the following is true:

(1) The conditions of concern were substantially included in the applicable test procedures described in subpart F of this part.

(2) You show your design is necessary to prevent engine (or equipment) damage or accidents.

(3) The reduced effectiveness applies only to starting the engine.

§ 1039.120 What emission-related warranty requirements apply to me?

(a) *General requirements*. You must warrant to the ultimate purchaser and each subsequent purchaser that the new nonroad engine, including all parts of its emission-control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that may keep it from meeting these requirements.

(b) *Warranty period*. Your emission-related warranty must be valid for at least as long as the minimum warranty periods listed in this paragraph (b) in hours of operation and years, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the engine may not be shorter than any published warranty you offer for the engine. If you provide a longer warranty (with or without charge) for any components covered in paragraph (c) of this section, you must also extend the emission-related warranty to the same degree for the same components. If an engine has no hour meter, we base the warranty periods in this paragraph (b) only on the engine's age (in years). The minimum warranty periods are shown in the following table:

If your engine is certified as . . .	And its maximum power is . . .	And its rated speed is . . .	Then its warranty period is . . .
Variable speed or constant speed.	Less than 19 kW	Any speed	1,500 hours or two years, whichever comes first.
Constant speed	At least 19 kW, but less than 37 kW.	3,000 rpm or higher	1,500 hours or two years, whichever comes first.
Constant speed	At least 19 kW, but less than 37 kW.	Less than 3,000 rpm	3,000 hours or five years, whichever comes first.
Variable speed	At least 19 kW, but less than 37 kW.	Any speed	3,000 hours or five years, whichever comes first.
Variable speed or constant speed.	37 kW or higher	Any speed	3,000 hours or five years, whichever comes first.

(c) *Components covered*. The emission-related warranty covers all components whose failure would increase an engine's emissions. This includes components listed in 40 CFR 1068, Appendix I, and components from any other system you develop to control emissions. The emission-related warranty covers these components even if another company produces the component. Your emission-related warranty does not cover components whose failure would not increase an engine's emissions.

(d) *Limited applicability*. You may deny warranty claims under this section if the operator caused the problem, as described in 40 CFR 1068.115.

§ 1039.125 What maintenance instructions must I give to buyers?

Give the ultimate purchaser of each new nonroad engine written instructions for properly maintaining and using the engine, including the emission-control system. The maintenance instructions also apply to service accumulation on your test engines, as described in 40 CFR part 1065, subpart E.

(a) *Critical emission-related maintenance*. Critical emission-related maintenance includes any adjustment, cleaning, repair, or replacement of air-induction, fuel-system, or ignition components, aftertreatment devices, exhaust-gas recirculation systems, crankcase ventilation valves, sensors, or electronic control units. This may also include any other component whose only purpose is to reduce emissions or whose failure will increase emissions without significantly degrading engine performance. You may schedule critical emission-related maintenance on these components if you meet the following conditions:

(1) You may ask us to approve critical emission-related maintenance only if operators are reasonably likely to do the maintenance you call for.

(2) We will accept scheduled maintenance as reasonably likely to occur in use if you satisfy any of four conditions:

(i) You present data showing that, if a lack of maintenance increases emissions, it also unacceptably degrades the engine's performance.

(ii) You present survey data showing that 80 percent of engines in the field get the maintenance you specify at the recommended intervals.

(iii) You provide the maintenance free of charge and clearly say so in maintenance instructions for the customer.

(iv) You otherwise show us that the maintenance is reasonably likely to be done at the recommended intervals.

(3) For engine's with maximum power below 130 kW, you may not schedule emission-related maintenance more frequently than the following minimum intervals, except as specified in paragraph (a)(5) of this section:

(i) For EGR-related filters and coolers, PCV valves, and fuel injector tips (cleaning only), the minimum interval is 1,500 hours.

(ii) For fuel injectors, turbochargers, catalytic converter, electronic engine control units (and associated sensors and actuators), particulate traps, trap oxidizers, and related components (cleaning and repair only), EGR system (including related components, but excluding filters and coolers), and other add-on emission-related components, the minimum interval is 3,000 hours.

(4) For engine's with maximum power at or above 130 kW, you may not schedule emission-related maintenance more frequently than the following minimum intervals, except as specified in paragraph (a)(5) of this section:

(i) For EGR-related filters and coolers, PCV valves, and fuel injector tips (cleaning only), the minimum interval is 1,500 hours.

(ii) For fuel injectors, turbochargers, catalytic converter, electronic engine control units (and associated sensors and actuators), particulate traps, trap oxidizers, and related components (cleaning and repair only), EGR system (including related components, but excluding filters and coolers), and other add-on emission-related components, the minimum interval is 4,500 hours.

(5) If your engine family has an alternate useful life shorter than the period specified in paragraph (a)(3) or (a)(4) of this section, you may not

schedule maintenance on those components more frequently than the alternate useful life (see § 1039.101(g)).

(b) *Recommended additional maintenance.* You may recommend any additional amount of maintenance on the components listed in paragraph (a) of this section, as long as you make clear that these maintenance steps are not necessary to keep the emission-related warranty valid. If operators do the maintenance specified in paragraph (a) of this section, but not the recommended additional maintenance, this does not allow you to disqualify them from in-use testing or deny a warranty claim.

(c) *Special maintenance.* You may specify more frequent maintenance to address problems related to special situations, such as atypical engine operation.

(d) *Noncritical emission-related maintenance.* For engine parts not listed in paragraph (a) of this section, you may schedule any amount of emission-related inspection or maintenance. But you must state clearly that these steps are not necessary to keep the emission-related warranty valid. Also, do not take these inspection or maintenance steps during service accumulation on your test engines.

(e) *Maintenance that is not emission-related.* For maintenance unrelated to emission controls, you may schedule any amount of inspection or maintenance. You may also take these inspection or maintenance steps during service accumulation on your test vehicles or engines. This might include adding engine oil, changing air, fuel, or oil filters, cooling system maintenance, adjustment of idle speed, governor, engine bolt torque, valve lash, injector lash, timing, or lubrication of the exhaust manifold heat control valve. This nonemission-related maintenance may be performed on durability vehicles at the least frequent intervals that you recommend to the ultimate purchaser (not the intervals recommended for severe service).

(f) *Source of parts and repairs.* Print clearly on the first page of your written maintenance instructions that any repair shop or person may maintain, replace, or repair emission-control devices and systems. Your instructions may not require components or service identified by brand, trade, or corporate name. Also, do not directly or indirectly condition your warranty on a requirement that the vehicle be serviced by your franchised dealers or any other service establishments with which you have a commercial relationship.

You may disregard the requirements in this paragraph (f) if you do one of two things:

(1) Provide a component or service without charge under the purchase agreement.

(2) Get us to waive this prohibition in the public's interest by convincing us the engine will work properly only with the identified component or service.

(g) *Owner's responsibility for maintenance.* The owner is responsible for proper maintenance of the engine. This includes a component related to emission control but not designed for emission control, if it meets either of the following criteria:

(1) The component was in general use on similar engines before January 1, 1990.

(2) Failure of the component would clearly degrade the engine's performance enough that the operator would need to repair or replace it.

§ 1039.130 What installation instructions must I give to equipment manufacturers?

(a) If you sell an engine for someone else to install in a piece of nonroad equipment, give the buyer of the engine written instructions for installing it consistent with the requirements of this part. Include all information necessary to ensure that an engine installed this way will be in its certified configuration.

(b) Make sure these instructions have the following information:

(1) Include the heading: ''Emission-related installation instructions''.

(2) State: ''Failing to follow these instructions when installing a certified engine in a piece of nonroad equipment violates federal law (40 CFR 1068.105(b)), subject to fines or other penalties as described in the Clean Air Act.''.

(3) Describe the instructions needed to install the exhaust system consistent with the requirements of § 1039.205(s).

(4) [Reserved]

(5) Describe any limits on the range of applications needed to ensure that the engine operates consistently with your application for certification. For example, if your engines are certified only for constant-speed operation under § 1039.510(a)(1), tell equipment manufacturers not to install the engines in variable-speed applications.

(6) Describe any other instructions to make sure the installed engine will operate according to design specifications in your application for certification. This may include, for example, instructions for installing aftertreatment devices when installing the engines.

(7) State: ''If you install the engine in a way that makes the engine's emission control information label hard to read during normal engine maintenance, you must place a duplicate label on the vehicle, as described in 40 CFR 1068.105.''.

(c) You do not need installation instructions for engines you install in your own equipment.

§ 1039.135 How must I label and identify the engines I produce?

(a) Assign each engine a legible unique identification number and permanently and affix or engrave it (including stamping) on the engine.

(b) At the time of manufacture, affix a permanent and legible label identifying each engine. The label must be:

(1) Attached in one piece so it is not removable without being destroyed or defaced.

(2) Durable and readable for the engine's entire life.

(3) Secured to a part of the engine needed for normal operation and not normally requiring replacement.

(4) Written in block letters in English.

(c) The label must:

(1) Include the heading ''EMISSION CONTROL INFORMATION''.

(2) Include your full corporate name and trademark.

(3) Identify the emission-control system; your identifiers must use names and abbreviations consistent with SAE J1930 (incorporated by reference in § 1039.810).

(4) List all requirements for fuel and lubricants.

(5) State the date of manufacture [MONTH and YEAR]; you may omit the date of manufacture from the emission control information label if you maintain a record of the engine manufacture dates and provide them to us upon request.

(6) State: ''THIS ENGINE MEETS U.S. ENVIRONMENTAL PROTECTION AGENCY REGULATIONS FOR [MODEL YEAR] NONROAD COMPRESSION-IGNITION ENGINES.''.

(7) State the emission standards to which the engines are certified, or the FELs if you certify the engine using the ABT provisions of subpart H of this part.

(8) Include EPA's standardized designation for the engine family (and subfamily, where applicable).

(9) State the engine's displacement (in liters) and maximum engine power for the family. You may use the advertised power for the engine instead of the maximum engine power for the family, as long as the advertised power is within the power category for which the engine family is certified.

(10) State the engine's useful life (see § 1039.101(g)).

(11) List specifications and adjustments for engine tuneups; show the proper position for the transmission during tuneup and state which accessories should be operating.

(12) Describe other information on proper maintenance and use.

(13) If your engines are certified only for constant-speed operation under § 1039.510(a)(1), add to the engine label ''CONSTANT-SPEED ONLY'.

(14) You may add information to identify other emission standards that the engine meets or does not meet (such as European standards).

(e) If there is not enough space for an emission control information label with all the required information, you may omit the information required in paragraphs (c)(3), (c)(4), and (c)(12) of this section if you print it in the owner's manual instead.

(f) For diesel-fueled engines, label both the engine and equipment to indicate the maximum allowable sulfur level of the fuel, as described in your application for certification.

(1) The label should state either:

(i) ''ULTRA LOW-SULFUR NONROAD DIESEL FUEL OR ON-HIGHWAY DIESEL FUEL ONLY (15 parts per million)''; or

(ii) ''LOW-SULFUR NONROAD DIESEL FUEL, ULTRA LOW-SULFUR NONROAD DIESEL FUEL, OR ON-HIGHWAY DIESEL FUEL ONLY (500 ppm maximum)''.

(2) The equipment must be labeled near the fuel inlet. If you manufacturer the engine, but not the equipment, provide the appropriate label to the equipment manufacturer and notify the equipment manufacturer in the installation instructions. Optionally, if the equipment manufacturer chooses to install its own label, you are not required to provide the label.

(g) You may ask us to approve modified labeling requirements in this part if you show that you are unable to meet them. We will approve your request if this is necessary and your alternate label is consistent with the requirements of this part.

(h) If you obscure the engine label while installing the engine in the equipment, you must place a duplicate label on the equipment. If others install your engine in their equipment in a way that obscures the engine label, we require them to add a duplicate label on the equipment (see 40 CFR 1068.105); in that case, give them the number of duplicate labels they request and keep the following records:

(1) The written request from the equipment manufacturer.

(2) The number of duplicate labels you send and the date you send them.

Subpart C—Certifying Engine Families

§ 1039.201 What are the general requirements for obtaining a certificate of conformity?

(a) You must send us a separate application for a certificate of conformity for each engine family. A certificate of conformity is valid from the date it is issued until December 31 of the model year for which it is issued.

(b) The application must contain all of the information required by this part and must not include false or incomplete statements or information (see § 1039.255).

(c) We may ask you to include less information than we specify in this subpart, provided that all of the specified information is maintained as required by § 1039.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1039.255 for provisions describing how we will process your application.

§ 1039.205 What must I include in my application?

This section specifies the information that must be in you application, unless we ask you to include less information under § 1039.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family's specifications and other basic parameters of the engine's design and emission controls. List the types of fuel on which your engines are designed to operate (for example, diesel fuel). For each engine configuration, list the intended maximum engine power and the associated production tolerances. If the production tolerance for maximum engine power for any configuration exceeds ±5 percent, or if the distribution of actual maximum engine power is asymmetrically distributed around the intended maximum engine power, then you must demonstrate that you have taken reasonable steps to minimize production variability with respect to maximum engine power.

(b) Explain how the emission-control system operates. Describe in detail all the system components for controlling exhaust emissions, including auxiliary emission control devices (AECDs) and all fuel-system components you will install on any production or test engine. For this paragraph (b), treat as separate AECDs any devices that modulate or activate differently from each other. Include all the following:

(1) Give a general overview of the engine, the emission-control strategies, and all AECDs.

(2) Describe each AECD's general purpose and function.

(3) Identify the parameters that each AECD senses (including measuring, estimating, calculating, or empirically deriving the values). Include equipment-based parameters and state whether you simulate them during testing with the applicable procedures.

(4) Describe the purpose for sensing each parameter.

(5) Identify the location of each sensor the AECD uses.

(6) Identify the threshold values for the sensed parameters that activate the AECD.

(7) Describe the parameters that the AECD modulates (controls) in response to any sensed parameters, including the range of modulation for each parameter, the relationship between the sensed parameters and the controlled parameters and how the modulation achieves the AECD's stated purpose. Use graphs and tables, as necessary.

(8) Describe each AECD's specific calibration details. This may be in the form of data tables, graphical representations, or some other description.

(9) Describe the hierarchy among the AECDs when multiple AECDs sense or modulate the same parameter. Describe whether the strategies interact in a comparative or additive manner and identify which AECD takes precedence in responding, if applicable.

(10) Explain the extent to which the AECD is included in the applicable test procedures specified in subpart F of this part.

(11) Do the following additional things for AECDs designed to protect engines or equipment:

(i) Identify the engine and/or equipment design limits that make protection necessary and describe any damage that would occur without the AECD.

(ii) Describe how each sensed parameter relates to the protected components' design limits or those operating conditions that cause the need for protection.

(iii) Describe the relationship between the design limits/parameters being protected and the parameters sensed or calculated as surrogates for those design limits/parameters, if applicable.

(iv) Describe how the modulation by the AECD prevents engines and/or equipment from exceeding design limits.

(v) Explain why it is necessary to estimate parameters instead of measuring them directly and describe

how the AECD calculates the estimated value, if applicable.

(vi) Describe how you calibrate the AECD modulation to activate only during conditions related to the stated need to protect components and only as needed to sufficiently protect those components.

(c) [Reserved]

(d) Describe the engines you selected for testing and the reasons for selecting them.

(e) Describe the test equipment and procedures that you used, including any special or alternate test procedures you used (see § 1039.501).

(f) Describe how you operated the test engine prior to testing, including the duty cycle and the number of engine operating hours used to stabilize emission levels. Explain why the method of service accumulation was selected. Describe any scheduled maintenance you did.

(g) List the specifications of the test fuel to show that it falls within the required ranges we specify in 40 CFR part 1065, subpart C.

(h) Identify the engine family's useful life.

(i) Propose maintenance and use instructions for the ultimate purchaser of each new nonroad engine (see § 1039.125).

(j) Propose emission-related installation instructions if you sell engines for someone else to install in a piece of nonroad equipment (see § 1039.130).

(k) Propose an emission control information label.

(l) Identify the emission standards or FELs to which you are certifying engines in the engine family. Identify the of specifications of ambient operating regions that will apply for NTE testing under § 1039.101(d)(4) (i).

(m) Identify the engine family's deterioration factors and describe how you developed them (see § 1039.245). Present any emission test data you used for this.

(n) Certify that you operated your test engines as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this part.

(o) Present emission data to show that you meet the applicable emission standards. Present emission data for hydrocarbons (NMHC or THCE, as applicable), NO_X, and CO on a test engine to show your engines meet the duty-cycle emission standards we specify in § 1039.101. Show these figures before and after applying regeneration factors and deterioration factors for each engine. Include test data for each type of fuel from 40 CFR part 1065, subpart C, on which you intend for engines in the engine family to operate. If we specify more than one grade of any fuel type (for example, No. 1 and No. 2 diesel fuel), you only need to submit test data for one grade, unless the regulations of this part specify otherwise for your engine. Note that § 1039.235 allows you to submit an application in certain cases without new emission data.

(p) Report all test results, including those from invalid tests or from any other tests, whether or not they were conducted according to the test procedures of subpart F of this part.

(q) Describe all adjustable operating parameters (see § 1039.115(e)), including production tolerances. Include the following in your description of each parameter:

(1) The nominal or recommended setting.

(2) The intended physically adjustable range.

(3) The limits or stops used to establish adjustable ranges.

(4) Information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside the your intended physically adjustable ranges.

(r) Provide the information to read and interpret all the information broadcast by an engine's onboard computers and electronic control modules. State that, upon request, you will give us any hardware, software, or tools we would need to do this. If you broadcast a surrogate parameter for torque values, you must provide us what we need to convert these into torque units. You may reference any appropriate publicly released standards that define conventions for these messages and parameters. Format your information consistent with publicly released standards.

(s) Confirm that nothing will prevent sampling of exhaust emissions after engines are installed in equipment and placed in service. If this cannot be done by simply adding a 20-cm extension to the exhaust pipe, show how to sample exhaust emissions in a way that prevents diluting the exhaust sample with ambient air.

(t) State whether your engines will be limited to constant-speed applications. If your certification is limited to constant-speed applications, describe how you will prevent use of these engines in applications for which they are not certified.

(u) Certify that all the engines in the engine family comply with the not-to-exceed emission standards we specify in subpart B of this part for all normal operation and use when tested as specified in § 1039.515. Describe in detail any testing, engineering analysis, or other information on which you base this statement.

(v) Unconditionally certify that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(w) Include estimates of U.S.-directed production volumes.

(x) Include the information required by other subparts of this part. For example, include the information required by § 1039.730, if you participate in the ABT program.

§ 1039.210 May I get preliminary approval before I complete my application?

If you send us information before you finish the application, we will review it and make any appropriate determinations, especially for questions related to engine family definitions, deterioration factors, service accumulation testing, and maintenance. Decisions made under this section are considered to be preliminary approval, subject to final review and approval. If you request preliminary approval related to the upcoming model year or the model year after that, we will make best-efforts to make the appropriate determinations as soon as practicable. We will generally not provide preliminary approval related to a future model year more than two years ahead of time.

§ 1039.220 How do I amend the maintenance instructions in my application?

You may amend your emission-related maintenance instructions after you submit your application for certification, as long as the amended instructions remain consistent with maintenance you performed on test engines and conform to the requirements of this part. You must send the Designated Compliance Officer a request to amend your application for certification or certificate of conformity for an engine family if you want to change the emission-related maintenance instructions in a way that could affect emissions. In your request, describe the proposed changes to the maintenance instructions. We will disapprove your request if we determine that the amended instructions are inconsistent with maintenance you performed on test engines.

(a) If you are decreasing the specified level of maintenance, you may distribute the new maintenance instructions to your customers 30 days

after we receive your request, unless we disapprove your request. We may approve a shorter time or waive this requirement.

(b) If your requested change would not decrease the specified level of maintenance, you may distribute the new maintenance instructions anytime after you send your request. For example, this paragraph (b) would cover adding instructions to increase the frequency of a maintenance step for engines in severe-duty applications.

(c) You do not need to request approval if you are only making minor corrections (such as correcting typographical mistakes), clarifying your maintenance instructions, or changing instructions for maintenance unrelated to emission control.

§ 1039.225 How do I amend my application or certificate to include new or modified engines?

Before we issue you a certificate of conformity, you may amend your application to include new or modified engine configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may ask to amend your certificate to include new or modified engine configurations, subject to the provisions of this section. You must amend your application or certificate if any changes occur with respect to any information included in your application.

(a) You must amend your application or certificate before you take either of the following actions:

(1) Add an engine (that is, an additional engine configuration) to an engine family. In this case, the engine added must be consistent with other engines in the engine family, with respect to the criteria listed in § 1039.230.

(2) Make a change that may affect emissions or an emission-related part to an engine already included in an engine family. This includes production and design changes. A change is deemed to affect emissions if it will affect emissions at any time during the engine's lifetime.

(b) Send the Designated Compliance Officer a request to amend the application or certificate for an engine family. In your request, do all of the following:

(1) Describe in detail the addition or change in the engine model or configuration you intend to make.

(2) Include engineering evaluations or data showing that the amended engine family complies with all applicable emission standards. You may do this by showing that the original test engine is still appropriate with respect to showing compliance of the amended family with all applicable emission standards.

(3) If the original test engine for the engine family is not appropriate to show compliance for the new or modified nonroad engine, include new test data showing that the new or modified nonroad engine meets the requirements of this part.

(c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.

(d) For engine families that are already covered by a certificate of conformity, we will determine whether the certificate of conformity would cover your new or modified nonroad engine. We will send you a written explanation of our decision. You may ask for a hearing if we deny your request (see § 1039.820).

(e) For engine families that are already covered by a certificate of conformity, you may start producing the new or modified nonroad engine anytime after you send us your request to amend your certificate, prior to our decision under paragraph (d) of this section. If we determine that the affected engines do not meet applicable requirements, we will notify you to cease production of the engines and to recall the engines at no expense to the owner. Choosing to produce engines under this paragraph (e) is deemed to be consent to recall all engines that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide within 30 days information required under paragraph (c) of this section, you must stop producing the new or modified engines.

§ 1039.230 How do I select engine families?

(a) Divide your product line into families of engines that are expected to have similar emission characteristics. Your engine family is limited to a single model year.

(b) Group engines in the same engine family if they are the same in all of the following aspects:

(1) The combustion cycle and fuel.

(2) The cooling system (water-cooled vs. air-cooled).

(3) Method of air aspiration.

(4) Method of exhaust aftertreatment (for example, catalytic converter or particulate trap).

(5) Combustion chamber design.

(6) Bore and stroke.

(7) Number of cylinders, (engines with aftertreatment devices only).

(8) Cylinder arrangement (engines with aftertreatment devices only).

(9) Method of control for engine operation other than governing, (*i.e.*, mechanical or electronic).

(10) Power category.

(c) You may subdivide a group of engines that is identical under paragraph (b) of this section into different engine families, if you show the expected emission characteristics are different during the useful life.

(d) You may group engines that are not identical with respect to the things listed in paragraph (b) of this section in the same engine family if you show that their emission characteristics during the useful life will be similar.

§ 1039.235 What emission testing must I perform for my application for a certificate of conformity?

This section describes the emission testing you must perform to show compliance with the emission standards in § 1039.101 (a) and (b). See § 1039.205(u) regarding emission testing related to the NTE emission standards. See 40 CFR part 1065, subpart E, regarding service accumulation before emission testing

(a) Test your emission-data engines using the procedures and equipment specified in subpart F of this part.

(b) Select from each engine family an engine for each fuel type. Select the engine configuration with the highest fueling rate (primarily at the point of maximum torque), unless good engineering judgment indicates that a different configuration is more likely to exceed (or has emissions nearer to) an applicable emission standard. In making this selection, consider all factors expected to affect emission performance and compliance with the standards, including emission levels of all exhaust constituents, especially NO_X and PM. Select the emission data test engine or engines from this configuration.

(c) We may choose to measure emissions from any of your test engines or other engines from the engine family.

(1) If we do this, you must provide the test engine at the location we select. We may decide to do the testing at your plant or any other facility. If we choose to do the testing at your plant, you must schedule it as soon as possible and make available the instruments and equipment we need.

(2) If we measure emissions on one of your test engines, the results of that testing become the official emission results for the engine. Unless we later invalidate this data, we may decide not to consider your data in determining if your engine family meets the applicable emission standards.

(3) Before we test one of your engines, we may set its adjustable parameters to

any point within the physically adjustable ranges (see § 1039.115(e)).

(4) Calibrate the test engine within normal production tolerances for anything we do not consider an adjustable parameter (see § 1039.205(q)).

(d) You may ask to use emission data for an equivalent engine family from previous model years instead of doing new tests, but only if the data show that the test engine would meet all the requirements applicable for the engine family covered by the application for certification. For the purpose of this paragraph, equivalent engine families are engine families that differ only with respect to model year.

(e) We may require you to test a second engine in addition to the engine tested under paragraph (b) of this section.

(f) If you use an alternate testing procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

(g) You are not required to provide smoke emission data for engines having a certification PM emission level less than 0.07 g/kW-hr or a PM FEL less than 0.07 g/kW-hr.

§ 1039.240 How do I demonstrate that my engine family complies with exhaust emission standards?

(a) For purposes of certification, your engine family is considered in compliance with the applicable numerical emission standards in § 1039.101 (a) and (b) if all emission-data engines representing that family have test results showing deteriorated emission levels at or below these standards. (Note: if you participate in the ABT program in subpart H of this part, your FELs are considered to be applicable emission standards with which you must comply.)

(b) Your engine family is deemed to not comply if any emission-data engine representing that family has test results showing a deteriorated emission level above any applicable emission standard from § 1039.101 for any pollutant.

(c) To compare emission levels from the test engine with the applicable emission standards, apply deterioration factors to the measured emission levels for each pollutant. Section 1039.245 specifies how to test your engine to develop deterioration factors that represent the deterioration expected in emissions over your engines' full useful life. Your deterioration factors must be consistent with emission increases observed from any in-use testing with similar engines. Small-volume engine manufacturers may use assigned deterioration factors that we establish. Apply the deterioration factors as follows:

(1) If you use aftertreatment technology (other than particulate traps) to control emissions of a pollutant, the deterioration factor for that pollutant is the ratio of exhaust emissions at the end of useful life to exhaust emissions at the low-hour test point. Adjust the official emission results for each tested engine at the selected test point by multiplying the measured emissions by the deterioration factor. If the factor is less than one, use one. This provision does not apply for smoke emissions. Multiplicative DFs must be specified to one more significant figure than the applicable standard.

(2) If you use particulate traps or if you use no aftertreatment technology to control emissions of a pollutant, the deterioration factor for that pollutant is the difference between exhaust emissions at the end of useful life and exhaust emissions at the low-hour test point. Adjust the official emission results for each tested engine at the selected test point by adding the factor to the measured emissions. If the factor is less than zero, use zero. Deterioration factors for smoke emission are always additive. Additive DFs must be specified to one more decimal place than the applicable standard.

(3) If your engine vents crankcase emissions to the exhaust or to the atmosphere, you must account for crankcase emission deterioration, using good engineering judgment. You may use separate factors for crankcase emissions (either multiplicative or additive) or include the effects in combined exhaust and crankcase factors.

(d) After adjusting the emission levels for deterioration, round them to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each test engine.

(e) For engines subject to NMHC standards, you may base compliance on total hydrocarbon (THC) emissions. Indicate in your application for certification if you are using this option. If you do, measure THC emissions and calculate NMHC emissions as 98 percent of THC emissions: NMHC = $(0.98) \times (\text{THC})$.

§ 1039.245 How do I determine deterioration factors from exhaust durability testing?

Determine deterioration factors (DFs) to show that your engines will meet emission standards throughout the useful life, as described in §§ 1039.101 and 1039.240. This section describes how to determine deterioration factors, either with an engineering analysis, with pre-existing test data, or with new emission measurements. If you are required to perform durability testing, see § 1039.220 for limitations on the maintenance that you may perform on your test engine. You must determine a separate DF for each pollutant.

(a) You may ask us to approve deterioration factors for an engine family with established technology based on engineering analysis instead of testing. Established technology refers to engines for which the applicable NMHC+NO_X standard or FEL is greater than the Tier 3 NMHC+NO_X standard described in 40 CFR § 89.112, unless the engines use exhaust-gas recirculation or aftertreatment. Established technology also refers to engines for which the applicable NMHC+NO_X standard or FEL is less than or equal to the Tier 3 NMHC+NO_X standard if you can show that the engines do not have technologies other than those generally used on engines meeting NMHC+NO_X standards less stringent than the Tier 3 standards.

(b) You may ask us to approve deterioration factors for an engine family based on emission measurements from similar highway or nonroad engines if you have already given us this data for certifying the other engines in the same or previous model years. Use good engineering judgment to decide whether the two engines are similar. We will approve your request if you show us that the emission measurements from other engines reasonably represent in-use deterioration for the nonroad engine family.

(c) If you are unable to determine deterioration factors for an engine family under paragraph (a) or (b) of this section, select engines, subsystems, or components for testing. Determine deterioration factors based on service accumulation and related testing to represent the deterioration expected from in-use engines over the full useful life. You must measure emissions from the test engine at least three times with evenly spaced intervals of service accumulation. You may use extrapolation to determine deterioration factors once you have established a trend of increasing emissions with age for each pollutant. You may use an engine installed in nonroad equipment to accumulate service hours instead of running the engine only in the laboratory. Use good engineering judgment for all aspects of the effort to establish deterioration factors under this paragraph (c).

(d) Include the following information in your application for certification (see § 1039.205(n)):

(1) If you use test data from a different engine family, explain why this is appropriate and include all the emission measurements on which you base the deterioration factor.

(2) If you determine your deterioration factors based on engineering analysis, explain why this is appropriate and include a statement that all data, analyses, evaluations, and other information you used are available for our review upon request.

(3) If you conduct testing to determine deterioration factors, describe the form and extent of service accumulation, including a rationale for selecting the service-accumulation period and the method you use to accumulate hours.

§ 1039.250 What records must I keep and what reports must I send to EPA?

(a) Within 30 days after the end of the model year, send the Designated Compliance Officer a report describing how many engines you produced in each engine family during the model year. You must report the total number of engines you produced by maximum brake power, total displacement, and the type of fuel system. We may also ask you to give us production figures for each assembly plant if you produce engines at more than one plant. If you produced exempted engines under the provisions of § 1039.625, include in your report the number of exempted engines you produced for each engine model and identify the buyer or shipping destination for each exempted engine.

(b) Organize and maintain the following records:

(1) A copy of all applications and any summary information you sent us.

(2) Any of the information we specify in § 1039.205 that you were not required to include in your application.

(3) A detailed history of each emission-data engine. For each engine, describe all of the following:

(i) The test engine's construction, including its origin and buildup, steps you took to ensure that it represents production engines, any components you built specially for it, and all emission-related components.

(ii) How you accumulated engine operating hours (service accumulation), including the dates and the number of hours accumulated.

(iii) All maintenance, including modifications, parts changes, and other service, and the dates and reasons for the maintenance.

(iv) All your emission tests, including documentation on routine and standard tests, as specified in part 40 CFR part 1065, and the date and purpose of each test.

(v) All tests to diagnose engine or emission-control performance, giving the date and time of each and the reasons for the test.

(vi) Any other significant events.

(4) If we ask, you must give us projected production figures for an engine family. We may ask you to divide your production figures by maximum brake power, total displacement, or assembly plant.

(5) Emission test results from durability testing, and the information required by § 1039.245(d).

(6) Keep a list of engine identification numbers for all the engines you produce under each certificate of conformity.

(b) Keep data from routine emission tests (such as test cell temperatures and relative humidity readings) for one year after we issue the associated certificate of conformity. Keep all other information specified in paragraph (a) of this section for eight years after we issue your certificate.

(c) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

(d) Send us copies of any engine maintenance instructions or explanations if we ask for them.

§ 1039.255 What decisions may EPA make regarding my certificate of conformity?

(a) If we determine your application is complete and shows that the engine family meets all the requirements of this part and the Act, we will issue a certificate of conformity for your engine family for that model year. We may make the approval subject to additional conditions.

(b) We may deny your application for certification if we determine that your engine family fails to comply with emission standards or other requirements of this part or the Act. Our decision may be based on a review of all information available to us. If we deny your application, we will explain why in writing.

(c) In addition, we may deny your application or suspend or revoke your certificate if you do any of the following:

(1) Refuse to comply with any testing or reporting requirements.

(2) Submit false or incomplete information (paragraph (e) of this section applies if this is fraudulent).

(3) Render inaccurate any test data.

(4) Deny us from completing authorized activities despite our presenting a warrant or court order (see 40 CFR 1068.20). This includes a failure to provide reasonable assistance.

(5) Produce engines for importation into the United States at a location where local law prohibits us from carrying out authorized activities.

(6) Fail to supply requested information or amend your application to include all engines being produced.

(7) Take any action that otherwise circumvents the intent of the Act or this part.

(d) We may void your certificate if you do not keep the records we require or do not give us information when we ask for it.

(e) We may void your certificate if we find that you intentionally submitted false or incomplete information.

(f) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 1039.820).

Subpart D—[Reserved]

Subpart E—In-use Testing

§ 1039.401 General Provisions.

We may conduct in-use testing of any engine subject to the standards of this part. However, we will limit recall testing to the first 75 percent of each engine's useful life as specified in § 1039.101(g).

Subpart F—Test Procedures

§ 1039.501 How do I run a valid emission test?

(a) Use the equipment and procedures for compression-ignition engines in 40 CFR part 1065 to determine whether engines meet the duty-cycle emission standards in § 1039.101(a) and (b). Measure the emissions of CO_2 and all the pollutants we regulate in § 1039.101 using the applicable sampling procedures in 40 CFR part 1065. Use the applicable duty cycles specified in §§ 1039.505 and 1039.510.

(b) Section 1039.515 describes the supplemental procedures for evaluating whether engines meet the not-to-exceed emission standards in § 1039.101(c).

(c) Use the equipment and procedures in ISO 8178–9 for evaluating whether engines meet the smoke standards in § 1039.105.

(d) Use the fuels specified in 40 CFR part 1065, subpart C, to conduct valid tests, except as noted in § 1039.515.

(1) Use these test fuels or any commercially available fuel for service accumulation.

(2) For diesel-fueled engines, choose one of the diesel fuels in 40 CFR part 1065, subpart C, for emission testing. Identify this test fuel in your application

for certification and ensure that the emission control information label is consistent with your selection of the test fuel (see § 1039.135(f)). For example, do not test with 15 ppm sulfur fuel if you intend to label your engines to allow 500 ppm sulfur fuel.

(e) You may use special or alternate procedures to the extent we allow them under 40 CFR 1065.10.

(f) This subpart part is addressed to you as a manufacturer, but it applies equally to anyone who does testing for you, and to us when we conduct testing to determine if your engines meet emission standards.

§ 1039.505 Which duty cycles do I use for steady-state testing?

(a) Measure emissions by testing the engine on a dynamometer with one of the following steady-state duty cycles to determine whether it meets the steady-state emission standards in § 1039.101(b):

(1) Use the 5-mode duty cycle described in Appendix I of this part for engines that you will certify only for constant-speed operation.

(2) [Reserved]

(3) Use the 6-mode duty cycle described in Appendix III of this part for engines with maximum power below 19 kW whose certification will not be limited to constant-speed applications.

(4) Use the 8-mode duty cycle described in Appendix IV of this part for engines with maximum power at or above 19 kW whose certification will not be limited to constant-speed applications.

(b) During idle mode, operate the engine with the following parameters:

(1) Hold the speed within your specifications.

(2) Set the engine to operate at its minimum fueling rate.

(3) Keep engine torque under 5 percent of maximum test torque.

(c) For full-load operating modes, operate the engine at its maximum fueling rate.

(d) See 40 CFR part 1065 for detailed specifications of tolerances and calculations.

(e) In the normal test sequence described in 40 CFR part 1065, subpart F, steady-state testing generally follows the transient test. For those cases where we do not require transient testing, perform the steady-state test after an appropriate warm-up period, consistent with good engineering judgment.

§ 1039.510 Which duty cycles do I use for transient testing?

(a) Measure emissions by testing the engine on a dynamometer with one of the following transient duty cycles to determine whether it meets the transient emission standards in § 1039.101(a):

(1) If you certify an engine family for constant-speed operation only, use the transient duty-cycle described in Appendix V of this part.

(2) For all other engines, use the transient duty-cycle described in Appendix VI of this part.

(b) The transient test sequence consists of an initial run through the transient sequence from a cold start, 20 minutes with no engine operation, then a final run through the same transient sequence. Start sampling emissions immediately after you start the engine. Combine the results from these two test runs by applying a weighting factor of 10 percent to the cold-start measurement and 90 percent to the hot-start measurement.

(c) Conduct repeat tests and cool the engine down between tests as described in 40 CFR 86.1335–90 and 86.1336–84(e).

§ 1039.515 What are the test procedures related to not-to-exceed standards?

Use the test procedures described in 40 CFR 86.1370–2007 to determine whether the engine meets the not-to-exceed emission standards in § 1039.101(c).

§ 1039.520 What testing must I perform to establish deterioration factors?

Section 1039.245 describes the method for using test data or engineering analysis to establish deterioration factors for an engine family.

§ 1039.525 How do I adjust emission levels to account for infrequently regenerating aftertreatment devices?

This section describes how to adjust emission results from engines using aftertreatment technology with infrequent regeneration events. For this section, ''regeneration'' means an intended event during which emission levels change while the system restores aftertreatment performance. For example, exhaust gas temperatures may increase temporarily to remove sulfur from adsorbers or to oxidize accumulated particulate matter in a trap. For this section, ''infrequent'' refers to regeneration events that are expected to occur less than once over the applicable transient duty cycle.

(a) *Developing adjustment factors.* Develop an upward adjustment factor and a downward adjustment factor for each pollutant based on measured emission data and observed regeneration frequency. Adjustment factors should generally apply to an entire engine family, but you may develop separate adjustment factors for different engine configurations within an engine family. You may use carryover or carry-across data to establish adjustment factors for an engine family, as described in § 1039.235(d), consistent with good engineering judgment. All adjustment factors for regeneration are additive. You may use either of the following different approaches for engines that use aftertreatment with infrequent regeneration events:

(1) You may disregard this section if regeneration does not significantly effect emission levels for an engine family (or configuration) or if it is not practical to identify when regeneration occurs. If you do not use adjustment factors under this section, your engines must meet emission standards for all testing, without regard to regeneration.

(2) If your engines use aftertreatment technology with extremely infrequent regeneration and you are unable to apply the provisions of this section, you may ask us to approve an alternate methodology to account for regeneration events.

(b) *Calculating average adjustment factors.* Calculate the average adjustment factor (EF_A) based on the following equation:

$$EF_A = (F)(EF_H) + (1 - F)(EF_L)$$

Where:

F = the frequency of the regeneration event in terms of the fraction of tests during which the regeneration occurs.

EF_H = measured emissions from a test in which the regeneration occurs.

EF_L = measured emissions from a test in which the regeneration does not occur.

(c) *Applying adjustment factors.* Apply adjustment factors based on whether regeneration occurs during the test run. You must be able to identify regeneration in a way that is readily apparent during all testing.

(1) If regeneration does not occur during a test run, add an upward adjustment factor to the measured emission rate. Determine the upward adjustment factor (UAF) using the following equation:

$$UAF = EF_A - EF_L$$

(2) If regeneration occurs during a test run, subtract a downward adjustment factor from the measured emission rate. Determine the downward adjustment factor (DAF) using the following equation:

$$DAF = EF_H - EF_A$$

(d) *Sample calculation.* If EF_L is 0.10 g/kW-hr, EF_H is 0.50 g/kW-hr, and F is 0.1 (the regeneration occurs once for each ten tests), then:

$$EF_A = (0.1)(0.5\ g/kW\text{-}hr) + (1.0 - 0.1)(0.1\ g/kW\text{-}hr) = 0.14\ g/kW\text{-}hr$$

$$UAF = 0.14\ g/kW\text{-}hr - 0.10\ g/kW\text{-}hr = 0.04\ g/kW\text{-}hr$$

$$DAF = 0.50\ g/kW\text{-}hr - 0.14\ g/kW\text{-}hr = 0.36\ g/kW\text{-}hr$$

Subpart G—Special Compliance Provisions

§ 1039.601 What compliance provisions apply to these engines?

Engine and equipment manufacturers, as well as owners, operators, and rebuilders of these engines, and all other persons, must observe the provisions of this part, the requirements and prohibitions in 40 CFR part 1068, and the requirements of the Act.

§ 1039.605 What provisions apply to engines already certified under the motor-vehicle program?

(a) If you are an engine manufacturer, this section allows you to certify nonroad engines to the requirements that apply under 40 CFR parts 85 and 86 instead of certifying them under the requirements of this part 1039. If you install engines in nonroad equipment, we will consider you an engine manufacturer if you modify the engine in any of the ways described in paragraph (c)(2) of this section; note that such engine modifications prevent you from using the provisions of this section. We consider engines you produce under this section to be exempt from the requirements of this part. See § 1039.610 for similar provisions that apply to engines certified to chassis-based standards for motor vehicles.

(b) The only requirements or prohibitions from this part that apply to an engine that is exempt under this section are in this section. The engine exempted under this section must meet all applicable requirements from 40 CFR parts 85 and 86. This applies to engine manufacturers, equipment manufacturers who use these engines, and all other persons as if these engines were used in a motor vehicle.

(c) If you meet all the following criteria and requirements regarding your new nonroad engine, it is exempt from the standards in this part:

(1) Your engine must be covered by a valid certificate of conformity under 40 CFR part 86.

(2) You must not make any changes to the certified engine that we could reasonably expect to increase its exhaust emissions. For example, if you make any of the following changes to one of these engines, you do not qualify for this exemption:

(i) Change any fuel system parameters from the certified configuration.

(ii) Change any other emission-related components.

(iii) Modify or design the engine cooling system so that temperatures or heat rejection rates are outside the original engine manufacturer's specified ranges.

(3) You must demonstrate that fewer than 50 percent of the engine model's total sales, from all companies, are used in nonroad applications.

(4) The engine must have the label we require under 40 CFR part 86.

(5) You must add a permanent supplemental label to the engine in a position where it will remain clearly visible after installation in the equipment. In your engine's emission control information label, do the following:

(i) Include the heading: ''Nonroad Engine Emission Control Information''.

(ii) Include your full corporate name and trademark.

(iii) State: ''THIS ENGINE WAS ADAPTED FOR NONROAD USE WITHOUT AFFECTING ITS EMISSION CONTROLS. THE EMISSION-CONTROL SYSTEM DEPENDS ON THE USE OF FUEL MEETING SPECIFICATIONS THAT APPLY FOR MOTOR-VEHICLE APPLICATIONS. OPERATING THE ENGINE ON OTHER FUELS MAY BE A VIOLATION OF FEDERAL LAW.''.

(iv) State the date you finished modifying the engine (month and year), if applicable.

(6) The original and supplemental labels must be readily visible after the engine is installed in the equipment or, if the equipment obscures the engine's emission control information label, the equipment manufacturer must attach duplicate labels, as described in 40 CFR 1068.105.

(7) Send the Designated Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the engine models you expect to produce under this exemption in the coming year.

(iii) State: ''We produce each listed engine model for nonroad application without making any changes that could increase its certified emission levels, as described in 40 CFR 1039.605.''.

(d) If your engines do not meet the criteria listed in paragraph (c) of this section, they will be subject to the standards and prohibitions of this part. Producing these engines without a valid exemption or certificate of conformity would violate the prohibitions in 40 CFR 1068.101.

(e) If you are the original engine manufacturer of both the highway and nonroad versions of an exempted engine, you must send us emission test data on the applicable nonroad duty cycle(s). You may include the data in your application for certification or in your letter requesting the exemption.

(f) If you are the original manufacturer of an exempted engine that is modified by another company under this exemption, we may require you to send us emission test data on the applicable nonroad duty cycle(s). If we ask for this data, we will allow a reasonable amount of time to collect it. You are responsible for emission-related compliance under 40 CFR parts 85 and 86 for these engines, unless another company becomes the engine manufacturer for these engines (see paragraph (a) of this section).

(g) If you are not an engine manufacturer, you may produce nonroad equipment from motor-vehicle engines under this section as long as the engine has the label we specify in paragraph (c)(5) of this section and you do not modify the engine in any way that may affect its emission control. Add the fueling label we specify in § 1039.135(f)(1)(i).

§ 1039.610 What provisions apply to vehicles already certified under the motor-vehicle program?

(a) If you are an engine manufacturer, this section allows you to certify nonroad vehicles to the requirements that apply under 40 CFR parts 85 and 85 instead of certifying them under the requirements of this part 1039. We consider engines and vehicles you produce under this section to be exempt from the requirements of this part. See § 1039.605 for similar provisions that apply to motor-vehicle engines certified to engine-based standards.

(b) The only requirements or prohibitions from this part that apply to an engine that is exempt under this section are in this section. The vehicle and the engine exempted under this section must meet all applicable requirements from 40 CFR parts 85 and 86. This applies to engine manufacturers, equipment manufacturers who use these engines, and all other persons as if these engines were used in a motor vehicle.

(c) If you meet all the following criteria and requirements regarding your new nonroad vehicle, it is exempt from the standards in this part:

(1) Your vehicle must be covered by a valid certificate of conformity under 40 CFR part 86.

(2) You must not make any changes to the certified engine or vehicle that we could reasonably expect to increase its exhaust emissions. For example, if you make any of the following changes, you do not qualify for this exemption:

(i) Change any fuel system parameters from the certified configuration.

(ii) Change any other emission-related components.

(iii) Modify or design the engine cooling system so that temperatures or heat rejection rates are outside the original engine manufacturer's specified ranges.

(3) You must demonstrate that fewer than 50 percent of the engine model's total sales, from all companies, are used in nonroad applications.

(4) The vehicle must have the label we require under 40 CFR part 86.

(5) You must add a permanent supplemental label to the engine in a position where it will remain clearly visible after installation in the equipment. In your engine's emission control information label, do the following:

(i) Include the heading: ''Nonroad Engine Emission Control Information''.

(ii) Include your full corporate name and trademark.

(iii) STATE: ''THIS ENGINE WAS ADAPTED FOR NONROAD USE WITHOUT AFFECTING ITS EMISSION CONTROLS. THE EMISSION-CONTROL SYSTEM DEPENDS ON THE USE OF FUEL MEETING SPECIFICATIONS THAT APPLY FOR MOTOR-VEHICLE APPLICATIONS. OPERATING THE ENGINE ON OTHER FUELS MAY BE A VIOLATION OF FEDERAL LAW.''.

(iv) State the date you finished modifying the engine (month and year), if applicable.

(6) The original and supplemental labels must be readily visible after the engine is installed in the equipment or, if the equipment obscures the engine's emission control information label, the equipment manufacturer must attach duplicate labels, as described in 40 CFR 1068.105.

(7) Send the Designated Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the vehicle models you expect to produce under this exemption in the coming year.

(iii) State: ''We produce each listed engine or vehicle model for nonroad application without making any changes that could increase its certified emission levels, as described in 40 CFR 1039.610.''.

(d) If your engines do not meet the criteria listed in paragraph (c) of this section, they will be subject to the standards and prohibitions of this part. Producing these engines without a valid exemption or certificate of conformity would violate the prohibitions in 40 CFR 1068.101.

(e) If you are the original engine manufacturer of both the highway and nonroad versions of an exempted engine, you must send us emission test data on the applicable nonroad duty cycle(s). You may include the data in your application for certification or in your letter requesting the exemption.

(f) If you are the original manufacturer of an exempted engine that is modified by another company under this exemption, we may require you to send us emission test data on the applicable nonroad duty cycle(s). If we ask for this data, we will allow a reasonable amount of time to collect it. You are responsible for emission-related compliance under 40 CFR parts 85 and 86 for these engines, unless another company becomes the engine manufacturer for these engines (see paragraph (a) of this section).

(g) If you are not an engine manufacturer, you may produce nonroad equipment from motor vehicles under this section as long as the engine has the label we specify in paragraph (c)(5) of this section and you do not modify the engine in any way that may affect its emission control.

§ 1039.615 What special provisions apply to engines using noncommercial fuels?

In § 1039.115(e), we generally require that engines meet emission standards for any adjustment within the full range of any adjustable parameters. For engines that use noncommercial fuels significantly different than the specified test fuel of the same type, you may ask us to use the parameter-adjustment provisions of this section instead of those in § 1039.115(e). Engines certified under this section must be in a separate engine family.

(a) If we approve your request, you may do the following:

(1) Certify the engine using the specified test fuel.

(2) Produce the engine without limits or stops to keep the engine adjusted within the certified range.

(3) Specify in-use adjustments different than the adjustable settings appropriate for the certified test fuel, consistent with the provisions of paragraph (b)(1) of this section.

(b) To produce engines under this section, you must do the following:

(1) Specify in-use adjustments needed so the engine's level of emission control is equivalent to that from the certified configuration.

(2) Add the following information to the emission control information label specified in § 1039.135:

(i) Include instructions describing how to adjust the engine to operate in a way that maintains the effectiveness of the emission-control system.

(ii) STATE: ''THIS ENGINE IS CERTIFIED TO OPERATE IN APPLICATIONS USING NONCOMMERCIAL FUEL. mALADJUSTMENT OF THE ENGINE IS A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.''.

(3) Keep records to document the destinations and quantities of engines produced under this section.

§ 1039.620 What are the provisions for exempting engines used solely for competition?

(a) As an equipment manufacturer, you may use an uncertified engine if your vehicle or equipment will be used solely for competition.

(b) The definition of nonroad engine in 40 CFR 1068.30 excludes engines used solely for competition. These engines are not required to comply with this part, but 40 CFR 1068.101 restricts the use of competition engines for non-competition purposes and this section requires that you label these engines.

(c) As an engine manufacturer, your engine is exempt without a request if you have a written request for an exempted engine from the equipment manufacturer, showing the basis for believing that the equipment will be used solely for competition.

(d) We consider a vehicle or piece of equipment to be one that will be used solely for competition if it has features that are not easily removed that would make its use other than in competition unsafe, impractical, or highly unlikely.

(e) We may discontinue your exemption if we find that engines

exempted under this section are not used solely for competition.

(f) You must permanently label engines exempted under this section to clearly indicate that they are to be used solely for competition. Failure to properly label an engine will void its exemption.

§ 1039.625 What requirements apply under the program for equipment-manufacturer flexibility?

The provisions of this section allow equipment manufacturers to produce equipment with engines certified to previous tiers of emission standards after the Tier 4 emission standards begin to apply. To be eligible to use these provisions, you must follow all the instructions in this section. See 40 CFR 89.102(d) and (e) for provisions that apply to equipment made while Tier 1, Tier 2, or Tier 3 standards apply. See § 1039.626 for requirements that apply specifically to equipment manufacturers using the flexibility provisions of this section for equipment produced outside the United States.

(a) *General.* We may allow you to introduce into commerce in the United States limited numbers of nonroad equipment with exempted engines under this section. These provisions are available up to seven years after Tier 4 emission standards begin for each engine-power category, as shown in Table 1 of this section. Consider all U.S.-directed equipment sales, including those from any parent or subsidiary companies, in showing that you meet the requirements of this section. You may use the exemptions in this section only if you have the primary responsibility for designing and manufacturing the equipment and install the engine in the equipment.

TABLE 1 OF § 1039.625

Engine power	Model year
kW < 19	2008
19 ≤ kW < 56	2013
56 ≤ kW < 130	2012
130 ≤ kW < 560	2011
kW > 560	2011

(b) *Allowances.* The following provisions, which apply separately to each engine-power category used to define emission standards in § 1039.101, describe how many exempted engines you may produce under this section:

(1) *Percent-of-production allowances.* You may produce a certain number of units with exempted engines based on a percentage of your total sales within an engine-power category. The sum of these percentages within an engine-power category during the seven-year period specified in paragraph (a) of this section may not exceed 80 percent of your U.S.-directed production, except as allowed under paragraph (b)(2) of this section.

(2) *Small-volume allowances.* You may produce up to 700 units with exempted engines within an engine-power category during the seven-year period, with no more than 200 units in any single calendar year within an engine-power category. This paragraph (b)(2) applies only to engines from a single engine family within each calendar year.

(c) *Percentage calculation.* Calculate annually the percentage of equipment with exempted engines from your total U.S.-directed production within an engine-power category if you need to show that you meet the percent-of-production allowances in paragraph (b)(1) of this section.

(d) *Inclusion of engines not subject to Tier 4 standards.* The following provisions apply to engines that are not subject to Tier 4 standards:

(1) If you use the provisions of § 1068.105(a) to use up your inventories of engines not certified to new emission standards, do not include these units in your count of equipment with exempted engines under paragraph (b) of this section.

(2) If you install engines that are exempted from the Tier 4 standards for any reason, other than for equipment-manufacturer flexibility under this section, do not include these units in your count of exempted engines under paragraph (b) of this section. For example, if we grant a hardship exemption for the engine manufacturer, you do not need to count those as exempted engines under this section. This paragraph (d)(2) applies only if the engine has a permanent label describing why it is exempted from the Tier 4 standards.

(3) If the engine's model year or manufacturing date for its engine-power category precedes the applicability of the Tier 4 standards, you may nevertheless start using the allowances under this section before the applicability of the Tier 4 standards apply; however, you may not start using these early allowances before the seven-year period for using allowances under the Tier 2 or Tier 3 program expires (see 40 CFR 89.102(d)). To use these early allowances, you must use engines that meet the emission standards described in paragraph (e) of this section. You must also count these units or calculate these percentages as described in paragraph (c) of this section and apply them to the total number or percentage of equipment with exempted engines we allow for the Tier 4 standards as described in paragraph (b) of this section. The maximum number of cumulative early allowances is 10 percent under the percent-of-production allowance or 100 units under the small-volume allowance.

(4) Do not include equipment using model year 2008 or 2009 engines certified under the provisions of § 1039.101(j) in your count of equipment using exempted engines.

(e) *Standards.* If you produce equipment with exempted engines under this section, the engines must meet less stringent emission standards.

(1) If you are using the provisions of paragraph (d)(3) of this section, engines must meet the appropriate Tier 1 (or more stringent) emission standards described in § 89.112.

(2) In all other cases, engines with maximum power from 37 kW up to 560 kW must meet the appropriate Tier 3 standards described in § 89.112. Engines with maximum power below 37 kW or at least 560 kW must meet the appropriate Tier 2 standards described in § 89.112.

(f) *Equipment labeling.* You must add a permanent, legible label, written in block letters in English to the engine or another readily visible part of each piece of equipment you produce with exempted engines under this section. This label, which supplements the engine manufacturer's emission control information label, must include at least the following items:

(1) The label heading ''EMISSION CONTROL INFORMATION''.

(2) Your corporate name and trademark.

(3) The calendar year in which the equipment is manufactured.

(4) Whom to contact for further information.

(5) The following statement: THIS EQUIPMENT [or identify the type of equipment] HAS AN ENGINE THAT HAS BEEN EXEMPTED FROM CURRENT FEDERAL NONROAD EMISSION STANDARDS, AS ALLOWED BY 40 CFR 1039.625.

(g) *Notification and reporting.* You must notify us of your intent to use the provisions of this section and send us an annual report to verify that you are not exceeding the allowances.

(1) Before January 1 of the first year you intend to use the flexibility provisions of this section, send the Designated Compliance Officer and the Designated Enforcement Officer a written notice of your intent, including:

(i) Your company's name and address.

(ii) Whom to contact for more information.

(iii) The calendar years you expect to use the exemption provisions of this section.

(iv) The name and address of the company that produces the engines you will be using for the equipment exempted under this section.

(v) Your best estimate of the number of units in each engine-power category you will produce under this section in the upcoming calendar year and whether you intend to comply under paragraph (b)(1) or (b)(2) of this section.

(vi) The number of units in each engine-power category you have sold in previous calendar years under 40 CFR 89.102(d).

(2) For each year that you use the flexibility provisions of this section, send the Designated Compliance Officer and the Designated Enforcement Officer a written report by March 31 of the following year. Include in your report the total number of engines you sold in the preceding year for each engine-power category, based on actual U.S.-directed production information. Also identify the percentages of U.S.-directed production that correspond to the number of units in each engine-power category and the cumulative numbers and percentages of units for all the units you have sold under this section for each engine-power category. You may omit the percentage figures if you include in the report a statement that you will not be using the percent-of-production allowances in paragraph (b)(1) of this section.

(h) *Recordkeeping.* Keep the following records of all equipment with exempted engines you produce under this section for at least five full years after the final year in which allowances are available for each engine-power category:

(1) The model number, serial number, and the date of manufacture for each engine and piece of equipment.

(2) The maximum power of each engine.

(3) The total number or percentage of equipment with exempted engines, as described in paragraph (b) of this section and all documentation supporting your calculation.

(4) The notifications and reports we require under paragraph (g) of this section.

(i) *Enforcement.* Producing more exempted engines or equipment than we allow under this section, or installing engines that do not meet the certification requirements of paragraph (e) of this section, is a violation of 40 CFR 1068.101(a)(1). You must give us the records we require under this section if we ask for them (see 40 CFR 1068.101(a)(2)).

(j) *Provisions for engine manufacturers.* As an engine manufacturer, you may produce exempted engines as needed under this section. You do not have to request this exemption for your engines, but you must have written assurance from equipment manufacturers that they need a certain number of exempted engines under this section. Send us an annual report of the engines you produce under this section, as described in § 1039.250(a). The exempted engines must meet less stringent standards, as described in paragraph (e) of this section. It must also have the label we require in § 1039.135, with the following additional statement: ''THIS ENGINE HAS BEEN EXEMPTED FROM CURRENT FEDERAL NONROAD EMISSION STANDARDS. SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN FOR THE EQUIPMENT FLEXIBILITY PROVISIONS OF 40 CFR 1039.625 MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

(k) *Other exemptions.* See 40 CFR 1068.255 for exemptions based on hardship for equipment manufacturers and secondary engine manufacturers.

§ 1039.626 What special provisions apply to engines imported under the equipment-manufacturer flexibility program?

This section identifies requirements that apply specifically to equipment manufacturers using the flexibility provisions of § 1039.625 for equipment produced outside the United States. For purposes of this section, only a nonroad equipment manufacturer with primary responsibility for designing and manufacturing a piece of equipment that also installs the engine in the equipment is eligible to use the allowances under § 1039.625. Companies that import equipment into the U.S., but do not have the primary responsibility for designing and manufacturing a piece of equipment or do not install the engine in the equipment are not eligible for these allowances. They may import exempt equipment if it is covered by an allowance or transition provision associated with an equipment manufacturer meeting the requirements of § 1039.625 and this section. As an equipment manufacturer, you may use the allowances specified in § 1039.625 if you comply with the provision in § 1039.625 and commit to the following:

(a) Any United States Environmental Protection Agency inspector or auditor will be given full, complete and immediate access to conduct inspections and audits of the foreign nonroad equipment manufacturer.

(1) Inspections and audits may be either announced in advance by EPA, or unannounced.

(2) Access will be provided to any location where:

(i) Nonroad equipment or vehicle is produced;

(ii) Documents related to manufacturer operations are kept; and

(iii) Equipment or vehicles are tested or stored.

(3) Inspections and audits may be by EPA employees or EPA contractors.

(4) Any documents requested that are related to matters covered by inspections and audits will be provided to an EPA inspector or auditor on request.

(5) Inspections and audits by EPA may include review and copying of any documents related to demonstrating compliance with the exceptions in § 1039.625.

(6) Inspections and audits by EPA may include taking samples of equipment or vehicles, and interviewing employees.

(7) Any employee of a foreign nonroad equipment manufacturer will be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(8) English language translations of any documents will be provided to an EPA inspector or auditor, on request, within 10 working days.

(9) English language interpreters will be provided to accompany EPA inspectors and auditors, on request.

(b) An agent for service of process located in the District of Columbia will be named, and service on this agent constitutes service on the foreign nonroad equipment manufacturer or any officer, or employee of the foreign nonroad equipment manufacturer for any action by EPA or otherwise by the United States related to the requirements of this part.

(c) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations promulgated thereunder shall be governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(d) United States substantive and procedural laws shall apply to any civil or criminal enforcement action against the foreign nonroad equipment manufacturer or any employee of the foreign nonroad equipment manufacturer related to the provisions of this section.

(e) Submitting a notification of intention to use any of the exceptions in § 1039.625 above, producing and exporting equipment or vehicles to the

United States for resale, and all other actions to comply with the requirements of this part constitute actions or activities covered by and within the meaning of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign nonroad equipment manufacturer, its agents, officers, and employees in any court or other tribunal in the United States for conduct that violates the requirements of part 1039, including such conduct that violates 18 U.S.C. 1001, Clean Air Act section 113(c)(2), or other applicable provisions of the Clean Air Act.

(f) The foreign nonroad equipment manufacturer, or its agents, officers, or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors, whether EPA employees or EPA contractors, for actions performed within the scope of EPA employment related to the provisions of this section.

(g) The commitment required by this section shall be signed by the owner or president of the foreign nonroad equipment manufacturer business.

(h) *Sovereign immunity.* By submitting a notification of its intent to use the flexibility provision under § 1039.625, or by producing and exporting for resale to the United States nonroad equipment under this section, the foreign nonroad equipment manufacturer, its agents, officers, and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign nonroad equipment manufacturer, its agents, officers, and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign nonroad equipment manufacturer under this part, including such conduct that violates 18 U.S.C. 1001, section 113(c)(2) of the Clean Air Act, or other applicable provisions of the Clean Air Act.

(i) *English language reports.* Any report or other document submitted to EPA by any foreign nonroad equipment manufacturer shall be in the English language, or shall include an English language translation.

§ 1039.630 What are the hardship provisions for equipment manufacturers?

If you qualify for the hardship provisions specified in 40 CFR 1068.255, we may approve your hardship application subject to three additional conditions:

(a) You must show that you were selling new equipment with engines that were certified to meet the requirements of 40 CFR part 89 before 2003.

(b) You must show that you have used up the allowances to produce equipment with exempted engines under § 1039.625.

(c) You may produce engines under this section for up to one year total (or two years for small-volume manufacturers).

§ 1039.635 What are the hardship provisions for engine manufacturers?

If you qualify for the hardship provisions specified in 40 CFR 1068.245, we may approve a period of delayed compliance for up to two years total for small-volume manufacturers or one year total for all other companies. If you qualify for the hardship provisions specified in 40 CFR 1068.250 for small-volume manufacturers, we may approve a period of delayed compliance for up to two years total.

§ 1039.639 What special provisions apply to engines sold in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

Engines introduced into commerce in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are subject to the latest emission standards in 40 CFR 89.112 instead of the Tier 4 standards in § 1039.101, but only if the engines include the following statement on the label we require in 40 CFR 89.110 (or on a separate, permanent label with your corporate name and trademark): ''THIS ENGINE DOES NOT CONFORM TO U.S. EPA EMISSION REQUIREMENTS IN EFFECT AT THE TIME OF PRODUCTION AND MAY NOT BE IMPORTED INTO THE UNITED STATES OR ANY TERRITORY OF THE UNITED STATES EXCEPT GUAM, AMERICAN SAMOA, OR THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS.''. Introducing any such engine into commerce in any state or territory of the United States other than Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands, throughout its lifetime, is a violation of 40 CFR 1068.101(a)(1).

§ 1039.645 What special provisions apply to engines used for transportation refrigeration units?

The provisions of this section apply for engines used in transportation refrigeration units (TRUs). All other provisions of this part apply for these engines, except as specified in this section.

(a) Engines used only in TRU applications may be certified using the following special provisions:

(1) The engines are not required to meet the transient emission standards of subpart B of this part.

(2) The steady-state emission standards of subpart B apply for emissions measured over the steady-state test cycle described in paragraph (b) of this section instead of the otherwise applicable test cycle described in Appendix I, III, or IV of this part.

(b) The steady-state test cycle for TRU engines is:

STEADY-STATE CYCLE FOR TRU ENGINES

Mode No.	Engine speed	Observed tourqe [1]	Minimum time in mode (minutes)	Weighting factors
1	Maximum test speed	75	3.0	0.25
2	Maximum test speed	50	3.0	0.25
3	Intermediate test speed	75	3.0	0.25
4	Intermediate test speed	50	3.0	0.25

[1] The percent torque is relative to the maximum torque at the given engine speed.

(c) Engines certified under this section must be certified in a separate engine family that contains only TRU engines.

(d) You must do the following for each engine certified under this section:

(1) State on the emission control information label for each engine that is certified under the provisions of this

section: ''This engine is certified to operate only in transportation refrigeration units. Use of this the engine in other applications is a violation of federal law subject to civil penalty.''.

(2) State in the installation instructions required by § 1039.130 all instructions necessary to ensure that the engine will operate only in the modes covered by the test cycle described in this section.

(3) Keep records to document the destinations and quantities of engines produced under this section.

(e) An engine is not a TRU engine that can be certified under this section if any of the following are true:

(1) The engine is installed in any equipment other than refrigeration units for railcars, truck trailers or other freight vehicles.

(2) The engine operates in any mode not covered by the test cycle described in this section, except for negligible transitional operation between two allowable modes. As an example, a thirty-second transition period would clearly not be considered negligible.

(3) The engine is sold in a configuration that allows the engine to operate in any mode not covered by the test cycle described in this section. As an example, this would include an engine sold without a governor that limited operation to only those modes covered by the test cycle described in this section.

(4) The engine is subject to Tier 3 or earlier standards, or phase-out Tier 4 standards.

(f) All engines certified under this section must comply with the NTE requirements of subpart B of this part. This requirement applies without regard to whether the engine would otherwise have been subject to NTE standards if it had not been certified under this section.

Subpart H—Averaging, Banking, and Trading for Certification

§ 1039.701 General provisions.

(a) You may average, bank, and trade (ABT) emission credits for purposes of certification as described in this subpart to show compliance with the standards of this part. Participation in this program is voluntary.

(b) The averaging set restrictions that apply are specified in § 1039.735.

(c) The definitions of Subpart I of this part apply to this subpart. The following definitions also apply:

(1) *Actual credits* means credits you have generated that we have verified in reviewing the final report.

(2) *Broker* means any entity that facilitates a trade between a buyer and seller.

(3) *Buyer* means the entity that receives credits as a result of trade.

(4) *Reserved credits* means credits you have generated that we have not yet verified in reviewing the final report.

(5) *Seller* means the entity that provides credits during a trade.

(6) *Standard* means the standard that applies under subpart B of this part for engines not participating in the ABT program of this subpart.

(d) Credits generated under this subpart cannot be used to offset any exceedances above FEL. This applies for all testing, including certification, SEA, and in-use testing. Note: You may use credits to allow you to recertify the engine family to a higher FEL that would be applicable to future production.

(e) Credits can be used in the year they are generated or in future years. Credits may not be used for past model years.

(f) Engine families that use credits for one or more pollutants, may not generate positive credits for another pollutant.

§ 1039.705 How do I generate and calculate emission credits?

The provisions of this section apply separately for calculating NO_X credits, $NMHC+NO_X$ credits, or PM credits.

(a) Calculate positive credits for an engine family that has an FEL below the applicable standard. Calculate negative credits for an engine family that has an FEL above the applicable standard.

(b) For each participating engine family, calculate NO_X emission credits, $NMHC+NO_X$ emission credits and/or PM emission credits (positive or negative) according to the following equation. Round them to the nearest one-hundredth of a megagram (Mg), using consistent units throughout the equation:

$$\text{Emission credits} = (\text{Std} - \text{FEL}) \times (\text{Volume}) \times (\text{AvgPR}) \text{ '' } (\text{UL}) \times (10^{-6})$$

Where:

Std = the standard, in grams per kilowatt-hour, that applies under subpart B of this part for engines not participating in the ABT program of this subpart.

FEL = the family emission limit for the engine family in grams per kilowatt-hour.

Volume = the number of nonroad engines eligible to participate in the averaging, banking, and trading program within the given engine family during the model year, as described in paragraph (c) of this section.

AvgPR = the average maximum engine power of all of the configurations within an engine family, calculated on a sales-weighted basis, in kilowatts.

UL = the useful life for the given engine family, in hours.

(c) Use quarterly projections of production volumes for initial certification. Compliance at the end of the model year is determined based on the actual applicable production/sales volumes. Do not include any of the following engines in your applicable production/sales volumes:

(1) Engines exempted under subpart G of this part or under part 1068.

(2) Exported engines.

(3) Engines not subject to the requirements of this part, including engines excluded under § 1039.5.

(4) Engines certified using special test procedures under 40 CFR 1065.10. (Note: this restriction does not apply for engines certified using alternate test procedures under 40 CFR 1065.10.)

(5) Any other engines, where we indicate elsewhere in this part 1039 that they are not to be included in the calculations of this subpart.

§ 1039.710 How do I average?

(a) Averaging is the exchange of emissions credits among engine families.

(b) You may certify one or more engine families to an FEL above or below the applicable standard if you show, at the time of certification, that the summation of your projected balance of all emissions credit transactions in that model year is greater than or equal to zero.

(c) If you certify an engine family to an FEL that exceeds the applicable standard, you must obtain sufficient emissions credits to offset the credit shortfall produced by the engine family. Emissions credits used in averaging to address this shortfall may come from emissions credits generated from your other engine families in the same model year, from banked emissions credits, or from emissions credits obtained through trading.

§ 1039.715 How do I bank emission credits?

(a) Banking is the retention of emissions credits by the manufacturer generating the emissions credits, for use in averaging or trading in future model years.

(b) In your application for certification, designate any emissions credits that you intend to bank. These credits will be considered reserved

credits. During the model year, and before submittal of the end-of-year report, credits originally designated for banking may be redesignated for trading or averaging for the end-of-year report or final report.

(c) Credits designated for banking from the previous model year that have not been reviewed by EPA may be used in averaging or trading transactions. However, such credits may be revoked at a later time following EPA review of the end-of-year or final report or any subsequent audit actions.

(d) Banked credits are considered actual credits only after the end of the model year and after EPA has reviewed the end-of-year and final reports.

§ 1039.720 How do I trade emissions credits?

(a) Trading is the exchange of emissions credits between manufacturers. Trading of emissions credits may only occur within the same averaging set.

(b) You may trade actual or reserved credits. Credits banked in a previous model year or credits generated during the model year of the trading transaction may be used for trading. Traded reserved credits, such as those generated during the model year of the trading transaction, remain reserved until we verify them after the end of the model year. Traded credits may be used for averaging, banking, or further trading transactions.

(c) If a negative credit balance results from a transaction, both the buyer and seller are liable, except in cases deemed involving fraud. Certificates of all engine families participating in a negative trade may be voided under § 1039.740.

§ 1039.725 What records must I keep?

(a) Establish, maintain and keep the following properly organized and indexed records for each engine family certified using the ABT program in this subpart:

(1) Model year and EPA engine family.

(2) FELs.

(3) Useful life.

(4) Maximum engine power for each configuration tested.

(5) Projected applicable production/sales volume for the model year.

(6) Actual applicable production/sales volume for the model year.

(b) Establish, maintain and keep the following properly organized and indexed records for each engine in the ABT program:

(1) Model year and EPA engine family.

(2) Engine identification number.

(3) Maximum engine power.

(4) Build date and assembly plant.

(5) Purchaser and destination.

(c) Manufacturers involved in trading reserved credits must maintain the records specified in this paragraph (c) for each engine family in the trading program. We may ask you to provide this information on a quarterly basis. This requirement applies with respect to the following information:

(1) The engine family.

(2) The actual quarterly and cumulative applicable production/sales volume.

(3) All values required to calculate credits.

(4) The resulting type and number of credits generated/required.

(5) How and where credit surpluses are dispersed.

(6) How and through what means credit deficits are met.

(d) Keep the records required by this section for eight years from the due date for the end-of-year report. You may use any appropriate storage formats or media, including paper, microfilm, or computer diskettes.

(e) Nothing in this section limits our discretion in requiring the manufacturer to retain additional records or submit information not specifically required by this section.

(f) Upon request, you must submit to us the information specified in this section.

§ 1039.730 What must I include in my application for certification?

(a) You must declare in your application your intent to use the provisions of this subpart for each engine family that will be certified using the ABT program. You must also declare for which pollutants you are using ABT, and declare the FELs for your engine family for those pollutants. Your FELs must comply with the specifications of subpart B of this part, including the FEL caps. FELs must be expressed to the same number of decimal places as the applicable standards.

(b) Include the following in your application for certification:

(1) A statement that, to the best of your belief, you will not have a negative credit balance for any engine family when all credits are calculated.

(2) Detailed calculations of projected emission credits (positive or negative) based on quarterly projections of applicable production/sales volume. If your engine family will generate positive emission credits, state specifically where the credits will be applied (*e.g.*, to which engine family they will be applied in averaging, trading, or if they will be reserved for banking). If you have negative emission credits for your engine family, state the source of positive credits needed to offset the negative credits. Describe the source of credits by indicating from which engine family (and manufacturer, as applicable), and by specifying whether the credits are actual or reserved and whether they come from banking, trading, or from averaging with your other engine families within the model year.

§ 1039.732 What reports must I submit after the end of the model year?

This section specifies the requirements for submitting the end-of-year report and the final report. This section specifies in paragraph (g) an additional report that must be submitted if you are involved in a trade of credits.

(a)(1) If any of your engine families are certified using the ABT provisions of this subpart, you must submit the end-of-year report within 90 days of the end of the model year. The end-of-year report must include the information specified in this section. We may waive the requirement to submit the end-of year report, provided you submit the final report specified in paragraph (a)(2) of this section.

(2) If any of your engine families are certified using the ABT provisions of this subpart, you must submit the final report within 270 days of the end of the model year. The final report must include the information specified in this section.

(b) Failure to submit reports on time is a violation of the Act with respect to each engine.

(c) Your end-of-year and final reports must identify the engine families for which they apply and must include:

(i) Detailed calculation of emission credits (positive or negative) based on actual applicable production/sales volumes. Base your applicable production/sales volumes on the location of first retail sale. This location is also called the final product purchase location. A dealership is a typical location for the first retail sale.

(ii) Demonstrate that you have the positive credits needed to offset any negative credits.

(iii) State whether you will reserve any credits for banking.

(d) Send end-of-year reports to the Designated Compliance Officer.

(e) If you generate credits for banking and you do not send your end-of-year reports within 90 days after the end of the model year, you may not use the credits until we receive and review your reports. You may not use projected credits pending our review.

(f) Errors discovered in your end-of-year report or final report, including errors in calculating credits, are corrected as follows:

(1) Any errors discovered in the end-of-year report may be corrected in the final report up to 270 days from the end of the model year.

(2) Errors discovered by the manufacturer in the final report may be corrected up to 270 days from the end of the model year, and credits will be recalculated.

(3) If we or you determine within 270 days of the end of the model year, that an error occurred that mistakenly decreased your positive credits, the error will be corrected and credits will be recalculated. Such errors will not be corrected if they are determined more than 270 days from of the end of the model year.

(4) In cases where credit balance is negative, if we determine that an error occurred that mistakenly decreased your balance of credits, we may, but are not required to, correct the error and recalculate the credits. This applies whether or not the error was discovered by you.

(5) If we determine at any time, that an error occurred that mistakenly increased your balance of credits, we will correct the error and recalculate the credits to decrease your balance. This applies whether or not the error was discovered by you.

(g) If you trade credits, you must send the Designated Compliance Officer a report of the trade, within 90 days of any credit trade, that includes the following information:

(1) The corporate names of the buyer, seller, and any brokers.

(2) Copies of contracts related to credit trading from the buyer, seller, and broker, as applicable.

(3) The engine families involved in the trade.

(4) The actual quarterly and cumulative applicable production/sales volume.

(5) The values required to calculate credits as given in § 1039.705.

(6) The resulting type and number of credits generated.

(7) How and where credit surpluses are dispersed; and

(8) How and through what means credit deficits are met.

(h) Include in each report a statement certifying the accuracy and authenticity of its contents.

§ 1039.735 What restrictions apply for using credits?

The following restrictions apply for credit use:

(a) *Averaging sets.* Credits may be exchanged only within an averaging set. For Tier 4 engines, there is a single averaging set that includes all power categories. See paragraph (b) for provisions related to credits generated relative to earlier tiers of standards.

(b) *Credits from a different tier of standards.* (1) For purposes of ABT under this subpart, you may not use credits generated from engines subject to emission standards under 40 CFR part 89, except as specified in the following table:

If the power rating of the credit-generating engine is . . .	Then you may use the following credits for Tier 4 compliance . . .
(i) Less than 37 kW	Credits from engines subject to emission standards in 89.112(a) Table 1, identified as Tier 2.
(ii) At least 37 kW, but less than 560 kW.	Credits from engines subject to emission standards in 89.112(a) Table 1, identified as Tier 3.
(iii) 560 kW or higher	Credits from engines subject to emission standards in 89.112(a) Table 1, identified as Tier 2.

(2) Credits generated from marine engines under the provisions of 40 CFR part 89 may not used under this part.

(3) Credits generated from nonmarine engines under the provisions of 40 CFR part 89 allowed to be used under this part are subject to the averaging set restrictions described in 40 CFR 89.204. This means that credits generated by engines at or above 19 kW may not be used by engines less than 19 kW, and credits generated by engines less than 19 kW may not be used by engines at or above 19 kW.

(4) See 40 CFR part 89 for other restrictions that may apply for use of credits generated under that part.

(c) *NO_X and NMHC + NO_X credits.* You may use NO_X credits to show compliance with NMHC+NO_X standards. You may use NMHC+NO_X credits to show compliance with NO_X standards, but you must adjust the NMHC+NO_X credits downward by twenty percent when you use them, as shown in the following equation:

NO_X credits = (0.8) × (NMHC+NO_X credits).

(d) *Other restrictions.* Other sections of this part may include ABT restrictions for engines certified under certain special provisions. Those restrictions apply as specified.

§ 1039.740 What can happen if I do not comply with the provisions of this subpart?

(a)(1) All certificates issued for engine family participating in this ABT program are conditional upon your full compliance with the provisions of this subpart during the model year of production and afterwards.

(2) Failure to comply with any provisions of this subpart will be deemed to be a failure to satisfy the conditions upon which the certificate was issued, and the certificate may be voided.

(3) By choosing to participate in this ABT program, you are responsible to establish to EPA's satisfaction that the conditions under which the certificate was issued were satisfied or waived.

(b) You may certify your engine family to an FEL above a applicable standard based on a projection that you will have sufficient credits to offset the credit deficit for the engine family. However, if you cannot show in your final report that you have sufficient actual credits to offset a credit deficit for any engine family, we may void the certificate of conformity for the engine family.

(c) We may void the certificate of conformity for an engine family for which you fail to retain the records required in this subpart or to provide such information to us upon request.

Subpart I—Definitions and Other Reference Information

§ 1039.801 What definitions apply to this part?

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Act gives to them. The definitions follow:

Act means the Clean Air Act, as amended, 42 U.S.C. 7401 *et seq.*

Adjustable parameter means any device, system, or element of design that someone can adjust (including those which are difficult to access) and that, if adjusted, may affect emissions or engine performance during emission testing or normal in-use operation. This includes, but is not limited to parameters related to injection timing and fueling rate. You may ask us to exclude a parameter that is difficult to

access if it cannot be adjusted to affect emissions without significantly degrading performance, or if you otherwise show us that it will not be adjusted in a way that affects emissions during in-use operation.

Aftertreatment means relating to any system, component, or technology mounted downstream of the exhaust valve or exhaust port whose design function is to reduce exhaust emissions.

Aircraft has the meaning given in 40 CFR 87.1.

Auxiliary emission control device means any element of design that senses temperature, motive speed, engine RPM, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.

Blue Sky Series engine means an engine meeting the requirements of § 1039.140.

Brake power means the usable power output of the engine, not including power required to operate fuel pumps, oil pumps, or coolant pumps.

Broker means any entity that facilitates a trade of emission credits between a buyer and seller.

Calibration means the set of specifications and tolerances specific to a particular design, version, or application of a component or assembly capable of functionally describing its operation over its working range.

Certification means obtaining a certificate of conformity for an engine family that complies with the emission standards and requirements in this part.

Certified emission level means the highest deteriorated emission level in an engine family for a given pollutant from either transient or steady-state testing.

Compression-ignition means relating to a type of reciprocating, internal-combustion engine that is not a spark-ignition engine.

Constant-speed means relating to an engine governed to operate at rated speed.

Crankcase emissions means airborne substances emitted to the atmosphere from any part of the engine crankcase's ventilation or lubrication systems. The crankcase is the housing for the crankshaft and other related internal parts.

Designated Compliance Officer means the Manager, Engine Programs Group (6405-J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., Washington, DC 20460.

Designated Enforcement Officer means the Director, Air Enforcement Division (2242A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Deteriorated emission level means the emission level that results from applying the applicable deterioration factor to the official emission result of the emission-data engine.

Deterioration factor means a number that is added to or multiplied by a low-hour test result to project the emission rate at the end of the useful life.

Emission-control system means any device, system, or element of design that controls or reduces the regulated emissions from an engine.

Emission-data engine means an engine that is tested for certification.

Emission-related maintenance means maintenance that substantially affects emissions or is likely to substantially affect emissions deterioration.

Engine family means a group of engines with similar emission characteristics, as specified in § 1039.230.

Engine manufacturer means the manufacturer of the engine. See the definition of ''manufacturer'' in this section.

Engine used in a locomotive means either an engine placed in the locomotive to move other equipment, freight, or passenger traffic; or an engine mounted on the locomotive to provide auxiliary power.

Exempted means relating to an engine that is not required to meet otherwise applicable standards because the engine conforms to regulatory conditions specified for an exemption in this part 1039 or in part 1068 of this chapter. Exempted engines are deemed to be ''subject to'' the standards of this part, even though they are not required to comply with the otherwise applicable requirements. Engines exempted with respect to a certain tier of standards may be required to comply with an earlier tier of standards as a condition of the exemption; for example, engines exempted with respect to Tier 4 standards may be required to comply with Tier 3 standards.

Excluded means relating to an engine that either:

(1) Has been determined not to be a nonroad engine, as specified in 40 CFR 1068.30; or

(2) Is a nonroad engine that, according to § 1039.5, is not subject to this part 1039.

Exhaust-gas recirculation means an emission-control technology that reduces emissions by routing exhaust gases that had been exhausted from the combustion chamber(s) back into the engine to be mixed with incoming air prior to or during combustion. The use of valve timing to increase the amount of residual exhaust gas in the combustion chamber(s) that is mixed with incoming air prior to or during combustion is not considered to be exhaust-gas recirculation for the purposes of this part.

Family emission limit (FEL) means an emission level declared by the manufacturer to serve in place of an emission standard for certification under the emission-credit program in subpart H of this part. The family emission limit must be expressed to the same number of decimal places as the emission standard it replaces.

Fuel system means all components involved in transporting, metering, and mixing the fuel from the fuel tank to the combustion chamber(s), including the fuel tank, fuel tank cap, fuel pump, fuel filters, fuel lines, carburetor or fuel-injection components, and all fuel-system vents.

Fuel type means a general category of fuels such as diesel fuel or natural gas. There can be multiple grades within a single type of fuel, such as No. 1 diesel and No. 2 diesel.

Good engineering judgment has the meaning we give in 40 CFR 1068.5.

Hydrocarbon (HC) means the hydrocarbon group on which the emission standards are based for each fuel type. For petroleum-fueled engines and natural gas-fueled engines, HC means nonmethane hydrocarbon (NMHC). For alcohol-fueled engines, HC means total hydrocarbon equivalent (THCE).

Identification number means a unique specification (for example, model number/serial number combination) that allows someone to distinguish a particular engine from other similar engines.

Intermediate test speed has the meaning we give in 40 CFR 1065.515.

Manufacture means the physical and engineering process of designing, constructing, and assembling of a nonroad engine or a piece of nonroad equipment.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures an engine, vehicle, or piece of equipment for sale in the United States or otherwise introduces a new nonroad engine into commerce in the United States. This includes importers who import engines, equipment, or vehicles for resale. (Note: In § 1039.626, the term ''equipment manufacturer'' has a more narrow meaning; that narrow meaning only applies to that section.)

Marine engine means an engine that someone installs or intends to install on a marine vessel. There are two kinds of marine engines:

(1) *Propulsion marine engine* means a marine engine that moves a vessel through the water or directs the vessel's movement.

(2) *Auxiliary marine engine* means a marine engine not used for propulsion.

Marine vessel means a vehicle that is capable of operation in water but is not capable of operation out of water. Amphibious vehicles are not marine vessels.

Maximum engine power means the measured maximum brake power output of an engine. The maximum engine power of an engine configuration is the average maximum engine power of the engines within the configuration. The maximum engine power of an engine family is the highest maximum engine power of the engine configurations within the family. (Note: § 1039.230 generally prohibits grouping engines from different power categories in the same engine family.)

Maximum test speed has the meaning we give in 40 CFR 1065.515.

Maximum test torque has the meaning we give in 40 CFR 1065.1001.

Model year means one of the following things:

(1) For freshly manufactured engines (see definition of ''new nonroad engine,'' paragraph (1)), model year means one of the following:

(i) Calendar year.

(ii) Your annual new model production period if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a nonroad engine after being placed into service in a motor vehicle, model year means the calendar year in which the engine was originally produced (see definition of ''new nonroad engine,'' paragraph (2)).

(3) For a nonroad engine excluded under § 1039.5 that is later converted to operate in an application that is not excluded, model year means the calendar year in which the engine was originally produced (see definition of ''new nonroad engine,'' paragraph (3)).

(4) For engines that are not freshly manufactured but are installed in new nonroad equipment, model year means the calendar year in which the engine is installed in the new nonroad equipment. This installation date is based on the time that final assembly of the equipment is complete (see definition of ''new nonroad engine,'' paragraph (4)).

(5) For an engine modified by an importer (not the original engine manufacturer) who has a certificate of conformity for the imported engine (see definition of ''new nonroad engine,'' paragraph (5)), model year means one of the following:

(i) The calendar year in which the importer finishes modifying and labeling the engine.

(ii) Your annual production period for producing engines if it is different than the calendar year; follow the guidelines in paragraph (1)(ii) of this definition.

(6) For an engine you import that does not meet the criteria in paragraphs (1) through (5) of the definition of ''new nonroad engine,'' model year means the calendar year in which the engine manufacturer completed the original assembly of the engine. In general, this applies to used equipment that you import without conversion or major modification.

Motor vehicle has the meaning we give in 40 CFR 85.1703(a). In general, *motor vehicle* means a self-propelled vehicle that can transport one or more people or any material, but doesn't include any of the following:

(1) Vehicles having a maximum ground speed over level, paved surfaces no higher than 40 km per hour (25 miles per hour).

(2) Vehicles that lack features usually needed for safe, practical use on streets or highways—for example, safety features required by law, a reverse gear (except for motorcycles), or a differential.

(3) Vehicles whose operation on streets or highways would be unsafe, impractical, or highly unlikely. Examples are vehicles with tracks instead of wheels, very large size, or features associated with military vehicles, such as armor or weaponry.

New nonroad engine means any of the following things:

(1) A freshly manufactured nonroad engine for which the ultimate purchaser has never received the equitable or legal title. This kind of vehicle might commonly be thought of as ''brand new.'' In the case of this paragraph (1), the engine is no longer new when the ultimate purchaser receives this title or the product is placed into service, whichever comes first.

(2) An engine originally manufactured as a motor vehicle engine that is later intended to be used in a piece of nonroad equipment. In this case, the engine is no longer a motor vehicle engine and becomes a ''new nonroad engine''. The engine is no longer new when it is placed into nonroad service.

(3) A nonroad engine that has been previously placed into service in an application we exclude under § 1039.5, where that engine is installed in a piece of equipment for which these exclusions do not apply. The engine is no longer new when it is placed into nonroad service. For example, this would apply to a stationary engine that is no longer used in a stationary application.

(4) An engine not covered by paragraphs (1) through (3) of this definition that is intended to be installed in new nonroad equipment. The engine is no longer new when the ultimate purchaser receives a title for the equipment or the product is placed into service, whichever comes first. This generally includes installation of used engines in new equipment.

(5) An imported nonroad engine covered by a certificate of conformity issued under this part, where someone other than the original engine manufacturer modifies the engine after its initial assembly and holds the certificate. The engine is no longer new when it is placed into nonroad service.

(6) An imported nonroad engine that is not covered by a certificate of conformity issued under this part at the time of importation. This addresses uncertified engines and vehicles that have been placed into service in other countries and that someone seeks to import into the United States. Importation of this kind of new nonroad engine (or vehicle containing such an engine) is generally prohibited by 40 CFR part 1068.

New nonroad equipment means either of the following things:

(1) A nonroad vehicle or other piece of equipment for which the ultimate purchaser has never received the equitable or legal title. The product is no longer new when the ultimate purchaser receives this title or the product is placed into service, whichever comes first.

(2) An imported nonroad piece of equipment with an engine not covered by a certificate of conformity issued under this part at the time of importation and manufactured after the date for applying the requirements of this part.

Noncommercial fuel means a fuel that is not marketed or sold as a commercial product. For example, this includes methane produced and released from landfills or oil wells.

Noncompliant engine means an engine that was originally covered by a certificate of conformity, but is not in the certified configuration or otherwise does not comply with the conditions of the certificate.

Nonconforming engine means an engine not covered by a certificate of

conformity that would otherwise be subject to emission standards.

Nonmethane hydrocarbon means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

Nonroad means relating to nonroad engines or equipment that includes nonroad engines.

Nonroad engine has the meaning given in 40 CFR 1068.30. In general this means all internal-combustion engines except motor vehicle engines, stationary engines, or engines used solely for competition. This part does not apply to all nonroad engines (see § 1039.5).

Nonroad equipment means a vehicle or piece of equipment that is powered by one or more nonroad engines.

Nonroad equipment manufacturer means any person engaged in manufacturing or assembling new nonroad vehicles or equipment or importing such vehicles or equipment for resale. This includes any person who acts for and is under the control of any such person in connection with distributing such vehicles or equipment. A nonroad vehicle or equipment manufacturer does not include any dealer with respect to new nonroad vehicles or equipment received by such person in commerce. A nonroad equipment manufacturer does not include any person engaged in the manufacturing or assembling of new nonroad vehicles or equipment who does not install an engine as part of that manufacturing or assembling process. All nonroad vehicle or equipment manufacturing entities under the control of the same person are considered to be a single nonroad equipment manufacturer.

Official emission result means the measured emission rate for a test engine on a given duty cycle before the application of any deterioration factor, but after the applicability of regeneration adjustment factors.

Opacity means the fraction of a beam of light, expressed in percent, which fails to penetrate a plume of smoke.

Oxides of nitrogen has the meaning given it in 40 CFR part 1065.

Particulate trap means a filtering device that is designed to physically trap all particulate matter above a certain size.

Placed into service means used for its intended purpose.

Point of first retail sale means the location at which the retail sale occurs. This generally means a dealership.

Power category means a specific range maximum engine power that defines the applicability of standards. For example, the 56–130 kW power category includes all engines with maximum power of at least 56 kW but less than 130 kW. See § 1039.101 for a list of specific power categories. (Note: In some cases, FEL caps are based on subcategories of power categories.)

Rated speed means the maximum full load governed speed for governed engines and the speed of maximum horsepower for ungoverned engines.

Revoke means to discontinue the certificate for an engine family. If we revoke a certificate, you must apply for a new certificate before continuing to produce the affected engines. This does not apply to engines you no longer possess.

Round means to round numbers according to ASTM E29–02 (incorporated by reference in § 1039.810), unless otherwise specified.

Scheduled maintenance means adjusting, repairing, removing, disassembling, cleaning, or replacing components or systems that is periodically needed to keep a part from failing or malfunctioning. It also may mean actions you expect are necessary to correct an overt indication of failure or malfunction for which periodic maintenance is not appropriate.

Small-volume engine manufacturer means an engine manufacturer that had engine families certified to meet the requirements of 40 CFR part 89 before 2003 and had annual U.S.-directed production of no more than 2,500 units in 2002 and all earlier calendar years. For manufacturers owned by a parent company, the limit applies to the production of the parent company and all of its subsidiaries.

Spark-ignition means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark-ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

Suspend means to temporarily discontinue the certificate for an engine family. If we suspend a certificate, you may not sell engines from that engine family unless we reinstate the certificate or approve a new one.

Test engine means an engine in a test sample.

Test sample means the collection of engines selected from the population of an engine family for emission testing.

Tier 1 means relating to the Tier 1 emission standards, as shown in 40 CFR 89.112.

Tier 2 means relating to the Tier 2 emission standards, as shown in 40 CFR 89.112.

Tier 3 means relating to the Tier 3 emission standards, as shown in 40 CFR 89.112.

Tier 4 means relating to the Tier 4 emission standards, as shown in § 1039.101. This includes the emission standards for all pollutants if an engine is subject to Tier 4 emission standards for any pollutant. For example, this includes the Tier 3 $HC+NO_X$ standard during the phase-in period when engines are subject to the Tier 4 PM standard.

Total hydrocarbon means the combined mass organic compounds measured by our total hydrocarbon test procedure, expressed as a hydrocarbon with a hydrogen-to-carbon mass ratio of 1.85:1.

Total hydrocarbon equivalent means the sum of the carbon mass contributions of non-oxygenated hydrocarbons, alcohols and aldehydes, or other organic compounds that are measured separately as contained in a gas sample, expressed as petroleum-fueled engine hydrocarbons. The hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1.

Ultimate purchaser means, with respect to any new nonroad equipment or new nonroad engine, the first person who in good faith purchases such new nonroad equipment or new nonroad engine for purposes other than resale.

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, and the U.S. Virgin Islands.

Upcoming model year means for an engine family the model year after the one currently in production.

U.S.-directed production volume means the number of engine units, subject to the requirements of this part, produced by a manufacturer for which the manufacturer has a reasonable assurance that sale was or will be made to ultimate purchasers in the United States.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years. It is the period during which a new nonroad engine is required to comply with all applicable emission standards. *See* § 1039.101(g).

Variable-speed engine means an engine that is not a constant-speed engine.

Void means to invalidate a certificate or an exemption. If we void a certificate, all the engines produced under that engine family for that model year are

considered noncompliant, and you are liable for each engine produced under the certificate and may face civil or criminal penalties or both. This applies equally to all engines in the engine family including engines produced before we voided the certificate. If we void an exemption, all the engines produced under that exemption are considered uncertified (or nonconforming), and you are liable for each engine produced under the exemption and may face civil or criminal penalties or both. You may not produce any additional engines using the voided exemption.

Volatile liquid fuel means any fuel other than diesel or biodiesel that is a liquid at atmospheric pressure and has a Reid Vapor Pressure higher than 2.0 psi.

We (us, our) means the Administrator of the Environmental Protection Agency and any authorized representatives.

§ 1039.805 What symbols, acronyms, and abbreviations does this part use?

The following symbols, acronyms, and abbreviations apply to this part:

°C degrees Celsius.
ASTM American Society for Testing and Materials.
cc cubic centimeters.
CFR Code of Federal Regulations.
CI compression-ignition.
cm centimeter.
CO carbon monoxide.
CO_2 carbon dioxide.
EPA Environmental Protection Agency.
FEL Family Emission Limit.
g/kW-hr grams per kilowatt-hour.
HC hydrocarbon.
ISO International Organization for Standardization.
kPa kilopascals.
kW kilowatts.
m meters.
MIL malfunction-indicator light.
mm Hg millimeters of mercury.
NMHC nonmethane hydrocarbons.
NO_X oxides of nitrogen (NO and NO_2).
psi pounds per square inch of absolute pressure.
psig pounds per square inch of gauge pressure.
rpm revolutions per minute.
SAE Society of Automotive Engineers.
SI spark-ignition.
THC total hydrocarbon.
THCE total hydrocarbon equivalent.
TRU transportation refrigeration unit
U.S.C. United States Code.

§ 1039.810 What materials does this part reference?

We have incorporated by reference the documents listed in this section. The Director of the Federal Register approved the incorporation by reference as prescribed in 5 U.S.C. 552(a) and 1 CFR part 51. Anyone may inspect copies at the U.S. EPA, Air and Radiation Docket and Information Center, 1301 Constitution Ave., NW., Room B102, EPA West Building, Washington, DC 20460 or the Office of the Federal Register, 800 N. Capitol St., NW., 7th Floor, Suite 700, Washington, DC.

(a) *ASTM material.* Table 1 of § 1039.810 lists material from the American Society for Testing and Materials that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase copies of these materials from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428. Table 1 follows:

TABLE 1 OF § 1039.810.—ASTM MATERIALS

Document number and name	Part 1039 reference
ASTM E29–02, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.	1039.801

(b) *SAE material.* Table 2 of § 1039.810 lists material from the Society of Automotive Engineering that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase copies of these materials from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096. Table 2 follows:

TABLE 2 OF § 1039.810.—SAE MATERIALS

Document number and name	Part 1039 reference
SAE J1930, Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms, May 1998.	1039.135

§ 1039.815 How should I request EPA to keep my information confidential?

(a) Clearly show what you consider confidential by marking, circling, bracketing, stamping, or some other method. We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2.

(b) If you send us a second copy without the confidential information, we will assume it contains nothing confidential whenever we need to release information from it.

(c) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

§ 1039.820 How do I request a hearing?

See 40 CFR part 1068, subpart G, for information related to hearings.

APPENDIX I TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) STEADY-STATE CYCLE FOR CONSTANT-SPEED ENGINES

Mode No.	Engine speed	Torque [1]	Minimum time in mode (minutes)	Weighting factors
1	Maximum test	100	3.0	0.05
2	Maximum test	75	3.0	0.25
3	Maximum test	50	3.0	0.30
4	Maximum test	25	3.0	0.30

APPENDIX I TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) STEADY-STATE CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Mode No.	Engine speed	Torque [1]	Minimum time in mode (minutes)	Weighting factors
5	Maximum test	10	3.0	0.10

[1] The percent torque is relative to the maximum torque at maximum test speed.

Appendix II to Part 1039—[Reserved]

APPENDIX III TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) STEADY-STATE CYCLE FOR VARIABLE-SPEED ENGINES WITH MAXIMUM POWER BELOW 19 kW

Mode No.	Engine speed	Observed torque [1]	Minimum time in mode (minutes)	Weighting factors
1	Maximum text speed	100	3.0	0.09
2	Maximum test speed	75	3.0	0.20
3	Maximum test speed	50	3.0	0.29
4	Maximum test speed	25	3.0	0.30
5	Maximum test speed	10	3.0	0.07
6	Idle	0	3.0	0.05

[1] The percent torque is relative to the maximum torque at maximum test speed.

APPENDIX IV TO PART 1039—NONROAD COMPRESSION-IGNITION (CI) STEADY-STATE CYCLE FOR VARIABLE-SPEED ENGINES WITH MAXIMUM POWER AT OR ABOVE 19 kW

Mode No.	Engine speed	Observed torque [1]	Minimum time in mode (minutes)	Weighting factors
1	Maximum test speed	100	3.0	0.15
2	Maximum test speed	75	3.0	0.15
3	Maximum test speed	50	3.0	0.15
4	Maximum test speed	10	3.0	0.10
5	Intermediate test speed	100	3.0	0.10
6	Intermediate test speed	75	3.0	0.10
7	Intermediate test speed	50	3.0	0.10
8	Idle	0	3.0	0.15

[1] The percent torque is relative to the maximum torque at the given engine speed.

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1	58	5
2	58	5
3	58	5
4	58	5
5	58	5
6	58	5
7	58	5
8	58	5
9	58	5
10	58	5
11	58	5
12	58	5
13	58	5
14	58	5
15	58	5

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
16	58	5
17	58	5
18	58	5
19	58	5
20	58	5
21	65	8
22	72	11
23	79	14
24	86	17
25	93	20
26	93	20
27	93	20
28	93	20
29	93	20
30	93	20

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
31	93	20
32	94	20
33	94	22
34	94	23
35	93	23
36	93	25
37	93	24
38	94	23
39	93	21
40	94	21
41	96	22
42	95	19
43	95	14
44	95	10
45	93	50

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
46	93	36
47	93	29
48	93	26
49	95	29
50	95	26
51	95	18
52	95	14
53	95	10
54	95	9
55	93	42
56	93	42
57	93	35
58	93	29
59	93	28
60	93	28
61	93	25
62	93	28
63	93	26
64	93	26
65	95	24
66	95	17
67	95	13
68	95	10
69	95	9
70	94	51
71	93	45
72	93	42
73	94	40
74	93	30
75	93	27
76	93	25
77	93	23
78	93	22
79	94	21
80	93	20
81	95	20
82	95	19
83	95	14
84	95	11
85	95	9
86	95	8
87	95	7
88	95	7
89	95	6
90	95	6
91	95	6
92	95	6
93	81	5
94	93	53
95	93	43
96	93	35
97	93	34
98	93	29
99	93	26
100	93	25
101	93	23
102	93	21
103	93	20
104	93	20
105	94	19
106	94	21
107	94	22
108	93	21
109	93	22
110	93	23
111	93	22

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
112	93	22
113	94	20
114	93	20
115	93	20
116	93	19
117	94	20
118	94	21
119	93	23
120	94	23
121	93	23
122	93	21
123	93	19
124	94	23
125	94	22
126	94	21
127	94	23
128	94	24
129	93	23
130	94	39
131	94	40
132	94	34
133	94	34
134	94	32
135	94	32
136	94	30
137	94	27
138	94	29
139	94	35
140	94	41
141	94	43
142	94	42
143	94	46
144	94	37
145	94	34
146	94	29
147	94	27
148	94	27
149	94	28
150	94	29
151	93	30
152	93	27
153	94	29
154	95	27
155	95	19
156	95	14
157	95	11
158	95	9
159	95	8
160	95	7
161	95	7
162	95	6
163	95	6
164	95	6
165	93	5
166	59	5
167	58	6
168	58	6
169	58	6
170	58	6
171	58	6
172	58	6
173	58	6
174	58	6
175	58	6
176	58	6
177	58	6

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
178	58	50
179	94	49
180	93	41
181	94	36
182	93	35
183	94	28
184	93	24
185	93	21
186	93	24
187	93	25
188	93	28
189	94	29
190	93	40
191	94	33
192	93	29
193	93	29
194	93	23
195	93	24
196	93	21
197	93	32
198	93	29
199	94	32
200	93	32
201	93	28
202	94	35
203	93	30
204	94	27
205	94	26
206	94	23
207	93	31
208	94	27
209	94	23
210	94	28
211	94	41
212	93	56
213	93	43
214	93	37
215	93	35
216	94	33
217	93	29
218	94	25
219	94	23
220	94	23
221	94	20
222	94	29
223	94	34
224	93	27
225	94	28
226	94	34
227	93	34
228	94	29
229	92	49
230	94	43
231	94	39
232	94	35
233	93	54
234	94	50
235	94	40
236	94	33
237	94	37
238	94	41
239	93	31
240	94	25
241	94	22
242	94	22
243	94	26

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
244	94	26
245	94	34
246	96	30
247	95	71
248	94	52
249	93	42
250	93	40
251	93	32
252	94	31
253	94	27
254	94	27
255	94	28
256	93	24
257	94	23
258	94	28
259	93	29
260	93	23
261	93	26
262	94	21
263	93	21
264	93	24
265	94	25
266	94	25
267	94	34
268	93	35
269	93	27
270	93	23
271	93	26
272	93	23
273	93	25
274	94	23
275	93	22
276	94	26
277	94	26
278	93	29
279	94	29
280	94	28
281	94	23
282	94	45
283	93	37
284	94	29
285	94	28
286	95	27
287	95	19
288	95	14
289	95	11
290	95	9
291	95	8
292	95	7
293	93	52
294	93	42
295	93	40
296	93	35
297	94	35
298	93	36
299	94	39
300	94	38
301	94	30
302	94	35
303	94	35
304	94	36
305	94	30
306	93	27
307	94	27
308	94	33
309	94	29

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
310	94	25
311	94	28
312	95	26
313	94	95
314	94	101
315	93	92
316	93	64
317	93	49
318	94	41
319	93	37
320	93	31
321	94	26
322	94	36
323	93	29
324	93	23
325	93	21
326	94	28
327	93	26
328	94	35
329	93	51
330	94	43
331	93	33
332	93	29
333	96	27
334	95	22
335	93	64
336	93	46
337	93	37
338	93	31
339	93	33
340	94	33
341	93	30
342	93	26
343	93	34
344	93	37
345	94	29
346	94	27
347	93	36
348	95	30
349	95	22
350	95	16
351	95	12
352	95	10
353	94	43
354	93	34
355	94	28
356	94	34
357	94	28
358	93	33
359	94	31
360	94	41
361	94	31
362	93	26
363	94	25
364	94	23
365	94	27
366	94	23
367	94	23
368	93	22
369	94	23
370	94	49
371	93	40
372	94	37
373	94	32
374	93	26
375	94	23

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
376	94	26
377	94	28
378	93	30
379	93	25
380	94	24
381	94	23
382	94	22
383	94	20
384	94	22
385	94	25
386	93	36
387	93	40
388	94	35
389	93	33
390	93	29
391	93	27
392	93	23
393	93	23
394	93	23
395	94	23
396	93	21
397	93	22
398	94	22
399	94	23
400	94	23
401	93	24
402	94	23
403	93	20
404	93	21
405	93	22
406	93	23
407	94	23
408	93	22
409	93	21
410	93	23
411	94	23
412	93	21
413	93	21
414	93	20
415	94	19
416	94	21
417	94	21
418	93	19
419	93	22
420	94	21
421	94	23
422	94	25
423	94	26
424	94	34
425	94	28
426	94	24
427	94	24
428	94	25
429	94	23
430	94	24
431	94	25
432	94	26
433	94	25
434	94	26
435	94	25
436	94	23
437	93	23
438	94	21
439	93	19
440	94	18
441	93	19

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
442	94	20
443	94	21
444	94	20
445	94	21
446	94	20
447	93	46
448	93	39
449	94	32
450	96	28
451	95	24
452	95	17
453	95	13
454	95	10
455	95	9
456	95	8
457	95	7
458	95	7
459	95	6
460	95	6
461	95	6
462	80	5
463	79	44
464	94	33
465	93	27
466	93	30
467	94	41
468	93	33
469	93	28
470	93	27
471	94	30
472	93	30
473	93	28
474	93	29
475	93	23
476	93	22
477	93	30
478	94	31
479	94	33
480	94	29
481	93	32
482	93	25
483	93	22
484	93	26
485	94	23
486	93	19
487	93	20
488	93	29
489	94	23
490	93	23
491	94	33
492	93	39
493	94	39
494	93	36
495	93	36
496	94	32
497	94	27
498	93	23
499	96	32
500	95	72
501	93	56
502	93	46
503	93	38
504	92	62
505	94	49
506	94	44
507	93	59
508	93	40
509	96	30
510	93	70
511	93	47
512	96	39
513	94	66
514	93	49
515	94	36
516	94	68
517	93	56
518	93	42
519	92	67
520	94	47
521	93	56
522	94	86
523	93	56
524	96	39
525	93	57
526	93	43
527	92	68
528	93	49
529	95	35
530	93	55
531	93	43
532	93	73
533	93	76
534	95	60
535	95	44
536	92	68
537	94	81
538	93	73
539	93	57
540	94	46
541	94	71
542	93	57
543	93	54
544	93	46
545	95	38
546	93	56
547	93	41
548	94	33
549	92	69
550	93	48
551	93	40
552	92	67
553	93	46
554	93	36
555	96	31
556	93	61
557	94	50
558	94	40
559	92	64
560	93	49
561	94	34
562	92	62
563	93	48
564	94	36
565	92	62
566	93	48
567	93	42
568	93	69
569	93	55
570	94	42
571	93	30
572	94	25
573	93	23
574	93	22
575	93	28
576	93	23
577	93	21
578	93	23
579	95	23
580	93	47
581	93	42
582	93	34
583	93	30
584	93	47
585	93	34
586	93	59
587	93	51
588	93	37
589	93	29
590	93	23
591	93	31
592	93	26
593	94	25
594	93	21
595	93	29
596	93	24
597	93	28
598	93	27
599	93	24
600	93	21
601	93	20
602	93	24
603	93	26
604	93	31
605	93	26
606	93	25
607	93	27
608	93	26
609	93	23
610	94	32
611	93	29
612	93	33
613	92	52
614	94	63
615	93	48
616	95	38
617	95	26
618	95	18
619	95	14
620	95	10
621	95	9
622	92	40
623	95	31
624	95	23
625	93	59
626	93	47
627	94	43
628	94	48
629	94	37
630	93	31
631	93	29
632	94	26
633	93	23
634	93	21
635	93	26
636	94	24
637	93	23
638	94	20
639	93	17

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
640	93	16
641	93	17
642	93	15
643	93	19
644	93	19
645	93	19
646	93	21
647	93	23
648	93	24
649	93	23
650	93	23
651	94	20
652	93	19
653	94	20
654	93	21
655	93	22
656	95	23
657	95	18
658	95	13
659	95	10
660	95	9
661	95	8
662	95	7
663	95	7
664	95	6
665	95	6
666	95	6
667	95	6
668	66	5
669	57	6
670	58	6
671	58	6
672	58	6
673	58	6
674	58	6
675	58	6
676	58	6
677	58	6
678	58	6
679	58	6
680	58	6
681	58	6
682	58	6
683	58	6
684	58	6
685	58	6
686	58	6
687	58	6
688	58	6
689	58	6
690	58	6
691	58	6
692	58	6
693	58	6
694	58	6
695	58	6
696	58	6
697	74	55
698	93	45
699	93	36
700	93	29
701	93	23
702	93	26
703	93	24
704	93	20
705	93	19

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
706	93	20
707	93	24
708	93	25
709	93	21
710	93	19
711	93	17
712	93	16
713	93	20
714	93	17
715	93	20
716	93	22
717	93	22
718	93	25
719	93	42
720	93	30
721	93	26
722	93	22
723	93	24
724	93	20
725	93	18
726	93	18
727	93	19
728	93	17
729	93	17
730	94	23
731	93	21
732	93	20
733	93	17
734	93	16
735	93	15
736	93	19
737	93	19
738	93	20
739	93	20
740	93	20
741	93	19
742	93	20
743	93	18
744	93	18
745	93	18
746	93	16
747	93	18
748	93	20
749	93	25
750	93	25
751	93	22
752	93	21
753	93	18
754	93	19
755	96	23
756	95	19
757	95	14
758	95	10
759	95	9
760	95	8
761	95	7
762	95	7
763	95	6
764	95	6
765	92	53
766	93	38
767	93	30
768	96	30
769	93	65
770	94	76
771	93	53

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
772	93	43
773	93	33
774	93	29
775	93	33
776	96	28
777	95	69
778	93	64
779	93	55
780	93	43
781	93	32
782	93	30
783	93	42
784	93	33
785	93	31
786	93	24
787	93	23
788	93	24
789	93	20
790	93	24
791	93	26
792	93	24
793	93	27
794	93	24
795	93	22
796	93	19
797	93	16
798	93	15
799	93	14
800	93	17
801	93	22
802	93	23
803	93	21
804	93	18
805	93	21
806	93	18
807	93	18
808	93	17
809	96	18
810	95	17
811	95	13
812	94	69
813	93	54
814	93	40
815	93	29
816	93	24
817	93	31
818	93	27
819	93	29
820	93	23
821	93	23
822	93	21
823	93	18
824	93	24
825	93	22
826	93	21
827	93	18
828	93	21
829	93	19
830	93	23
831	93	29
832	93	41
833	93	37
834	93	29
835	93	24
836	93	21
837	93	23

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
838	93	20
839	93	18
840	93	17
841	93	18
842	93	19
843	93	22
844	93	21
845	93	21
846	93	19
847	93	19
848	93	18
849	93	19
850	93	17
851	93	16
852	93	19
853	93	18
854	94	24
855	93	25
856	93	25
857	93	21
858	93	17
859	96	19
860	95	18
861	93	54
862	93	61
863	93	43
864	93	31
865	93	24
866	93	23
867	93	22
868	93	21
869	93	20
870	93	16
871	93	16
872	93	16
873	93	31
874	93	30
875	93	27
876	93	23
877	93	23
878	93	21
879	93	20
880	93	18
881	93	16
882	93	18
883	93	16
884	93	17
885	93	20
886	93	20
887	93	22
888	93	20
889	93	17
890	93	17
891	93	17
892	93	16
893	93	18
894	93	18
895	93	21
896	93	21
897	93	18
898	94	24
899	93	28
900	93	23
901	93	19
902	93	20
903	93	20

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
904	93	29
905	93	23
906	93	25
907	93	23
908	93	23
909	93	23
910	93	21
911	93	21
912	93	22
913	93	30
914	93	33
915	93	25
916	93	29
917	93	27
918	93	23
919	93	21
920	93	21
921	93	19
922	93	20
923	93	24
924	93	23
925	93	21
926	93	44
927	93	34
928	93	28
929	93	37
930	93	29
931	93	27
932	93	33
933	93	28
934	93	22
935	96	30
936	95	25
937	95	17
938	95	13
939	95	10
940	95	9
941	95	8
942	95	7
943	95	7
944	95	6
945	95	6
946	93	37
947	93	34
948	93	29
949	93	23
950	93	23
951	93	21
952	93	20
953	93	29
954	93	27
955	93	26
956	93	35
957	93	43
958	95	35
959	95	24
960	95	17
961	95	13
962	95	10
963	95	9
964	95	8
965	95	7
966	95	7
967	95	6
968	93	36
969	93	30

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
970	93	25
971	93	21
972	93	22
973	93	19
974	93	34
975	93	36
976	93	31
977	93	26
978	93	27
979	93	21
980	93	22
981	93	18
982	93	18
983	93	19
984	93	19
985	93	23
986	93	22
987	93	20
988	93	23
989	93	20
990	93	18
991	93	18
992	93	16
993	93	19
994	94	25
995	93	30
996	93	29
997	93	23
998	93	24
999	93	22
1000	94	20
1001	93	17
1002	93	16
1003	93	16
1004	93	15
1005	93	17
1006	93	18
1007	93	20
1008	93	21
1009	93	18
1010	93	17
1011	92	54
1012	93	38
1013	93	29
1014	93	24
1015	93	24
1016	93	24
1017	93	23
1018	93	20
1019	93	20
1020	93	18
1021	93	19
1022	93	19
1023	93	16
1024	93	16
1025	93	16
1026	93	17
1027	93	21
1028	93	20
1029	93	20
1030	93	17
1031	93	19
1032	93	16
1033	93	18
1034	93	16
1035	93	16

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1036	93	16
1037	93	17
1038	93	16
1039	93	17
1040	93	18
1041	93	17
1042	93	16
1043	93	17
1044	93	17
1045	93	22
1046	93	19
1047	93	19
1048	95	21
1049	95	16
1050	95	12
1051	95	10
1052	96	8
1053	96	7
1054	95	7
1055	96	7
1056	95	6
1057	96	6
1058	96	6
1059	88	5
1060	89	49
1061	93	34
1062	93	27
1063	93	26
1064	93	25
1065	93	22
1066	93	23
1067	93	21
1068	93	21
1069	93	23
1070	93	23
1071	93	23
1072	93	23
1073	93	23
1074	93	22
1075	93	22
1076	93	24
1077	93	23
1078	93	23
1079	93	21
1080	93	19
1081	93	20
1082	93	20
1083	93	22
1084	93	26
1085	93	21
1086	93	20
1087	93	18
1088	93	22
1089	93	20
1090	94	27
1091	93	22
1092	93	23
1093	93	21
1094	93	22
1095	95	22
1096	95	16
1097	95	12
1098	95	10
1099	95	9
1100	95	7
1101	96	7

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1102	95	7
1103	95	6
1104	92	42
1105	93	36
1106	93	33
1107	92	60
1108	93	48
1109	93	36
1110	93	30
1111	93	28
1112	93	24
1113	93	24
1114	93	23
1115	93	23
1116	93	25
1117	93	27
1118	93	29
1119	93	26
1120	93	26
1121	93	21
1122	93	23
1123	93	23
1124	94	23
1125	93	40
1126	94	67
1127	93	46
1128	93	38
1129	93	29
1130	93	28
1131	93	27
1132	93	29
1133	93	28
1134	94	33
1135	93	31
1136	93	30
1137	94	42
1138	93	31
1139	93	29
1140	93	27
1141	93	23
1142	93	23
1143	93	20
1144	93	20
1145	93	23
1146	93	22
1147	93	23
1148	93	25
1149	93	20
1150	93	25
1151	93	23
1152	93	23
1153	93	24
1154	93	28
1155	93	23
1156	93	24
1157	93	34
1158	93	31
1159	93	35
1160	93	31
1161	93	32
1162	93	31
1163	93	30
1164	93	23
1165	93	23
1166	93	36
1167	93	32

APPENDIX V TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) TRANSIENT CYCLE FOR CONSTANT-SPEED ENGINES—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1168	93	25
1169	93	31
1170	93	33
1171	93	33
1172	93	33
1173	93	33
1174	93	33
1175	93	33
1176	86	28
1177	79	21
1178	72	16
1179	65	10
1180	58	5
1181	58	5
1182	58	5
1183	58	5
1184	58	5
1185	58	5
1186	58	5
1187	58	5
1188	58	5
1189	58	5
1190	58	5
1191	58	5
1192	58	5
1193	58	5
1194	58	5
1195	58	5
1196	58	5
1197	58	5
1198	58	5
1199	58	5

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
24	1	3
25	1	3
26	1	3
27	1	3
28	1	3
29	1	3
30	1	6
31	1	6
32	2	1
33	4	13
34	7	18
35	9	21
36	17	20
37	33	42
38	57	46
39	44	33
40	31	0
41	22	27
42	33	43
43	80	49
44	105	47
45	98	70
46	104	36
47	104	65
48	96	71
49	101	62
50	102	51
51	102	50
52	102	46
53	102	41
54	102	31
55	89	2
56	82	0
57	47	1
58	23	1
59	1	3
60	1	8
61	1	3
62	1	5
63	1	6
64	1	4
65	1	4
66	0	6
67	1	4
68	9	21
69	25	56
70	64	26
71	60	31
72	63	20
73	62	24
74	64	8
75	58	44
76	65	10
77	65	12
78	68	23
79	69	30
80	71	30
81	74	15
82	71	23
83	73	20
84	73	21
85	73	19
86	70	33
87	70	34
88	65	47
89	66	47

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
90	64	53
91	65	45
92	66	38
93	67	49
94	69	39
95	69	39
96	66	42
97	71	29
98	75	29
99	72	23
100	74	22
101	75	24
102	73	30
103	74	24
104	77	6
105	76	12
106	74	39
107	72	30
108	75	22
109	78	64
110	102	34
111	103	28
112	103	28
113	103	19
114	103	32
115	104	25
116	103	38
117	103	39
118	103	34
119	102	44
120	103	38
121	102	43
122	103	34
123	102	41
124	103	44
125	103	37
126	103	27
127	104	13
128	104	30
129	104	19
130	103	28
131	104	40
132	104	32
133	101	63
134	102	54
135	102	52
136	102	51
137	103	40
138	104	34
139	102	36
140	104	44
141	103	44
142	104	33
143	102	27
144	103	26
145	79	53
146	51	37
147	24	23
148	13	33
149	19	55
150	45	30
151	34	7
152	14	4
153	8	16
154	15	6
155	39	47

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
156	39	4
157	35	26
158	27	38
159	43	40
160	14	23
161	10	10
162	15	33
163	35	72
164	60	39
165	55	31
166	47	30
167	16	7
168	0	6
169	0	8
170	0	8
171	0	2
172	2	17
173	10	28
174	28	31
175	33	30
176	36	0
177	19	10
178	1	18
179	0	16
180	1	3
181	1	4
182	1	5
183	1	6
184	1	5
185	1	3
186	1	4
187	1	4
188	1	6
189	8	18
190	20	51
191	49	19
192	41	13
193	31	16
194	28	21
195	21	17
196	31	21
197	21	8
198	0	14
199	0	12
200	3	8
201	3	22
202	12	20
203	14	20
204	16	17
205	20	18
206	27	34
207	32	33
208	41	31
209	43	31
210	37	33
211	26	18
212	18	29
213	14	51
214	13	11
215	12	9
216	15	33
217	20	25
218	25	17
219	31	29
220	36	66
221	66	40

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
222	50	13
223	16	24
224	26	50
225	64	23
226	81	20
227	83	11
228	79	23
229	76	31
230	68	24
231	59	33
232	59	3
233	25	7
234	21	10
235	20	19
236	4	10
237	5	7
238	4	5
239	4	6
240	4	6
241	4	5
242	7	5
243	16	28
244	28	25
245	52	53
246	50	8
247	26	40
248	48	29
249	54	39
250	60	42
251	48	18
252	54	51
253	88	90
254	103	84
255	103	85
256	102	84
257	58	66
258	64	97
259	56	80
260	51	67
261	52	96
262	63	62
263	71	6
264	33	16
265	47	45
266	43	56
267	42	27
268	42	64
269	75	74
270	68	96
271	86	61
272	66	0
273	37	0
274	45	37
275	68	96
276	80	97
277	92	96
278	90	97
279	82	96
280	94	81
281	90	85
282	96	65
283	70	96
284	55	95
285	70	96
286	79	96
287	81	71

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
288	71	60
289	92	65
290	82	63
291	61	47
292	52	37
293	24	0
294	20	7
295	39	48
296	39	54
297	63	58
298	53	31
299	51	24
300	48	40
301	39	0
302	35	18
303	36	16
304	29	17
305	28	21
306	31	15
307	31	10
308	43	19
309	49	63
310	78	61
311	78	46
312	66	65
313	78	97
314	84	63
315	57	26
316	36	22
317	20	34
318	19	8
319	9	10
320	5	5
321	7	11
322	15	15
323	12	9
324	13	27
325	15	28
326	16	28
327	16	31
328	15	20
329	17	0
330	20	34
331	21	25
332	20	0
333	23	25
334	30	58
335	63	96
336	83	60
337	61	0
338	26	0
339	29	44
340	68	97
341	80	97
342	88	97
343	99	88
344	102	86
345	100	82
346	74	79
347	57	79
348	76	97
349	84	97
350	86	97
351	81	98
352	83	83
353	65	96

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
354	93	72
355	63	60
356	72	49
357	56	27
358	29	0
359	18	13
360	25	11
361	28	24
362	34	53
363	65	83
364	80	44
365	77	46
366	76	50
367	45	52
368	61	98
369	61	69
370	63	49
371	32	0
372	10	8
373	17	7
374	16	13
375	11	6
376	9	5
377	9	12
378	12	46
379	15	30
380	26	28
381	13	9
382	16	21
383	24	4
384	36	43
385	65	85
386	78	66
387	63	39
388	32	34
389	46	55
390	47	42
391	42	39
392	27	0
393	14	5
394	14	14
395	24	54
396	60	90
397	53	66
398	70	48
399	77	93
400	79	67
401	46	65
402	69	98
403	80	97
404	74	97
405	75	98
406	56	61
407	42	0
408	36	32
409	34	43
410	68	83
411	102	48
412	62	0
413	41	39
414	71	86
415	91	52
416	89	55
417	89	56
418	88	58
419	78	69

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
420	98	39
421	64	61
422	90	34
423	88	38
424	97	62
425	100	53
426	81	58
427	74	51
428	76	57
429	76	72
430	85	72
431	84	60
432	83	72
433	83	72
434	86	72
435	89	72
436	86	72
437	87	72
438	88	72
439	88	71
440	87	72
441	85	71
442	88	72
443	88	72
444	84	72
445	83	73
446	77	73
447	74	73
448	76	72
449	46	77
450	78	62
451	79	35
452	82	38
453	81	41
454	79	37
455	78	35
456	78	38
457	78	46
458	75	49
459	73	50
460	79	58
461	79	71
462	83	44
463	53	48
464	40	48
465	51	75
466	75	72
467	89	67
468	93	60
469	89	73
470	86	73
471	81	73
472	78	73
473	78	73
474	76	73
475	79	73
476	82	73
477	86	73
478	88	72
479	92	71
480	97	54
481	73	43
482	36	64
483	63	31
484	78	1
485	69	27

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
486	67	28
487	72	9
488	71	9
489	78	36
490	81	56
491	75	53
492	60	45
493	50	37
494	66	41
495	51	61
496	68	47
497	29	42
498	24	73
499	64	71
500	90	71
501	100	61
502	94	73
503	84	73
504	79	73
505	75	72
506	78	73
507	80	73
508	81	73
509	81	73
510	83	73
511	85	73
512	84	73
513	85	73
514	86	73
515	85	73
516	85	73
517	85	72
518	85	73
519	83	73
520	79	73
521	78	73
522	81	73
523	82	72
524	94	56
525	66	48
526	35	71
527	51	44
528	60	23
529	64	10
530	63	14
531	70	37
532	76	45
533	78	18
534	76	51
535	75	33
536	81	17
537	76	45
538	76	30
539	80	14
540	71	18
541	71	14
542	71	11
543	65	2
544	31	26
545	24	72
546	64	70
547	77	62
548	80	68
549	83	53
550	83	50
551	83	50

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
552	85	43
553	86	45
554	89	35
555	82	61
556	87	50
557	85	55
558	89	49
559	87	70
560	91	39
561	72	3
562	43	25
563	30	60
564	40	45
565	37	32
566	37	32
567	43	70
568	70	54
569	77	47
570	79	66
571	85	53
572	83	57
573	86	52
574	85	51
575	70	39
576	50	5
577	38	36
578	30	71
579	75	53
580	84	40
581	85	42
582	86	49
583	86	57
584	89	68
585	99	61
586	77	29
587	81	72
588	89	69
589	49	56
590	79	70
591	104	59
592	103	54
593	102	56
594	102	56
595	103	61
596	102	64
597	103	60
598	93	72
599	86	73
600	76	73
601	59	49
602	46	22
603	40	65
604	72	31
605	72	27
606	67	44
607	68	37
608	67	42
609	68	50
610	77	43
611	58	4
612	22	37
613	57	69
614	68	38
615	73	2
616	40	14
617	42	38

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
618	64	69
619	64	74
620	67	73
621	65	73
622	68	73
623	65	49
624	81	0
625	37	25
626	24	69
627	68	71
628	70	71
629	76	70
630	71	72
631	73	69
632	76	70
633	77	72
634	77	72
635	77	72
636	77	70
637	76	71
638	76	71
639	77	71
640	77	71
641	78	70
642	77	70
643	77	71
644	79	72
645	78	70
646	80	70
647	82	71
648	84	71
649	83	71
650	83	73
651	81	70
652	80	71
653	78	71
654	76	70
655	76	70
656	76	71
657	79	71
658	78	71
659	81	70
660	83	72
661	84	71
662	86	71
663	87	71
664	92	72
665	91	72
666	90	71
667	90	71
668	91	71
669	90	70
670	90	72
671	91	71
672	90	71
673	90	71
674	92	72
675	93	69
676	90	70
677	93	72
678	91	70
679	89	71
680	91	71
681	90	71
682	90	71
683	92	71

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
684	91	71
685	93	71
686	93	68
687	98	68
688	98	67
689	100	69
690	99	68
691	100	71
692	99	68
693	100	69
694	102	72
695	101	69
696	100	69
697	102	71
698	102	71
699	102	69
700	102	71
701	102	68
702	100	69
703	102	70
704	102	68
705	102	70
706	102	72
707	102	68
708	102	69
709	100	68
710	102	71
711	101	64
712	102	69
713	102	69
714	101	69
715	102	64
716	102	69
717	102	68
718	102	70
719	102	69
720	102	70
721	102	70
722	102	62
723	104	38
724	104	15
725	102	24
726	102	45
727	102	47
728	104	40
729	101	52
730	103	32
731	102	50
732	103	30
733	103	44
734	102	40
735	103	43
736	103	41
737	102	46
738	103	39
739	102	41
740	103	41
741	102	38
742	103	39
743	102	46
744	104	46
745	103	49
746	102	45
747	103	42
748	103	46
749	103	38

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
750	102	48
751	103	35
752	102	48
753	103	49
754	102	48
755	102	46
756	103	47
757	102	49
758	102	42
759	102	52
760	102	57
761	102	55
762	102	61
763	102	61
764	102	58
765	103	58
766	102	59
767	102	54
768	102	63
769	102	61
770	103	55
771	102	60
772	102	72
773	103	56
774	102	55
775	102	67
776	103	56
777	84	42
778	48	7
779	48	6
780	48	6
781	48	7
782	48	6
783	48	7
784	67	21
785	105	59
786	105	96
787	105	74
788	105	66
789	105	62
790	105	66
791	89	41
792	52	5
793	48	5
794	48	7
795	48	5
796	48	6
797	48	4
798	52	6
799	51	5
800	51	6
801	51	6
802	52	5
803	52	5
804	57	44
805	98	90
806	105	94
807	105	100
808	105	98
809	105	95
810	105	96
811	105	92
812	104	97
813	100	85
814	94	74
815	87	62

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
816	81	50
817	81	46
818	80	39
819	80	32
820	81	28
821	80	26
822	80	23
823	80	23
824	80	20
825	81	19
826	80	18
827	81	17
828	80	20
829	81	24
830	81	21
831	80	26
832	80	24
833	80	23
834	80	22
835	81	21
836	81	24
837	81	24
838	81	22
839	81	22
840	81	21
841	81	31
842	81	27
843	80	26
844	80	26
845	81	25
846	80	21
847	81	20
848	83	21
849	83	15
850	83	12
851	83	9
852	83	8
853	83	7
854	83	6
855	83	6
856	83	6
857	83	6
858	83	6
859	76	5
860	49	8
861	51	7
862	51	20
863	78	52
864	80	38
865	81	33
866	83	29
867	83	22
868	83	16
869	83	12
870	83	9
871	83	8
872	83	7
873	83	6
874	83	6
875	83	6
876	83	6
877	83	6
878	59	4
879	50	5
880	51	5
881	51	5

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
882	51	5
883	50	5
884	50	5
885	50	5
886	50	5
887	50	5
888	51	5
889	51	5
890	51	5
891	63	50
892	81	34
893	81	25
894	81	29
895	81	23
896	80	24
897	81	24
898	81	28
899	81	27
900	81	22
901	81	19
902	81	17
903	81	17
904	81	17
905	81	15
906	80	15
907	80	28
908	81	22
909	81	24
910	81	19
911	81	21
912	81	20
913	83	26
914	80	63
915	80	59
916	83	100
917	81	73
918	83	53
919	80	76
920	81	61
921	80	50
922	81	37
923	82	49
924	83	37
925	83	25
926	83	17
927	83	13
928	83	10
929	83	8
930	83	7
931	83	7
932	83	6
933	83	6
934	83	6
935	71	5
936	49	24
937	69	64
938	81	50
939	81	43
940	81	42
941	81	31
942	81	30
943	81	35
944	81	28
945	81	27
946	80	27
947	81	31

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
948	81	41
949	81	41
950	81	37
951	81	43
952	81	34
953	81	31
954	81	26
955	81	23
956	81	27
957	81	38
958	81	40
959	81	39
960	81	27
961	81	33
962	80	28
963	81	34
964	83	72
965	81	49
966	81	51
967	80	55
968	81	48
969	81	36
970	81	39
971	81	38
972	80	41
973	81	30
974	81	23
975	81	19
976	81	25
977	81	29
978	83	47
979	81	90
980	81	75
981	80	60
982	81	48
983	81	41
984	81	30
985	80	24
986	81	20
987	81	21
988	81	29
989	81	29
990	81	27
991	81	23
992	81	25
993	81	26
994	81	22
995	81	20
996	81	17
997	81	23
998	83	65
999	81	54
1000	81	50
1001	81	41
1002	81	35
1003	81	37
1004	81	29
1005	81	28
1006	81	24
1007	81	19
1008	81	16
1009	80	16
1010	83	23
1011	83	17
1012	83	13
1013	83	27

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1014	81	58
1015	81	60
1016	81	46
1017	80	41
1018	80	36
1019	81	26
1020	86	18
1021	82	35
1022	79	53
1023	82	30
1024	83	29
1025	83	32
1026	83	28
1027	76	60
1028	79	51
1029	86	26
1030	82	34
1031	84	25
1032	86	23
1033	85	22
1034	83	26
1035	83	25
1036	83	37
1037	84	14
1038	83	39
1039	76	70
1040	78	81
1041	75	71
1042	86	47
1043	83	35
1044	81	43
1045	81	41
1046	79	46
1047	80	44
1048	84	20
1049	79	31
1050	87	29
1051	82	49
1052	84	21
1053	82	56
1054	81	30
1055	85	21
1056	86	16
1057	79	52
1058	78	60
1059	74	55
1060	78	84
1061	80	54
1062	80	35
1063	82	24
1064	83	43
1065	79	49
1066	83	50
1067	86	12
1068	64	14
1069	24	14
1070	49	21
1071	77	48
1072	103	11
1073	98	48
1074	101	34
1075	99	39
1076	103	11
1077	103	19
1078	103	7
1079	103	13

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1080	103	10
1081	102	13
1082	101	29
1083	102	25
1084	102	20
1085	96	60
1086	99	38
1087	102	24
1088	100	31
1089	100	28
1090	98	3
1091	102	26
1092	95	64
1093	102	23
1094	102	25
1095	98	42
1096	93	68
1097	101	25
1098	95	64
1099	101	35
1100	94	59
1101	97	37
1102	97	60
1103	93	98
1104	98	53
1105	103	13
1106	103	11
1107	103	11
1108	103	13
1109	103	10
1110	103	10
1111	103	11
1112	103	10
1113	103	10
1114	102	18
1115	102	31
1116	101	24
1117	102	19
1118	103	10
1119	102	12
1120	99	56
1121	96	59
1122	74	28
1123	66	62
1124	74	29
1125	64	74
1126	69	40
1127	76	2
1128	72	29
1129	66	65
1130	54	69
1131	69	56
1132	69	40
1133	73	54
1134	63	92
1135	61	67
1136	72	42
1137	78	2
1138	76	34
1139	67	80
1140	70	67
1141	53	70
1142	72	65
1143	60	57
1144	74	29
1145	69	31

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1146	76	1
1147	74	22
1148	72	52
1149	62	96
1150	54	72
1151	72	28
1152	72	35
1153	64	68
1154	74	27
1155	76	14
1156	69	38
1157	66	59
1158	64	99
1159	51	86
1160	70	53
1161	72	36
1162	71	47
1163	70	42
1164	67	34
1165	74	2
1166	75	21
1167	74	15
1168	75	13
1169	76	10
1170	75	13
1171	75	10
1172	75	7
1173	75	13
1174	76	8
1175	76	7
1176	67	45
1177	75	13
1178	75	12
1179	73	21
1180	68	46
1181	74	8
1182	76	11
1183	76	14
1184	74	11
1185	74	18
1186	73	22
1187	74	20
1188	74	19
1189	70	22
1190	71	23
1191	73	19
1192	73	19
1193	72	20
1194	64	60
1195	70	39
1196	66	56
1197	68	64
1198	30	68
1199	70	38
1200	66	47
1201	76	14
1202	74	18
1203	69	46
1204	68	62
1205	68	62
1206	68	62
1207	68	62
1208	68	62
1209	68	62
1210	54	50
1211	41	37

APPENDIX VI TO PART 1039.—NONROAD COMPRESSION-IGNITION (CI) COMPOSITE TRANSIENT CYCLE—Continued

Time (s)	Normalized speed (percent)	Normalized torque (percent)
1212	27	25
1213	14	12
1214	0	0
1215	0	0
1216	0	0
1217	0	0
1218	0	0
1219	0	0
1220	0	0
1221	0	0
1222	0	0
1223	0	0
1224	0	0
1225	0	0
1226	0	0
1227	0	0
1228	0	0
1229	0	0
1230	0	0
1231	0	0
1232	0	0
1233	0	0
1234	0	0
1235	0	0
1236	0	0
1237	0	0
1238	0	0

PART 1065—TEST PROCEDURES AND EQUIPMENT

65. The authority citation for part 1065 continues to read as follows:

Authority: 42 U.S.C. 7401–7671(q).

66. Section 1065.1 is amended by revising paragraph (a) and removing and reserving paragraph (b)(6) to read as follows:

§ 1065.1 Applicability.

(a) This part describes the procedures that apply to testing that we require for the following engines or for equipment using the following engines:

(1) Large nonroad spark-ignition engines we regulate under 40 CFR part 1048.

(2) Vehicles that we regulate under 40 CFR part 1051 (*i.e.*, recreational SI vehicles) that are regulated based on engine testing. See 40 CFR part 1051 to determine which vehicles may be certified based on engine test data.

(3) Land-based nonroad compression-ignition engines we regulate under 40 CFR part 1039.

* * * * *

67. Section 1065.10 is amended by revising paragraph (c)(3) to read as follows:

§ 1065.10 Other test procedures.

* * * * *

(c) * * *

(3) You may ask to use alternate procedures that produce measurements equivalent to those from the specified procedures. If you send us a written request showing your procedures are equivalent, and we agree that they are equivalent, we will allow you to use them. You may not use an alternate procedure until we approve them, either by: Telling you directly that you may use this procedure; or issuing guidance to all manufacturers, which allows you to use the alternate procedure without additional approval. You may use the statistical procedures specified in 40 CFR 86.1306–07(d) to demonstrate equivalence.

* * * * *

68. Section 1065.115 is added to read as follows:

§ 1065.115 Exhaust gas sampling system; compression-ignition engines.

Use the exhaust-gas sampling system specified in 40 CFR 86.1310 to measure emissions from compression-ignition nonroad engines.

69. Section 1065.205 is added to read as follows:

§ 1065.205 Test fuel specifications for distillate diesel fuel.

Petroleum distillate diesel fuel used as a test fuel must meet the following specifications:

Item		ASTM test method No.	Type 2-D
(i) Cetane Number		D613	40–50
(ii) Cetane Index		D976	40–50
(iii) Distillation range:			
(A) IBP	°C	D86	171–204
(B) 10 pct. point	°C	D86	204–238
(C) 50 pct. point	°C	D86	243–282
(D) 90 pct. point	°C	D86	293–332
(E) EP	°C	D86	D321–366
(iv) Gravity	°API	D287	32–37
(v) Total sulfur	ppm	D2622	7–15
(vi) Hydrocarbon composition: (A) Aromatics, minimum (Remainder shall be paraffins, naphthenes, and olefins).	pct	D5186	10
(vii) Flashpoint, min.	°C	D93	54
(viii) Viscosity	centistokes	D445	2.0–3.2

70. Section 1065.310 is amended to read as follows:

§ 1065.310 CVS calibration.

Use the procedures of 40 CFR 86.1319–90 to calibrate the CVS.

71. Section 1065.405 is amended by revising paragraph (b) to read as follows:

§ 1065.405 Preparing and servicing a test engine.

* * * * *

(b) Run the test engine, with all emission-control systems operating, long enough to stabilize emission levels.

(1) For SI engines, if you accumulate 50 hours of operation, you may consider emission levels stable without measurement.

(2) For CI engines, if you accumulate 125 hours of operation, you may consider emission levels stable without measurement.

* * * * *

72. Section 1065.530 is amended by revising paragraph (b)(3)(iii) and Table 1 and adding a new Table 2 and paragraph (d) to read as follows:

§ 1065.530 Test cycle validation criteria.

* * * * *

(b) * * *

(3) * * *

(iii) For a valid test, make sure the feedback cycle's integrated brake kilowatt-hour is within 5 percent of the reference cycle's integrated brake kilowatt-hour. Also, ensure that the

slope, intercept, standard error, and coefficient of determination meet the criteria in the following tables (you may delete individual points from the regression analyses, consistent with good engineering judgment):

TABLE 1 OF § 1065.530.—STATISTICAL CRITERIA FOR VALIDATING TEST CYCLES FOR SPARK-IGNITION ENGINES

	Speed	Torque	Power
1. Slope of the regression line (m)	0.950 to 1.030	0.830 to 1.030	0.880 to 1.030.
2. Y intercept of the regression line (b).	$\|b\| \leq 50$ rpm	$\|b\| \leq 5.0$ percent of maximum torque from power map.	$\|b\| \leq 3.0$ percent of maximum torque from power map.
3. Standard error of the estimate of Y on X (SE).	100 rpm	15 percent of maximum torque from power map.	10 percent of maximum power from power map.
4. Coefficient of determination (r^2)	$r^2 \geq 0.970$	$r^2 \geq 0.880$	$r^2 \geq 0.900$.

TABLE 2 OF § 1065.530.—STATISTICAL CRITERIA FOR VALIDATING TEST CYCLES FOR COMPRESSION-IGNITION ENGINES

	Speed	Torque	Power
1. Slope of the regression line (m)	0.950 to 1.030	0.830 to 1.030 (hot); 0.77 to 1.03 (cold).	0.890 to 1.030 (hot); 0.870 to 1.030 (cold).
2. Y intercept of the regression line (b).	$\|b\| \leq 50$ rpm	$\|b\| \leq 20$ Nm or $\|b\| \leq 2.0$ percent of maximum torque from power map, whichever is greater.	$\|b\| \leq 40$ kW or $\|b\| \leq 3.0$ percent of maximum torque from power map, whichever is greater.
3. Standard error of the estimate of Y on X (SE).	100 rpm	13 percent of maximum torque from power map.	8 percent of maximum power from power map.
4. Coefficient of determination (r^2)	$r^2 \geq 0.970$	$r^2 \geq 0.880$ (hot); $r^2 \geq 0.850$ (cold)	$r^2 \geq 0.910$ (hot); $r^2 \geq 0.850$ (cold).

* * * * *

(d) *Transient testing with constant-speed engines.* For constant-speed engines with installed governor operating over a transient duty cycle, the test cycle validation criteria in this section apply to engine-torque values but not engine-speed values.

73. Section 1065.615 is amended by revising paragraphs (c) and (d) to read as follows:

§ 1065.615 Bag sample calculations.

* * * * *

(c) Calculate total brake work (kW-hr) done during the emissions sampling period of each segment or mode and then weight it by the applicable test cycle weighting factors.

(d) Calculate emissions in g/kW-hr by dividing the total weighted mass emission rate (g/test) by the total cycle-weighted brake work for the test.

* * * * *

74. Section 1065.620 is added to read as follows:

§ 1065.620 Continuous sample analysis and calculations.

Use the sample analysis procedures and calculations of 40 CFR subpart N for continuous samples.

75. Section 1065.701 is added to read as follows:

§ 1065.701 Particulate measurements.

Use the particulate sampling system and procedures specified in 40 CFR part 86 subpart N to measure particulate emissions from compression-ignition nonroad engines.

76. Section 1065.910 is revised to read as follows:

§ 1065.910 Measurement accuracy and precision.

Measurement systems used for field testing have accuracy and precision comparable to those of dynamometer testing. Measurement systems that conform to the provisions of §§ 1065.915 through 1065.950 are deemed to be in compliance with the accuracy and precision requirements of paragraph of this section. If you use other field testing measurement systems you need to have documentation indicating that it is comparable to a dynamometer system.

(a) The two systems must be calibrated independently to NIST traceable standards or equivalent national standards for this comparison. We may approve the us of other standards. Calculations of emissions results for this test should be consistent with the field testing data reduction scheme for both the in-use equipment and the dynamometer equipment, and each complete test cycle will be considered one ''summing interval'', Si as defined in the field-testing data reduction scheme.

(b) While other statistical analyses may be acceptable, we recommend that the comparison be based on a minimum of seven (7) repeats of colocated and simultaneous tests. Perform this comparison over the applicable steady-state and transient test cycles using an engine that is fully warmed up such that its coolant temperature is thermostatically controlled. If there is no applicable transient test cycle, use the applicable steady-state cycle. Anyone who intends to submit an alternative comparison is encouraged to first contact EPA Office of Transportation and Air Quality, Assessment and Standards Division to discuss the applicant's intended statistical analysis. The Division may provide further guidance specific to the appropriate statistical analysis for the respective application.

(c) The following statistical tests are suggested. If the comparison is paired, it must demonstrate that the alternate system passes a two-sided, paired t-test. If the test is unpaired, it must demonstrate that the alternate system passes a two-sided, unpaired t-test. The average of these tests for the reference system must return results less than or equal to the applicable emissions standard. The t-test is performed as follows, where ''n'' equals the number of tests:

(1) Calculate the average of the in-use system results; this is Iavg.

(2) Calculate the average of the results of the system to which the in-use system was Referenced; this is Ravg.

(3) Calculate the ''n − 1'' standard deviations for the in-use and reference averages; these are Isd and Rsd respectively. Form the F ratio: F = (Isd/Rsd) 2. F must be less than the critical F value, Fcrit at a 95% confidence interval for ''n − 1'' degrees of freedom. Table 1 of this section lists 95% confidence interval Fcrit values for n − 1 degrees of freedom. Note that n_A represents the number of alternate system samples, while n_R represents the number of reference system samples.

(4) For an unpaired comparison, calculate the t-value:

$$t_{unpaired} = (I_{avg} - R_{avg}) / ((I_{sd}^2 + R_{sd)}^2 / n)^{1/2}$$

(5) For a paired comparison, calculate the ''n − 1'' standard deviation (squared) of the differences, d_i, between the paired results, where ''i'' represents the ith test of n number of tests:

$$S_D^2 = (Sd_i^2 - ((Sd_i)^2 / n)) / (n - 1)$$

(6) For a paired comparison, calculate the t-value:

$$t_{paired} = (I_{avg} - R_{avg}) / (S_D^2 / n)^{1/2}$$

(d) The absolute value of t must be less than the critical t value, t_{crit} at a 95% confidence interval for ''n − 1'' degrees of freedom. Table 2 of this section lists 95% confidence interval t_{crit} values for n − 1 degrees of freedom.

TABLE 1 OF § 1065.910.—95% CONFIDENCE INTERVAL CRITICAL F VALUES FOR F–TEST

nR − 1	nI − 1	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6		4.284	4.207	4.147	4.099	4.06	4.027	4	3.976	3.956	3.938	3.922	3.908	3.896	3.884	3.874
7		3.866	3.787	3.726	3.677	3.637	3.603	3.575	3.55	3.529	3.511	3.494	3.48	3.467	3.455	3.445
8		3.581	3.5	3.438	3.388	3.347	3.313	3.284	3.259	3.237	3.218	3.202	3.187	3.173	3.161	3.15
9		3.374	3.293	3.23	3.179	3.137	3.102	3.073	3.048	3.025	3.006	2.989	2.974	2.96	2.948	2.936
10		3.217	3.135	3.072	3.02	2.978	2.943	2.913	2.887	2.865	2.845	2.828	2.812	2.798	2.785	2.774
11		3.095	3.012	2.948	2.896	2.854	2.818	2.788	2.761	2.739	2.719	2.701	2.685	2.671	2.658	2.646
12		2.996	2.913	2.849	2.796	2.753	2.717	2.687	2.66	2.637	2.617	2.599	2.583	2.568	2.555	2.544
13		2.915	2.832	2.767	2.714	2.671	2.635	2.604	2.577	2.554	2.533	2.515	2.499	2.484	2.471	2.459
14		2.848	2.764	2.699	2.646	2.602	2.565	2.534	2.507	2.484	2.463	2.455	2.428	2.413	2.4	2.388
15		2.79	2.707	2.641	2.588	2.544	2.507	2.475	2.448	2.424	2.403	2.385	2.368	2.353	2.34	2.328
16		2.741	2.657	2.591	2.538	2.494	2.456	2.425	2.397	2.373	2.352	2.333	2.317	2.302	2.288	2.276
17		2.699	2.614	2.548	2.494	2.45	2.413	2.381	2.353	2.329	2.308	2.289	2.272	2.257	2.243	2.23
18		2.661	2.577	2.51	2.456	2.412	2.374	2.342	2.314	2.29	2.269	2.25	2.233	2.217	2.203	2.191
19		2.628	2.544	2.477	2.423	2.378	2.34	2.308	2.28	2.256	2.234	2.215	2.198	2.182	2.168	2.155
20		2.599	2.514	2.447	2.393	2.348	2.31	2.278	2.25	2.225	2.203	2.184	2.167	2.151	2.137	2.124

TABLE 2 OF § 1065.910.—95% CONFIDENCE INTERVAL CRITICAL T VALUES FOR T-TEST

n − 1	t_{crit}
6	2.45
7	2.36
8	2.31
9	2.26
10	2.23
11	2.20
12	2.18
13	2.16
14	2.14
15	2.13
16	2.12
17	2.11
18	2.10
19	2.09
20	2.09

PART 1068—GENERAL COMPLIANCE PROVISIONS FOR NONROAD PROGRAMS

77. The authority citation for part 1068 continues to read as follows:

Authority: 42 U.S.C. 7401–7671(q).

78. Section 1068.1 is amended by revising paragraph (a), removing and reserving paragraph (b)(5), and adding paragraph (e) to read as follows:

§ 1068.1 Does this part apply to me?

(a) The provisions of this part apply to everyone with respect to the following engines and to equipment using the following engines (including owners, operators, parts manufacturers, and persons performing maintenance).

(1) Large nonroad spark-ignition engines we regulate under 40 CFR part 1048.

(2) Recreational SI engines and vehicles that we regulate under 40 CFR part 1051 (such as snowmobiles and off-highway motorcycles).

(3) Land-based nonroad diesel engines that we regulate under 40 CFR part 1039.

* * * * *

(e)(1) The provisions of §§ 1068.30, 1068.310, and 1068.320 apply for stationary spark-ignition engines beginning January 1, 2004, and for stationary compression-ignition engines beginning January 1, 2006.

(2) The provisions of §§ 1068.30 and 1068.235 apply for the types of engines listed in paragraph (a) of this section beginning January 1, 2004, where they are used solely for competition.

79. Section 1068.27 is added to read as follows:

§ 1068.27 May EPA conduct testing with my production engines?

If we request it, you must make a reasonable number of production-line engines available for a reasonable time so we can test or inspect them for compliance with the requirements of this chapter.

80. Section 1068.30 is amended by adding in alphabetical order a definition of ''Aftertreatment'' to read as follows:

§ 1068.30 What definitions apply to this part?

* * * * *

Aftertreatment means relating to any system, component, or technology mounted downstream of the exhaust valve or exhaust port whose design function is to reduce exhaust emissions.

* * * * *

81. Section 1068.101 is amended by revising paragraph (a)(1) and adding paragraph (b)(6) to read as follows:

§ 1068.101 What general actions does this regulation prohibit?

(a) * * *

(1) You may not sell, offer for sale, or introduce or deliver into commerce in the United States or import into the United States any new engine or equipment after emission standards take effect for that engine or equipment, unless it has a valid certificate of conformity for its model year and the required label or tag. You also may not take any of the actions listed in the previous sentence with respect to any equipment containing an engine subject to this part's provisions, unless the engine has a valid and appropriate certificate of conformity and the required engine label or tag. For purposes of this paragraph (a)(1), an appropriate certificate of conformity is one that applies for the same model year as the model year of the equipment (except as allowed by § 1068.105(a)), covers the appropriate category of engines (such as locomotive or CI marine), and conforms to all requirements specified for equipment in the standard-setting part. This requirements of this paragraph (a)(1) also cover new engines you produce to replace an older engine in a piece of equipment, unless the engine qualifies for the replacement-engine exemption in § 1068.240. We may assess a civil

penalty up to $31,500 for each engine in violation.

* * * * *

(b) * * *

(6) You must meet your obligation to honor your emission-related warranty under § 1068.115 and to fulfill any applicable responsibilities to recall engines under § 1068.505. Failure to meet these obligations is prohibited. We may assess a civil penalty up to $31,500 for each engine in violation.

* * * * *

82. Section 1068.105 is amended by adding introductory text and revising paragraph (c) to read as follows:

§ 1068.105 What other provisions apply to me specifically if I manufacture equipment needing certified engines?

This section describes general provisions that apply to equipment manufacturers. See the standard-setting part for any requirements that apply for certain applications.

* * * * *

(c) *Attaching a duplicate label.* If you obscure the engine's label, you must do four things to avoid violating § 1068.101(a)(1):

(1) Send a request for duplicate labels in writing with your company's letterhead to the engine manufacturer. Include the following information in your request:

(i) Identify the type of equipment and the specific engine and equipment models needing duplicate labels.

(ii) Identify the engine family (from the original engine label).

(iii) State the reason that you need a duplicate label for each equipment model.

(iv) Identify the number of duplicate labels you will need.

(2) Permanently attach the duplicate label to your equipment by securing it to a part needed for normal operation and not normally requiring replacement. Make sure an average person can easily read it.

(3) Destroy any unused duplicate labels if you find that you will not need them.

(4) Keep the following records for at least eight years after the end of the model year identified on the engine label:

(i) Keep a copy of your written request.

(ii) Keep drawings or descriptions that show how you apply the duplicate labels to your equipment.

(iii) Maintain a count of duplicate labels that you use or destroy.

* * * * *

83. Section 1068.210 is amended by revising paragraph (a) to read as follows:

§ 1068.210 What are the provisions for exempting test engines?

(a) We may exempt engines that are not exempted under other sections of this part that you will use for research, investigations, studies, demonstrations, or training. This may include engines placed into service if the primary purpose is to develop a fundamentally new emission-control technology related either to an alternative fuel or an aftertreatment device.

* * * * *

84. Section 1068.215 is amended by revising paragraph (c)(3)(iii) to read as follows:

§ 1068.215 What are the provisions for exempting manufacturer-owned engines?

* * * * *

(c) * * *

(3) * * *

(iii) Engine displacement, engine family identification (as applicable), and model year of the engine or whom to contact for further information.

* * * * *

85. Section 1068.220 is amended by revising paragraph (e)(3) to read as follows:

§ 1068.220 What are the provisions for exempting display engines?

* * * * *

(e) * * *

(3) Engine displacement, engine family identification (as applicable), and model year of the engine or whom to contact for further information.

* * * * *

86. Section 1068.310 is amended by revising the introductory text and paragraphs (a) and (b) to read as follows:

§ 1068.310 What are the exclusions for imported engines?

Engines or equipment that are not subject to our emission standards are not subject to the restrictions on imports in § 1068.301(b). If you show us that your engines qualify under one of the paragraphs of this section, we will approve your request to import such excluded engines. You must have our approval to import an engine under paragraph (a) of this section. You may, but are not required to request our approval to import the engines under paragraph (b) or (c) of this section. The following engines are excluded:

(a) *Engines used solely for competition.* Engines you use solely for competition are generally excluded from the restrictions on imports in § 1068.301(b), but only if they are properly labeled according to § 1068.320. The standard-setting part may set special provisions for the manufacture, sale, or import of engines used solely for competition. Section 1068.101(b)(4) prohibits using these excluded engines for other purposes.

(b) *Stationary engines.* The definition of nonroad engine in 40 CFR 1068.30 does not include certain engines used in stationary applications. Such engines are not subject to the restrictions on imports in § 1068.301(b), but only if they are properly labeled according to § 1068.320. Section 1068.101 restricts the use of stationary engines for non-stationary purposes.

* * * * *

87. Section 1068.315 is amended by revising introductory text and paragraph (a) and adding paragraph (f)(1)(iii) to read as follows:

§ 1068.315 What are the permanent exemptions for imported engines?

We may approve a permanent exemption from the restrictions on imports under § 1039.301(b) under the following conditions:

(a) *National security exemption.* You may import an engine under the national security exemption in § 1068.225, but only if they are properly labeled according to § 1068.320.

* * * * *

(f) * * *

(1) * * *

(iii) Land-based nonroad diesel engines (see part 1039 of this chapter).

* * * * *

88. Section 1068.320 is amended by revising the section heading, paragraph (a) introductory text, and paragraph (b)(4) to read as follows:

§ 1068.320 How must I label an imported engine with an exclusion or a permanent exemption?

(a) For engines imported under § 1068.310(a) or (b) or § 1068.315(a), you must place a permanent label or tag on each engine. If no specific label requirements from the standard-setting part or from subpart C of this part apply, you must meet the following requirements:

* * * * *

(b) * * *

(4) State:

THIS ENGINE IS EXEMPT FROM THE REQUIREMENTS OF [identify the part referenced in 40 CFR 1068.1(a) that would otherwise apply], AS PROVIDED IN [identify the paragraph authorizing the exemption (for example, ''40 CFR 1068.315(a)'')]. INSTALLING THIS ENGINE IN ANY DIFFERENT APPLICATION MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

* * * * *

89. Section 1068.325 is amended by revising the introductory text to read as follows:

§ 1068.325 What are the temporary exemptions for imported engines?

If we approve a temporary exemption from the restrictions on importing an engine under § 1039.301(b), you may import it under the conditions in this section. We may ask the U.S. Customs Service to require a specific bond amount to make sure you comply with the requirements of this subpart. You may not sell or lease one of these engines while it is in the United States. You must eventually export the engine as we describe in this section unless you get a certificate of conformity for it or it qualifies for one of the permanent exemptions in § 1068.315. Section 1068.330 specifies an additional temporary exemption allowing you to import certain engines you intend to sell or lease.

* * * * *

90. A new § 1068.340 is added to read as follows:

§ 1068.340 What special provisions apply to Independent Commercial Importers?

We generally consider engines to be new when they are imported into the United States, even if they have previously been used outside the country. See 40 CFR part 89, subpart G and 40 CFR 89.906(b) for special provisions allowing Independent Commercial Importers to show that such engines meet the requirements of the standard-setting part without the full certification process.

91. Section 1068.501 is amended by revising paragraphs (b), (c)(1), (e), (f), and (h), and adding paragraph (a)(7) to read as follows:

§ 1068.501 How do I report engine defects?

(a) * * *

(7) This section distinguishes between defects and possible defect. A possible defect occurs anytime there is an indication that an emission-related component might have a defect, as described in paragraph (b)(1) of this section.

(b) *Investigation of possible defects.* If the number of engines that have a possible defect, as defined by paragraph (b)(1) of this section, exceed the thresholds specified in paragraph (e) of this section, you must conduct an investigation to determine if an emission-related component is actually defective.

(1) You must track warranty claims, parts shipments, and the other information specified in paragraph (b)(1)(iii) of this section. You must classify an engine component as having a possible defect if any of the following is true:

(i) A warranty claim is submitted for the component, whether this is under your emission-related warranty or any other warranty.

(ii) You ship a replacement component other than for normally scheduled maintenance during the useful life of the engine.

(iii) You receive any other information indicating the component may be defective, such as information from dealers or hot line complaints.

(2) Your investigation must be prompt, thorough, consider all relevant information, follow scientific and engineering principles, and be designed to obtain all the information specified in paragraph (d) of this section.

(3) Your investigation only needs to consider possible defects that occur within the useful life period, or within five years after the end of the model year, whichever is longer.

(4) You must continue your investigation until you are able to show that components are not defective or you obtain all the information specified for a defect report in paragraph (d) of this section. Send us an updated defect report anytime you have significant additional information.

(5) If a component with a possible defect is used in additional engine families or model years, you must investigate whether the component or part may be defective when used in these additional engine families or model years, and include these results in any defect report you send under paragraph (c) of this section.

(6) If your initial investigation concludes that the number of engines with a defect is fewer than the thresholds specified in paragraph (f) of this section, but other information later becomes available that may show that the number of engines with a defect exceeds these thresholds, then you must resume your investigation. If you resume an investigation, you must include the information from the earlier investigation to determine whether to send a defect report.

(c) * * *

(1) Your investigation shows that the number of engines with a defect exceeds the thresholds specified in paragraph (f) of this section. Send the defect report within 15 days after the date you identify this number of defective engines. See paragraph (h) of this section for reporting requirements that apply if the number of engines with a defect does not exceed the thresholds in paragraph (f) of this section.

* * * * *

(e) *Thresholds for conducting a defect investigation.* Unless the standard-setting part specifies otherwise, you must begin a defect investigation based on the following threshold values:

(1) For engine with rated power under 560 kW:

(i) When the component is a catalytic converter (or other aftertreatment device), for one of the following number of engines that may have the defect:

(A) For engine families with annual sales below 4,000 units: 20 or more engines.

(B) For engine families with annual sales between 4,000 and 100,000 units: more than 2 percent of the total number of engines in the engine family.

(C) For engine families with annual sales above 100,000 units: 2,000 or more engines.

(ii) When the emission-related component is anything but a catalytic converter (or other aftertreatment device), for one of the following number of engines that may have the defect:

(A) For engine families with annual sales below 4,000 units: 40 or more engines.

(B) For engine families with annual sales between 4,000 and 100,000 units: more than 4 percent of the total number of engines in the engine family.

(C) For engine families with annual sales above 100,000 units: 4,000 or more engines.

(2) For engine with rated power greater than or equal to 560 kW, if the number of engines in an engine family that may have the defect exceeds 1 percent of the total number of engines in the engine family or 5 engines, whichever is greater.

(f) *Thresholds for filing a defect report.* You must send a defect report based on the following threshold values:

(1) For engine with rated power under 560 kW:

(i) When the component is a catalytic converter (or other aftertreatment device), for one of the following number of engines that may have the defect:

(A) For engine families with annual sales below 4,000 units: 5 or more engines.

(B) For engine families with annual sales between 4,000 and 100,000 units: more than 0.125 percent of the total number of engines in the engine family.

(C) For engine families with annual sales above 100,000 units: 125 or more engines.

(ii) When the emission-related component is anything but a catalytic converter (or other aftertreatment

device), for one of the following number of engines that may have the defect:

(A) For engine families with annual sales below 4,000 units: 10 or more engines.

(B) For engine families with annual sales between 4,000 and 100,000 units: more than 0.250 percent of the total number of engines in the engine family.

(C) For engine families with annual sales above 100,000 units: 250 or more engines.

(2) For engine with rated power greater than or equal to 560 kW, if the number of engines in an engine family that has the defect exceeds 0.5 percent of the total number of engines in the engine family or 2 engines, whichever is greater.

* * * * *

(h) *Investigation reports.* If you investigate possible defects under paragraph (b) of this section and find that the number of engines with a defect does not exceed the thresholds specified in paragraph (f) of this section, you must send us a report supporting this conclusion. Include the information specified in paragraph (d) of this section, or explain why the information is not relevant. Send this report within 15 days after the date you reach this conclusion.

* * * * *

[FR Doc. 03–9737 Filed 5–22–03; 8:45 am]

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Federal Register

Friday,
May 23, 2003

Part III

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0048—FRL–7462–1]

RIN 2060–AG55

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for new and existing metal furniture surface coating operations located at major sources of hazardous air pollutant (HAP) emissions. The final standards implement section 112(d) of the Clean Air Act (CAA) which requires the Administrator to regulate emissions of HAP listed in section 112(b) of the CAA. The intent of the standards is to protect public health and the environment by requiring new and existing major sources to control emissions to the level attainable by implementing the maximum achievable control technology (MACT). The final standards will eliminate approximately 73 percent of nationwide HAP emissions from major sources that coat metal furniture. Metal furniture surface coating operations emit HAP such as xylene, toluene, ethylene glycol monobutyl ether and other glycol ethers, ethylbenzene, and methyl ethyl ketone. Health effects associated with these pollutants include eye, nose, throat, and skin irritation; nausea, vomiting, headache, and dizziness; and liver and kidney damage. We do not have the type of current detailed data on each of the facilities covered by the final rule and the people living around the facilities that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

EFFECTIVE DATE: May 23, 2003. The incorporation by reference of certain publications listed in today's final rule is approved by the Director of the Federal Register as of May 23, 2003.

ADDRESSES: *Docket.* Docket ID No. OAR–2002–0048 (formerly Docket No. A–97–40) is located at the EPA Docket Center, EPA West, U.S. EPA (6102T), 1301 Constitution Avenue, NW, Room B–102, Washington, DC 20460.

Background Information Document. A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the U.S. EPA Library (C267–01), Research Triangle Park, NC 27711, telephone (919) 541–2777; or from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, telephone (703) 487–4650. Refer to ''National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Furniture-Summary of Public Comments and Responses on Proposed Rule'' (EPA–453/R–03–002). The promulgation BID contains a summary of changes made to the standards since proposal, public comments made on the proposed standards, and EPA responses to the comments.

FOR FURTHER INFORMATION CONTACT: Dr. Mohamed Serageldin, Coating and Consumer Products Group (C539–03), Emission Standards Division, U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–2379, facsimile number (919) 541–5689, electronic mail (e-mail) address: *serageldin.mohamed@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include those listed on the following table. This table is not intended to be exhaustive, but is just a guide to entities likely to be regulated by the standards. It lists the types of entities that may be regulated, but you should examine the applicability criteria in §§ 63.4881 and 63.4882 of the rule to decide whether your facility is regulated by the standards.

CATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE STANDARDS

Product description	NAICS code(s)	NAICS Product Description
Metal Household Furniture	337124	Metal Household Furniture Manufacturing.
Office Furniture, Except Wood	337214	Nonwood Office Furniture Manufacturing.
Public Building and Related Furniture	337127	Institutional Furniture Manufacturing.
Office and Store Fixtures, Partitions, Shelving, and Lockers, Except Wood.	337215	Showcase, Partition, Shelving, and Locker Manufacturing.
Furniture and Fixtures, Not Classified Elsehwere	337127	Institutional Furniture Manufacturing.
Hardware, Not Classified Elsewhere	332951	Hardware Manufacturing.
Metal Stampings, Not Classified Elsewhere (Except Kitchen Utensils, Pots and Pans for Cooking, and Coins).	332116	Metal Stamping.
Wire Springs	332612	Wire Spring Manufacturing.
Fabricated Metal Products, Not Classified Elsewhere	337215	Showcase, Partition, Shelving, and Locker Manufacturing.
Residential Electric Lighting Fixtures	335121	Residential Electric Lighting Fixture Manufacturing.
Commercial, Industrial, and Institutional Electric Lighting Fixtures	335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing.
Laboratory Apparatus and Furniture	339111	Laboratory Furniture Manufacturing.
Dental Equipment and Supplies	339114	Dental Equipment Manufacturing.
Manufacturing Industries, Not Classified Elsewhere	337127	Institutional Furniture Manufacturing.
Reupholstery and Furniture Repair	81142	Reupholstery and Furniture Repair.
State/Federal Governmental Agencies	.....	State/Federal correctional institutions that apply coatings to metal furniture.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0048 (formerly Docket No. A–97–40). The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the

official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the EPA Docket Center, EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC 20460. The Docket Center is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select ''search,'' then key in the appropriate docket identification number.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of today's final rule will also be available on the WWW through EPA's Technology Transfer Network (TTN). Following signature by the EPA Administrator, a copy of the rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b) of the CAA, judicial review of the final rule is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by July 22, 2003. Under section 307(d)(7)(B) of the CAA, only an objection to the rule which was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding we bring to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What Is the Source of Authority for Development of NESHAP?
B. What Criteria Do We Use in the Development of NESHAP?
II. What Changes and Clarifications Have We Made to the Proposed Standards?
A. Overlap With Other NESHAP Source Categories
B. MACT Floors and Emission Limits
C. Military Coatings
D. Compliance During Periods of Startup, Shutdown, and Malfunction
E. Monitoring
F. Title V Operating Permits
G. Other Changes and Clarifications
III. What Are the Final Standards?
A. What Is the Source Category?
B. What Is the Affected Source?
C. What Are the Emission Standards?
D. Interaction With Other Regulations
IV. When Do I Show Initial Compliance With the Rule?
V. What Testing and Monitoring Must I Do?
A. Test Methods and Procedures
B. Monitoring Requirements
VI. What Notification, Recordkeeping, and Reporting Requirements Must I Follow?
A. Initial Notification
B. Notification of Performance Tests
C. Notification of Compliance Status
D. Recordkeeping Requirements
E. Semiannaul Reports
VII. What Are the Environmental, Energy, and Economic Impacts of the Rule?
A. What Are the Air Impacts?
B. What Are the Cost Impacts?
C. What Are the Economic Impacts?
D. What Are the Nonair Health, Environmental, and Energy Impacts?
VIII. Statutory and Executive Order Reviews
A. Executive Order 12866, Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act (RFA)
D. Unfunded Mandates Reform Act of 1995
E. Executive Order 13132, Federalism
F. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks
H. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The category of major sources covered by the final NESHAP was listed on July 16, 1992 (57 FR 31576) under the Surface Coating Processes industry group. Major sources of HAP are those that emit or have the potential to emit considering controls, in the aggregate, 9.07 megagrams per year (Mg/yr) (10 tons per year (tpy)) or more of any HAP or 22.68 Mg/yr (25 tpy) or more of any combination of HAP.

B. What Criteria Do We Use in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the emission limitation is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than the standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources in the category or subcategory (or the best performing five sources for categories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on consideration of the cost of achieving the emission reductions, any health and environmental impacts, and energy requirements.

II. What Changes and Clarifications Have We Made to the Proposed Standards?

In response to public comments received on the proposed standards, we made several changes in developing the final rule. While some of the changes were designed to make our intentions clearer, other changes resulted in revisions to the MACT floors and emission limits. The substantive comments and our responses and rule

changes are summarized in the following sections. A more detailed summary of these comments as well as other comments received along with our responses can be found in the BID for the final rule which is available from several sources (see **ADDRESSES**).

A. Overlap with Other NESHAP Source Categories

Two commenters requested that the final rule provide compliance flexibility for facilities that coat a variety of items in addition to metal furniture and metal furniture components. Such facilities may be affected by several surface coating NESHAP, such as the existing standards for wood furniture, the proposed standards for miscellaneous metal parts and products (67 FR 52780, August 13, 2002), and the proposed standards for plastic parts and products (67 FR 72276, December 4, 2002). The commenters sought a regulatory approach that would allow facilities to opt specific coating operations or product lines that are collocated with metal furniture surface coating operations out of the rule and into one of the other surface coating NESHAP.

Another commenter believed that the proposed rule did not adequately address all the possible overlap issues between the metal furniture and wood furniture surface coating NESHAP, particularly when a furniture item consists of both metal and wood components.

We understand that it could be beneficial to consolidate regulatory requirements at facilities where coating operations belonging to different source categories (such as metal furniture, miscellaneous metal parts and products, and plastic parts and products) are collocated. Consolidation may reduce the amount of records, reports, or compliance calculations that the facility would have to maintain. Some commenters suggested that the final rule include a compliance option that would allow this consolidation of different regulatory requirements within a facility. Section 112(d)(2) of the CAA states that all major sources within a regulated source category must meet the maximum degree of emission reduction that we determine to be achievable. We do not believe that the commenters' recommendation of allowing a facility to choose which coating operations to opt into, or out of, a particular NESHAP would ensure that the MACT level of control was met for all HAP emission points within each source category. Therefore, to comply with these CAA requirements, we have not included the compliance option suggested by the commenters in the final rule.

We recognize that there is not always a clear dividing line between the affected sources of the surface coating rules. This is evident in the furniture manufacturing industry, where both metal and wood furniture may be produced in the same facility, and many pieces of furniture contain substantial portions of metal and wood. For those commenters concerned with lack of clarity between the applicability of the metal furniture rule and other surface coating rules, in particular the wood furniture surface coating rule (40 CFR part 63, subpart JJ), we are providing clarification through the following examples.

Example 1. Coating operations at facilities currently subject to the wood furniture rule (40 CFR part 63, subpart JJ) would continue to be subject to that rule. This would be the case even if the items coated contained metal components, as long as the items meet the definition of wood furniture or wood furniture component in § 63.801(a) of 40 CFR part 63, subpart JJ.

Example 2. Coating operations at facilities that coat metal furniture (as defined in § 63.4881(a)(2) of the final rule) constructed either entirely or partially from metal (but not qualifying as wood furniture components under subpart JJ) would be subject to the metal furniture rule.

Example 3. Facilities that coat only metal furniture components such as knobs, hinges, and screws (that is, components that are of a more generic nature and could have broader uses in products other than metal furniture) and provide these components exclusively to metal furniture manufacturing facilities would be subject to the metal furniture rule.

Example 4. The applicability of the surface coating rules when the item coated is composed of both metal and wood components in approximately equivalent percentages will depend primarily on the functionality of the entire unit. A common example of such an item is a commercial shelving unit constructed of a metal base and wood backing. For reasons related to structural rigidity or overall stability, the functionality of this particular shelving unit depends more on the metal components than the wood components. The surface coating of this shelving unit would be regulated under the metal furniture rule. Thus, the surface coating of all components of this shelving unit, regardless of whether they are made of metal or wood, would be regulated under the metal furniture rule, so long as the facility is a metal furniture manufacturing facility. This would be true even if the metal furniture manufacturing facility dedicated a coating line exclusively to the coating of the wood components.

Example 5. Coating operations such as those presented in Example 4 may not involve items that can be readily classified according to functionality. For these situations, the applicability determination would be made on a case-by-case basis taking into account functionality and other relevant factors. These factors may include the primary North American Industrial Classification System (NAICS) code for the facility, amount of surface area coated for each type of substrate, and how the coating operations have been classified for other surface coating rules (such as new source performance standards (NSPS) and State rules).

The examples we have provided here are necessarily simplistic in nature compared to many of the situations encountered in the metal furniture manufacturing industry and are intended only to provide guidance. Even so, the examples demonstrate the complex applicability issues related to this rule and why precisely defining applicability among the surface coating rules has proved to be a challenge. While we realize that many of the situations encountered in the metal furniture manufacturing industry can be far more complicated than presented here, discussion of these more complex situations is beyond the scope of this preamble. For these reasons, we intend to provide additional guidance documents in the future that will specifically address some of the more complex applicability issues. In order to address the specific concerns raised by the metal furniture industry, we are planning to involve all interested stakeholders in the development of these guidance documents. We will announce at a future date how stakeholders may become involved in this effort.

B. MACT Floors and Emission Limits

The database we used to determine the MACT floors for new and existing sources consisted of 49 facilities that responded to our questionnaires. Of these 49 facilities, 22 provided complete data such that we could calculate an emission rate for all of the metal furniture surface coating operations in terms of kilograms (kg) organic HAP per liter coating solids used. Of the 27 remaining facilities, we believed we had enough data to estimate that, had all of the requested data been provided, their emission rates would have fallen within the range represented by the facilities for which we had complete data. Therefore, we based the existing source

MACT floor on the best performing 12 percent of 49 facilities rather than 12 percent of 22 facilities.

One commenter stated that section 112(d)(3)(A) of the CAA requires us to use only those facilities ''for which the Administrator has emissions information.'' The commenter believed that this language limited us to considering only the 22 facilities, not the entire group of 49 facilities.

In response to these comments, we reviewed the information that was submitted by the 27 facilities with incomplete data. We also attempted to obtain additional information from some of the facilities. As a result of these efforts, we could not confirm the accuracy of our original assumption that the emission rates for these 27 facilities would fall within the range represented by the facilities with complete data. As a result, we agree with the commenter that a more appropriate basis for the floor determination is the data set for the 22 facilities that submitted complete data. Using information from only those facilities, we recalculated the existing source MACT floor based on the average of the best performing 12 percent of 22 facilities. This calculation reduced the MACT floor from 0.12 kg organic HAP per liter (1.0 lb/gallon (gal)) coating solids used to 0.10 kg organic HAP per liter (0.83 lb/gal) coating solids. In the final rule, the existing source emission limit in § 63.4890 corresponds to the new MACT floor value.

Two commenters also questioned our rejection of above-the-floor options for existing sources. We continue to believe that rejecting above-the-floor options was appropriate for existing sources. However, during our analysis of these comments, we began to further consider how the state-of-the-art for new sources has changed since our initial data gathering efforts. We have always recognized that there are certain coating technologies that may emit no organic HAP (as calculated according to § 63.4941(a)) such as powder coatings and liquid coatings that contain no organic HAP. The industry questionnaire responses that we reviewed in 1998 (representing 1997 data) showed that six facilities used powder coatings exclusively, and they were not used for the MACT floor calculations because they were true area sources. These powder coating facilities produced metal furniture items such as office chairs, dental chairs, commercial and residential lighting fixtures, and indoor and outdoor lighting fixtures. Of these six powder coating facilities, three had coating solids usages within the range represented by the facilities we used to determine the MACT floor (in other words, had these three facilities used conventional liquid coatings instead of powder coatings, we would expect them to be major sources of HAP emissions and they would have been included in the determination of the MACT floor). We believe these data demonstrate the industry's current ability to exclusively use powder coatings in many situations.

Based on the 1998 questionnaire responses of the 22 facilities that provided complete data, information was provided for 188 individual liquid coatings. Eight of these coatings were reported as containing no organic HAP. In addition, another 48 individual coatings were reported as containing less than 1 percent by mass of organic HAP (typically as a small component of a solvent blend such as aromatic naphtha). We believe that this high percentage of non-HAP (or essentially non-HAP) coatings used by these 22 facilities indicates the coating suppliers' ability to produce and market non-HAP coatings and demonstrates that they are currently in use by the industry.

Over the past 5 years since we sent questionnaires to the metal furniture manufacturing industry, non-HAP coating technologies have undergone continual development. The availability of powder coatings in a wide range of colors has increased, as has the ability to produce various surface finishes and control film thickness. Coating manufacturers have also made significant strides in formulating non-HAP coatings, driven in large part by the requirements of surface coating NESHAP for a wide variety of industries. In addition, we are aware of other coating technologies, such as electrocoating, that have the potential to emit no HAP. Although we are not currently aware of these coating technologies being used in the metal furniture industry, we believe they can be used in certain circumstances and represent viable alternatives for new sources.

We believe the continual development of these non-HAP coating technologies over the past several years has allowed them to gain wider acceptance and use within the metal furniture surface coating industry, such that we now believe they represent in the aggregate the MACT floor for new sources. Considering that new sources have much greater latitude than existing sources to design manufacturing operations and the metal furniture items themselves to accommodate these coating technologies, new sources can more readily take advantage of these coating technologies. Accordingly, we have revised the new source MACT floor to be no emissions of organic HAP from metal furniture surface coating operations. The emission limit for new sources in § 63.4890 of the final rule reflects this new MACT floor determination.

We also recognize that there may be specialized appearance or functional characteristics that can be produced only with coating technologies employing organic HAP, even for new sources. To accommodate these situations, we added a provision in the final rule that allows a new affected source to demonstrate on a case-by-case basis that organic HAP-free coating technologies cannot be used for their specific products. If we approve such a request, then the source would be required to meet an emission limit of 0.094 kg organic HAP per liter (0.78 lb/gal) coating solids used. This emission limit is the same as the emission limit originally proposed for new sources and would apply only to the specific products for which the determination was made, not all of the metal furniture surface coating operations at the new source.

C. Military Coatings

One commenter expressed concern about metal furniture used in battlefield situations. Such furniture may be coated with chemical agent resistant coatings and other coatings unique to the military. The commenter believed that the emission limits developed for the metal furniture rule did not take into account the needs of the military to sustain metal furniture and other battlefield support equipment and requested that all such coatings be regulated under the proposed NESHAP for miscellaneous metal parts and products, once those standards become final. Upon further analysis, we agree that military coatings used for refurbishment of military equipment may be unique from those used to develop the emission limits as in the proposed metal furniture surface coating rule and require special consideration. However, because so many different products are involved (metal furniture, large appliances, wood furniture, miscellaneous metal parts, fabric coating, and plastic parts), we believe the more appropriate approach is to group all of the products coated with specialized military coatings into their own source category. Thus, we are creating a new source category for the surface coating of refurbished military equipment for this purpose. The final rule for metal furniture includes an exemption for military coatings (see § 63.4881(c)(6) of the final rule) that will

be included in the newly created source category.

D. Compliance During Periods of Startup, Shutdown, and Malfunction

One commenter believed that the statement in § 63.4900(a)(2) of the proposed rule that affected sources do not have to comply with the emission limitations during periods of startup, shutdown, and malfunction does not comply with the CAA. This provision is often found in NESHAP in which compliance with the standards is based on the results of a short-term initial performance test and short-term averaging of continuous monitoring results thereafter. In consideration of this comment, we realized that this provision is not appropriate for the surface coating NESHAP when these short-term tests and monitoring results are only one component of a compliance determination that determines emissions over a long period of time, which in this case is a month. For the metal furniture surface coating NESHAP, the source owner or operator will use the performance test and continuous monitoring results in combination with data on coatings and other materials used over a month's period of time. These components will be combined to calculate a monthly organic HAP emission rate. Since there may be many startups and shutdowns of a coating operation over the course of a month as part of normal operation, it is not appropriate to exempt such periods from compliance with the standards. We believe that a month-long compliance period will accommodate potential short-term higher emission rates that might occur due to startup, shutdown, or malfunction, and that the proposed exemption is not necessary or appropriate. Thus, we revised and simplified the general compliance requirements in § 63.4900; we removed the statement that sources must be in compliance except during periods of startup, shutdown, and malfunction. We state in § 63.4900(a) of the final rule that all affected sources must be in compliance with the emission limitations in § 63.4890 at all times. We left in place the requirement for sources using an emission capture system and add-on control device to develop and implement a written startup, shutdown, and malfunction plan according to § 63.6(e)(3).

E. Monitoring

One commenter believed we inappropriately used the terms ''sensitivity'' and ''tolerance'' interchangeably in § 63.4968 of the proposed rule (now § 63.4967 in the final rule). We agree with the commenter and replaced both terms with the term ''accuracy.'' We also made numerous changes throughout this section to simplify monitoring requirements and maintain consistency with the monitoring requirements in other surface coating NESHAP under development.

F. Title V Operating Permits

Several commenters had concerns about possible conflicts between reporting requirements under this rule and their approved title V programs. It is important to emphasize that a permitting authority does not have the authority to change the reporting requirements of this rule (such as type of report, content of report, and/or frequency of submission). Reporting requirements under this rule are applicable requirements, and sources must comply with them.

The final rule, consistent with the proposed rule, does however allow an affected source to submit its semiannual compliance report along with, or as part of, its 6-month monitoring report required by 40 CFR part 70 or 40 CFR part 71. See § 63.4920(a)(1)(iv) and (a)(2) of the final rule. As a result of comments, § 63.4920(a)(1)(iv) and (a)(2) of the final rule have been modified to clarify when monitoring reports are required by 40 CFR part 70 or 40 CFR part 71 (every 6 months) and when a 6-month monitoring report must cross-reference a semiannual compliance report. Language was also added to § 63.4920(a)(1)(iv) of the final rule to ensure that a semiannual compliance report is submitted within a reasonable time (30 days) after the end of the semiannual reporting period.

At the request of commenters, §§ 63.4910(c)(2) and 63.4920(a)(3)(ii) of the final rule have been revised to ensure that certifications of truth, accuracy, and completeness for the notifications of compliance status and semiannual compliance reports under this rule are consistent with the certification requirements under 40 CFR part 70 or 40 CFR part 71. Additionally, ''of the content'' was deleted from both of these paragraphs as a responsible official needs to certify that the entire submittal is complete, not just the content of the report.

It is also important to correct in this final preamble a statement made in subsection B of Section II of the preamble to the proposed rule (67 FR 20206, 20208). In this subsection—''What is the relationship to other rules?''—the following is stated: ''Overlapping reporting, recordkeeping, and monitoring requirements may be resolved through the title V permit process.'' This statement is overly broad as 40 CFR part 70 and 40 CFR part 71 only address situations where more than one monitoring (including recordkeeping designed to serve as monitoring) or testing requirement applies. Specifically, 40 CFR 70.6(a)(3)(i)(A) and 40 CFR 71.6(a)(3)(i)(A) state in part that ''If more than one monitoring or testing requirement applies, the permit may specify a streamlined set of monitoring or testing provisions provided the specified monitoring or testing is adequate to assure compliance at least to the same extent as the monitoring or testing applicable requirements that are not included in the permit as a result of such streamlining; * * *.'' There are no provisions in 40 CFR part 70 or 40 CFR part 71, however, which allow for the streamlining of overlapping recordkeeping or reporting requirements, unless the recordkeeping is designed to serve as monitoring as described in 40 CFR 70.6(a)(3)(i)(B) or 40 CFR 71.6(a)(3)(i)(B).

G. Other Changes and Clarifications

In addition to the changes described above, we note several areas of the proposed rule that warrant rewriting for the final rule, even though commenters did not object to them. They are necessary so that the provisions properly reflect our intent and are consistent with other surface coating NESHAP under development.

The proposed rule allowed the volume fraction of coating solids to be determined by means of a test method or from information provided by the supplier or manufacturer. We realize that there may be certain situations where neither of these options is adequate and added a calculation at § 63.4941(b)(3) for volume fraction of coating solids when the mass fraction and average density of the volatile components of the coating are known.

Section 63.4962 of the proposed rule contained detailed procedures for determining compliance when a source operates under different sets of representative operating conditions. Upon further review of this section, we believe this option is overly complicated and would be difficult to implement in actual practice. Rather than including these detailed compliance procedures in the final rule, we decided on a general statement allowing such a compliance demonstration if you believe a workable and enforceable procedure can be maintained to demonstrate compliance under different sets of representative operating conditions (see § 63.4891(d)(2)

of the final rule). You would be required to develop your own detailed compliance procedure tailored to your specific situation and submit the procedure to the Administrator for approval. We also took this action to maintain consistency with other surface coating NESHAP under development that do not contain this option.

We added an alternative to Method 3B at § 63.4965(a)(3) of the final rule. This alternative test method, ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], was inadvertently omitted from the proposed rule. We also added § 63.4966(g) to provide guidance for monitoring when a bioreactor system is used as an add-on control device to comply with the emission limits.

In addition to the actions described above, we have clarified our intent to promote consistency with other surface coating NESHAP currently under development.

III. What Are the Final Standards?

A. What Is the Source Category?

The rule applies to you if you own or operate a metal furniture surface coating facility that is a major source, is located at a major source, or is part of a major source of HAP emissions. We have defined a metal furniture surface coating facility as one that applies coatings to metal furniture or components of metal furniture. Metal furniture means furniture or components that are constructed either entirely or partially from metal.

You would not be subject to the rule if your metal furniture surface coating facility is located at an area source. An area source of HAP is any facility that emits or has the potential to emit HAP but is not a major source. You may establish area source status by limiting the source's potential to emit HAP through appropriate mechanisms available through the permitting authority. You would not be subject to the rule if you use only coatings, thinners, and cleaning materials that contain no organic HAP. The source category does not include surface coating that occurs at research or laboratory facilities or that is part of janitorial, building, and facility maintenance operations. It also does not include coating applications using handheld nonrefillable aerosol containers.

B. What Is the Affected Source?

We define an affected source as a stationary source, group of stationary sources, or part of a stationary source to which specific NESHAP apply. Within a source category, we select the specific emission sources (emission points or groupings of emission points) that will make up the affected source for that category. To select these emission sources, we mainly consider the constituent HAP and quantity emitted from individual or groups of emission points.

For the metal furniture surface coating NESHAP, the affected source is the collection of all operations associated with the surface coating of metal furniture or components of metal furniture that are performed at a contiguous area under common control. These operations include preparation of a coating for application (for example, mixing with thinners); surface preparation of the metal furniture or component; coating application and flash-off; drying and/or curing of applied coatings; cleaning of equipment used in surface coating; storage of coatings, thinners, and cleaning materials; and handling and conveyance of waste materials from the surface coating operations. Coatings include such materials as adhesives and protective or decorative coatings.

C. What Are the Emission Standards?

We are promulgating standards that limit HAP emissions from the surface coating of metal furniture. The standards include emission limits and operating limits. The emission limits are different for new and existing sources and have changed since proposal.

Emission limits. We are limiting each new and reconstructed affected source to no organic HAP emissions. The limit for each existing affected source is 0.10 kg organic HAP/liter (0.83 lb/gal) coating solids used. These limits apply to the total of all coatings, thinners, and cleaning materials used in coating operations at the affected source.

There are three compliance options available for meeting the emission limits. The compliant material option requires that each coating used in the coating operation meet the limit, and each thinner and cleaning material must contain no organic HAP. Under the emission rate without add-on controls option, you may average all of the coatings, thinners, and cleaning materials used together and demonstrate that the overall emission rate is in compliance with the applicable limit. The emission rate with add-on controls option applies to coating operations for which add-on controls are used to meet the limit. Under this option, you must meet certain operating limits for the capture systems and control devices and follow a work practice plan for your material storage, mixing, conveying, and spills.

Operating limits. If you reduce emissions by using a capture system and add-on control device (other than a solvent recovery system for which you conduct a monthly liquid-liquid material balance), the rule's operating limits would apply to you. These limits are site-specific parameter limits you determine during the initial performance test of the system. For capture systems, you would establish average volumetric flow rate limits for each capture device (or enclosure) in each capture system. You would also establish limits on average pressure drop across openings in the capture system.

For thermal and catalytic oxidizers, you would monitor temperature. For solvent recovery systems for which you do not conduct a monthly liquid-liquid material balance, you would monitor the carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. For condensers, you would monitor the temperature of the outlet gas temperature from the condenser.

All operating limits must reflect operation of the capture system and control devices during a performance test that demonstrates achievement of the emission limit during representative operating conditions.

General Provisions. The General Provisions (40 CFR part 63, subpart A) also apply to you as outlined in Table 2 of the final rule. The General Provisions codify certain procedures and criteria for all 40 CFR part 63 NESHAP. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, reporting, and recordkeeping, performance testing, and monitoring. The rule refers to individual sections of the General Provisions to emphasize key sections that you should be aware of. However, unless specifically overridden in the rule, all of the applicable General Provisions requirements apply to you.

D. Interaction With Other Regulations

Affected sources subject to the rule may also be subject to other rules. The relationship between this rule and other rules is discussed below.

New source performance standards—40 CFR part 60, subpart EE. The metal furniture NSPS apply to facilities that apply organic coatings to metal furniture and that began construction, reconstruction, or modification after November 28, 1980. The pollutants

regulated are volatile organic compounds (VOC). Emissions of VOC are limited to 0.09 kg per liter of coating solids applied, and the affected source is each individual coating operation.

The rule differs from the NSPS in three ways. First, the affected source for the rule is defined broadly as the collection of all coating operations and related activities and equipment at the facility, whereas the affected facility for the NSPS is defined narrowly as each individual coating operation. The broader definition of affected source allows a facility's emissions to be combined for compliance purposes. Second, the NESHAP regulate organic HAP. While most organic HAP emitted from metal furniture surface coating operations are VOC, some VOC are not listed as HAP and, therefore, the NSPS regulate a broader range of pollutants than would the NESHAP. Third, the emission limitations in the NESHAP would be based on the amount of solids used at the affected source. The NSPS limitations are based on the amount of solids actually applied to the metal furniture which necessitates estimates of transfer efficiency in the compliance calculations.

Because of the differences between the NESHAP and the NSPS, compliance with either one cannot be deemed compliance with the other. A metal furniture surface coating facility that meets the applicability requirements of both rules must comply with both.

National emission standards for wood furniture manufacturing operations—40 CFR part 63, subpart JJ. There may be situations where a manufacturer of wood furniture also coats metal components of that wood furniture. Coating lines that are currently subject to subpart JJ will remain subject to only that rule so long as they continue to coat products that meet the definition of ''wood furniture'' or ''wood furniture component'' in § 63.801. This will be the case even if there are metal parts on the wood furniture or wood furniture components when they are coated.

Future national emission standards for the surface coating of miscellaneous metal parts. Metal furniture often contains components, such as metal knobs, hinges, and screws, that have a wider use beyond metal furniture. As stated previously, the coating of such parts would be subject to the metal furniture rule if the coating takes place at a facility that is coating metal furniture, or a facility whose entire production is dedicated to coating parts to be used exclusively in, or on, metal furniture. If the coating of such parts takes place at a facility that coats these parts for multiple types of products (*e.g.,* not exclusively metal furniture), the coating operations would be subject to the proposed NESHAP for the surface coating of miscellaneous metal parts and products (August 13, 2002, 67 FR 52780).

Future national emission standards for the surface coating of plastic parts and products. Plastic parts and products may be components (*e.g.,* plastic handles) of metal furniture. The coating of such plastic parts would be subject to the metal furniture rule if the coating takes place at a metal furniture surface coating facility; or if it takes place at a facility whose entire production is dedicated to coating plastic parts for metal furniture. If the coating takes place at a facility that coats these plastic parts for multiple types of products (*e.g.,* not exclusively metal furniture), the coating operations would be subject to the proposed NESHAP for the surface coating of plastic parts and products (December 4, 2002, 67 FR 72276).

IV. When Do I Show Initial Compliance With the Rule?

Existing affected sources must comply with the rule no later than 3 years after May 23, 2003. The effective date is May 23, 2003. New or reconstructed affected sources must comply upon start-up or May 23, 2003, whichever is later. Details of the compliance requirements can be found in the General Provisions, as outlined in Table 2 of today's rule.

Before your initial compliance demonstration, you must choose which of the several compliance options you will use for your affected source. In your initial compliance certification, you must notify the Administrator of your choice and after that, you must monitor and report compliance results accordingly. If you decide to change to other emission limit options, you are also required to notify the Administrator, as with other changes at the facility, as discussed later in this preamble.

V. What Testing and Monitoring Must I Do?

In addition to the specific testing and monitoring requirements specified below for the affected source, the rule adopts the testing requirements specified in 40 CFR 63.7.

A. Test Methods and Procedures

Emission limit(s). There are several options for complying with the emission limit(s), and the testing and initial compliance requirements vary accordingly.

If you demonstrate compliance based on the materials used in the affected source, you must determine the mass of organic HAP and the volume of solids in all materials used during the initial compliance period.

To determine the mass of organic HAP in coatings, thinners, and cleaning materials and the volume coating solids, you could either rely on manufacturer's data or on results from the test methods listed below. Under § 63.4941 of the rule, you would be required to determine the mass of organic HAP in coatings, thinners, and cleaning materials used. To do this, you must count HAP that are present at 1 percent by mass or more if they are not carcinogens identified by the Occupational Safety and Health Administration (OSHA) at 29 CFR 1910.1200(d)(4), and count HAP that are present at 0.1 percent by mass or more if they are OSHA-identified carcinogens. Coating and solvent manufacturers are accustomed to providing a breakdown of material components according to this distinction and routinely report the values on Material Safety Data Sheets for the materials, as required by OSHA. We could have selected some other way to count HAP components of materials but concluded that allowing this long-standing approach to be used for compliance with the rule would provide the information needed for compliance assurance and would not impose any additional burden on the industry.

You may use alternative test methods provided you get EPA approval in accordance with the NESHAP General Provisions, § 63.7(f). If there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results would prevail for compliance and enforcement purposes.

- For organic HAP content, use Method 311 of 40 CFR part 63, appendix A;
- The rule allows you to use nonaqueous volatile matter as a surrogate for organic HAP, which would include all organic HAP plus all other organic compounds. If you choose this option, then use Method 24 of 40 CFR part 60, appendix A; and
- For volume fraction of coating solids, use either manufacturer's data or ASTM Method D2697–86 (1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, or ASTM Method D6093–97, Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer. If you are not able to use these procedures, then you may calculate the volume fraction of coating solids based on the density and mass fraction of the volatile components.

To demonstrate initial compliance based on the materials used, you are required to either ensure that the organic HAP content of each coating meets the emission limit and that you use no organic HAP-containing thinners or cleaning materials; or ensure that the total mass of organic HAP in all coatings, thinners, and cleaning materials divided by the total volume of coating solids meets the emission limit. For the latter option, you are required to:

- For the initial compliance period, determine the quantity of each coating, thinner, and cleaning material used in the affected source.
- Determine the mass of organic HAP in each coating, thinner, and cleaning material.
- Determine the volume fraction coating solids for each coating.
- Calculate the total mass of organic HAP for materials and total volume of coating solids used in the affected source for the compliance period. You may subtract from the total mass of organic HAP the amount of organic HAP contained in waste materials you send, during that compliance period, to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266. The calculation equation (Equation 1 in § 63.4951) adds together all the organic HAP in the coatings, thinners, and cleaning materials and allows you to subtract organic HAP in waste materials as indicated above. The calculated mass of organic HAP is, therefore, not based on actual measurement of emissions to the atmosphere but rather assumes that all organic HAP used (less those in waste materials as appropriate) are emitted. This means of determining organic HAP emissions for compliance is consistent with the means by which we calculated emission rates from industry data on which the emission limits are based. We believe that Equation 1 in § 63.4951 is a simple mass-balance relationship which adequately quantifies the organic HAP emissions without imposing an excessive burden on respondents.
- Calculate the ratio of the total mass of organic HAP for the materials used to the total volume of coating solids used.
- Record the calculations and results and include them in your notification of compliance status.

If you use a capture system and control device other than a solvent recovery system for which you conduct a monthly liquid-liquid material balance, you must:

- Conduct an initial performance test to determine the capture and control efficiencies of the equipment (described below) and to establish operating limits to be achieved on a continuous basis (also described below). The performance test must be completed no later than the compliance date for existing sources and 180 days after the compliance date for new and reconstructed sources (§ 63.4960). You must schedule it in time to obtain the results for use in completing your compliance determination for the initial compliance period.
- Determine the mass of organic HAP in each material and the volume fraction coating solids for each coating used during the initial compliance period.
- Calculate the organic HAP emissions from all the controlled coating operations using the capture and control efficiencies determined during the performance test and the total mass of organic HAP in materials used in controlled coating operations.
- Calculate the total mass of organic HAP emissions from uncontrolled coating operations.
- Calculate the ratio of the total mass of HAP emissions from both controlled and uncontrolled coating operations to the total volume of coating solids used during the initial compliance period.
- Record the calculations and results and include them in your Notification of Compliance Status.

The capture and control efficiency for a capture and control system other than a solvent recovery system for which you conduct monthly liquid-liquid material balances must be demonstrated based on emission capture and reduction efficiency. To determine the capture efficiency, you must either verify the presence of a permanent total enclosure (PTE) using EPA Method 204 of 40 CFR part 51, appendix M, (all materials must be applied and dried within the enclosure) or use one of three protocols in § 63.4964 to measure capture efficiency. If you have a PTE and all materials are applied and dried within the enclosure and you route all exhaust gases from the enclosure to a control device, then you would assume 100 percent capture.

To determine the emission reduction efficiency of the control device, you must conduct measurements of the inlet and outlet gas streams. The test must consist of three runs, each run lasting 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites.
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
- Method 3, 3A, or 3B for gas analysis to determine dry molecular weight. As an alternative to Method 3B, you may use ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Analyses].
- Method 4 to determine stack moisture.
- Method 25 or 25A to determine organic volatile matter concentration. In lieu of Method 25 or 25A, you may use Method 18 if you know the HAP constituents in the inlet and outlet gas streams and you quantify at least 90 percent of the organic compounds in the gas stream. Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, could be used.

If you use a solvent recovery system and wish to calculate the mass of organic HAP emission reduction, you could determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you must measure the amount of all materials used in the affected source during the initial compliance period and determine the total mass of volatile matter contained in these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system during the compliance period. Then you must compare the amount recovered to the amount used to determine the overall control efficiency, and apply this efficiency to the total amount of organic HAP for the materials used. You must record the calculations and results and include them in your Notification of Compliance Status when you present your calculations of the organic HAP emission rate.

Operating limits. In accordance with section 114(a) of the CAA, the operating limits would require the use of continuous parameter monitoring systems (CPMS) to ensure that sources are in compliance. The monitoring must be capable of detecting deviations with sufficient representativeness, accuracy, precision, reliability, frequency, and timeliness to determine if compliance is continuous during a reporting period.

As mentioned above, you must establish operating limits as part of the initial performance test of a capture system and control device, other than a solvent recovery system for which you conduct liquid-liquid material balances. The operating limits are the minimum or maximum (as applicable) values achieved for capture systems and control devices during the most recent performance test that demonstrated compliance with the emission limit.

B. Monitoring Requirements

According to paragraph (a)(3) of section 114 of the CAA, monitoring of stationary sources is required to determine the compliance status of the sources, and whether compliance is continuous or intermittent. For affected sources complying with the standards by using capture and control systems, initial compliance is determined through an initial performance test and ongoing compliance through continuous monitoring. We specify the operating parameters that need to be monitored for certain control devices used in the metal furniture surface coating industry. You must set the values of these parameters, which demonstrate compliance with the standards, during your initial performance test. These values are your operating limits. If future monitoring shows that capture and control equipment is operating outside the range of values established during the initial performance test, then you are deviating from the operating limits.

The rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry. You are required to install, calibrate, maintain, and continuously operate all monitoring equipment according to manufacturer's specifications and ensure that the CPMS meet the requirements in § 63.4967 of the rule. If you use control devices other than those identified in the rule, you must submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

If you use a thermal or catalytic oxidizer, you must continuously monitor temperature and record it at least every 15 minutes. For thermal oxidizers, the temperature monitor is placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit is the average temperature measured during the performance test, and during each 3-hour period the average temperature must be at or above this limit. For catalytic oxidizers, temperature monitors are placed immediately before and after the catalyst bed. The operating limits are the average combustion temperature just before the catalyst bed and the average temperature difference across the catalyst bed during the performance test, and for each 3-hour period the average combustion temperature and the average temperature difference must be at or above these limits. As an alternative for catalytic oxidizers, you may establish the temperature just before the catalyst bed as an operating parameter as described above and also develop and implement a site-specific inspection and maintenance plan for the oxidizer.

If you use a solvent recovery system, and do not conduct liquid-liquid material balances to demonstrate compliance, then you must monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration. The operating limits are the minimum carbon bed temperature after the cooling cycle and the minimum amount of steam or nitrogen used for desorption.

If you use a condenser, you must monitor the outlet gas temperature to ensure that the air stream is being cooled to a low enough temperature. The operating limit is the average condenser outlet gas temperature measured during the performance test, and for each 3-hour period the average temperature must be at or below this limit.

For each capture system, you must establish operating limits for gas volumetric flow rate and pressure drop across an opening in each enclosure or capture device. The operating limits are the average volumetric flow rate and average pressure drop across the opening during the performance test, to be met as a minimum.

VI. What Notification, Recordkeeping, and Reporting Requirements Must I Follow?

The rule requires you to comply with notification, recordkeeping, and reporting requirements, generally as described in the General Provisions (see Table 2 of the rule) and specifically as designed to support demonstration of compliance with the rule. We believe that these requirements are necessary and sufficient to ensure that you comply with the requirements in the rule.

A. Initial Notification

If the rule applies to you, you must send an initial notification to the EPA Regional Office in the region where your facility is located and to your State agency. If you have an existing affected source, you must submit the initial notification no later than 1 year before the compliance date, which is May 23, 2006. If you have a new or reconstructed affected source, you must submit the notification no later than 120 days after either the date of initial start-up or May 23, 2006, whichever is later.

The initial notification notifies us and your State agency that you have an existing affected source that is subject to the standards or that you have constructed a new affected source. Thus, it allows you and the Federal or State enforcement agency to plan for compliance activities. The General Provisions specify the information you must include in the initial notification and other reporting requirements for both existing affected sources and new or reconstructed affected sources.

B. Notification of Performance Tests

If the rule applies to you, you have several options for demonstrating compliance. If you demonstrate compliance by using a capture and control system for which you do not conduct a monthly liquid-liquid material balance, you must conduct a performance test as described in the rule. Prior to conducting the performance test, you must notify us or the delegated State or local agency at least 60 calendar days before the performance test is scheduled to begin, as indicated in the General Provisions.

C. Notification of Compliance Status

Your compliance procedures depend on which compliance option you choose. For each compliance option, you must send us a Notification of Compliance Status within 30 days after the end of the initial compliance period. In the notification, you must certify whether the affected source has complied with the standards, identify the option you used to demonstrate initial compliance, summarize the data and calculations supporting the compliance demonstration, and describe how you will determine continuous compliance.

If you elect to comply by using a capture system and control device for which you conduct performance tests, you must provide the results of the tests. Your notification must also include the measured range of each monitored parameter and the operating limits established during the performance test, and information showing whether the source has achieved its operating limits during the initial compliance period.

D. Recordkeeping Requirements

You are required to keep records of reported information and all other information necessary to document compliance with the rule for 5 years. As required under § 63.10(b)(1) of the General Provisions, records for the 2 most recent years must be kept on-site; the other 3 years' records may be kept off-site. Records pertaining to the design and manufacturer's specifications for the operation of the add-on control equipment must be kept on-site for the life of the equipment. We corrected this

oversight in the final rule. See § 63.4930(b) and § 63.4931(c).

Depending on the compliance option that you choose, you could need to keep records of the following:

- Organic HAP content, volatile matter content, coating solids content, and quantity of the coatings, thinners, and cleaning materials used during each compliance period;
- All documentation supporting initial notifications and notifications of compliance status.

If you demonstrate compliance by using a capture system and control device, you must keep records of the following:

- The occurrence and duration of each startup, shutdown, or malfunction of the emission capture system and control device;
- All maintenance performed on the capture system and control device;
- Actions taken during startup, shutdown, and malfunction that are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (SSMP);
- All information necessary to demonstrate conformance with the affected source's SSMP when the plan procedures are followed;
- All information necessary to demonstrate conformance with the affected source's plan for minimizing emissions from mixing, storage, and waste handling operations;
- Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods);
- All required measurements needed to demonstrate compliance with the standards; and
- All results of performance tests.

The rule requires you to collect and keep records according to certain minimum data requirements for the CPMS. Failure to collect and keep the specified minimum data is a deviation that is separate from any emission limit, operating limit, or work practice standard. A complete definition of what constitutes a deviation is provided in § 63.4981 of the final rule.

If you use a capture system and control device to reduce HAP emissions, you must make your SSMP available for inspection if the Administrator requests to see it. The plan must stay in your records for the life of the affected source or until the source is no longer subject to the standards. If you revise the plan, you must keep the previous superceded versions on record for 5 years following the revision.

E. Semiannual Reports

Each reporting year is divided into two semiannual reporting periods. You must submit a semiannual report after the end of each semiannual period. If no deviations occur during a semiannual reporting period, your semiannual compliance report must state that the affected source has been in compliance. A deviation, as defined in § 63.4891 of the final rule, is any instance in which you fail to meet any requirement or obligation of the standards or any term or condition adopted to meet the standards. The following information is required in semiannual compliance reports when deviations occur:

- If you are complying by using capture systems and add-on control devices, report all deviations from the operating parameter values established for the capture system and the control device operating parameters.
- If you are complying by using solvent recovery systems and liquid-liquid material balances, report material balance calculations for all months when the material balance deviated from the emission limit.
- If you are complying by using low-HAP coating materials, report all deviations from the emission limit.
- If you are complying by using a combination of capture and control systems with low-HAP coating materials, report all deviations from the emission limit and all deviations from operating parameters described above.

If any of the following events occur, you must report that event in the next semiannual report following the event:

- A change occurs at your facility or within your process that might affect its compliance status.
- A change from what was reported in the initial notice occurs at your facility or within your process.
- You decide to change to another emission limitation option.
- You had a startup, shutdown, or malfunction of an emission control device during the semiannual period and the actions taken were consistent with your SSMP.

VII. What Are the Environmental, Energy, and Economic Impacts of the Rule?

We developed model plants to aid in the estimation of the impacts the MACT floor level of control would have on the metal furniture industry. Three model plants distinguished by size, as measured by the total volume of coating solids used, were developed. We then estimated impacts for each model plant and scaled these individual impacts to nationwide levels based on the number of facilities corresponding to each model plant size. We used the model plant approach because we did not have adequate data to determine impacts for each actual facility.

A variety of compliance methods are available to the industry to meet the standards. We analyzed the information obtained from the industry questionnaire responses, industry site visits, trade groups, and industry representatives to determine which compliance methods would most likely be used by existing and new sources. We expect that the most widely used method would be low-HAP content liquid coatings (coatings with HAP contents at or below the emission limits) and lower-HAP cleaning materials. Powder coatings and add-on capture and control systems would likely be used to a lesser extent. Various combinations of these methods may be used. For the purpose of assessing impacts, we assumed that all existing sources would convert to lower-HAP content liquid coatings, thinners, and cleaning materials.

We first estimated the impacts of the emission limits on the three model plants. To scale up the model plant impacts to nationwide levels, we multiplied the individual model plant impacts by the estimated number of major sources in the United States corresponding to each model plant size. We used United States Census Bureau data as the basis for this estimate, which was a total of 655 facilities. For more information on how impacts were estimated, see Chapters 7 and 8 of the BID to the proposed standards, EPA–453/R–01–010, October 2001.

A. What Are the Air Impacts?

For existing major sources, we estimated that compliance with the emission limits would result in a reduction of nationwide organic HAP emissions of 14,800 Mg/yr (16,300 tpy). This represents a reduction of approximately 73 percent from the baseline organic HAP emissions of 20,300 Mg/yr (22,308 tpy).

We anticipate that all new sources will take steps to reduce their actual and potential HAP emissions to below the major source threshold and avoid becoming subject to the NESHAP. Therefore, we are not attributing any HAP emission reduction for new sources to the rule.

B. What Are the Cost Impacts?

An affected source may incur three types of costs to comply with the standards: Capital, direct, and indirect. Capital costs represent the one-time purchase of equipment. We have included coatings, thinners, and cleaning materials as direct costs incurred on a continuing basis for

materials consumed in the manufacturing process. The cost of utilities, where applicable, is also included in the direct costs. Indirect costs typically include overhead, taxes, insurance, and administrative costs, as well as capital recovery costs.

Existing sources. To comply with the emission limits, we estimated that existing facilities would likely use reformulated coatings, thinners, and cleaning materials. No capital costs have been attributed to these compliance methods. We estimated full costs for 517 of the estimated 655 metal furniture surface coating facilities. Of the remaining 138 facilities, approximately 59 facilities would have only recordkeeping and reporting costs because these facilities would already be in compliance with the standards (based on questionnaire responses). We estimated that 79 facilities would achieve area source status before the compliance date of the final standards and will not incur compliance costs directly attributable to the rule.

We estimated no incremental costs associated with the use of lower-HAP coatings and thinners. Only the incremental cost of organic HAP-free cleaning materials over organic HAP cleaning materials was counted. The average annual cost for each facility incurring full costs is approximately $26,000. This value includes monitoring, recordkeeping, and reporting costs.

We estimated total nationwide annual costs in the 5th year to comply with the emission limits to be $14.8 million for existing sources. These costs include $4.66 million direct costs associated with material usage and $10.1 million for recordkeeping and reporting.

New sources. As previously stated in this preamble, we anticipate that all new sources will reduce potential HAP emissions to less than the major source threshold. All of these new sources will be areas sources not subject to the rule and will incur no costs directly attributable to the rule.

C. What Are the Economic Impacts?

We performed an economic impact analysis (EIA) to provide an estimate of the facility and market impacts of the standards as well as its social costs. In general, we expect the economic impacts of the standards to be minimal, with price increases and production decreases of less than 0.1 percent. Given the negligible market impacts of this rule, the social costs are expected to be roughly the same as the estimated engineering compliance costs of $14.8 million for existing sources.

For affected facilities, the distribution of costs is slanted toward the lower impact levels with many facilities incurring only those related to recordkeeping and reporting. The EIA indicates that these regulatory costs are expected to represent only 0.1 percent of the value of product shipments, which should not cause producers to cease or alter their current operations. Hence, no firms or facilities are expected to become at risk of closure because of the standards. International trade impacts would only occur for the metal household furniture segment of the industry, but the small price increase (that is, 0.04 percent) on this segment indicates negligible impacts, if any. Based on the projected characteristics and costs for new sources, we do not expect any differential impacts on these sources. For more information, refer to the ''Economic Impact Analysis of the Proposed NESHAP: Surface Coating of Metal Furniture'' (Docket ID No OAR–2002–0048, formerly Docket No. A–97–40).

D. What Are the Nonair Health, Environmental, and Energy Impacts?

Based on information from the industry questionnaire responses, there was no indication that the use of low-organic-HAP content coatings, thinners, and cleaning materials would result in any increase or decrease in nonair health, environmental, and energy impacts. There would be no change in the utility requirements associated with the use of these materials, so there would be no change in the amount of energy consumed as a result of the material conversion. Also, we estimate that there would be no significant change in the amount of materials used or the amount of waste produced and there would be no additional energy requirements for affected sources.

VIII. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is ''significant'' and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a ''significant regulatory action'' under the terms of Executive Order 12866 and is therefore not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1952.02) and a copy may be obtained from Susan Auby by mail at the Collection Strategies Division (2822T), U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by e-mail at *auby.susan@epa.gov,* or by calling (202) 566–1672. A copy may also be downloaded off the Internet at *http://www.epa.gov/icr.* The information requirements are not effective until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The rule would require maintaining records of all coatings, thinners, and cleaning materials data and calculations used to determine compliance. This information includes the volume used during each monthly compliance period, mass fraction organic HAP, density, and, for coatings only, volume fraction solids.

If an add-on control device is used, records must be kept of the capture efficiency of the capture system,

destruction or removal efficiency of the add-on control device, and the monitored operating parameters. In addition, records must be kept of each calculation of the affected sourcewide emissions for each monthly compliance period and all data, calculations, test results, and other supporting information used to determine this value.

The monitoring, recordkeeping, and reporting burden in the 5th year after the effective date of the promulgated rule is estimated to be approximately 159,000 labor hours at a cost of approximately $10 million for existing sources. We estimate that no cost will be incurred by new sources (other than the labor costs associated with initially reading the rule) because we anticipate that all new sources will reduce their potential HAP emissions to less than the major source threshold. Thus, as area sources, these new sources will not be subject to the rule.

Although we estimated no cost will be incurred by new sources, they may incur some level of cost to achieve area source status. Typically these costs would be associated with the differential in cost between conventional liquid coatings and the coating technology they use to reduce organic HAP emissions. For example, we have limited data indicating that the cost of powder coatings in terms of dollars per liter coating solids is higher than most liquid coatings. New sources would also incur some costs to initially read the rule to determine whether it applies to them (we estimated this cost to be about $300 per facility). A cost savings will be realized by new sources because they will not have the recordkeeping, reporting, and monitoring burden as described above for existing sources. While all of these potential costs and savings are difficult to quantify, we believe that in the balance there will be essentially no cost to new facilities.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR, chapter 15. The OMB control number for the information collection requirements in this rule will be listed in an amendment to 40 CFR part 9 in a subsequent **Federal Register** document after OMB approves the ICR.

C. Regulatory Flexibility Act (RFA)

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business ranging from 100 to 1,000 employees, according to Small Business Administration size standards established under the NAICS for the industries affected by today's rule; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities.

In accordance with the RFA and SBREFA, EPA conducted an assessment of the standards on small businesses within the metal furniture surface coating industry. Based on Small Business Administration size definitions and reported sales and employment data, EPA's survey identified 10 of the 24 companies owning metal furniture surface coating facilities as small businesses. Although small businesses represent almost 42 percent of the companies within the source category, they are expected to incur 12 percent of the total industry compliance costs. Under the standards, the average annual compliance cost share of sales for small businesses is 0.18 percent, with two of the ten small businesses not expected to incur any additional costs because they are permitted as synthetic minor HAP emission sources. In addition, small businesses in this industry typically have 5 percent profit margins. For more information, consult the docket for this project.

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. We solicited input from small entities during the data-gathering phase of the proposed rulemaking.

We have included compliance options in the rule which give small entities flexibility in choosing the most cost effective and least burdensome alternative for their operation. For example, a facility could purchase and use low-HAP coatings (*i.e.*, pollution prevention) that meet the standards instead of using add-on capture and control systems. This method of compliance can be demonstrated with minimum burden by using purchase and usage records. No testing of materials would be required, as the facility owner could show that their coatings meet the emission limits by providing formulation data supplied by the manufacturer.

D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal

governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the rule does not contain a Federal mandate that may result in expenditures of $100 million or more to State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual cost of the rule for any year has been estimated to be about $15 million. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the standards contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. This rule contains requirements that may apply to State government correctional institutions that manufacture or repair metal furniture. However, these requirements do not uniquely or significantly affect those institutions. Therefore, today's rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132, Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, Executive Order 13132 does not apply to the rule. Although section 6 of Executive Order 13132 does not apply to the rule, EPA did consult with State and local officials to enable them to provide timely input in the development of the rule.

F. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' The final rule does not have tribal implications, as specified in Executive Order 13175. No tribal governments own or operate metal furniture surface coating facilities. Thus, Executive Order 13175 does not apply to this rule.

G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. Furthermore, the rule has been determined not to be ''economically significant'' as defined under Executive Order 12866.

H. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211, ''Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

As noted in the proposed rule, Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995, Public Law No. 104–113, (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

This rulemaking involves technical standards. The EPA cites the following standards in this rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A–F, and 311; and Performance Specifications (PS) 6, 8, and 9. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods/performance specifications. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A through 204F, and 311, and PS 6, 8, and 9. The search and review results have been documented and are placed in the docket (Docket ID No OAR–2002–0048, formerly Docket No. A–97–40) for the rule.

The three VCS were identified as acceptable alternatives to EPA test methods for the purposes of the rule.

The VCS ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],'' is cited in this rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ANSI/ASME PTC 19.10–1981, Part 10, is an acceptable alternative to Method 3B.

The two VCS, ASTM D2697–86 (Reapproved 1998), ''Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings,'' and ASTM D6093–97, ''Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer,'' are cited in this rule as acceptable alternatives to EPA Method 24 for measuring volume of solids in coatings. Currently, Method 24 does not have a procedure for determining the volume of solids in coatings. These standards

augment the procedures in EPA Method 24, which states that volume solids content be calculated from the coating manufacturer's formulation.

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 1991), and ASTM D5403–93 are already incorporated by reference (IBR) in EPA Method 24. Five VCS: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

In addition to the VCS EPA uses in the rule, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 11 of these 14 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the rule were impractical alternatives to EPA test methods for the purposes of this rule. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for this determination for the 11 methods are discussed in the docket.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. § 801, *et seq.*, as added by the SBREFA of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register.** A major rule cannot take effect until 60 days after it is published in the **Federal Register.** This action is not a ''major rule'' as defined by 5 U.S.C. § 804(2). The rule will be effective May 23, 2003.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: February 28, 2003.

Christine T. Whitman,

Administrator.

■ For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by revising paragraphs (b)(24) and (25) and paragraph (i)(3) to § 63.14 of subpart A. The revisions read as follows:

§ 63.14 Incorporations by Reference

* * * * *

(b) * * *

(24) ASTM D2697–86 (Reapproved 1998), ''Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings,'' IBR approved for §§ 63.4141(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093–97, ''Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer,'' IBR approved for §§ 63.4141(b)(1), 63.4941(b)(1), and 63.5160(c).

* * * * *

(i) * * *

(3) ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],'' IBR approved for §§ 63.865(b), 63.3360(e)(1)(iii), 63.4166(a)(3), 63.4965(a)(3), and 63.5160(d)(1)(iii).

* * * * *

■ 3. Part 63 is amended by adding subpart RRRR to read as follows:

Subpart RRRR—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture

Sec.

What This Subpart Covers

63.4880 What is the purpose of this subpart?
63.4881 Am I subject to this subpart?
63.4882 What parts of my plant does this subpart cover?
63.4883 When do I have to comply with this subpart?

Emission Limitations

63.4890 What Emission Limits Must I Meet?
63.4891 What are my options for demonstrating compliance with the emission limits?
63.4892 What operating limits must I meet?
63.4893 What work practice standards must I meet?

General Compliance Requirements

63.4900 What are my general requirements for complying with this subpart?
63.4901 What parts of the General Provisions apply to me?

Notifications, Reports, and Records

63.4910 What notifications must I submit?
63.4920 What reports must I submit?
63.4930 What records must I keep?
63.4931 In what form and for how long must I keep my records?

Compliance Requirements for the Compliant Material Option

63.4940 By what date must I conduct the initial compliance demonstration?
63.4941 How do I demonstrate initial compliance with the emission limitations?
63.4942 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate Without Add-On Controls Option

63.4950 By what date must I conduct the initial compliance demonstration?
63.4951 How do I demonstrate initial compliance with the emission limitations?
63.4952 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate With Add-On Controls Option

63.4960 By what date must I conduct performance tests and other initial compliance demonstrations?
63.4961 How do I demonstrate initial compliance?
63.4962 How do I demonstrate continuous compliance with the emission limitations?
63.4963 What are the general requirements for performance tests?
63.4964 How do I determine the emission capture system efficiency?
63.4965 How do I determine the add-on control device emission destruction or removal efficiency?
63.4966 How do I establish the emission capture system and add-on control device operating limits during the performance test?
63.4967 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

Other Requirements and Information

63.4980 Who implements and enforces this subpart?
63.4981 What definitions apply to this subpart?

Tables to Subpart RRRR of Part 63

Table 1 to Subpart RRRR of Part 63. Operating Limits if Using the Emission Rate with Add-on Controls Option
Table 2 to Subpart RRRR of Part 63. Applicability of General Provisions to Subpart RRRR
Table 3 to Subpart RRRR of Part 63. Default Organic HAP Mass Fraction for Solvents and Solvent Blends
Table 4 to Subpart RRRR of Part 63. Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Subpart RRRR—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture

What This Subpart Covers

§ 63.4880 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for metal furniture surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.4881 Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is surface coating of metal furniture.

(1) Surface coating is the application of coatings to a substrate using, for example, spray guns or dip tanks.

(2) Metal furniture means furniture or components of furniture constructed either entirely or partially from metal. Metal furniture includes, but is not limited to, components of the following types of products as well as the products themselves: household, office, institutional, laboratory, hospital, public building, restaurant, barber and beauty shop, and dental furniture; office and store fixtures; partitions; shelving; lockers; lamps and lighting fixtures; and wastebaskets.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source as defined in § 63.4882, in the source category defined in paragraph (a) of this section, and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(c) This subpart does not apply to surface coating that meets any of the criteria of paragraphs (c)(1) through (6) of this section.

(1) Surface coating conducted at an affected source that uses only coatings, thinners, and cleaning materials that contain no organic HAP.

(2) Surface coating of metal components of wood furniture conducted in an operation that is subject to the wood furniture manufacturing NESHAP in subpart JJ of this part.

(3) Surface coating that occurs at research or laboratory facilities or that is part of janitorial, building, and facility maintenance operations.

(4) Surface coating of only small items such as knobs, hinges, or screws that have a wider use beyond metal furniture are not subject to this subpart unless the surface coating occurs at an affected metal furniture source.

(5) Surface coating of metal furniture conducted for the purpose of repairing or maintaining metal furniture used by a major source and not for commerce is not subject to this subpart, unless organic HAP emissions from the surface coating itself are as high as the rates specified in paragraph (b) of this section.

(6) Surface coating of metal furniture performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any State).

§ 63.4882 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of metal furniture:

(1) All coating operations as defined in § 63.4981;

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers and all pumps and piping within the affected source used for conveying coatings, thinners, and cleaning materials; and

(4) All storage containers, all pumps and piping, and all manual and automated equipment and containers within the affected source used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after April 24, 2002, and the construction is of a completely new metal furniture surface coating facility where previously no metal furniture surface coating facility had existed.

(d) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.4883 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.4940, 63.4950, and 63.4960.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before May 23, 2003, the compliance date is May 23, 2003.

(2) If the initial startup of your new or reconstructed affected source occurs after May 23, 2003, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after May 23, 2003.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or May 23, 2003, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after May 23, 2003, whichever is later.

(d) You must meet the notification requirements in § 63.4910 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.4890 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must emit no organic HAP during each compliance period, determined according to the procedures in § 63.4941.

(b) *Alternative emission limit.* You may request approval from the Administrator to use an alternative new source emission limit for specific metal

furniture components or type of components for which you believe the emission limit in paragraph (a) of this section cannot be achieved.

(1) Any request to use an alternative emission limit under paragraph (b) of this section must contain specific information demonstrating why no organic HAP-free coating technology can be used on the metal furniture components. The request must be based on objective criteria related to the performance or appearance requirements of the finished coating, which may include but is not limited to the criteria listed in paragraphs (b)(1)(i) through (viii) of this section.

(i) Low dried film thickness requirements (*e.g.*, less than 0.0254 millimeters (0.001 inch)).

(ii) Flexibility requirements for parts subject to repeated bending.

(iii) Chemical resistance to withstand chemical exposure in environments such as laboratories.

(iv) Resistance to the effects of exposure to ultraviolet light.

(v) Adhesion characteristics related to the condition of the substrate.

(vi) High gloss requirements.

(vii) Custom colors such as matching the color of a corporate logo.

(viii) Non-uniform surface finishes such as an antique appearance that requires visible cracking of the dried film.

(2) If the request to use an alternative emission limit under paragraph (b) of this section is approved, the new source must meet an emission limit of 0.094 kilogram (kg) organic HAP per liter (kg/liter) (0.78 pounds per gallon (lb/gal)) coating solids used for only those components subject to the approval. All other metal furniture surface coating operations at the new source must meet the emission limit specified in paragraph (a) of this section. Until approval to use the alternative emission limit has been granted by the Administrator under this paragraph (b)(2), you must meet the emission limit specified in paragraph (a) of this section and all other applicable requirements in this subpart.

(c) For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than 0.10 kg organic HAP per liter (0.83 lb/gal) of coating solids used during each compliance period, determined according to the procedures in § 63.4941, § 63.4951, or § 63.4961.

§ 63.4891 What are my options for demonstrating compliance with the emission limits?

You must include all coatings, thinners, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.4890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation or to multiple coating operations as a group or to the entire affected source. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by § 63.4930(c), and you must report it in the next semiannual (6-month period) compliance report required in § 63.4920.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation or group of coating operations is less than or equal to the applicable emission rate limit in § 63.4890 and that each thinner and each cleaning material used contains no organic HAP. You must meet all the requirements of §§ 63.4940, 63.4941, and 63.4942 to demonstrate compliance with the emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation or group of coating operations, the organic HAP emission rate for the coating operation or group of coating operations is less than or equal to the applicable emission rate limit in § 63.4890, calculated as a monthly emission rate. You must meet all the requirements of §§ 63.4950, 63.4951, and 63.4952 to demonstrate compliance with the emission rate limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation or group of coating operations, and the emission reductions achieved by emission capture and add-on control systems, the organic HAP emission rate is less than or equal to the applicable emission rate limit in § 63.4890, calculated as a monthly emission rate. If you use this compliance option, you must also demonstrate that all capture systems and add-on control devices for the coating operation or group of coating operations meet the operating limits required in § 63.4892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4961(j); and that you meet the work practice standards required in § 63.4893. You must meet all the requirements of §§ 63.4960 through 63.4967 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

(d) If you choose to use the emission rate with add-on controls compliance option in paragraph (c) of this section and operate the coating operation, its emission capture system, or its add-on control device at multiple sets of representative operating conditions that result in different capture system or add-on control device efficiencies during a compliance period, you must follow one of the procedures in paragraph (d)(1) or (2) of this section.

(1) Determine the operating conditions that result in the lowest emission capture system and add-on control device efficiencies through performance testing conducted according to §§ 63.4963, 63.4964, and 63.4965. Use these emission capture system and add-on control device efficiencies for all representative operating conditions during the compliance period.

(2) Develop a compliance calculation procedure for determining the organic HAP emission rate for the compliance period that takes into account all of the representative operating conditions the source was operated under during the compliance period and submit the procedure to the Administrator for approval. Until you receive approval from the Administrator, you must determine compliance according to paragraph (c) of this section.

§ 63.4892 What operating limits must I meet?

(a) For any coating operation or group of coating operations for which you use the compliant material option or the emission rate without add-on controls option to demonstrate compliance, you are not required to meet any operating limits.

(b) For any coating operation or group of coating operations for which you use the emission rate with add-on controls option to demonstrate compliance, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.4961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation or group of coating operations for which

you use emission capture and add-on controls to demonstrate compliance. You must establish the operating limits during the performance test according to the requirements in § 63.4966. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

§ 63.4893 What work practice standards must I meet?

(a) For any coating operation or group of coating operations for which you use the compliant material option or the emission rate without add-on controls option to demonstrate compliance, you are not required to meet any work practice standards.

(b) For any coating operation or group of coating operations for which you use the emission rate with add-on controls option to demonstrate compliance, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation or group of coating operations for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers. You must ensure that these containers are kept closed at all times except when depositing or removing these materials from the container.

(2) Spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in § 63.6(g), the Administrator may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.4900 What are my general requirements for complying with this subpart?

(a) The affected source must be in compliance at all times with the emission limitations specified in § 63.4890.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device to comply with the emission limitations in § 63.4890, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

§ 63.4901 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.4910 What notifications must I submit?

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e), (h), and (j) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial Notification.* You must submit the Initial Notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after May 23, 2003, whichever is later. For an existing affected source, you must submit the Initial Notification no later than 1 year after May 23, 2003.

(c) *Notification of Compliance Status.* You must submit the Notification of Compliance Status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in § 63.4940, § 63.4950, or § 63.4960 that applies to your affected source. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (9) of this section and the applicable information specified in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in § 63.4940, § 63.4950, or § 63.4960 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.4891 that you used on each coating operation in the affected source during the initial compliance period and that you will use for demonstrating continuous compliance.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in § 63.4890, include all the calculations you used to determine compliance. You do not need to submit information provided by material suppliers or manufacturers or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data can include a copy of the information provided by the supplier or manufacturer of the example coating or material or a summary of the results of testing conducted according to § 63.4941(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are

claiming an allowance in Equation 1 of § 63.4951.

(8) The calculation of the organic HAP emission rate for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant materials option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of § 63.4941.

(ii) For the emission rate without add-on controls option, provide the information specified in paragraphs (c)(8)(ii)(A) through (C) of this section.

(A) The calculation of the total mass of organic HAP emissions during the initial compliance period, using Equation 1 of § 63.4951.

(B) The calculation of the total volume of coating solids used during the initial compliance period, using Equation 2 of § 63.4951.

(C) The calculation of the organic HAP emission rate for the initial compliance period, using Equation 3 of § 63.4951.

(iii) For the emission rate with add-on controls option, provide the information specified in paragraphs (c)(8)(iii)(A) through (D) of this section.

(A) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during the initial compliance period, using Equation 1 of § 63.4951.

(B) The calculation of the total volume of coating solids used during the initial compliance period, using Equation 2 of § 63.4951.

(C) The calculation of the mass of organic HAP emission reduction during the initial compliance period by emission capture systems and add-on control devices, using Equation 1 of § 63.4961, and the calculation of the mass of organic HAP emission reduction for the coating operations controlled by solvent recovery systems during each compliance period, using Equation 3 of § 63.4961 as applicable.

(D) The calculation of the organic HAP emission rate for the initial compliance period, using Equation 4 of § 63.4961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (v) of this section. However, the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4961(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.4893.

(v) A statement of whether or not you developed and implemented the SSMP required by § 63.4900.

§ 63.4920 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), such as those detailed in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.4940, § 63.4950, or § 63.4960 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting 6-month monitoring reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent semiannual compliance reports according to the dates the permitting authority has established for the 40 CFR part 70 or 40 CFR part 71 6-month monitoring reports instead of according to the dates specified in paragraph (a)(1)(iii) of this section. However, under no circumstances shall the semiannual compliance report be submitted more than 30 days after the end of the semiannual reporting period established in paragraphs (a)(1)(i) and (ii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the 6-month monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the 6-month monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all information required by the part 70 or part 71 6-month monitoring report concerning deviations from the requirements of this subpart as defined in § 63.4981, the submission of the semiannual compliance report shall be deemed to satisfy any obligation to report the same deviation information in the part 70 or part 71 6-month monitoring report. However, in such situations, the 6-month monitoring report must cross-reference the semiannual compliance report, and submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (v) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1)

of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d)

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.

(iv) Identification of the compliance option or options specified in § 63.4891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.4891(b) or (c)), the calculation results for each organic HAP emission rate for each compliance period ending in the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limits, operating limits, and work practice standards in §§ 63.4890, 63.4892, and 63.4893, respectively, that apply to you, the semiannual compliance report must include an affirmative statement that there were no deviations from the emission limitations, operating limits, or work practice standards in §§ 63.4890, 63.4892, and 63.4893 during the reporting period. If there were no deviations from the emission limitations in § 63.4890, the semiannual compliance report must include the affirmative statement that is described in either § 63.4942(c), § 63.4952(c), or § 63.4962(f), as applicable. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period as specified in § 63.8(c)(7).

(5) *Deviations: compliant material option.* If you used the compliant material option, and there was a deviation from the applicable emission limit in § 63.4890, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the emission limit, and of each thinner and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content for each coating identified in paragraph (a)(5)(i) of this section, using Equation 2 of § 63.4941. You do not need to submit background data supporting this calculation, for example, information provided by materials suppliers or manufacturers, or test reports.

(iii) The determination of mass fraction of organic HAP for each coating, thinner, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation, for example, information provided by materials suppliers or manufacturers, or test reports.

(iv) A statement of the cause of each deviation.

(6) *Deviations: emission rate without add-on controls option.* If you used the emission rate without add-on controls option, and there was a deviation from any applicable emission limit in § 63.4890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (v) of this section. You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers, or test reports.

(i) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the applicable emission limit in § 63.4890.

(ii) The calculation of the total mass of organic HAP emissions for each month, using Equations 1 of § 63.4951.

(iii) The calculation of the total volume of coating solids used each month, using Equation 2 of § 63.4951.

(iv) The calculation of the organic HAP emission rate for each month, using Equation 3 of § 63.4951.

(v) A statement of the cause of each deviation.

(7) *Deviations: emission rate with add-on controls option.* If you used the emission rate with add-on controls option, and there was a deviation from any applicable emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xvii) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred. You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers, or test reports.

(i) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the applicable emission limit in § 63.4890.

(ii) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during each month, using Equation 1 of § 63.4951 and, if applicable, the calculation used to determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste treatment, storage, and disposal facility (TSDF) for treatment or disposal during each compliance period, according to § 63.4951(e)(4).

(iii) The calculation of the total volume of coating solids used, using Equation 2 of § 63.4951.

(iv) The calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equation 1 of § 63.4961, and Equation 3 of § 63.4961 for the calculation of the mass of organic HAP emission reduction for the coating operation controlled by solvent recovery systems each compliance period, as applicable.

(v) The calculation of the organic HAP emission rate for each compliance period, using Equation 4 of § 63.4961.

(vi) The date and time that each malfunction started and stopped.

(vii) A brief description of the CPMS.

(viii) The date of the latest CPMS certification or audit.

(ix) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(x) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(xi) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(xii) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period and the total duration as a percent of the total affected source operating time during that semiannual reporting period.

(xiii) A breakdown of the total duration of the deviations from the operating limits in Table 1 to this

subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xiv) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total affected source operating time during that semiannual reporting period.

(xv) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xvi) For each deviation from the work practice standards, a description of the deviation; the date and time period of the deviation; and the actions you took to correct the deviation.

(xvii) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, and malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in § 63.10(d)(5) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.4930 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers. This would include records pertaining to the design and manufacturer's specifications for the life of the add-on control equipment. It would also include information such as manufacturer's formulation data for the materials used, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner, and cleaning material and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations at which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of § 63.4941.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during each compliance period, using Equation 1 of § 63.4951 and, if applicable, the calculation used to determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period, according to § 63.4951(e)(4); the calculation of the total volume of coating solids used during each compliance period, using Equation 2 of § 63.4951; and the calculation of the organic HAP emission rate for each compliance period, using Equation 3 of § 63.4951.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (iv) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during each compliance period, using Equation 1 of § 63.4951 and, if applicable, the calculation used to determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period, according to § 63.4951(e)(4);

(ii) The calculation of the total volume of coating solids used during each compliance period, using Equation 2 of § 63.4951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equation 1 of § 63.4961, and the calculation of the mass of organic HAP emission reduction for the coating operation controlled by a solvent recovery system during the compliance period, using Equation 3 of § 63.4961, as applicable;

(iv) The calculation of the organic HAP emission rate for each compliance period, using Equation 4 of § 63.4961.

(d) A record of the name and volume of each coating, thinner, and cleaning material used during each compliance period.

(e) A record of the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each compliance period.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If a determination of density is required by the compliance option(s) you used to demonstrate compliance with the emission limit, a record of the density for each coating used during each compliance period; and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each thinner and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of § 63.4951 for organic HAP contained in waste materials sent to or designated for shipment to a TSDF according to § 63.4951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in

Equation 1 of § 63.4951, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility, and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of § 63.4951.

(3) The methodology used in accordance with § 63.4951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.4964(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.4963 and 63.4964(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used, during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in § 63.4964(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.4965.

(i) Records of each add-on control device performance test conducted according to §§ 63.4963 and 63.4965.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.4966 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by § 63.4893 and documentation that you are implementing the plan on a continuous basis.

§ 63.4931 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep these records off-site for the remaining 3 years. You must keep records on-site pertaining to the design and manufacturer's specifications for operation of add-on control equipment for the life of the equipment.

Compliance Requirements for the Compliant Material Option

§ 63.4940 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in § 63.4941. The initial compliance period begins on the applicable compliance date specified in § 63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the calculations according to § 63.4941 and supporting documentation showing that, during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in § 63.4890, and you used no thinners or cleaning materials that contained organic HAP.

§ 63.4941 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source to demonstrate compliance with an organic HAP emission limit. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, during the compliance period the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limit in

§ 63.4890 and must use no thinner or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to comply with the operating limits or work practice standards required in §§ 63.4892 and 63.4893, respectively. To demonstrate initial compliance with the emission limitations using the compliant material option, you must meet all the requirements of this section for the coating operation or group of coating operations using this option. Use the procedures in this section for each coating, thinner, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of cleaning materials that are reclaimed and reused onsite provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (for example, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3, and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 of this subpart, the Method 311 results will take precedence.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (b)(1), (2), and (3) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(2) or (3) of this section, the test results will take precedence.

(1) *Test results.* You may use ASTM Method D2697–86 (Reapproved 1998), ''Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings'' (incorporated by reference, see § 63.14), or D6093–97, ''Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer'' (incorporated by reference, see § 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. Alternatively, you may use another test method once you obtain approval from the Administrator according to the requirements of § 63.7(f).

(2) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(3) *Calculation of volume fraction of coating solids.* If the volume fraction of coating solids cannot be determined using the options in paragraphs (b)(1) and (2) of this section, you must determine it using Equation 1 of this section:

$$V_s = 1 - \frac{M_{volatiles}}{D_{avg}} \qquad \text{(Eq. 1)}$$

Where:

V_s = Volume fraction of coating solids, liters coating solids per liter coating.

$M_{volatiles}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and other information sources, the test results will take precedence.

(c) *Determine the density of each coating.* You must determine the density of each coating used during the compliance period from test results using ASTM Method D1475–90 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method

D1475–90 test results and the supplier's or manufacturer's information, the test results will take precedence.

(d) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 2 of this section, except that if the mass fraction of organic HAP in the coating equals zero, then the organic HAP content also equals zero and you are not required to use Equation 2 to calculate the organic HAP content.

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad \text{(Eq. 2)}$$

Where:

H_c = Organic HAP content of the coating, kg organic HAP per liter coating solids.

D_c = Density of coating, kg coating per liter coating, determined according to paragraph (c) of this section.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = Volume fraction of coating solids, liter coating solids per liter coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in § 63.4890 and each thinner and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§ 63.4930 and 63.4931. As part of the Notification of Compliance Status required in § 63.4910(c) and the semiannual compliance reports required in § 63.4920, you must identify each coating operation and group of coating operations for which you used the compliant material option. If there were no deviations from the emission limit, include a statement that each was in compliance with the emission limitations during the initial compliance period because it used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.4890, and it used no thinners or cleaning materials that contained organic HAP.

§ 63.4942 How do I demonstrate continuous compliance with the emission limitations?

(a) Following the initial compliance period, you must complete a compliance demonstration according to the requirements in § 63.4941(e) for each subsequent compliance period. Each month following the initial compliance period described in § 63.4940 is a compliance period.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§ 63.4910(c)(6) and 63.4920(a)(5).

(c) As part of each semiannual compliance report required by § 63.4920, you must identify the coating operation or group of coating operations for which you used the compliant material option. If there were no deviations from the emission limits in § 63.4890, submit an affirmative statement that the coating operation or group of coating operations was in compliance with the emission limitations during the reporting period because you used no coating for which the organic HAP content exceeded the applicable emission limit in § 63.4890, and you used no thinner or cleaning material that contained organic HAP.

(d) You must maintain records as specified in §§ 63.4930 and 63.4931.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.4950 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4951. The initial compliance period begins on the applicable compliance date specified in § 63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the calculations showing that the organic HAP emission rate for the initial compliance period was equal to or less than the applicable emission limit in § 63.4890.

§ 63.4951 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source to demonstrate compliance with an organic HAP emission limit. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must comply with the applicable emission limit in § 63.4890, but is not required to meet the operating limits or work practice standards in §§ 63.4892 and 63.4893, respectively. You must meet all the requirements of this section to demonstrate initial compliance with the applicable emission limit in § 63.4890 for the coating operation or group of coating operations. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to include organic HAP in coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation for which you use the emission rate without add-on controls option.

(a) *Determine the mass fraction of organic HAP for each material.* You must determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period according to the requirements in § 63.4941(a).

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids for each coating used during the compliance period according to the requirements in § 63.4941(b).

(c) *Determine the density of each material.* You must determine the density of each coating, thinner, and cleaning material used during the compliance period according to the requirements in § 63.4941(c) from test results using ASTM Method D1475–90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and such other information sources, the test results will take precedence.

(d) *Determine the volume of each material used.* You must determine the volume (liters) of each coating, thinner, and cleaning material used during the compliance period by measurement or usage records.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners, and cleaning materials used during the compliance period minus the organic HAP in certain waste materials.

Use Equation 1 of this section to calculate the mass of organic HAP emissions:

$$H_e = A + B + C - R_w \qquad \text{(Eq. 1)}$$

Where:

H_e = Total mass of organic HAP emissions during the compliance period, kg.

A = Total mass of organic HAP in the coatings used during the compliance period, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners used during the compliance period, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the compliance period, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to paragraph (e)(4) of this section. The mass of any waste material reused during the same compliance period may not be included in R_w. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the mass of organic HAP in the coatings used during the compliance period, using Equation 1A of this section:

$$A = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A = Total mass of organic HAP in the coatings used during the compliance period, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the compliance period, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used during the compliance period.

(2) Calculate the mass of organic HAP in the thinners used during the compliance period, using Equation 1B of this section:

$$B = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

Where:

B = Total mass of organic HAP in the thinners used during the compliance period, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the compliance period, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the compliance period.

(3) Calculate the mass of organic HAP in the cleaning materials used during the compliance period using Equation 1C of this section:

$$C = \sum_{k=1}^{p} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad \text{(Eq. 1C)}$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the compliance period, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the compliance period, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the compliance period.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in the calculation of the total mass of organic HAP emissions during the compliance period in Equation 1 of this section, then you must determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period, according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may include in the determination of the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period only waste materials that are generated by coating operations for which you use Equation 1 of this section and that will be treated or disposed of by a facility regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include in the determination of the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period only waste materials that are generated by coating operations the organic HAP contained in wastewater, nor the organic HAP contained in any waste material reused during the same compliance period.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the compliance period or the amount collected and stored during the compliance period and designated for future transport to a TSDF. Do not include in your determination of the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period only waste materials that are generated by coating operations any waste materials sent to a TSDF during a compliance period if you have already included them in the amount collected and stored during that or a previous compliance period.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document your methodology to determine the amount of waste materials and the total mass of organic HAP they contain, as required in § 63.4930(h). To the extent that waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Calculate the total volume of coating solids used, which is the combined volume of coating solids for all the coatings used during the compliance period, using Equation 2 of this section:

$$V_{st} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(V_{s,i}\right) \qquad \text{(Eq. 2)}$$

Where:

V_{st} = Total volume of coating solids used during the compliance period, liters.

$Vol_{c,i}$ = Total volume of coating, i, used during the compliance period, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.4941(b).

m = Number of coatings used during the compliance period.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids used, using Equation 3 of this section:

$$H_{avg} = \frac{H_e}{V_{st}} \qquad \text{(Eq. 3)}$$

Where:

H_{avg} = Organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids.

H_e = Total mass of organic HAP emissions from all materials used during the compliance period, kg, as calculated by Equation 1 of this section.

V_{st} = Total volume of coating solids used during the compliance period, liters, as calculated by Equation 2 of this section.

(h) *Compliance demonstration.* The calculated organic HAP emission rate for the initial compliance period must be less than or equal to the applicable emission limit in § 63.4890. You must keep all records as required by §§ 63.4930 and 63.4931. As part of the Notification of Compliance Status required by § 63.4910 and the semiannual compliance reports required in § 63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate without add-on controls option. If there were no deviations from the emission limit, include a statement that the coating operation or group of coating operations was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.4890, determined according to this section.

§ 63.4952 How do I demonstrate continuous compliance with the emission limitations?

(a) Following the initial compliance period, you must complete a compliance demonstration according to the requirements in § 63.4951(h) for each subsequent compliance period. Each month following the initial compliance period described in § 63.4950 is a compliance period.

(b) If the organic HAP emission rate for any compliance period exceeded the applicable emission limit in § 63.4890, this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§ 63.4910(c)(6) and 63.4920(a)(6).

(c) As part of each semiannual compliance report required by § 63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit an affirmative statement that the coating operation or group of coating operations was in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.4890.

(d) You must maintain records as specified in §§ 63.4930 and 63.4931.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.4960 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.4883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4961(j), you must conduct a performance test of each capture system and add-on control device according to §§ 63.4963, 63.4964, and 63.4965, and establish the operating limits required by § 63.4892, no later than 180 days after the applicable compliance date specified in § 63.4883. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4961(j), you must initiate the first material balance no later than 180 days after the applicable compliance date specified in § 63.4883.

(2) You must develop and begin implementing the work practice plan required by § 63.4893 no later than the compliance date specified in § 63.4883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4961. The initial compliance period begins on the applicable compliance date specified in § 63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.4963, 63.4964, and 63.4965; results of liquid-liquid material balances conducted according to § 63.4961(j); calculations showing whether the organic HAP emission rate for the initial compliance period was equal to or less than the emission limit in § 63.4890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.4967; and documentation of whether you developed and implemented the work practice plan required by § 63.4893.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.4892 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.4883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4961(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.4963, 63.4964, and 63.4965, and establish the operating limits required by § 63.4892, no later than the compliance date specified in § 63.4883. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4961(j), you must initiate the first material balance no later than the compliance date specified in § 63.4883.

(2) You must develop and begin implementing the work practice plan required by § 63.4893 no later than the compliance date specified in § 63.4883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4961. The initial compliance period begins on the applicable compliance date specified in § 63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.4963, 63.4964, and 63.4965; results of liquid-liquid material balances conducted according to § 63.4961(j); calculations showing whether the organic HAP

emission rate for the initial compliance period was equal to or less than the emission limit in § 63.4890(c); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.4967; and documentation of whether you developed and implemented the work practice plan required by § 63.4893.

§ 63.4961 How do I demonstrate initial compliance?

(a) *When add-on controls are used.* You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation or group of coating operations for which you use the emission rate with add-on controls option must meet the applicable emission limit in § 63.4890, and each controlled coating operation must meet the operating limits and work practice standards required in §§ 63.4892 and 63.4893, respectively. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option.

(b) *Compliance with operating limits.* Except as provided in § 63.4960(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.4892, using the procedures specified in §§ 63.4966 and 63.4967.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.4893 during the initial compliance period, as specified in § 63.4930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (m) of this section to demonstrate compliance with the applicable emission limit in § 63.4890.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in § 63.4951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner, and cleaning material used during each compliance period and the volume fraction of coating solids for each coating used during each compliance period.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of § 63.4951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners, and cleaning materials used during the compliance period.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each compliance period. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for controlled coating operations not using liquid-liquid material balance.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction, using Equation 1 of this section. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4962(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, you must assume zero efficiency for the emission capture system and add-on control device. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation:

$$H_R = \left(A_I + B_I + C_I - R_w\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) + H_{unc} \qquad \text{(Eq. 1)}$$

Where:

H_R = Mass of organic HAP emission reduction for the controlled coating operation during the compliance period, kg.

A_I = Total mass of organic HAP in the coatings used in the controlled coating operation during the compliance period, excluding coatings used during deviations, kg, as calculated in Equation 1A of this section.

B_I = Total mass of organic HAP in the thinners used in the controlled coating operation during the compliance period, excluding thinners used during deviations, kg, as calculated in Equation 1B of this section.

C_I = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the compliance period, excluding cleaning materials used during deviations, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to § 63.4951(e)(4). The mass of any waste material reused during the same compliance period may not be included in R_w. (You may assign a

value of zero to R_w if you do not wish to use this allowance.)

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.4963 and 63.4964 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.4963 and 63.4965 to measure and record the organic HAP destruction or removal efficiency.

H_{unc} = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in § 63.4962(c) and (d) that occurred during the compliance period in the controlled coating operation, kg, as calculated in Equation 1D of this section.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, using Equation 1A of this section. Do not include in the calculation the coatings used during any deviation specified in § 63.4962(c) or (d) that occurred during the month. Include such coatings in the calculation of the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations that occurred during the compliance period in the controlled coating operation in Equation 1D of this section.

$$A_I = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A_I = Total mass of organic HAP in the coatings used in the controlled coating operation during the compliance period, excluding coatings used during deviations, kg.

$Vol_{c,i}$= Total volume of coating, i, used during the compliance period except during deviations, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, using Equation 1B of this section. Do not include in the calculation the thinners used during any deviation specified in § 63.4962(c) or (d) that occurred during the month. Include such coatings in the calculation of the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations that occurred during the compliance period in the controlled coating operation in Equation 1D of this section.

$$B_I = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

Where:

B_I = Total mass of organic HAP in the thinners used in the controlled coating operation during the compliance period, excluding thinners used during deviations, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the compliance period except during deviations, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation, using Equation 1C of this section. Do not include in the calculation the cleaning materials used during any deviation specified in § 63.4962(c) or (d) that occurred during the compliance period. Include such cleaning materials in the calculation of the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations that occurred during the compliance period in the controlled coating operation in Equation 1D of this section.

$$C_I = \sum_{k=1}^{p} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad \text{(Eq. 1C)}$$

Where:

C_I = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the compliance period, excluding cleaning materials used during deviations, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the compliance period except during deviations, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners, and cleaning materials used in the controlled coating operation during deviations specified in § 63.4962(c) and (d), using Equation 1D of this section:

$$H_{unc} = \sum_{h=1}^{q} \left(Vol_h\right)\left(D_h\right)\left(W_h\right) \qquad \text{(Eq. 1D)}$$

Where:

H_{unc} = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in § 63.4962(c) and (d) that occurred during the compliance period in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner, or cleaning material, h, kg organic HAP per kg coating.

q = Number of different coatings, thinning solvents, or cleaning materials.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for controlled coating operations using liquid-liquid material balance.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during the compliance period. Perform a liquid-liquid material balance for each compliance period as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, you must install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each compliance period. The device must be initially certified by the manufacturer to be accurate to within ±2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the compliance period, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA-approved alternative method, or you may use

information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will govern.

(4) Determine the density of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period according to § 63.4951(c).

(5) Measure the volume of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period.

(6) For each compliance period, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \qquad \text{(Eq. 2)}$$

Where:

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the compliance period, percent.

M_{VR} = Mass of volatile organic matter recovered by the solvent recovery system during the compliance period, kg.

Vol_i = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

D_i = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.

Vol_j = Volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

D_j = Density of thinner, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

Vol_k = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

D_k = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the compliance period.

n = Number of different thinners used in the coating operation controlled by the solvent recovery system during the compliance period.

p = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the compliance period.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the compliance period, using Equation 3 of this section:

$$H_{CSR} = \left(A_{CSR} + B_{CSR} + C_{CSR}\right)\left(\frac{R_V}{100}\right) \qquad \text{(Eq. 3)}$$

Where:

H_{CSR} = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the compliance period, kg.

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 3A)}$$

Where:

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 3B)}$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner, j, kg thinner per liter thinner.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, using Equation 3C of this section:

$$C_{CSR} = \sum_{k=1}^{p} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \quad \text{(Eq. 3C)}$$

Where:

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$ = Density of cleaning material, k, kg cleaning material per liter cleaning material.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) *Calculate the total volume of coating solids used.* Calculate the total volume of coating solids used, which is the combined volume of coating solids for all the coatings used during the compliance period, using Equation 2 of § 63.4951.

(l) *Calculate the organic HAP emissions rate.* Calculate the organic HAP emission rate to the atmosphere, using Equation 4 of this section:

$$H_{hap} = \frac{H_e - \sum_{i=1}^{q}\left(H_{R,i}\right) - \sum_{j=1}^{r}\left(H_{CSR,j}\right)}{V_{st}} \quad \text{(Eq. 4)}$$

Where:

H_{hap} = Organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners, and cleaning materials used during the compliance period, kg, determined according to paragraph (f) of this section.

$H_{R,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using liquid-liquid material balances, during the compliance period, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for controlled coating operation, j, using a liquid-liquid material balance, during the compliance period, kg, from Equation 3 of this section.

V_{st} = Total volume of coating solids used during the compliance period, liters, from Equation 2 of § 63.4951.

q = Number of controlled coating operations except those controlled with a solvent recovery system.

r = Number of coating operations controlled with a solvent recovery system.

(m) *Compliance demonstration.* To demonstrate initial compliance with the emission limit during the compliance period as calculated using Equation 4 of this section, the HAP emission rate for the compliance period must be less than or equal to the applicable emission limit in § 63.4890. You must keep all records as required by §§ 63.4930 and 63.4931. As part of the Notification of Compliance Status required by § 63.4910 and the semiannual compliance reports required in § 63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate with add-on controls option. If there were no deviations from the emission limit, include a statement that the coating operation or group of coating operations was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.4890, and you achieved the operating limits required by § 63.4892 and the work practice standards required by § 63.4893.

§ 63.4962 How do I demonstrate continuous compliance with the emission limitations?

(a) Following the initial compliance period, you must complete a compliance demonstration according to the requirements in § 63.4961(m) for each subsequent compliance period. Each month following the initial compliance period described in § 63.4960 is a compliance period.

(b) If the organic HAP emission rate for any compliance period exceeded the applicable emission limit in § 63.4890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.4910(c)(6) and 63.4920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.4892 that applies to you, as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.4910(c)(6) and 63.4920(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. For the purposes of completing the compliance calculations specified in § 63.4961, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation, as indicated in Equation 1 of § 63.4961.

(d) You must meet the requirements for bypass lines in § 63.4967(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.4910(c)(6) and 63.4920(a)(7). For the purposes of completing the compliance calculations in § 63.4961, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation, as indicated in Equation 1 of § 63.4961.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.4893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by § 63.4930(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.4910(c)(6) and 63.4920(a)(7).

(f) As part of each semiannual compliance report required in § 63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit an affirmative statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.4890, and you achieved the operating limits required by § 63.4892 and the work practice standards required by § 63.4893 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in

accordance with the SSMP required by § 63.4900(c).

(h) [Reserved]

(i) You must maintain records as specified in §§ 63.4930 and 63.4931.

§ 63.4963 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.4960 according to the requirements in § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.4964. You must conduct each performance test of an add-on control device according to the requirements in § 63.4965.

(c) The performance test to determine add-on control device organic HAP destruction or removal efficiency must consist of three runs as specified in § 63.7(e)(3) and each run must last at least 1 hour.

§ 63.4964 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.4960.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off and coating, curing, and drying occurs within the capture system; and the removal of or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction, kg TVH per kg material, of TVH liquid input from each coating, thinner, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the mass of TVH liquid input from all the coatings, thinners, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Eq. 1)}$$

Where:

TVH_{used} = Mass of liquid total volatile hydrocarbons in materials used in the coating operation during the capture efficiency test run, lb.

TVH_i = Mass fraction of TVH in coating, thinner, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating, thinner, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating, thinner, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined,

must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system, using Equation 2 of this section:

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system, using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.4965 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.4960. You must conduct three test runs as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as

appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]'' (incorporated by reference, see § 63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12)(0.0416)\left(10^{-6}\right) \qquad \text{(Eq. 1)}$$

Where:

M_f= Total gaseous organic emissions mass flow rate, kg/per hour (h).

Q_{sd}= Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

C_c= Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi}= Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo}= Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.4966 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by § 63.4960 and described in §§ 63.4963, 63.4964, and 63.4965, you must establish the operating limits required by § 63.4892 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.4892.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.

(ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and,

as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to § 63.4965.

(c) *Carbon adsorbers.* If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle, for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Emission capture system.* For each capture device that is not part of a PTE that meets the criteria of § 63.4964(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (e)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by § 63.4960 and described in §§ 63.4963 and 63.4964, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

(f) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (f)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(g) *Bioreactors.* If you are using a bioreactor, you must comply with the provisions for the use of an alternative monitoring method as set forth in 40 CFR 63.8(f).

§ 63.4967 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), and (f) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, repairs to correct the monitor malfunctions, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, repairs to correct the monitor malfunctions, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could

divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.4920.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor in the gas stream immediately before the catalyst bed, and if you are establishing operating limits according to § 63.4966(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(3) For each gas temperature monitoring device, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (vi) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with an accuracy of at least 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Perform an initial calibration according to the manufacturer's requirements.

(iv) Before using the sensor for the first time or upon relocation or replacement of the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(v) Conduct an accuracy audit every quarter and after every 24 hour excursion. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(vi) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) through (3) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (vi) of this section for each gas temperature monitoring device.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (vi) of this section for each gas temperature monitoring device.

(f) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (f)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (f)(1)(i) through (vii) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Perform accuracy audits every quarter and after every 24 hour excursion. Accuracy audits include comparison of sensor values with electronic signal simulations or with values obtained via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of the sensor. Validation checks include comparison of the sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every 24 hour excursion. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the

connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

(g) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (a) and (g)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2) of this section.

Other Requirements and Information

§ 63.4980 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the work practice standards in § 63.4893 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.4981 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Add-on control means an air pollution control device such as a thermal oxidizer or carbon adsorber that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or *capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.*, depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried or wet coating (surface preparation); to apply coating to a substrate (coating application) and to dry or cure the coating after application; and to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating or cleaning material is applied and all subsequent points in the affected source where organic HAP emissions from that coating or cleaning material occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup markers, or marking pens is not a coating operation for the purposes of this subpart.

Coating solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, or operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

Emission limitation means an emission limit, operating limit, or work practice standard.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or renovation (including surface coating) of the tools, equipment, machinery, and structures that comprise

the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in § 63.4941(a)(1) through (3). Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of coating solids means the ratio of the mass of coating solids to the mass of a coating in which it is contained, expressed as kg of coating solids per kg of coating.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Organic HAP content means the mass of organic HAP per volume of coating solids for a coating, calculated using Equation 2 of § 63.4941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called ''depainting'' or ''paint stripping,'' for the purpose of preparing a substrate for coating application.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating, expressed as liters of coating solids per liter of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Tables to Subpart RRRR of Part 63

TABLE 1 TO SUBPART RRRR OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

[If you are required to comply with operating limits by § 63.4892, you must comply with the applicable operating limits in the following table:]

For the following device . . .	you must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
1. thermal oxidizer	a. the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.4966(a).	i. collecting the combustion temperature data according to § 63.4967(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. catalytic oxidizer	a. the average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.4966(b); and either	i. collecting the temperature data according to § 63.4967(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.4966(b), or	i. collecting the temperature data according to § 63.4967(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature difference at or above the temperature difference limit.

TABLE 1 TO SUBPART RRRR OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

[If you are required to comply with operating limits by § 63.4892, you must comply with the applicable operating limits in the following table:]

For the following device . . .	you must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
	c. develop and implement an inspection and maintenance plan according to § 63.4966(b)(3) and (4).	i. maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.4966(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. carbon adsorber	a. the total regeneration desorbing gas (*e.g.,* steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.4966(c).	i. measuring the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle according § 63.4967(d); and ii. maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. the temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to § 63.4966(c).	i. measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.4967(d); and ii. operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. condenser	a. the average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.4966(d).	i. collecting the condenser outlet (product side) gas temperature according to § 63.4967(e); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. emission capture system that is a PTE according to § 63.4964(a).	a. the direction of the air flow at all times must be into the enclosure; and either	i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.4967(f)(1) or the pressure drop across the enclosure according to § 63.4967(f)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.4967(f)(1) or the pressure drop across the enclosure according to § 63.4967(f)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	c. the pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51.	i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.4967(f)(1) or the pressure drop across the enclosure according to § 63.4967(f)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
6. emission capture system that is not a PTE according to § 63.4964(a).	a. the average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.4966(e).	i. collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.4967(f); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

TABLE 1 TO SUBPART RRRR OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

[If you are required to comply with operating limits by § 63.4892, you must comply with the applicable operating limits in the following table:]

For the following device . . .	you must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
7. concentrators, including zeolite wheels and rotary carbon adsorbers.	a. the average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to § 63.4966(f).	i. collecting the temperature data according to § 63.4967(g); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.
	b. the average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to § 63.4966(f).	i. collecting the pressure drop data according to § 63.4967(g); ii. reducing the pressure drop data to 3-hour block averages; and iii. maintaining the 3-hour average pressure drop at or above the pressure drop
8. bioreactor systems	a. the use of an alternative monitoring method as set forth in § 63.8(f)	

TABLE 2 TO SUBPART RRRR OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRR

[You must comply with the applicable General Provisions requirements according to the following table:]

Citation	Subject	Applicable to subpart	Explanation
§ 63.1(a)(1)–(14)	General Applicability	Yes.	
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart RRRR is also specified in § 63.4881.
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart RRRR.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.4981.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.4883 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4883 specifies the compliance dates.
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standards.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of Alternative Standards	Yes.	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	Subpart RRRR does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources using an add-on control device to comply with the standards. Additional requirements for performance testing are specified in §§ 63.4963, 63.4964, and 63.4965.

TABLE 2 TO SUBPART RRRR OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRR—Continued

[You must comply with the applicable General Provisions requirements according to the following table:]

Citation	Subject	Applicable to subpart	Explanation
§ 63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4960 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required by the Administrator.	Yes.	
§ 63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in § 63.4967.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart RRRR does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)–(3)	Continuous Monitoring System (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in § 63.4967.
§ 63.8(c)(4)	CMS	No	Section 63.4967 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart RRRR does not have opacity or visible emissions standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.4967 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	COS Out-of-Control Periods	Yes.	
§ 63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	Section 63.4920 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4966 and 63.4967 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart RRRR does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
63.9(h)	Notification of Compliance Status	Yes	Section 63.4910 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.4930 and 63.4931.

TABLE 2 TO SUBPART RRRR OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRR—Continued

[You must comply with the applicable General Provisions requirements according to the following table:]

Citation	Subject	Applicable to subpart	Explanation
§ 63.10(b)(2)(i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for Startup, Shutdown, and Malfunction records only apply to add-on control devices used to comply with the standards.
§ 63.10(b)(2)(vi)–(xi)		Yes.	
§ 63.10(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)		No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§ 63.10(b)(2)(xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(7)–(8)		No	The same records are required in § 63.4920(a)(7).
§ 63.10(c)(9)–(15)		Yes.	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.4920.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.4920(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart RRRR does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standards.
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4920(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart RRRR does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§ 63.11	Control Device Requirements/Flares	No	Subpart RRRR does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

TABLE 3 TO SUBPART RRRR OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data:]

Solvent/Solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.

TABLE 3 TO SUBPART RRRR OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS—Continued

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data:]

Solvent/Solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
20. Varsol® solvent	8052–49–3	0.01	0.5% xylenes, 0.5% ethyl benzene.
21. VM & P naphtha	64742–89–8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	0.08	4% naphthalene, 4% biphenyl.

TABLE 4 TO SUBPART RRRR OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS [1]

[You May Use the Mass Fraction Values in the Following Fable for Solvent Blends for Which You Do Not Have Test Data or Manufacturer's Formulation Data:]

Solvent type	Average organic HAP mass fraction	Typical organic percent HAP, by mass
Aliphatic [2]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic [3]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[1] Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart and you only know whether the blend is aliphatic or aromatic.

[2] E.g., Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[3] E.g., Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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Federal Register

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May 23, 2003

Part IV

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Listing of the Central California Distinct Population Segment of the California Tiger Salamander; Proposed Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AI68

Endangered and Threatened Wildlife and Plants; Listing of the Central California Distinct Population Segment of the California Tiger Salamander; Reclassification of the Sonoma County and Santa Barbara County Distinct Populations From Endangered to Threatened; Special Rule

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and notice of public hearing.

SUMMARY: We, the Fish and Wildlife Service (Service), propose threatened status for the Central California distinct population segment (DPS) of the California tiger salamander (*Ambystoma californiense*), pursuant to the Endangered Species Act of 1973, as amended (Act). The Santa Barbara County and Sonoma County DPSs are listed as endangered. We propose reclassifying these populations as threatened. This proposal, if made final, would extend the Federal protection and recovery provisions of the Act to the Central California DPS of this species.

A special rule is also being proposed to exempt existing routine ranching activities from the prohibitions of the Act because these practices have neutral or beneficial effects on the California tiger salamander. We solicit additional data and information that may assist us in making a final decision on this proposed action.

DATES: *Comments:* We must receive comments from all interested parties by 5 p.m. on July 22, 2003.

Public Hearings: We will hold public hearings at the following times:

(1) Tuesday, June 17, 2003—Livermore, California. Two sessions, 1 p.m. until 3 p.m. and 6 p.m. until 8 p.m. Registration will begin at 12:30 p.m. for the afternoon session and at 5:30 p.m. for the evening session.

(2) Wednesday, June 18, 2003—Monterey, California. Two sessions, 1 p.m. until 3 p.m. and 6 p.m. until 8 p.m. Registration will begin at 12:30 p.m. for the afternoon session and at 5:30 p.m. for the evening session.

(3) Thursday, June 19, 2003—Merced, California. Two sessions, 1 p.m. until 3 p.m. and 6 p.m. until 8 p.m. Registration will begin at 12:30 p.m. for the afternoon session and at 5:30 p.m. for the evening session.

Public informational meetings also will be held in California in various locations, with sites and dates publicized through local news media. See **ADDRESSES** section for specific location information of the hearings identified above and *see* ''Public Hearings'' under **SUPPLEMENTARY INFORMATION** for general information.

ADDRESSES: *Comments:* If you wish to comment, you may submit your comments and materials concerning this proposal by any of several methods:

(1) You may submit written comments to the Field Supervisor (Attn: CTS), U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Suite W–2605, Sacramento, CA 95825.

(2) You may send comments by electronic mail (e-mail) to: *catiger@R1.fws.gov.* See the ''Public Comments Solicited'' section below for file format and other information on electronic filing.

(3) You may hand-deliver comments to our Sacramento Fish and Wildlife Office at the address above.

Public Hearings: We will hold public hearings at the following locations:

(1) Hilton Garden Inn, Vineyard Room, 2801 Constitution Drive, Livermore, California.

(2) Hyatt Regency Monterey, Pebble Room, 1 Old Golf Course Rd., Monterey, California.

(3) Fish and Game Building at Lake Yosemite, 5714 North Lake Road, Merced, California.

See the **DATES** section for the specific times these hearings will be held.

FOR FURTHER INFORMATION CONTACT: Sacramento Fish and Wildlife Office, at the address listed above (telephone 916/414–6600; facsimile 916/414–6713).

SUPPLEMENTARY INFORMATION:

Previous Federal Action

On September 18, 1985, we published the Vertebrate Notice of Review (NOR) (50 FR 37958), which included the California tiger salamander as a category 2 candidate species for possible future listing as threatened or endangered. Category 2 candidates were those taxa for which information contained in our files indicated that listing may be appropriate but for which additional data were needed to support a listing proposal. The January 6, 1989, and November 21, 1991, NORs (54 FR 554 and 56 FR 58804, respectively) also included the California tiger salamander as a category 2 candidate and solicited information on the status of the species.

On February 21, 1992, we received a petition to list the California tiger salamander as an endangered species from Dr. H. Bradley Shaffer at University of California, Davis. We published a 90-day petition finding on November 19, 1992 (57 FR 54545), concluding that the petition presented substantial information indicating that listing may be warranted. On April 18, 1994, we published a 12-month petition finding (59 FR 18353) that the listing of the California tiger salamander was warranted but precluded by higher priority listing actions. We elevated the species to category 1 status at that time, which was reflected in the November 15, 1994, NOR (59 FR 58982). Category 1 candidates were those taxa for which we had on file sufficient information on biological vulnerability and threats to support preparation of listing proposals.

We discontinued the use of different categories of candidates in the February 28, 1996, NOR (61 FR 7596), and defined ''candidate species'' as those meeting the definition of former category 1. We maintained the California tiger salamander as a candidate species in that NOR, as well as in subsequent NORs published September 19, 1997 (62 FR 49398), October 25, 1999 (64 FR 57533), and October 30, 2001 (66 FR 54808).

On January 19, 2000, we published an emergency rule to list the Santa Barbara County DPS of the California tiger salamander as endangered (65 FR 3096), concurrently with a proposed rule (65 FR 3110) to list the same DPS as endangered. On September 21, 2000, we listed the Santa Barbara County DPS of the California tiger salamander as endangered (65 FR 57242).

On June 12, 2001, we received a petition dated June 11, 2001, from the Center for Biological Diversity (CBD) and Citizens for a Sustainable Cotati to emergency-list the Sonoma County DPS of the California tiger salamander as an endangered species and to designate critical habitat. On February 27, 2002, the CBD filed a complaint in the Northern District of California for our failure to list the Sonoma County DPS of the California tiger salamander as endangered (*Center for Biological Diversity* v. *U.S. Fish and Wildlife Service* (Case No. C–02–0558)). On June 6, 2002, based on a settlement agreement with the CBD, the court issued an order requiring us to submit for **Federal Register** publication a proposal and/or emergency rule to list the Sonoma County DPS by July 15, 2002. We were also to submit for publication in the **Federal Register** a proposal to list the California tiger salamander throughout the remainder of its range (except for the Santa Barbara County and Sonoma County DPSs) on or before May 15, 2003, and to publish a

final rule on or before May 15, 2004. On July 22, 2002, the Sonoma County DPS was listed as an endangered species under an emergency basis and proposed for listing as endangered (67 FR 47726; 67 FR 47758). The final rule listing the Sonoma County DPS as endangered was published in the **Federal Register** on March 19, 2003 (68 FR 13498). This proposed rule to list the Central California tiger salamander complies with the June 6, 2002, settlement agreement.

Background

The California tiger salamander was first described as *Ambystoma californiense* by Gray in 1853 based on specimens that had been collected in Monterey, California (Grinnell and Camp 1917). Storer (1925) and Bishop (1943) also considered the California tiger salamander to be a distinct species. Dunn (1940), Gehlbach (1967), and Frost (1985) stated the California tiger salamander was a subspecies of the more widespread tiger salamander (*A. tigrinum*). However, based on recent studies of the genetics, geographic distribution, and ecological differences among the members of the *A. tigrinum* complex, the California tiger salamander is now considered to be a distinct species (Shaffer and Stanley 1991; Jones 1993; Shaffer *et al.* 1993; Shaffer and McKnight 1996; Irschick and Shaffer 1997; Petranka 1998). The range of this animal does not naturally overlap with any other species of tiger salamander (Stebbins 1985; Petranka 1998).

The California tiger salamander is a large and stocky terrestrial salamander with small eyes and a broad, rounded snout. Adults may reach a total length of 208 millimeters (mm) (8.2 inches (in)), with males generally averaging about 203 mm (8 in) in total length, and females averaging about 173 mm (6.8 in) in total length. For both sexes, the average snout-vent length is approximately 91 mm (3.6 in). The small eyes have black irises and protrude from the head. Coloration consists of white or pale yellow spots or bars on a black background on the back and sides. The belly varies from almost uniform white or pale yellow to a variegated pattern of white or pale yellow and black. Males can be distinguished from females, especially during the breeding season, by their swollen cloacae (a common chamber into which the intestinal, urinary, and reproductive canals discharge), more-developed tail fins, and larger overall size (Stebbins 1962; Loredo and Van Vuren 1996).

California tiger salamanders are restricted to vernal pools and seasonal ponds in grassland and oak savannah plant communities from sea level to about 460 meters (m) (1,500 feet (ft)) (Stebbins 1989; Shaffer *et al.* 1993; Jennings and Hayes 1994; Petranka 1998; California Natural Diversity Data Base (CNDDB) 2002). Along the coast ranges, the species occurs in the Santa Rosa area of Sonoma County, southern San Mateo County south to central San Luis Obispo County, and the vicinity of northwestern Santa Barbara County. In the Central Valley and surrounding Sierra Nevada foothills, the species occurs from northern Yolo County (Dunnigan) southward to northwestern Kern County and northern Tulare County. A population of salamanders at Grass Lake in Siskiyou County (Mullen and Stebbins 1978) has been identified as the northwestern tiger salamander (*A. t. melanostictum*) (H. Shaffer, University of California, Davis, pers. comm. 1998).

Several gaps exist in the distribution of the California tiger salamander. In the northeastern Sacramento Valley, the species was known from only one site, in southern Butte County on the Gray Lodge Waterfowl Management Area, where it has not been located since 1965 despite subsequent surveys (Stebbins 1989; Shaffer *et al.* 1993). Although the area between Sacramento and the Cosumnes River contains suitable vernal pools, and has been surveyed extensively, the species has only been recorded along the southern edge of Sacramento County (CNDDB 2002). In a survey transect that extended along the west side of the Sacramento Valley from Shasta County to Solano County, and contained 35 kilometers (km) (22 miles (mi)) of vernal pool habitat and over 200 pools, California tiger salamanders were recorded only at the Jepson Prairie in Solano County (Simovich *et al.* 1993). The animal has not been found west of Interstate Highway 680 and north of Interstate Highway 580 in Contra Costa or Alameda Counties (LSA Associates, Inc. 2001; CNDDB 2002). It is likely that the species is uncommon or absent in much of the southernmost San Joaquin Valley from approximately Los Banos in Merced County south, and the foothills of the Sierra Nevada south of Visalia in Tulare County, because of unsuitable habitat (Shaffer *et al.* 1993). The factors that may restrict the California tiger salamander in the northern and southern extent of its range are speculative (H. Shaffer, pers. comm. 2002), but may include low rainfall in the southern San Joaquin Valley and the greater abundance of nonnative predatory fish in the northern Sacramento Valley (Hayes 1977). Jones (1989) suggests that the present pattern of disjunct and widely dispersed populations was caused by the extreme anthropogenic changes in and around the Central Valley, and by the restrictive breeding requirements of the species.

Studies of mitochondrial DNA (mtDNA) indicate that there are six populations of *A. californiense,* which are found in Sonoma County, Santa Barbara County, the Bay Area (central and southern Alameda, Santa Clara, western Stanislaus, western Merced, and the majority of San Benito Counties), Central Valley (Yolo, Sacramento, Solano, eastern Contra Costa, northeast Alameda, San Joaquin, Stanislaus, Merced, and northwestern Madera Counties), southern San Joaquin Valley (portions of Madera, central Fresno, and northern Tulare and Kings Counties), and the Central Coast Range (southern Santa Cruz, Monterey, northern San Luis Obispo, and portions of western San Benito, Fresno, and Kern Counties) (Shaffer and Trenham 2002). Except for the Sonoma County and Santa Barbara County populations, the geographic barriers between some of these populations are not entirely clear. The Central California DPS of the California tiger salamander (Central California tiger salamander) occupies the Bay Area, Central Valley, southern San Joaquin Valley, and the Central Coast Range.

Subadult and adult California tiger salamanders spend the dry summer and fall months of the year estivating (existing in a state of dormancy or inactivity in response to hot, dry weather) in the burrows of small mammals, such as California ground squirrels (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) (Storer 1925; Loredo and Van Vuren 1996; Petranka 1998; Trenham 1998a). During estivation, California tiger salamanders eat very little (Shaffer *et al.* 1993). Once fall or winter rains begin, they emerge from the upland sites on rainy nights to feed and to migrate to the breeding ponds (Stebbins 1985, 1989; Shaffer *et al.* 1993).

California tiger salamanders spend the vast majority of their lives in upland habitats, and cannot persist without it. The upland component of California tiger salamander habitat typically consists of grassland savannah with scattered oak trees. However, in Santa Barbara County, some California tiger salamander breeding ponds exist within mixed grassland and woodland habitats, and a few ponds are found in woodlands, scrub, or chaparral habitats. Salamanders settle most commonly in burrows in open grassland or under isolated oaks, and less commonly in oak woodlands.

The salamanders breeding in, and living around, a seasonal pool or pools, and associated uplands where estivation can occur, are said to occupy a breeding site. A breeding site is defined as a location where the animals are able to successfully breed in years of ''normal'' rainfall and complete their estivation. Historically, California tiger salamanders utilized vernal pools, but the species will also breed in stockponds.

Occurrence of California tiger salamanders is significantly associated with occurrence of California ground squirrels (Seymour and Westphal 1994). Active ground burrowing rodent colonies probably are required to sustain California tiger salamanders because inactive burrow systems become progressively unsuitable over time. Loredo *et al.* (1996) found that California ground squirrel burrow systems collapsed within 18 months following abandonment by, or loss of, the mammals. Although California tiger salamanders use both occupied and unoccupied burrows, they apparently do not use collapsed burrows.

Adult California tiger salamanders may migrate up to 1.6 km (1 mi) from their upland sites to the breeding ponds (S. Sweet, University of California, Santa Barbara, *in litt.* 1998), which may be vernal pools, stockponds, or other seasonal water bodies. The distance between the upland sites and breeding pools depends on local topography and vegetation, and the distribution of California ground squirrel or other rodent burrows (Stebbins 1989). Males migrate to the breeding ponds before females (Twitty 1941; Shaffer, *et al.* 1993; Loredo and Van Vuren 1996; Trenham 1998b). Males usually remain in the ponds for an average of about 6 to 8 weeks, while females stay for approximately 1 to 2 weeks. In dry years, both sexes may stay for shorter periods (Loredo and Van Vuren 1996; Trenham 1998b). Most marked salamanders have been recaptured at the pond where they were initially captured; in one study, approximately 80 percent were recaptured at the same pond (Trenham 1998b). The rate of natural movement of salamanders among breeding sites depends on the distance between the ponds or complexes of ponds and on the quality of intervening habitat (*e.g.*, salamanders may move more quickly through sparsely covered and open grassland than they can through densely vegetated lands) (Trenham 1998a). As with migration distances, the number of ponds used by an individual over its lifetime depends on landscape features and environmental factors.

The adults mate in the ponds and the females lay their eggs in the water (Twitty 1941; Shaffer *et al.* 1993; Petranka 1998). Females attach their eggs singly or, in rare circumstances, in groups of two to four, to twigs, grass stems, vegetation, or debris (Storer 1925; Twitty 1941). In ponds with no or limited vegetation, females may attach eggs to objects, such as rocks and boards on the bottom (Jennings and Hayes 1994). After breeding, adults leave the pool and return to the small mammal burrows (Loredo *et al.* 1996; Trenham 1998a), although they may continue to come out nightly for approximately the next 2 weeks to feed (Shaffer *et al.* 1993). In drought years, the seasonal pools may not form and the adults cannot breed (Barry and Shaffer 1994).

Salamander eggs hatch in 10 to 14 days with newly hatched salamanders (larvae) ranging in size from 11.5 to 14.2 mm (0.45 to 0.55 in) in total length (Petranka 1998). The larvae are aquatic. Each is yellowish gray in color and has a broad fat head, large, feathery external gills, and broad dorsal fins that extend well onto its back. The larvae feed on zooplankton, small crustaceans, and aquatic insects for about 6 weeks after hatching, after which they switch to larger prey (J. Anderson 1968). Larger larvae have been known to consume smaller tadpoles of Pacific treefrogs (*Pseudacris regilla*) and California red-legged frogs (*Rana aurora*) (J. Anderson 1968; P. Anderson 1968). The larvae are among the top aquatic predators in the seasonal pool ecosystems. They often rest on the bottom in shallow water, but also may be found at different layers in the water column in deeper water. The young salamanders are wary; when approached by potential predators, they will dart into vegetation on the bottom of the pool (Storer 1925).

The larval stage of the California tiger salamander usually lasts 3 to 6 months, because most seasonal ponds and pools dry up during the summer (Petranka 1998). Amphibian larvae must grow to a critical minimum body size before they can metamorphose (change into a different physical form) to the terrestrial stage (Wilbur and Collins 1973). Individuals collected near Stockton in the Central Valley during April varied from 47 to 58 mm (1.85 to 2.3 in) in length (Storer 1925). Feaver (1971) found that larvae metamorphosed and left the breeding pools 60 to 94 days after the eggs had been laid, with larvae developing faster in smaller, more rapidly drying pools. The longer the ponding duration, the larger the larvae and metamorphosed juveniles are able to grow, and the more likely they are to survive and reproduce (Semlitsch *et al.* 1988; Pechmann *et al.* 1989; Morey 1998; Trenham 1998b). The larvae perish if a site dries before they complete metamorphosis (P. Anderson 1968; Feaver 1971). Pechmann *et al.* (1989) found a strong positive correlation between ponding duration and total number of metamorphosing juveniles in 5 salamander species. In Madera County, Feaver (1971) found that only 11 of 30 pools sampled supported larval California tiger salamanders, and 5 of these dried before metamorphosis could occur. Therefore, out of the original 30 pools, only 6 (20 percent) provided suitable conditions for successful reproduction that year. Size at metamorphosis is positively correlated with stored body fat and survival of juvenile amphibians, and negatively correlated with age at first reproduction (Semlitsch *et al.* 1988; Scott 1994; Morey 1998).

The metamorphosed juveniles leave their ponds in the late spring or early summer. Before the pools dry completely, they settle in small mammal burrows, to which they return at the end of nightly movements (Zeiner *et al.* 1988; Shaffer *et al.* 1993; Loredo *et al.* 1996). Like the adults, juveniles may emerge from these retreats to feed during nights of high relative humidity (Storer 1925; Shaffer *et al.* 1993) before settling in their selected upland sites for the dry, hot summer months. Juveniles have been observed to migrate up to 1.6 km (1 mi) from breeding pools to upland areas (Austin and Shaffer 1992).

An estimated 83 percent of the salamanders rely on rodent burrows for shelter (Petranka 1998). Mortality of juveniles during their first summer exceeds 50 percent (Trenham 1998b). Emergence from upland estivation sites in hot, dry weather occasionally results in mass mortality of juveniles (Holland *et al.* 1990). Juveniles do not typically return to the breeding pools until they reach sexual maturity, at several years of age (Trenham 1998b; Hunt 1998). Trenham (1998b) estimated survival from metamorphosis to maturity at his study site to be less than 5 percent (well below an estimated replacement level of 18 percent). Adult survivorship varies greatly between years, but is a crucial determinant of whether a population is a source or sink (*i.e.*, whether net productivity exceeds the level necessary to maintain the population or it does not).

Lifetime reproductive success for California and other tiger salamanders is low. Trenham *et al.* (2000) found the average female bred 1.4 times and produced 8.5 young that survived to metamorphosis per reproductive effort. This resulted in roughly 11

metamorphic offspring over the lifetime of a female. Preliminary data suggest that most California tiger salamander individuals require 2 years to become sexually mature. But some individuals may be slower to mature (Shaffer *et al.* 1993), and some animals do not breed until they are 4 to 6 years old. While individuals may survive for more than 10 years, many breed only once, and in some populations, less than 5 percent of marked juveniles survive to become breeding adults (Trenham 1998b). With such low recruitment, isolated populations can decline greatly resulting from unusual, randomly occurring natural events, as well as from human-caused factors that reduce breeding success and individual survival. Factors that repeatedly lower breeding success in isolated pools that are located too far from other pools to allow migrating individuals to replenish the population can quickly extirpate a population.

The life history and ecology of the California tiger salamander make it likely that this population has a metapopulation structure (Hanski and Gilpin 1991). A metapopulation is a set of local populations or breeding sites within an area, where typically migration from one local population or breeding site to other areas containing suitable habitat is possible, but not routine. Dispersal (movement between areas containing suitable habitat) is restricted by inhospitable conditions around and between areas of suitable habitat. Because many of the areas of suitable habitat may be small and support small numbers of salamanders, local extinction may commonly occur. A metapopulation's persistence depends on the combined dynamics of these local extinctions and the subsequent recolonization of these areas through dispersal (Hanski and Gilpin 1991; Hanski 1994; McCullough 1996).

The total number of individual California tiger salamanders is not known. The difficulty of estimating total California tiger salamander population size has been discussed by a number of biologists (Shaffer *et al.* 1993; Jennings and Hayes 1994). However, estimates have been made for a few populations in Monterey (Trenham *et al.* 2000; Barry and Shaffer 1994). Because data on numbers of individual California tiger salamanders are lacking, since they spend much of their lives underground, and because only a portion of the total number of animals migrate to pools to breed each year (Trenham *et al.* 2000), the availability of suitable habitat and documentation of its loss may be an appropriate method for assessing the status of the species.

Vernal pools and other seasonal ponds are the primary breeding areas used by California tiger salamanders (Storer 1925; Feaver 1971; Zeiner *et al.* 1988). The species occurs in 10 of the 17 Californian vernal pool regions defined by Keeler-Wolf *et al.* (1998), including northeastern Sacramento Valley, southeastern Sacramento Valley, Santa Rosa, Solano-Colusa, Livermore, Central Coast, Carrizo, southern Sierra Foothills, Santa Barbara, and San Joaquin Valley. Vernal pools typically form in topographic depressions underlain by an impervious layer (such as claypan, hardpan, or volcanic strata) that prevents downward percolation of water. Vernal pool hydrology is characterized by ponding of water during the late fall, winter, and spring, followed by complete desiccation during the summer dry season (Holland and Jain 1998). Vernal pools support diverse flora and fauna that are adapted to the dramatic seasonal changes in moisture and benefit from the lack of predation by nonnative fish. Thirty other federally or State listed species within the California tiger salamander's range are vernal pool specialists, including 24 plants, 4 crustaceans, and 1 insect (Keeler-Wolf *et al.* 1998). California tiger salamanders, like the listed vernal pool crustaceans, prefer seasonally ponded habitat. However, listed vernal pool crustaceans require only a few weeks of inundation to complete their life cycle (59 FR 48136; September 19, 1994); therefore, pools that support crustacean populations may not hold water long enough to allow successful metamorphosis of California tiger salamander larvae.

In addition to vernal pools and seasonal ponds, California tiger salamanders also use small artificial water bodies for breeding (Stebbins 1985; Zeiner *et al.* 1988; Shaffer *et al.* 1993). Stockponds for cattle (*Bos taurus*), sheep (*Ovies aries*), horses (*Equus caballus*) and other livestock have been, and continue to be, built to supply local water needs, especially in rural grazing lands in coastal and Sierra foothill areas where inexpensive public water or ground water is not available (Bennett 1970). Stockponds, constructed as water sources for livestock, are important habitats for the California tiger salamander throughout its range (H. Shaffer, pers. comm. 2003; P. Trenham, University of California, Davis, pers. comm. 2002). A large population of the California tiger salamander coexists with sheep and horses at the University of California Natural Reserve System's Jepson Prairie in Solano County (P. Trenham, pers. comm. 2002; CNDDB 2002). In some areas, stockponds have largely replaced vernal pools and provide important habitat for the species. For instance, of the 112 California tiger salamander locality records in the Livermore area where the wetland type was identified, 88 percent (98 sites) are located in stockponds (CNDDB 2002).

However, stockponds often are poorer habitat for California tiger salamanders than natural vernal pools. Hydroperiods (amount of time the stockpond contains water) may be so short that larvae cannot metamorphose (*e.g.*, when early drawdown of irrigation ponds occurs), or so long that predatory fish and bullfrogs *R. catesbeiana*) can colonize the pond (Shaffer *et al.* 1993; Seymour and Westphal 1994). Permanent wetlands may occasionally support breeding California tiger salamanders if fish are not present, but extirpation of the salamander population is likely if fish are introduced (Shaffer *et al.* 1993; Seymour and Westphal 1994). Artificial ponds also require ongoing maintenance and are often temporary structures. Natural soil erosion, sometimes increased by pond breaching, stock animal impacts, and off-road vehicle (ORV) use, can cause ponds to silt in after a few decades (Hamilton and Jepson 1940), thereby reducing their quality as salamander habitat. Often ponds are not maintained because it may be more economical to construct a new pond when the old pond fills with silt and is no longer functional (Hamilton and Jepson 1940). Stockponds are often geographically isolated from other seasonal wetlands occupied by California tiger salamanders, and colonization of newly created ponds beyond the normal dispersal range may be slow or nonexistent (Pechmann *et al.* 1989).

Although stockponds can provide refugia for salamander populations and are important for the species, these habitats may be dynamic. Stockponds often dry out during drought, and flooding may destroy downstream impoundments or cause siltation, either of which may result in loss of aquatic habitat and extirpation of salamander populations. Periodic maintenance to remove silt from stockponds may also cause a temporary loss of habitat. Some eggs and larvae of the California tiger salamander are probably trampled by livestock on the perimeters of the stockponds. Populations of nonnative introduced predaceous fish and bullfrogs, although less prevalent than in natural habitats, sometimes become established in stockponds and have been implicated in the decline of the

California tiger salamander (Fisher and Shaffer 1996).

Stockponds may also facilitate spread of nonnative organisms by providing aquatic habitats in arid landscapes that otherwise may have served as barriers to the spread of such organisms. Despite these adverse impacts, the long-term effect of ranching on the species is either neutral or beneficial, because the California tiger salamander would have likely been extirpated from many areas if stockponds had not been built and maintained for livestock production.

Distinct Vertebrate Population Segment

Under the Act, we must consider for listing any species, subspecies, or, for vertebrates, DPSs of these taxa, if information is sufficient to indicate that such action may be warranted. To implement the measures prescribed by the Act and its Congressional guidance, we, along with the National Oceanic and Atmospheric Administration (NOAA) Fisheries, developed policy that addresses the recognition of DPSs for potential listing actions (61 FR 4722; February 7, 1996). The policy allows for a more refined application of the Act that better reflects the biological needs of the taxon being considered, and avoids the inclusion of entities that do not require its protective measures. Under our DPS policy, we use two elements to assess whether a population segment under consideration for listing may be recognized as a DPS. The elements are: (1) the population segment's discreteness from the remainder of the species to which it belongs; and (2) the significance of the population segment to the species to which it belongs. If we determine that a population segment being considered for listing is a DPS, then we evaluate the level of threat to that population segment on the basis of the five listing factors established by the Act to determine if listing it as either threatened or endangered is warranted.

Discreteness

The DPS policy's standard for discreteness is meant to allow an entity given DPS status under the Act to be adequately defined and described. A population segment of a vertebrate species may be considered discrete if it satisfies either one of the following two conditions: (1) it is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation; or (2) it is delimited by international governmental boundaries within which significant differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist.

Dr. H. Bradley Shaffer has analyzed the population genetics of the California tiger salamander (Shaffer *et al* 1993; Shaffer and Trenham 2002). The most recently available and most comprehensive mtDNA sequence data indicate that there are six populations of California tiger salamander; these six populations are distinguished from one another by their mtDNA characteristics (Shaffer and Trenham 2002). We based our DPS determinations for the already-listed Sonoma County and Santa Barbara County populations of the California tiger salamander in part on the relatively high divergence of these populations from other populations of California tiger salamanders (65 FR 57242; 68 FR 13498). The phylogenetic tree (which indicates relationships among populations or groups) constructed from the mtDNA data of Shaffer and Trenham (2002) indicates that Sonoma County and Santa Barbara County California tiger salamanders are very distinct relative to other California tiger salamanders. They are separated from other California tiger salamanders on branches that are statistically strongly supported. These data indicate that Sonoma County and Santa Barbara County California tiger salamanders are distinct from other populations of the species. The genetic differentiation observed indicates that there has been little, if any, gene flow for a significant period of time between the Sonoma County population, the Santa Barbara County population, and the remaining populations, which are the subject of this rulemaking process.

Shaffer and Trenham's (2002) study may suggest that the Central California tiger salamander consists of four populations, which are found in the Bay Area, Central Valley, southern San Joaquin Valley, and the Central Coast Range. Their genetic study suggests that levels of interchange among these populations are low, and that populations or groups of populations (metapopulations) are genetically different from one another (Shaffer and Trenham 2002). However, the geographic boundaries between some of these populations have not been fully delineated (*e.g.*, Bay Area and Central Coast Range populations in the vicinity of the Contra Costa County/Alameda County lines, and the border between the Central Coast Range/Central Valley populations). Therefore, we believe it is not appropriate at this time to treat each of these four populations as a separate DPS. Instead, we treat these four populations as a single group, which is genetically and geographically distinct from the Sonoma County and Santa Barbara County groups.

The Central California tiger salamander is geographically isolated and separate from the Sonoma County DPS and the Santa Barbara County DPS, which are federally listed. The Sonoma County population is separated geographically from the closest Central California tiger salamander populations located in Contra Costa, Yolo, and Solano Counties by the Coast Range, Napa River, and the Carquinez Straits, a distance of about 72 km (45 mi). There are no known records of the California tiger salamander in the intervening areas (D. Warenycia, CDFG, pers. comm. 2002). The Santa Barbara County population is geographically separated from the Central California tiger salamander by the La Panza and Sierra Madre Ranges, and the Carrizo Plain, which extends into the Tremblor Range in eastern San Luis Obispo and western Kern Counties (Shaffer *et al.* 1993). Thus, the same conditions that establish geographic isolation of the Santa Barbara County California tiger salamander and the Sonoma County California tiger salamander from the Central California tiger salamander work correlatively to establish that the converse is also true. There is no evidence of natural interchange of individuals between the Sonoma County and Santa Barbara County populations with the Central California tiger salamander. The genetic work discussed above (Shaffer and Trenham 2002) also indicates that natural interchange is unlikely. Therefore, the best available genetic data (Shaffer and Trenham 2002) for California tiger salamanders indicate that the Central California tiger salamander is distinct from the Sonoma County and Santa Barbara County DPSs.

Significance

Under our DPS policy, once we have determined that a population segment is discrete, we consider its biological and ecological significance to the larger taxon to which it belongs. This consideration may include, but is not limited to, evidence of the persistence of the discrete population segment in an ecological setting that is unique for the taxon; evidence that loss of the population segment would result in a significant gap in the range of the species; evidence that the population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range; and evidence that the

discrete population segment differs markedly from other populations of the species in its genetic characteristics. We have found substantial evidence that two of these significance factors are met by the population of the Central California tiger salamander.

The extinction of the Central California tiger salamander would likely result in the loss of a significant genetic entity and create a significant gap in the range of the species. Shaffer and Trenham's recent genetic work (2002) indicates that the Central California tiger salamander consists of four populations. As discussed above, the Central California tiger salamander differs genetically from the Sonoma County and Santa Barbara DPSs. This supports the hypothesis that no natural interchange of the Central California tiger salamander occurs with the Santa Barbara County or the Sonoma County DPSs. Loss of the Central California tiger salamander would also result in a significant gap in the range of the species.

Conclusion

We evaluated the Central California tiger salamander, addressing the two elements which our policy requires us to consider in deciding whether a vertebrate population may be recognized as a DPS and considered for listing under the Act. We propose that the Central California tiger salamander is discrete, as per our policy, because it is both genetically different and geographically separated from the Santa Barbara County and Sonoma County DPSs. We propose that the Central California tiger salamander is significant because the loss of species would result in a significant gap in the range. It would also constitute loss of a genetically divergent portion of the species. Because the population segment appears to meet both the discreteness and significance criteria of our DPS policy, we propose that the Central California tiger salamander constitutes a DPS that qualifies for consideration for listing.

We have already listed the Sonoma County DPS and Santa Barbara County DPS as endangered. We will be reviewing the relationship between the Central California tiger salamander, and the Sonoma County and Santa Barbara County DPSs as part of this proposed rulemaking.

Summary of Factors Affecting the Species

Section 4 of the Act, and the regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act, describe the procedures for adding species to the Federal list of Endangered and Threatened Wildlife and Plants. We may determine a species to be endangered or threatened on the basis of one or more of the five factors described in section 4(a)(1) of the Act. These factors, and their application to the Central California tiger salamander, are described below.

We have analyzed threats to the California tiger salamander throughout the four populations using information from 608 California tiger salamander sites identified in the CNDDB, of which 486 sites are known to be extant (Service 2003). This database includes the localities listed by Shaffer *et al.* (1993), Seymour and Westphal (1994), LSA Associates, Inc. (1994), and numerous other biologists. At each of these localities, at least one California tiger salamander (adult, juvenile or larva) has been identified by a biologist. Upland habitat types in the vicinity of these localities include annual grassland (49 percent) and oak savannah (12 percent) (California GAP 1996; Service 2003). The remaining upland habitat types are agricultural crops, urban areas, and other natural habitats. The localities in the CNDDB for which one or more wetland type was identified included vernal pools, artificial bermed ponds or stockponds, or ponds. Threats are analyzed in detail below in the discussion of the five factors affecting the species.

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Destruction, modification, and curtailment of Central California tiger salamander habitat is caused by a variety of urban and agricultural land uses. We define urban impacts to include a variety of nonagricultural development activities, such as building and maintenance of housing, commercial, and industrial developments; construction and widening of roads and highways; golf course construction and maintenance; trash dumping, landfill operation and expansion; operation of gravel mines and quarries; dam building; and inundation of habitat by reservoirs. Agricultural impacts include the conversion of native habitat by discing and deep-ripping; and cultivation, planting, and maintenance of row crops, orchards, and vineyards.

Many habitat changes began before California tiger salamanders were widely collected or studied by biologists. Habitat degradation or loss, alteration of vernal pools and seasonal ponds, introduction of nonnative organisms, and other changes have occurred throughout the range of this species (Shaffer *et al.* 1993; Jennings and Hayes 1994; Thelander 1994).

These impacts threaten both wetland breeding habitat and upland habitat. Even salamanders utilizing breeding sites that are protected from development may not persist as viable populations if upland sites are unavailable. Earthmoving operations and cultivation in upland habitat can directly or indirectly kill or injure California tiger salamanders in burrows or on the surface by crushing or trapping them. These practices can also expose salamanders to adverse environmental conditions (increased predation, high temperatures, low humidity) and alter surface hydrology (potentially affecting breeding ponds). Discing, deep-ripping, or grading of upland habitat also destroys California ground squirrel burrows and other crevices, making suitable upland sites unavailable and reducing long-term adult survival of Central California tiger salamanders. Ongoing agricultural and urban land uses prevent upland sites from being reestablished, and may kill or injure salamanders that enter the developed area. Existing vineyards and orchards can disrupt annual migration patterns and cut off access to breeding wetlands as salamanders avoid moving through areas with heavy canopy cover (S. Sweet, in litt. 1998). Agricultural and urban land uses can interfere with dispersal among breeding sites and prevent natural recolonization of ponds after local extirpation.

Filling, discing, or excavating wetland habitat can directly kill or injure larvae, eggs, or breeding adults, and prevents future use of the wetland for reproduction. Additionally, surviving adults may be unable to locate alternative breeding sites in subsequent years. Erosion from agriculture or grading can similarly impair reproductive success by causing sedimentation and degradation of nearby wetlands (S. Sweet, in litt. 1998; Sneed 2000). Changes in flooding duration and depth caused by urban and agricultural land use (*e.g.*, digging of drainage/irrigation ditches, construction of permanent ponds or reservoirs, deepening or berming of seasonal wetlands, redirection of runoff from developments) can reduce reproductive success either by prematurely drying wetlands and desiccating larvae, or by extending the flooded period and facilitating invasion of exotic predators (*see* Factor C). Other secondary effects of agricultural and urban land uses include increased road mortality, drift and runoff of pesticides and fertilizers,

and ongoing rodent-control activities (*see* Factor E).

A comparison of the past and present extent of suitable habitat for the Central California tiger salamander indicates that the range of the species has been substantially reduced from its historical distribution. Historically, approximately 3.67 million hectares (ha) (9.06 million acres (ac)) of valley and coastal grasslands existed within the range of the Central California tiger salamander, with an additional 2.64 million ha (6.53 million ac) supporting an overstory of blue oak/foothill pine, valley oak, or mixed hardwoods (Kuchler 1988), for a total of 6.31 million ha (15.59 million ac) of potential habitat. However, urbanization and intensive agriculture have eliminated virtually all valley grassland and oak savanna habitat from the Central Valley floor. Valley grasslands and, consequently, Central California tiger salamanders are now distributed primarily in a ring around the Central Valley (Heady 1977). An analysis of CNNDB (2002) and Service (2003) records indicate that currently there are only about 4.5 million ha (11.1 million ac) of potential habitat where the California tiger salamander may still be extant. From 1995 to 2020, the human population in the range of the Central California tiger salamander (Central Valley, Bay Area, and Central Coast Counties) is projected to grow by 49 percent (from 12.8 million to 19.1 million people) (California Department of Water Resources (CDWR) 1998). Therefore, impacts on the Central California tiger salamander and conversion of its habitat resulting from urban development are expected to continue.

The relative loss of habitat has been even more extreme with respect to vernal pools, the historic breeding habitat of the Central California tiger salamander. Approximately 1.68 million ha (4.15 million ac) of grasslands in 20 Central Valley Counties are estimated to have supported vernal pools at the time of European settlement (Holland 1978, 1998a, 1998b; Holland and Jain 1988). Most of this area, excepting the northern Sacramento Valley, was within the Central California tiger salamander's historical range. The remaining vernal pool complexes are now fragmented and reduced in area. Where vernal pools remain, they are often disturbed and degraded by drainage modification, overgrazing, ORV use, nonnative plant invasion, trash dumping, road construction, and urban development (Jones and Stokes Associates 1987; 59 FR 48136; Keeler-Wolf *et al.* 1998). Vernal pools are now recognized as a threatened resource (Jones and Stokes Associates 1987; Wright 1991; 59 FR 48136). During the 1980s and 1990s, vernal pool grasslands continued to be lost at an estimated rate of 1.5 percent per year (Holland 1998a, 1998b). As of 1997, 377,165 ha (931,991 ac) of vernal pool grasslands remained in the Central Valley, representing a loss of approximately 78 percent (Holland 1998a, 1998b). Along the southeastern edge of the Central Valley, from San Joaquin to Fresno Counties, at least 25 percent of the 259-ha (640-ac) sections that had contained vernal pools in 1970 (Holland 1978) were wholly converted to agriculture or urban uses by 1994 (Seymour and Westphal 1994). This conversion estimate is probably conservative because it does not include partially converted sections where vernal pool habitat may also have been lost (Seymour and Westphal 1994).

Shaffer *et al.* (1993) detected California tiger salamanders in only 36 of 86 localities (42 percent) that had been previously recorded, and ponds currently occupied by California tiger salamanders were significantly higher in elevation than those that were unoccupied or had been previously occupied. These data suggest that low-elevation breeding sites on the valley floor have been eliminated in recent years, thereby restricting the species to higher-elevation habitats on the margin of its ecological requirements (Shaffer *et al.* 1993; Seymour and Westphal 1994; Fisher and Shaffer 1996).

In both our final rule listing the Santa Barbara County DPS of the California tiger salamander (65 FR 57242), and the Sonoma County DPS of the California tiger salamander (67 FR 47726), we described land conversions to more intensive agriculture, especially conversions to grape vineyards, as being a factor in the species' decline. Data from the California Agricultural Statistics Service (CASS) (2002) provides further corroboration that this is a factor and shows that the phenomenon extends over much of the Central California tiger salamander's current and historic range.

Urban development poses a similar significant threat to the Central California tiger salamander. The human population of the State of California is continuing to increase, along with a concomitant increase in urban development. According to the 2000 census, the number of people in California has increased by 13.8 percent since 1990 (California Department of Finance 2002). The average growth in human population within the Counties in the range of the Central California tiger salamander has been 19.5 percent. Counties in the East Bay region and the Highway 99 corridor in the San Joaquin Valley are undergoing increases both in human population and related urbanization. Sub-populations at forty-one records of the Central California tiger salamander from the CNDDB data base have been extirpated by urban development (Service 2003).

The information documenting the present or threatened destruction, modification, or curtailment of Central California tiger salamander habitat or range due to urbanization and other factors is organized below as it applies to four populations of the species (Shaffer *et al.* 1993; Shaffer and Trenham 2002) that we have not yet listed.

Bay Area Population (Alameda, Santa Clara, San Benito, southwestern San Joaquin, western Stanislaus, and western Merced Counties): Thirty-two percent (194 of 608 sites) of the known California tiger salamander records are in this population, most of them in eastern Alameda and Santa Clara Counties (CNDDB 2002). Forty-nine of these records in the Bay Area population are considered extirpated due to urbanization, orchards and vineyards, and hybridization with nonnative tiger salamanders (CNDDB 2002; Service 2003). There are 83,386 ha (206,051 ac) of potential habitat for the California tiger salamander in the Bay Area (Service 2003).

The East Bay area of the Bay Area and Livermore Valley area has undergone intensive urban development in recent years. The total human population of Santa Clara, Contra Costa, Alameda, Solano, and Yolo Counties increased by approximately 86 percent between 1990 and 2002. From 1995 to 2020, the human population is projected to increase by 18 percent for the San Francisco Bay hydrologic region, with agricultural crop land use projected to remain around 26,305 ha (65,000 ac) (CDWR 1998). From 1990 to 1996, 16,457 ha (40,665 ac) of native habitat were converted to urban and agricultural uses in Santa Clara, Alameda, and San Benito Counties (California Department of Conservation (CDC) 1994, 1998). Approximately 90 percent of land conversions in Santa Clara, Alameda, and Contra Costa Counties were to urban use.

Of 98 California tiger salamander localities where wetland type was identified, only 15 percent (15) were located in vernal pools. These wetland type localities within the Bay Area population of California tiger salamanders occur within the Solano-Colusa and Livermore vernal pool regions (Keeler-Wolf *et al.* 1998). However, little vernal pool habitat

remains within these regions. Many of the Solano-Colusa vernal pools have been destroyed or degraded by agricultural conversion, water impounding for waterfowl habitat enhancement, urban development, and road-building. Most of the vernal pools in the Livermore Region have been destroyed or degraded by urban development, agriculture, water diversions, poor water quality, and long-term overgrazing (Keeler-Wolf *et al.* 1998). Many breeding sites in the Bay Area population are in artificial water bodies rather than natural vernal pools. Overall, 43 percent (83) of the records are in stock, farm, or berm ponds used for cattle grazing and as a temporary source of water for small farm irrigation (CNDDB 2002).

California tiger salamander localities in Contra Costa and Alameda Counties may be affected by ORV use; at least 10 proposed housing developments; 3 golf courses; infrastructure construction, including expansion of an airport, a landfill, and a power station; and highway construction (CNDDB 2002). These development projects may destroy upland habitat and wetland breeding habitat, killing salamanders and reducing the viability of populations at the affected localities.

In eastern Contra Costa and Alameda Counties, especially the Livermore and Amador Valleys, urban expansion continues at a rapid pace. California tiger salamander populations in the Livermore Valley are severely threatened by the ongoing conversion of 14,527 ha (35,897 ac) of grazing land to subdivisions and vineyards (Stebbins 1989; East Bay Regional Park District (EBRPD) 1999). Almost the entire valley floor, and large portions of the adjacent hills, are being developed or are being considered for development and eventual annexation. The North Livermore and South Livermore Valley Specific Plans represent 11,727 ha (28,977 ac) of planned urban development in and around Livermore Valley (EBRPD 1999). Urban Growth Boundaries encompass 108,262 ha (267,520 ac), including the Livermore, La Costa, Amador, Sunol, and Vallecitos valleys in east Alameda County and the Clayton, Lone Tree, Deer, and Briones valleys of eastern Contra Costa County (Alameda County Planning Department 1993; EBRPD 1999). These valleys constitute much of the core area inhabited by the Bay Area California tiger salamander population. Shaffer *et al.* (1993) found that the East Bay Counties of Alameda and Contra Costa supported the greatest concentrations of California tiger salamander. Three localities are known from near San Francisco Bay in southwestern Alameda County, and are partially protected by San Francisco Bay National Wildlife Refuge.

California tiger salamanders at a university in Palo Alto declined to near extirpation due, in part, to urban development of adjoining upland areas (Barry and Shaffer 1994), but water management and other take-reduction efforts have been implemented in recent years to protect the population (Thomas Reid Associates 1998). A locality within the City of San Jose is threatened by urban development. Several areas in southern Santa Clara County also are undergoing urban expansion.

Central Valley Population (Yolo, Solano, Sacramento County south of the Cosumnes River, northeastern Contra Costa, eastern San Joaquin, western Amador, western Calaveras, western Tuolumne, eastern Stanislaus, Merced, western Mariposa, and northwestern Madera Counties): Forty-seven percent (286 of the 608 sites) of the known California tiger salamander records are in this population (CNDDB 2002). Subpopulations at 37 of recorded locations in the Central Valley Population are considered extirpated (CNDDB 2002; Service 2003). Urban development and agriculture have eliminated much of the grassland and vernal pools. From 1996 to 1998, 14,361 ha (35,487 ac) of native habitat were converted to urban and agricultural uses in Yolo, Solano, Contra Costa, Merced, Sacramento, San Joaquin, Stanislaus, and Madera Counties (CDC 2000). There are 146,600 ha (362,253 ac) of potential habitat for the California tiger salamander in the Central Valley (Service 2003). The species historically occurred as far north as Butte County but has not recently been documented north of the Cosumnes River. The remaining sites inhabited by the California tiger salamander occur in the low-elevation foothills on the eastern side of the Central Valley (Shaffer *et al.* 1993).

Of 127 California tiger salamander localities where wetland type was identified, 26 percent (33) were in vernal pools. These wetland type localities within the Central Valley population of California tiger salamanders occurs within the southeastern Sacramento Valley and southern Sierra foothills vernal pool regions (Keeler-Wolf *et al.* 1998). Vernal pools in both regions are threatened by conversion of grasslands and grazing land to housing developments and intensive agriculture (see Factor E).

California tiger salamander localities in the Central Valley population may be affected by recently implemented development projects, including vineyards and proposed highway construction. These development projects may destroy upland habitat and wetland breeding habitat, killing salamanders and reducing the viability of populations at the affected localities. Large vineyards planted in areas along the San Joaquin-Sacramento County line have degraded and destroyed habitat for California tiger salamanders.

In Yolo and Solano Counties, the major impacts to California tiger salamander populations have been agricultural. Portions of the California tiger salamander locality at Jepson Prairie in Solano County is protected by the University of California Natural Reserve System and the Solano Land Trust. However, some upland habitat may have been disrupted by construction of a natural gas pipeline in the vicinity. California tiger salamanders also were found at some proposed power plant sites near Jepson Prairie.

In Stanislaus County, California tiger salamanders were considered extirpated until they recently were found by biologists surveying a potential route for a highway bypass near Oakdale (California Department of Transportation 2000). This highway route threatens the only known population of California tiger salamanders in the Oakdale area. However, other populations are known to exist within Stanislaus County outside the Oakdale area.

South San Joaquin Population: (western Madera, central Fresno, and northwestern Tulare Counties north of the St. Johns and Kaweah Rivers): Nine percent (56 of the 608 sites) of the known California tiger salamander sites are in this population (CNDDB 2002). However, 18 of these sites in the South San Joaquin population are considered extirpated (CNDDB 2002; Service 2003). From 1996 to 1998, 4,509 ha (11,142 ac) of native habitat were converted to urban and agricultural uses in Fresno, Tulare, and Madera Counties (CDC 2000). There are 24,450 ha (60,418 ac) of potential habitat for the California tiger salamander in the southern San Joaquin Valley (Service 2003).

Ninety-seven percent (31) of 32 localities for which wetland type was identified in the South San Joaquin population are within vernal pools. These wetland type localities within the South San Joaquin population of the California tiger salamander occur within the southern Sierra Foothill Vernal Pool Region (Keeler-Wolf 1998). Although we are unaware of a specific quantified estimate of loss for this vernal pool region, we believe that a significant

number of vernal pools in this region have been destroyed, fragmented, and degraded by conversion to intensive agriculture and housing developments.

Shaffer *et al.* (1993) were unable to find breeding habitat to sample for presence of the California tiger salamander over most of the original grassland habitat of the San Joaquin Valley. Where ponds were located, California tiger salamanders generally were absent (72 percent of 324 ponds sampled were absent). The rarity of this species in the San Joaquin Valley, in habitat that was apparently suitable historically, suggests widespread extirpation of California tiger salamanders from habitat conversion to agricultural and urban uses (Stebbins 1989). Large areas of California tiger salamander habitat were destroyed and degraded by major urbanization in this region during the 1970s and 1980s (Shaffer *et al.* 1993). Agricultural, housing, road, and commercial developments on the valley floor of Fresno, Madera, and Tulare Counties have reduced suitable habitat to a fraction of the species' historical range (J. Halstead, Kings River Conservation District, *in litt.* 1994). Most remaining salamander habitat on the eastern side of the Central Valley occurs on tracts of privately-owned ranch land (Seymour and Westphal 1994).

California tiger salamander localities in the South San Joaquin population may be affected by proposed development projects, including housing developments and highway construction. These development projects would likely destroy upland habitat and wetland breeding habitat, likely killing salamanders and reducing the viability of populations at the affected localities.

Several large water storage and delivery projects have been constructed in the South San Joaquin population. These projects have flooded large areas of known and potential salamander habitat. Additional habitat has been lost to construction from associated State and County park recreational facilities (*e.g.*, boat ramps, campgrounds, parking lots) and agriculture and urbanization facilitated by water supply development.

Numerous new housing developments and golf courses are planned or in progress around Millerton Lake in Fresno and Madera Counties (J. Halstead, *in litt.* 1994; The Keith Companies 1994). Extensive areas of upland habitat and wetland breeding habitat will likely be destroyed by these developments, potentially killing many salamanders and/or further reducing the viability of any remaining habitat at these localities.

California tiger salamanders are known from eight localities in Tulare County, most of which are surrounded by a matrix of agricultural lands.

Central Coast Population (southern Santa Cruz, Monterey, extreme western San Benito, extreme western Fresno, extreme western Kings, extreme northwestern Kern, and San Luis Obispo Counties): Twelve percent (72 of the 608 localities) of the known California tiger salamander records are in the Central Coast Range population. Nineteen of these sites in the Central Coast population are considered extirpated (CNDDB 2002; Service 2003). From 1996 to 1998, 2,084 ha (5,149 ac) of native habitat were converted to urban and agricultural uses in San Luis Obispo and Monterey Counties (CDC 2000). There are 28,411 ha (70,205 ac) of potential habitat for the California tiger salamander in the Central Coast.

California tiger salamanders in this population occurred predominantly in stock ponds, reservoirs, seasonal lakes, and intermittent streams. Of the California tiger salamander localities in this population where the wetland type was identified, 26 percent (86) were vernal pools. The wetland type localities within the Central Coast Range population of the California tiger salamander occur in the Central Coast and San Joaquin Valley Vernal Pool Regions (Keeler-Wolf *et al.* 1998). The annual loss of vernal pools from 1994 to 2000 in Monterey, San Benito, San Luis Obispo, Santa Barbara, and Ventura Counties appears to be accelerating to a rate of 2 to 3 percent annually (Holland 2003).

Two California tiger salamander localities occur at a 8,064 ha (19,927 ac) development project site that comprises 14 percent of the Greater Monterey Peninsula Planning Area, which is nearly half of the Planning Area's unimproved land. Construction on this project has been initiated (D. Steeck, Service, pers. comm. 2000). Eleven localities occur on Fort Ord, an 11,220 ha (27,726 ac) former military installation that has been transferred to the U.S. Bureau of Land Management (BLM), California Department of Parks and Recreation, California State University, Santa Cruz, and Monterey County municipalities. The proposed habitat management plan (Jones and Stokes Associates 1993) for Fort Ord includes protection of salamander breeding habitat at seven of these localities within the designated Natural Resource Management Area (NRMA) managed by BLM. Two of the localities in the NRMA are within a highway easement, and may be imperiled due to future road construction. The protected area has historically been extensively used by ORVs, but recent enforcement of ORV restrictions by BLM has apparently reduced this problem (R. Lewis, BLM, pers. comm. 1999). Excavation for removal of unexploded ordnance could potentially disrupt breeding or upland habitat in the NRMA (Jones and Stokes Associates 1993), but ordnance removal in breeding ponds has not yet been deemed necessary (D. Steeck, pers. comm. 2000). The remaining four localities on Fort Ord are projected for development as recreational areas, commercial centers, and a university campus. Development in these areas may avoid breeding ponds, but additional upland habitat is likely to be lost and fragmented.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

There is no evidence that overutilization is a factor causing decline of the California tiger salamander.

C. Disease or Predation

Disease

Relatively little is known about the diseases of wild amphibians (Alford and Richards 1999). The specific effects of disease on the Central California tiger salamander are not known and the risks to the animal have not been determined.

Pathogen outbreaks have not been documented in the Central California tiger salamander. Nevertheless, disease must be considered a potential future population threat because of the relatively small, fragmented remaining Central California tiger salamander breeding sites, the many stresses on these sites due to habitat losses and alterations, and the many other potential disease-enhancing anthropogenic changes which have occurred both inside and outside the species' range.

Predation

A number of nonnative California species have likely adversely affected the Central California tiger salamander in many parts of its range through predation and competition. Bullfrogs prey on California tiger salamanders (P. Anderson 1968; Lawler *et al.* 1999). The bullfrog, native to the United States east of the Great Plains, was introduced into California in the late 1800s and early 1900s, and it rapidly spread throughout the State (Storer 1925 as cited in Moyle 1973; Hayes and Jennings 1986). Morey and Guinn (1992) documented a shift in

amphibian community composition at a vernal pool complex, with salamanders becoming proportionally less abundant as bullfrogs increased in number. Although bullfrogs are unable to establish permanent breeding populations in unaltered vernal pools and seasonal ponds because they require more than 1 year to complete their larval stage, dispersing immature bullfrogs take up residence in such water bodies during winter and spring where they prey on native amphibians, including larval salamanders (Morey and Guinn 1992; Seymour and Westphal 1994). A strong negative correlation exists between bullfrog presence and California tiger salamander presence (Shaffer *et al.* 1993; Seymour and Westphal 1994).

Because bullfrogs are known to travel at least 2.6 km (1.6 mi) from one pond to another (Bury and Whelan 1984), they have the potential to naturally colonize new areas where they do not currently exist, including where Central California tiger salamanders occur. In one study of the eastern San Joaquin Valley, it was found that 22 of 23 ponds (96 percent) with California tiger salamanders were within the bullfrogs' potential dispersal range (Seymour and Westphal 1994). In addition, because bullfrogs are still sought within California for sport and as food, and may be taken without limit under a fishing license, the threat of transport for intentional establishment in new habitat suitable for the Central California tiger salamanders is significant.

Western mosquitofish (*Gambusia affinis*) are native to central North America (watersheds tributary to the Gulf of Mexico) and have been introduced throughout the world for mosquito control, including California, beginning in 1922. Western mosquitofish now occur throughout California wherever the water does not get too cold for extended periods, and they are still widely planted throughout the State (K. Boyce, Sacramento County/Yolo County Mosquito and Vector Control District, *in litt.* 1994; Moyle 2002) by about 50 local mosquito abatement districts. Western mosquitofish are ubiquitous because of their tolerance of poor water quality and wide temperature ranges (K. Boyce, *in litt.* 1994).

Salamanders may be especially vulnerable to western mosquitofish predation due to their fluttering external gills, which may attract these visual predators (Graf and Allen-Diaz 1993). Loredo-Prendeville *et al.* (1994) found no California tiger salamanders inhabiting ponds containing western mosquitofish. Leyse and Lawler (2000) found that the survival of California tiger salamander in experimental ponds stocked with western mosquitofish, at densities similar to those found in many stock ponds, was significantly reduced. Larvae that survived in ponds with western mosquitofish were smaller, took longer to reach metamorphosis, and had injuries such as shortened tails.

Western mosquitofish prey on other amphibian species, such as California newt (*Taricha torosa*) (Gamradt and Kats 1996) and Pacific treefrog (Goodsell and Kats 1999) tadpoles in both field and laboratory experiments, even when given the optional prey of mosquito larvae (Goodsell and Kats 1999; L. Kats, Pepperdine University, pers. comm. 1999). Western mosquitofish have also been observed ingesting and then spitting out California newt larvae, causing severe damage to the newts in the process (Graf and Allen-Diaz 1993). Given the effects of western mosquito fish on other amphibian species, they are likely to have similar effects on Central California tiger salamanders. If they have the same effects, the use of western mosquito fish in Central California tiger salamander habitat threatens its persistence.

Other nonnative fish have either been directly implicated in predation of California tiger salamanders or appear to have the potential to prey upon them. For example, introductions of sunfish species (*e.g.*, largemouth bass (*Micropterus salmoides*) and bluegill (*Lepomis macrochirus*), catfish (*Ictalurus* spp.), and fathead minnows (*Pimephales promelas*) are believed to have eliminated Central California tiger salamanders from several breeding sites in Santa Barbara County (65 FR 3096). Nonnative sunfish species, catfish, and bullheads (*Ameiurus* spp.) have been, and still are, widely planted in ponds in California to provide for sportfishing. By 1984, the California fish fauna included about 50 such transplanted and exotic species, mostly from eastern North American origin (Hayes and Jennings 1986). More recently, Moyle (2002) estimated that, on average, California is losing about one native species or subspecies of fish every 5 to 6 years, and gaining an average of one alien species about every 2 years.

Nonnative fish introductions may be responsible for the declines of frog species in western North America (Hayes and Jennings 1986). Such introduced fish may be a problem for California ranids because of their specialization for preying on aquatic life (including eggs and larvae), and because the affected amphibians may have evolved under conditions of limited fish predation, which now increases the impacts of the introductions (Hayes and Jennings 1986). We believe the same threat may apply to the Central California tiger salamander. Thus, we consider introductions of such nonnative fish species into Central California tiger salamander breeding habitat a potential threat to the persistence of the species.

The range and breeding habitats of the Central California tiger salamander also overlap with the ranges and habitats of several nonnative and native crayfish (*Pacifastacus, Orconectes,* and *Procambarus* spp.). Crayfish prey on California tiger salamanders (Shaffer *et al.* 1993) and are thought to have eliminated some populations (Jennings and Hayes 1994). In Sonoma County, a nonnative crayfish has been found throughout ditches within California tiger salamander range, but not in any nearby pools known to support California tiger salamander breeding (D. Cook, The Wildlife Society, pers. comm. 2002). Crayfish are also known to prey on California newt eggs and larvae, despite toxins produced by these amphibians, and crayfish may be a significant factor in the loss of newts from several streams in southern California (Gamradt and Kats 1996). Thus, based on direct and indirect evidence, we believe that crayfish, especially several nonnative species, represent a considerable threat to the persistence of the Central California tiger salamander.

Another nonnative species which may represent a threat to the species, is the wild pig (*Sus scrofa*). The wild pig population in California, which was recently estimated at about 106,000 to 160,000 individuals (Waithman *et al.* 1999), resulted from numerous introductions, both from domesticated pigs escaping captivity, and more recently from deliberate introductions for sport-hunting, over the last two centuries. Although range expansion of introduced wild pigs has ceased in many regions of the United States, it increased significantly since the 1950s in California (Waithman *et al.* 1999). Wild pigs are now distributed within parts of 49 of California's 58 Counties (Waithman *et al.* 1999), with densities as high as 3.8 (Sweitzer *et al.* 2000) to 4.7 pigs per square kilometer (9.8 to12.2 pigs per square mile) (Schauss *et al.* 1990).

Wild pigs have been widely implicated in declines and extinctions of numerous species worldwide, and have had pronounced negative ecological effects on Central California tiger salamanders when their populations are high (Waithman *et al.*

1999). Detrimental effects of wild pigs on the Central California tiger salamander include both predation and habitat modifications. One recognized expert on wild pigs in California states that he has found bullfrogs, snakes, and newts in pig stomachs, and he believes that California tiger salamanders would be consumed by pigs, if encountered (R. Barrett, University of California, Berkeley, pers. comm. 2002), a view also shared by another wild pig expert in Florida (R. Belden, Florida Wildlife Commission, pers. comm. 2002). The nocturnal behavior of wild pigs, and their affinity for ponds and watering holes in oak woodlands of foothills and other fringe areas of the Central California tiger salamander's range, coupled with the nocturnal movements of Central California tiger salamanders during the rainy season, could result in considerable predation. In addition, wild pigs may cause ecological damage to Central California tiger salamander habitat, including consumption of vegetation for food, and rooting and digging, which may change plant successional patterns, soil properties, water infiltration rates, water quality (Synatzske 1993), or the small-mammal burrows the salamander needs during estivation.

California tiger salamanders are also likely preyed on by many species of native fish and wildlife. In healthy salamander populations, such predation should not be a significant threat. But when combined with other impacts, such as predation by nonnative species, contaminants, migration barriers, or habitat alteration, it may cause a significant decrease in population viability. Native predators including avian species, such as great blue herons (*Ardea herodias*) and snowy egrets (*Egretta thula*), western pond turtles (*Clemmys marmorata*), various garter snakes (*Thamnophis* spp.), larger California tiger salamanders, larger spadefoot toads (*Scaphiopus hammondii*), and California red-legged frogs (Peters 1993; Hansen and Tremper 1993). In Arizona, larval tiger salamanders are preyed upon by adult predaceous diving beetles (*Dytiscus dauricus*) (Holomuzki 1986); turkey vultures (*Carthartes aura*) have been observed feeding on larval or adult tiger salamanders (Duncan 1999).

D. The Inadequacy of Existing Regulatory Mechanisms

The primary cause of Central California tiger salamander decline is the loss, degradation, and fragmentation of habitat due to human activities. Federal, State, and local laws have been insufficient to prevent past and ongoing losses of the limited habitat of the Central California tiger salamander, and are unlikely to prevent further declines of the species.

Federal

Clean Water Act. Under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1251 *et seq.*), the U.S. Army Corps of Engineers (Corps) regulates the discharge of fill material into waters of the United States, including wetlands. Section 404 regulations require applicants to obtain a permit for projects that involve the discharge of fill material into waters of the United States, including wetlands. However, normal farming activities are exempt under the CWA and do not require a permit (53 FR 20764; Robert Wayland III, Environmental Protection Agency (EPA), *in litt.* 1996). Projects that are subject to regulation may qualify for authorization to place fill material into waters of the United States, including wetlands, under several nationwide permits. The use of nationwide permits by an applicant or project proponent is normally authorized with minimal environmental review by the Corps. No activity that is likely to jeopardize the continued existence of a threatened or endangered species, or that is likely to destroy or adversely modify designated critical habitat of such species, is authorized under any nationwide permit. An individual permit may be required by the Corps if a project otherwise qualifying under a nationwide permit would have greater than minimal adverse environmental impacts.

Recent court cases may further limit the Corps' ability to utilize the CWA to regulate the discharge of fill or dredged material into the aquatic environment within the current range of the California tiger salamander (*Solid Waste Agency of Northern Cook County* v. *U.S. Army Corps of Engineers,* 531 U.S. 159 (2001) (SWANCC)). The effect of SWANCC on Federal regulation of activities in wetlands in the area of the Central California tiger salamander has recently become clear by the Corps' decision not to assert its jurisdiction over the discharge of fill material into several wetlands within the range of the Central California tiger salamander. In a letter from the Corps, dated March 8, 2002, concerning the discharge of fill into 0.18 ha (0.45 ac) of seasonal wetlands southwest of the intersection of Piner and Marlow Roads (Corps File Number 19736N), the Corps referenced the SWANCC decision and reiterated that the subject wetlands were not ''waters of the United States'' because they were: (1) Not navigable waters; (2) not interstate waters; (3) not part of a tributary system to 1 or 2; (4) not wetlands adjacent to any of the foregoing; and (5) not an impoundment of any of the above. The letter further stated that the interstate commerce nexus to these particular waters is insufficient to establish CWA jurisdiction, and therefore, not subject to regulation by the Corps under Section 404 of the CWA. The Corps also cited the SWANCC decision as their reasoning for not taking jurisdiction over fill of Sonoma County California tiger salamander breeding pools at the recently constructed South Sonoma Business Park (Corps File Number's 23540N, 249420N).

When on- or off-site mitigation is required by the Corps as a condition of a Section 404 permit to fill certain wetlands, there is often low probability that affected Central California tiger salamander habitat functions (if any) would actually be compensated and replaced by the ensuing mitigation action(s).

Semlitsch (1998) examined published literature for six species of pond-breeding ambystomatid salamanders from five states and concluded that a buffer zone encompassing 95 percent of a given population would need to extend 263 m (534 ft) from a wetland's edge into surrounding terrestrial habitat in order to give adequate protection. More recently, Trenham (2001), although cautioning that essential terrestrial habitats and buffer requirements are still relatively poorly understood, concluded certain populations of California tiger salamanders have migrated distances of 670 m (2,200 ft) between breeding ponds, and that plans to maintain local populations of California tiger salamanders should include pond(s) surrounded by at least 173 m (567 ft) wide buffers of terrestrial habitat occupied by burrowing mammals. Preliminary results of a study located at Jepson Prairie have determined that adult California tiger salamanders migrate up to 400 m (1,312 ft) from their breeding pond (P. Trenham, pers. comm. 2002).

Management plans that focus only on preserving ponds or wetlands, without consideration for associated terrestrial habitat, are likely to fail to maintain viable amphibian populations (Marsh and Trenham 2001). However, even with inclusion of terrestrial habitat buffers, recent studies have demonstrated that restored wetlands are often still only partially successfully recolonized by the full amphibian assemblages being targeted for restoration (Lehtinen and Galatowitsch

2001; Pechmann *et al.* 2001). Successful compensatory mitigation for losses of California tiger salamander pool and pond habitat due to filling would also require the connectivity of the restoration site to other pools and ponds (Gibbs 1998; Lehtinen *et al.* 1999; Marsh and Trenham 2001; Trenham *et al.* 2001). Pond isolation may be an important consideration in disturbed environments where inter-pond dispersal is impeded by barriers such as roads and urban development (Marsh and Trenham 2001). The California tiger salamander may also require large preserves to maintain viable breeding populations and to allow recolonizations after natural and anthropogenic local extirpations (P. Northen, *in litt.* 2001).

We conclude that regulation of wetlands filling by the Corps under Section 404 of the CWA is inadequate to protect the Central California tiger salamander from further decline. Section 404 administration fails to prevent losses of numerous small wetlands in California which may support Central California tiger salamander breeding. Section 404 does not regulate the continuing losses of Central California tiger salamander terrestrial habitat (except to the extent certain agricultural activities are regulated). When authorized fills under Section 404 do result in compensatory mitigation for wetlands losses, it is unlikely that Central California tiger salamander losses at specific fill sites can, and will be, fully and successfully mitigated.

Endangered Species Act. Two DPSs of the California tiger salamander in California have been listed under the Act. The Santa Barbara County DPS was listed on September 15, 2000 (65 FR 3096). The Sonoma County DPS was listed under an emergency rule effective July 22, 2002 (67 FR 4772). The final rule listing this DPS was published March 19, 2003 (68 FR 13497). These two DPSs are currently provided with the protections afforded by the Act.

Elsewhere within its range in California, the California tiger salamander is not currently a federally listed species under the Act. Within this unprotected range in California, however, there are currently 16 species (1 beetle, 4 species of freshwater shrimp, and 11 species of plants) listed under the Act that occur in association with seasonally-flooded vernal pools. Critical habitat has been designated for the threatened delta green ground beetle (*Elaphrus viridus*), but its range is limited to a portion of the area at Jepson Prairie in Solano County that is inhabited by the California tiger salamander. We have also proposed approximately 687,968 ha (1.7 million ac) in 36 California Counties and one Oregon county as critical habitat considered essential for the conservation of the 4 freshwater shrimp and the 11 vernal pool plant species (68 FR 12336).

In some instances the vernal pools supporting the 15 listed vernal pool species, and the critical habitat being proposed for them, overlap with local occurrences of the Central California tiger salamander. However, such overlap is limited, and where it does occur, regulatory protections afforded under the Act for the 15 listed vernal pool species, or their proposed critical habitat, do not convey adequate protection to Central California tiger salamander upland habitats. Most of the requirements of the listed vernal pool plants and freshwater shrimp can be met through maintenance of existing hydrology within the confines (or with additional upland areas dependent on the individual location) of individual vernal pools or vernal pool complexes. California tiger salamanders, on the other hand, spend only about 20 percent of their lives in such pools or ponds, and 80 percent in the confines of small mammal burrows in nearby terrestrial areas.

Lacey Act. The Lacey Act Amendments of 1981 (16 U.S.C. 3371–3378; Pub. L. 97–79, as amended) provide some protection for the California tiger salamander by making it illegal to trade in this species. This legislation prohibits the import, export, sale, receipt, acquisition, purchase, and engagement in interstate or foreign commerce of any species taken, possessed, or sold in violation of any law, treaty, or regulation of the United States, any Tribal law, or any law or regulation of any State. The law covers all fish and wildlife and their parts or products, and plants protected by State law. This Act does not apply to the interstate shipment, through Tribal lands or a State, of any fish, wildlife, or plant legally taken if the shipment goes to a State in which the fish or wildlife or plant may be legally possessed.

State

Since 1994, the California Department of Fish and Game (CDFG) has recognized the California tiger salamander as a ''species of special concern.'' More recently, the California tiger salamander has been placed on the State's list of protected amphibians, which means that it cannot be taken without a special permit issued for scientific collecting or research. Also, as stated earlier in Factor C, the California Code of Regulations (2002) specifies California tiger salamanders can no longer be taken, possessed, or used for fishing bait.

On July 6, 2001, the CDFG received a petition from the CBD to list the California tiger salamander under the California Endangered Species Act. The status of the animal and potential threats was evaluated by the CDFG. On October 3, 2001, the Director of the CDFG recommended to the California Fish and Game Commission (Commission) that the petition be accepted and the animal be designated as a candidate (R. Hight, CDFG, *in litt.* 2001). On December 7, 2001, the Commission found that the petition was not warranted because the Commissioners felt there was not enough information on the population abundance and trend information of the California tiger salamander (R. Treanor, Commission, *in litt.* 2001).

CDFG recognizes the importance of California tiger salamander conservation at the local population level and routinely considers and recommends actions to mitigate potential adverse effects to the species during its review of development proposals. However, CDFG's primary regulatory venue is under the California Environmental Quality Act (CEQA) (Public Resources Code Sec. 21000–21177). CEQA has proven to be a variable, and often inadequate, regulatory mechanism for providing protection to the California tiger salamander and its habitat.

CEQA requires a full disclosure of the potential environmental impacts of proposed projects. The public agency with primary authority or jurisdiction over a project is designated as the lead agency, and is responsible for conducting a review of the project and consulting with the other agencies concerned with the resources affected by the project. Section 15065 of the CEQA Guidelines, as amended, requires a finding of significance if a project has the potential to ''reduce the number or restrict the range of a rare or endangered plant or animal.'' Once significant effects are identified, the lead agency must require mitigation for effects through changes in the project unless specific overriding considerations make mitigation infeasible (CEQA Sec. 21002). In the latter case, projects that may include the destruction of listed endangered species or their habitat may be approved.

Moreover, neither CEQA nor other statutory mechanisms under CDFG's jurisdiction provides any effective regulatory mechanisms for reducing or eliminating several of the other manmade factors (as discussed below)

which may also adversely affect California tiger salamanders and their habitat. For example, there is no State regulation of nonnative fish stocking into California tiger salamander ponds and waters. Agencies and individuals may purchase (from CDFG-licensed fish breeders) and stock into such waters sunfish, catfish and other nonnative fish for recreational fishing. Similarly, there is no State regulation of western mosquitofish stocking into California tiger salamander ponds and waters by the approximately 50 mosquito abatement districts that routinely stock this mosquito predator as a means for mosquito control. In addition, the act of controlling burrowing small mammals in places where their burrows may be highly essential to California tiger salamander survival is not State-regulated and is, therefore, still widely and commonly practiced throughout the California tiger salamander's range.

Local

We are not aware of any specific county or city ordinances or regulations that provide protection for the Central California tiger salamander. The Central California tiger salamander may be indirectly benefitting from the increased attention being given to conversions of grasslands, oak woodlands, row-crops, and other agricultural uses to vineyards and orchards. At least three Counties (Sonoma, Napa, and Santa Barbara) have recently begun applying regulatory oversight to such conversions. This oversight is resulting in requirements for full-scale environmental analyses, restrictions on the steepness of slopes onto which vineyards may be established, and requirements for erosion control plans and measures. However, in the majority of the State's Counties in the Central California tiger salamander's range, conversions to vineyards and orchards is an unregulated agricultural activity with significant potential to adversely affect the Central California tiger salamander.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Several other factors may also be causing direct or indirect adverse effects to California tiger salamanders or their habitat, including direct mortality while they are crossing roads, the species' extensive hybridization with nonnative salamanders, their exposure to various contaminants, the effects from rodent population control efforts, livestock grazing, and decreased population viability because of the species' small remaining population size.

Contaminants

Like most amphibians, California tiger salamanders inhabit both aquatic and terrestrial habitats at different stages in their life cycle, and are likely exposed to a variety of pesticides and other chemicals throughout their range. They are extremely sensitive to these pollutants due to their highly permeable skin which can rapidly absorb pollutant substances (Blaustein and Wake 1990). Toxins at lower than lethal levels may still have adverse effects, such as causing abnormalities in larva and behavioral anomalies in adults, both of which could eventually lead to lethal effects (Hall and Henry 1992; Blaustein and Johnson 2003). California tiger salamanders also could die from starvation due to the reduction or loss of their prey base from the use of pesticides. Sources of chemical pollution which may adversely affect California tiger salamanders include hydrocarbon and other contaminants from oil production and road runoff; the application of numerous chemicals for agricultural production; roadside maintenance activities; urban/suburban landscaping applications; and rodent and vector control programs.

Road mortality is not the only risk factor associated with roads, as oil and other contaminants in runoff have been detected in adjacent ponds and linked to die-offs and deformities in California tiger salamanders and spadefoot toads, and die-offs of invertebrates that form most of both species' prey base (S. Sweet, *in litt.* 1993). Lefcort *et al.* (1997) found that oil had limited direct effects on 5-week-old marbled (*A. opacum*) and tiger salamanders (*A. t. tigrinum*). However, salamanders from oil-contaminated natural ponds metamorphosed earlier at smaller sizes, and those from oil-contaminated artificial ponds had slower growth rates than larvae raised in uncontaminated ponds. Their studies did not address effects on eggs and early larval stages, where the effects may be more pronounced.

Hatch and Burton (1998) and Monson *et al.* (1999) investigated the effects of one component of petroleum products and urban runoff (fluoranthene, a polycyclic aromatic hydrocarbon) on spotted salamanders (*A. maculatum*), northern leopard frogs (*R. pipiens*), and African clawed frogs (*Xenopus laevis*). In laboratory and outdoor experiments, using levels of the contaminant comparable to those found in service stations and other urban runoff, the researchers found reduced survival and growth abnormalities in all species. The effects were worse when the larvae were exposed to the contaminant under natural levels of sunlight, rather than in the laboratory under artificial light.

There are a number of records of California tiger salamanders using roadside ditches. Many are in areas where there are no known breeding ponds, and these animals are utilizing the only marginal habitat remaining. Also, many pools in these areas have likely been destroyed, leaving these marginal sites as the only option for breeding. In light of increased urbanization, along with concurrent increases in traffic, the risk factor associated with contaminants in runoff likely will increase in both roadside ditches and across the general landscape.

Agricultural and Landscaping Contaminants

During 2001, the 23 California Counties where California tiger salamanders may occur used over 47,627,160 kilograms (105 million pounds) of pesticide active ingredients (California Department of Pesticide Regulation (CDPR) internet website 2002). Chemicals included were metam-sodium, methyl bromide, mancozeb, petroleum oil, phosmet, chlorpyrifos, pendimethalin, parathion, paraquat dichloride, fosetyl-aluminum, acephate, cryolite, malathion, and other chemicals, some of which are extremely toxic to aquatic organisms, including amphibians and the organisms on which they prey. Some of these pesticides, such as chloropyrifos, malathion, and endosulfin are cholenesterase inhibitors. Reduced cholenesterase activity has been linked to uncoordinated swimming, increased vulnerability to predation, depressed growth rates, and increased mortality in tadpoles (de Llamas *et al.* 1985; Rosenbaum *et al.* 1988; Bridges 1997; Berrill *et al.* 1998; Sparling *et al.* 2001).

Although there is some evidence that some amphibians may be affected by chemicals applied during the migration and dispersal seasons (Sparling *et al.* 2001), Davidson *et al.* (2001, 2002) were unable to find a significant overall relationship between upwind agriculture and the California tiger salamander's decline.

Rodent Control

California tiger salamanders spend much of their lives in underground retreats, often in California ground squirrel burrows (Loredo *et al.* 1996; Trenham 1998a), so widespread control of ground squirrels may pose threats to the salamander. California ground squirrel control, which began in the early 1900s (Marsh 1987), may be done

by trapping, shooting, fumigation of burrows, use of toxic (including anticoagulant) baits, and habitat modification, including deep-ripping of burrow areas (UCIPM internet website 2003).

California ground squirrel control programs are widely conducted (frequently via bait stations placed at specific problem sites) on and around various commercial agricultural operations, including grazing/range lands and various croplands including vineyards (R. Thompson, Science Applications International Corporation, *in litt.* 1998). Also, numerous agencies, particularly flood control agencies and levee districts, conduct extensive California ground squirrel control programs around levees, canals and other facilities they manage.

The pocket gopher, which also provides the required upland retreats for some California tiger salamanders (Loredo *et al.* 1996; Trenham 1998a; D. Cook, pers. comm. 2001), is targeted by certain control operations that may also pose threats to the amphibian. This species is also classified as a non-game mammal by CDFG. Pocket gopher control measures (UCIPM internet website 2003) are similar to measures used for California ground squirrel control, except that shooting is not an effective approach because of the pocket gophers' nearly continuous seclusion underground. Pocket gopher control typically is most common around golf courses and other large, landscaped areas, and around residential homes and gardens. Widespread control in agricultural situations is much less common than for California ground squirrels.

Two of the most commonly used rodenticides, chlorophacinone and diphacinone, are anticoagulants that cause animals to bleed to death. These chemicals can be absorbed through the skin and are considered toxic to fish and wildlife (EPA 1985; EXOTONET 1996). These two chemicals, along with strychnine, are used to control rodents (R. Thompson, *in litt.* 1998). Although the effects of these poisons on California tiger salamander have not been assessed, any uses in close proximity to occupied Central California tiger salamander habitat could have various direct and indirect toxic effects. Gases, including aluminum phosphide, carbon monoxide, and methyl bromide, are used in rodent fumigation operations and are introduced into burrows by either using cartridges or by pumping. When such fumigants are used, animals inhabiting the fumigated burrow are killed (Salmon and Schmidt 1984).

In addition to possible direct adverse effects of rodent control chemicals and gasses, California ground squirrel and pocket gopher control operations may have the indirect effect of reducing the number of upland burrows available to specific California tiger salamander populations (Loredo-Prendeville *et al.* 1994). Because the burrow density required by California tiger salamanders is unknown, the impacts of burrow loss are also unknown.

Shaffer *et al.* (1993) believe that rodent control programs could be the cause for lack of California tiger salamanders in certain areas. Active California ground squirrel colonies probably are needed to sustain California tiger salamanders, because inactive burrow systems likely become progressively unsuitable over time. Loredo *et al.* (1996) found that burrow systems usually collapsed within 18 months following cessation of California ground squirrel use, and did not report California tiger salamanders utilizing any collapsed burrows. Also, deep ripping of rodent burrow areas as a rodent control measure would be likely to completely destroy burrows and harm or kill any California tiger salamanders using them.

Many Central California tiger salamander sites are currently occupied by livestock. Livestock owners' concern over livestock breaking their legs in rodent burrows is a reason for many California ground squirrel control efforts, especially around livestock watering tanks and ponds. These and other California ground squirrel and pocket gopher control efforts clearly have potential to adversely affect Central California tiger salamanders if they are implemented without knowledge of, and concern for, the species.

Mosquito Control

In addition to the use of western mosquitofish, a common chemical method of mosquito control in California involves the use of methoprene. Methoprene is an insect hormone mimic which increases the level of juvenile hormone in insect larvae and disrupts the molting process. Lawrenz (1984, 1985) found that methoprene (Altosoid SR–10) retarded the development of selected crustacea that had the same molting hormones (*i.e.*, juvenile hormone) as insects, and anticipated that the same hormone may control metamorphosis in other arthropods. Because the success of many aquatic vertebrates relies on an abundance of invertebrates in temporary wetlands, any delay in insect growth could reduce the numbers and density of prey available (Lawrenz 1984, 1985). The use of methoprene could have an indirect adverse effect on California tiger salamanders by reducing the availability of prey.

In more recent studies, methoprene did not cause increased mortality of gray treefrog (*Hyla versicolor*) tadpoles (Sparling and Lowe 1998). However, it caused reduced survival rates and increased malformations in northern leopard frogs (Ankley *et al.* 1998), and increased malformations in southern leopard frogs (*R. utricularia*) (Sparling 1998). Blumberg *et al.* (1998) correlated exposure to methoprene with delayed metamorphosis and high mortality rates in northern leopard and mink (*R. septentrionalis*) frogs. Methoprene appears to have both direct and indirect effects on the growth and survival of larval amphibians.

Road-Crossing Mortality

Although no systematic studies of the California tiger salamander have been conducted, it is known that significant numbers of the species in other portions of its range are killed by vehicular traffic while crossing roads (Hansen and Tremper 1993; S. Sweet, *in litt.* 1993; Joe Medeiros, Sierra College, pers. comm. 1993). For example, during one 15-day period in 2001 at a Sonoma County location, 26 road-killed California tiger salamanders were found (D. Cook, pers. comm. 2002). Overall breeding population losses of California tiger salamanders due to road kills have been estimated to be between 25 and 72 percent (Twitty 1941; S. Sweet, *in litt.* 1993; Launer and Fee l996). Mortality may be increased by associated roadway curbs and berms as low as 9 to 12 centimeters (3 to 5 in), which allow California tiger salamanders access to roadways but prevent their exit from them (Launer and Fee 1996; S. Sweet, *in litt.* 1998).

Vehicular usage on California roads is increasing rapidly and directly with human population and urban expansion. During November 2002, California's estimated total vehicular travel on State highway system roads alone was 23 billion km (14.27 billion mi) (this figure and subsequent vehicular-use data from California Department of Transportation's internet website 2003). From 1972 to 2001, State highway system total vehicular usage rose steadily from 108.6 km to 270 billion km (67.1 to 167.8 billion mi) annually. For the 23 California Counties in which the California tiger salamander may occur, State highway system total annual vehicular usage in 1999, 2000, and 2001 was 86.0, 90.0, and 92.1 billion km (53.3, 55.9, and 57.2 billion

mi), respectively. Moreover, for the four areas of the State in which the four remaining population segments of the California tiger salamander occur, road densities due to past urbanization are already high. Overall, these four areas have 5,860.2 km (3,641.5 mi) of roads (and rail tracks) of all types. The range of current road (and rail) density is from 1.01 km per 100 ha (0.25 mi per 100 ac) in the Southern San Joaquin population of the salamander, to 1.64 km per 100 ha (0.41 mi per 100 ac) in the Bay Area population of the salamander. We believe such relatively high road-use and road-density values result in road-kill mortality being a potentially serious threat to the species, and a threat that is likely continuing to grow in concert with the State's rapid growth of human population and urbanization.

Hybridization With Nonnative Salamanders

Sixteen populations of hybrid California tiger salamanders and the nonnative tiger salamander (*A. tigrinum*) were found in southern Santa Clara, eastern Merced, San Benito, and northern Monterey Counties (Shaffer and Trenham 2002). Four populations consisting of pure nonnative tiger salamanders were located in Monterey County (Shaffer and Trenham 2002). The tiger salamanders at a number of locations in this area reportedly are the result of intentional introductions of the animals by a bait salesman in the 1950s and 1960s (B. Shaffer, pers. comm. 2002).

Hybrids between the California tiger salamander and the nonnative tiger salamander have been documented elsewhere in the range of *A. californiese* (Shaffer and Trenham 2002). Introduced salamanders may out-compete the California tiger salamander or interbreed with the natives to produce hybrids that may be less fit and adapted to the California climate or are not reproductively viable past the first or second generations (Bury and Lukenbach 1976; Shaffer *et al.* 1993). More recent evidence suggests that the hybrids are viable and that they breed with California tiger salamanders (Shaffer and Trenham 2002). Over time, a population of a species could become genetically indistinguishable from a larger population of an introgressing species such that the true genotype (the genetic constitution of an individual or group) of the lesser species no longer exists (Levin 2002). The loss of any population of the Central California tiger salamander due to hybridization with, or competition from, introduced species is of serious concern.

Livestock Grazing

Light to moderate livestock (cattle, sheep, and horses) grazing is generally thought to be compatible with the continued successful use of rangelands by the Central California tiger salamander, provided the grazed areas do not also have intensive burrowing rodent control efforts (T. Jones, *in litt.* 1993; Shaffer *et al.* 1993; S. Sweet, pers. comm. 1998; H. Shaffer and P. Trenham, pers. comm. 2003). By maintaining shorter vegetation, grazing may make areas more suitable for California ground squirrels whose burrows are essential to California tiger salamanders. Melanson (*in litt.* 1993) noted that although vernal pool species continued to reproduce under a November to April grazing regime, California tiger salamanders were either absent or diminished in numbers in portions of pools heavily trampled by cattle. Repeated trampling of pond edges by cattle also can increase the surface area of ponds which may increase water temperature and evaporation rate, thus reducing the amount of time the pond contains water (S. Sweet, pers. comm. 1998).

Reduction in water quality cause by livestock excrement may negatively affect the California tiger salamander by increasing nitrogen and silt levels. High nitrogen levels are associated with bacterial blooms and lowered dissolved oxygen (Worthylake and Hovingh 1989), and silt has been associated with fatal fungal infections (Lefcort *et al.* 1997), as discussed earlier under Factor C.

However, grazing generally is compatible with the continued use of rangelands by the Central California tiger salamander as long as intensive burrowing rodent control programs are not implemented on such areas and grazing is not excessive (T. Jones, *in litt.* 1993; Shaffer *et al.* 1993; S. Sweet, pers. comm. 1998).

Conclusion

In making this proposal, we have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the Central California tiger salamander. As discussed in the Summary of Factors Affecting the Species above, this species faces a number of threats. The most overwhelming threat is from continuing habitat destruction, degradation, and fragmentation. Secondary threats exist from predation and competition from introduced exotic species; possible commercial overutilization; disease; hybridization with nonnative salamanders; various chemical contaminants; road-crossing mortality; and rodent control operations. The various primary and secondary threats are not currently being offset by existing Federal, State, or local regulatory mechanisms. The Central California tiger salamander also is vulnerable to chance environmental or demographic events. The combination of its biology and specific habitat requirements makes the animal susceptible to random events, such as drought, disease, and other occurrences. Such events are not usually a concern until the number of breeding/estivation sites or geographic distribution become severely limited, as is the case with the Central California tiger salamander.

Critical Habitat

Critical habitat is defined in section 3 of the Act as the—(i) specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species, and (II) that may require special management considerations or protection, and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species. ''Conservation'' means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary of the Interior (Secretary) designate critical habitat at the time the species is determined to be endangered or threatened. Our implementing regulations (50 CFR 424.12(a)) state that critical habitat is not determinable if information sufficient to perform the required analysis of impacts of the designation is lacking, or if the biological needs of the species are not sufficiently well known to allow identification of an area as critical habitat. Section 4(b)(2) of the Act requires us to consider economic and other relevant impacts of designating a particular area as critical habitat on the basis of the best scientific data available. The Secretary may exclude any area from critical habitat if she determines that the benefits of such exclusion outweigh the conservation benefits, unless to do so would result in the extinction of the species.

In 30 years of implementing the ESA, we have found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of scarce conservation resources. The present system for designating critical habitat has evolved since its original statutory prescription into a process that provides little real conservation benefit, is driven by litigation and the courts rather than biology, limits our ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs. We believe that rational public policy demands serious attention to this issue in order to allow our focus to return to true conservation efforts.

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large amounts of conservation resources. Sidle (1987) stated, ''Because the ESA can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7.''

Currently, only 306 species or 25 percent of the 1,211 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,211 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, and the section 10 incidental take permit process. We believe that these measures are superior conservation strategies compared to the designation of critical habitat.

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are significantly delayed. Litigation over critical habitat issues for species already listed and receiving the Act's full protection has precluded or delayed many listing actions nationwide.

The accelerated schedules of court ordered designations have left the Service with almost no ability to confirm the scientific data in its administrative record or to respond in any meaningful way to legitimate comments before making decisions on listing and critical habitat proposals due to the risks associated with noncompliance with judicially-imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, is very expensive, and in the final analysis provides relatively little additional protection to listed species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with NEPA, all are part of the cost of critical habitat designation. None of these costs result in any benefit to the species that is not already afforded by the protections of the Act enumerated earlier, and they directly reduce the funds available for direct and tangible conservation actions.

We determine that, designation of critical habitat for the Central California tiger salamander would be prudent, if we reach a final determination to list the species as proposed. However, we do not intend to propose critical habitat at this time. Our budget for listing activities is currently insufficient to allow us to immediately complete all the listing actions required by the Act. Not designating critical habitat at this time allows us to provide the necessary protections needed for the conservation of the species without further delay. This is consistent with section 4(b)(6)(C)(i) of the Act, which states that final listing decisions may be issued without critical habitat designations when it is essential that such determinations be promptly published. The legislative history of the 1982 Act amendments also emphasized this point: ''The Committee feels strongly, however, that, where biology relating to the status of the species is clear, it should not be denied the protection of the Act because of the inability of the Secretary to complete the work necessary to designate critical habitat * * * . The committee expects the agencies to make the strongest attempt possible to determine critical habitat within the time period designated for listing, but stresses that the listing of species is not to be delayed in any instance past the time period allocated for such listing if the biological data is clear but the habitat designation process is not complete'' (H.R. Rep. No. 97–567 at 20 (1982)). We will prepare a critical habitat designation in the future when our available resources allow.

We will protect the Central California tiger salamander and its habitat through section 7 consultations to determine whether Federal actions are likely to jeopardize the continued existence of the species, through the recovery process, and through enforcement of take prohibitions under section 9 of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages conservation actions by Federal, State, and local agencies. The Act provides for possible land acquisition and cooperation with the State and requires that recovery actions be carried out for listed species. We discuss the protection from the actions of Federal agencies, considerations for protection and conservation actions, and the prohibitions against taking and harm for the Central California tiger salamander, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed to be listed or is listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Federal agencies are required to confer with us informally on any action that is likely to jeopardize the continued existence of a proposed species, or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry

out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal agency action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us. Federal agency actions that may affect the Central California tiger salamander and may require consultation with us include, but are not limited to, those within the jurisdiction of the Corps and Federal Highway Administration (FHA).

We believe that protection and recovery of the Central California tiger salamander will require reduction of the threats from destruction and degradation of wetland and associated upland habitats due to urban development, exotic predators, unnecessary California ground squirrel and gopher control, and road construction. These threats should be considered when management actions are taken in habitats currently and potentially occupied by the Central California tiger salamander, and areas deemed important for dispersal and connectivity or corridors between known locations of this species. Monitoring also should be undertaken for management actions or scientific investigations designed to address these threats or their impacts.

Listing also will require us to review any actions that may affect the Central California tiger salamander for lands and activities under Federal jurisdiction, State plans developed pursuant to section 6 of the Act, scientific investigations of efforts to enhance the propagation or survival of the animal, pursuant to section 10(a)(1)(A) of the Act, and habitat conservation plans (HCPs) prepared for non-Federal lands and activities pursuant to section 10(a)(1)(B) of the Act.

Federal agencies with management responsibility for the Central California tiger salamander include the Service, in relation to the issuance of section 10(a)(1)(A and B) permits for HCPs and other programs. Occurrences of this species could potentially be affected by projects requiring a permit from the Corps under Section 404 of the CWA. The Corps is required to consult with us on applications they receive for projects that may affect listed species. Highway construction and maintenance projects that receive funding from the FHA would be subject to review under section 7 of the Act. In addition, activities that are authorized, funded, or administered by Federal agencies on non-Federal lands will be subject to section 7 review.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, codified at 50 CFR 17.21, in part make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or attempt any such conduct), import, export, transport in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to our agents and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities. Requests for copies of the regulations on listed species and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, OR 97232–4181 (telephone: 503/231–2063, facsmile: 503/231–6243).

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify, to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. We believe that, based on the best available information, the following actions are not likely to result in a violation of section 9, provided these actions are carried out in accordance with any existing regulations and permit requirements:

(1) Possession, delivery, including interstate transport and import or export from the United States, involving no commercial activity, of Central California tiger salamanders that were collected prior to the date of publication of a final regulation in the **Federal Register** adding the Central California tiger salamander to the list of endangered and threatened species;

(2) Any actions that may affect the Central California tiger salamander that are authorized, funded, or carried out by a Federal agency, when the action is conducted in accordance with the consultation requirements for listed species pursuant to section 7 of the Act;

(3) Any action taken for scientific research carried out under a recovery permit issued by the Service pursuant to section 10(a)(1)(A) of the Act;

(4) Land actions or management carried out under an HCP approved by the Service pursuant to section 10(a)(1)(B) of the Act, or an approved conservation agreement; and

(5) Release of western mosquitofish and the use of pesticides in non-breeding habitat for the California tiger salamander. Breeding habitat is defined as vernal pools, seasonal ponds, and stock-watering ponds where the animals currently breed, or such water bodies that are within 4.8 km (3.0 mi) of existing breeding habitat, and that contain surface water for at least 3 consecutive months between September and April on average over various precipitation year-types.

Activities that we believe could potentially result in a violation of section 9 of the Act include, but are not limited to, the following:

(1) Unauthorized possession, collecting, trapping, capturing, killing, harassing, sale, delivery, or movement, including intrastate, interstate, and foreign commerce, or harming, or attempting any of these actions, of California tiger salamanders. Research activities where salamanders are trapped or captured will require a permit under section 10(a)(1)(A) of the Act;

(2) Any activity not carried out pursuant to the proposed special rule in ''§ 17.43 Special rules—amphibians'' that results in destruction or significant alteration of habitat of the Central California tiger salamander, which actually kills or injures an individual of the species, including, but not limited to, the discharge of fill material, or the withdrawal of water to the point at which habitat becomes unsuitable for the species.

(3) Discharges or dumping of toxic chemicals, silt, or other pollutants into, or other alteration of, the quality of waters supporting California tiger salamanders that results in death or injury of the species or that results in degradation of their occupied habitat which actually kills or injures an individual of the species;

(4) Release of exotic species (including, but not limited to, bullfrogs, tiger salamanders, mosquitofish, bass, sunfish, bullhead, catfish, crayfish) into Central California tiger salamander breeding habitat *which results in actual death or injury to the species;*

(5) Destruction or alteration of uplands associated with seasonal pools used by Central California tiger salamanders during estivation and dispersal, or modification of migration routes such that migration and dispersal are reduced or precluded and actual death or injury to the species results; and

(6) Activities (*e.g.*, habitat conversion, excessive livestock grazing, road and trail construction, recreation, development, and unauthorized application of herbicides and pesticides in violation of label restrictions) that directly or indirectly result in the death or injury of larvae, sub-adult, or adult Central California tiger salamanders, or modify Central California tiger salamander habitat and significantly affect their essential behavioral patterns including breeding, foraging, sheltering, or other life functions, causing actual death or injury to the species. Otherwise lawful activities that incidentally take Central California tiger salamanders, but have no Federal nexus, will require a permit under section 10(a)(1)(B) of the Act.

Questions regarding whether specific activities would constitute a violation of section 9 should be directed to the Field Supervisor of the Sacramento Fish and Wildlife Office (*see* **ADDRESSES** section).

Special Rule

Section 4(d) of the Act provides authority for us to promulgate special rules for threatened species that would relax specific prohibitions against taking. As a means to promote conservation efforts of the Central California tiger salamander, we are proposing a special rule under section 4(d) of the Act. In the case of a special rule, the general regulations applying most section 9 prohibitions to threatened species do not apply to that species, and the special rule contains the prohibitions necessary and appropriate to conserve that species. Under the rule, take of the threatened Central California tiger salamander caused by existing routine ranching activities on private or Tribal lands that don't have a Federal nexus would be exempt from section 9 of the Act. We believe that this special rule will encourage landowners and ranchers to continue their livestock-related practices that are not only important for livestock operations, but also provide habitat for the Central California tiger salamander. Livestock use on Federal lands will be addressed through the section 7 process.

Such regulations generally are issued and published as special rules in the **Federal Register** along with, or following, the listing of a species. In this case, we have chosen to concurrently publish this proposed special rule along with our proposal to list the Central California tiger salamander as threatened. We are proposing this special rule under the authority of section 4(d) of the Act containing the actions and prohibitions necessary to provide for the conservation of the Central California tiger salamander. The prohibitions we propose do not include the take of Central California tiger salamander during existing routine ranching practices, which are already listed as endangered. If this proposed special rule is finalized, the general regulations at 50 CFR 17.31 would not apply to the Central California tiger salamander where it is designated as threatened. Our rationale for a proposed special rule follows.

The proposed rule to list the Central California tiger salamander as a threatened species identifies the take of the species in upland and aquatic habitats as one of many possible reasons for the decline of the animal. The proposed listing describes the potential loss of Central California tiger salamanders to activities routinely occurring on private and Tribal lands. The specific focus of this proposed special rule is routine activities occurring on private and Tribal lands currently in or that may become subject to ranching practices, such as livestock grazing, rodent control, stock pond management, and noxious weed control.

In areas where seasonal water bodies (*e.g.*, vernal pools) no longer exist due to landscape changes or alteration of local hydrologic conditions, the Central California tiger salamander utilizes manmade water supplies such as stock ponds for breeding (Stebbins 1985; Zeiner *et al.* 1988; Shaffer *et al.* 1993). The creation and maintenance of these ponds provides not only an alternate breeding site for Central California tiger salamanders, in the absence of naturally occurring sites, but also provides additional breeding habitat as well. Routine management practices on manmade water supplies such as stock ponds must be performed in order to protect water supplies and protect the integrity of the water storage system. Management typically includes periodic dredging, dam and levee repair, the introduction of fish species to control aquatic vegetation and pests, and the chemical control of aquatic vegetation.

The Central California tiger salamander uses burrows constructed by small mammals as upland habitat during the non-breeding season (Loredo *et al.* 1996; Trenham 1998a). The California ground squirrel is a very common resident small mammal found in nearly all regions of California, excluding the Basin Ranges, and the Mojave and Colorado Desert regions. Its range overlaps significantly with the Central California tiger salamander. The California ground squirrel is considered a pest over large agricultural areas and frequently is subject to some form of population control.

Justification

Our analysis indicates that this special rule will affect approximately 222,162 ha (548,972 ac) or 49 percent of the range of the Central California tiger salamander. This special rule will apply to land primarily used for livestock grazing. Discussions with Dr. Peter Trenham and Dr. Brad Shaffer, both with the University of California, and Dr. Gary Fellers of the U.S. Geological Survey, lead us to believe that livestock grazing, in many cases, has positive, or at least neutral, effects on the Central California tiger salamander. Vegetation height and density are likely habitat factors affecting the suitability of an area for California ground squirrels. The presence of California ground squirrels and their burrows provide upland habitat for the Central California tiger salamander. Two beneficial effects to Central California tiger salamanders that would occur as a result of exempting livestock grazing in this special rule: The maintenance of open rangelands that are utilized by the salamander, and the construction and maintenance of stockponds that are used for breeding by the species.

California ground squirrels typically construct burrows that range in length from 1.5 to 9.1 m (5 to 30 ft) and range in depth below the surface from 0.6 to 1.2 m (2 to 4 ft) (University of California 2002). Central California tiger salamanders generally spend much of their lives within the first 0.9 m (3 ft) of the burrow (Loredo and Van Vuren 1996). Both occupied and unoccupied burrows are utilized as upland habitat (Loredo *et al.* 1996). Cattle and sheep, the two most common domestic grazing animals in California, have coexisted with California ground squirrels and Central California tiger salamanders since the arrival of early Spaniard explorers to California in the 16th century. It has not been demonstrated in the scientific literature, nor do we expect, that continued moderate intensity livestock grazing will destroy rodent burrows to such an extent that Central California tiger salamanders cannot use them as upland habitat. Additionally, small mammal burrows collapse naturally within 18 months if not maintained (Loredo *et al.* 1996), so

we expect that Central California tiger salamanders are forced naturally to move within or between burrows as they decay and collapse.

Control of vegetation by grazing livestock may encourage California ground squirrels to colonize areas they typically would not colonize due to the height and density of the vegetation. California ground squirrels are active during daylight hours and are preyed upon by diurnal raptors (birds of prey) such as red-tailed hawks (*Buteo jamaicensis*), and by larger predatory mammals such as coyotes (*Canis latrans*) and bobcats (*Lynx rufus*). Establishing home ranges in areas where vegetation is controlled by grazing livestock provides an advantage to California ground squirrels in being able to detect and avoid predation by their natural predators. Also, less vegetation may facilitate the movement of Central California tiger salamanders from upland areas to breeding ponds. Lack of vegetation is not anticipated to increase the risk of Central California tiger salamanders to predators as they typically move during hours of darkness, and most generally, during periods of rainfall. Nocturnal predators such as owls, skunks (*Mephitis* sp.), and racoons (*Procyon lotor*) rely more on their olfactory and auditory senses to locate prey than their vision. Although the height of the surrounding vegetation may afford a slight advantage to Central California tiger salamanders in avoiding predators, we do not anticipate that vegetation height plays a significant role in preventing depredation of Central California tiger salamanders by nocturnal predators.

Central California tiger salamanders may be subject to take during routine control of California ground squirrel populations on private lands. The California ground squirrel can, in moderate to high-densities, significantly deplete forage for grazing livestock, thereby reducing the carrying capacity on rangeland as well as irrigated pasture land (Marsh 1994). Grinnell and Dixon (1918) calculated that 200 ground squirrels could consume as much forage as a 454 kilogram (kg) (1,000 pounds (lbs)) steer during the spring months (Marsh 1998). Most commonly, routine control of California ground squirrels and other burrowing rodents includes shooting individual squirrels, baiting squirrel burrows or colonies with poisonous grains, fumigating burrows with toxic or suffocating gases, and discing or blading over burrow openings to destroy burrow complexes and fill openings.

Shooting individual squirrels, while potentially harmful to other species through secondary lead poisoning, is not expected to have adverse effects on Central California tiger salamanders. To be effective, a population must be kept under constant shooting pressure which is time consuming and not cost effective over the long-term. Discing and/or blading burrow complexes to destroy burrows and fill burrow openings may result in take of Central California tiger salamanders. Although the extent of this practice has not been documented, conversations with landowners lead us to believe this activity generally does not occur over widespread areas on any given parcel of land. Generally, this type of activity is limited to areas in or near ranch buildings, and in areas where livestock tend to be concentrated (*e.g.*, corrals and watering areas). Poisonous grains such as Chlorophacinone® and toxic and suffocating gases (*e.g.*, Phostoxin®) are regulated by the EPA, CDPR, and other county and local ordinances. Toxic and suffocating gases also may result in high levels of salamander mortality. In areas where federally listed species are known to occur, regulations on the use of toxicants to control California ground squirrels are more restrictive, and these restrictions should provide an ''umbrella'' protection for Central California tiger salamanders from take associated with routine ground squirrel control. In Counties where more stringent guidelines are not in place to protect listed species, we will continue to work with agencies to develop use guidelines for these products and activities.

California's annual precipitation ranges from less than 20 cm (8 in) in the San Joaquin Valley to more than 127 cm (50 in) along the northern coast range, western slope of the Sierra Nevada mountains, and parts of the Cascade Range (National Climatic Data Center 2003). Summers are dry with little or no rainfall, and abnormally dry winters can be disastrous on both summer water supplies and the quality of feeding ranges for domestic livestock. In some areas of California, spring/summer range usually does not support more than one cow-calf unit per 4 to 8 ha (10 to 20 ac) of range, with each cow being able to consume up to 57 liters (15 gallons) of water per day per 454 kg (1,000 lbs) of body weight (Ohlenbusch *et al.* 1995). Considering the limited availability of naturally occurring water across California's rangeland, routine management of stock ponds is critical to the economic success of ranching operations. During heavy winter rain events, stock pond dams and levees may be subject to overflows that cause severe erosion (head-cutting) of the dam faces and containment levees. Without immediate repair, critical summer water supplies will be lost. Pond vegetation is typically controlled by grazing animals using the water supply. However, at times the vegetation must be controlled through mechanical means or herbicide applications to prevent excess loss of water supply through evapotranspiration, and to prevent aquatic vegetation from completely dominating the pond. In some ponds, fish are introduced to help control vegetation and insects. However, this practice is limited to year-round ponds which are typically not suitable habitat for Central California tiger salamander reproduction.

We propose to include in this rule an exemption for incidental take of Central California tiger salamanders during routine ranching activities by non-Federal entities on private and Tribal lands for the following activities: (1) Livestock grazing according to normally acceptable and established levels of intensity in terms of the number of head of livestock per acre of rangeland; (2) control of ground-burrowing rodents using poisonous grain according to the labeled directions and local, State and Federal regulations and guidelines. The use of toxic or suffocating gases is not exempt from the prohibitions due to its non-target specific mode of action; (3) control and management of burrow complexes using discing and grading to destroy burrows and fill openings is exempt. This exemption does not apply to large-scale discing or grading of rangeland (more than 4 ha (10 ac)) within any one-quarter section of a single township and range for burrow control and management; (4) routine management and maintenance of stock ponds and berms to maintain livestock water supplies at levels present at the time of the listing of the Central California tiger salamander. This exemption does not include the introduction of species into the stock pond that may prey on Central California tiger salamander adult, larvae, or eggs; or the introduction of chemicals into the stock pond during the general breeding season of the Central California tiger salamander that would result in the take of Central California tiger salamander adults, larvae, or eggs, or result in decreased reproductive success; and (5) control and management of noxious weeds.

Provisions of the Proposed Special Rule

We propose to exempt existing routine ranching practices from the prohibitions on take (*see* 50 CFR 17.31) for the Central California tiger

salamander. The finalization of this special rule is contingent upon a final listing of the Central California tiger salamander. Exempted activities include existing routine ranching practices as outlined above by non-Federal entities on existing rangeland (as defined by U.S. Department of Agriculture, National Agricultural Statistics Service 1997 Census of Agriculture—Appendix (1)) except for the Sonoma County DPS and Santa Barbara County DPS of the California tiger salamander, which are already listed as endangered.

Take Prohibitions

We propose that the prohibitions under section 9 of the Act that apply to threatened species continue to apply all California tiger salamander populations, to the same extent that they apply to other threatened species under our general regulations at 50 CFR 17.31.

Effects of the Special Rule on Future Section 7 Consultations

This special rule does not change the obligation of Federal agencies to consult with us under section 7 of the Act concerning actions they authorize, fund, or carry out that may affect listed species, including the California tiger salamander.

Section 10(a)(1)(B) authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities, such as agriculture, surface mining, and urban development. Incidental take permits must be supported by an HCP that identifies conservation measures that the permittee agrees to implement to conserve the species, usually on the permittee's lands. Such conservation measures may, for example, minimize the reduction in the number of California ground squirrels whose burrows are used by estivating California tiger salamanders. These and other techniques to avoid take of California tiger salamanders or protect the species can be examined in the development of an HCP, candidate conservation agreement with assurances (while unlisted), or safe harbor agreement. A key element in our review of each of these conservation strategies is a determination of the plan's effect upon the long-term conservation of the species. We would approve an HCP, and issue a section 10(a)(1)(B) permit, as appropriate, if the plan would minimize and mitigate the impacts of the take to the maximum extent practicable and would not appreciably reduce the likelihood of the survival and recovery of that species in the wild.

We also are exploring other opportunities to permit conservation activities for the California tiger salamander. In particular, we encourage the public to comment on the desirability of promulgating a special rule under section 4(d) of the Act that would exempt from the section 9 take prohibition activities associated with conservation plans for the California tiger salamander. Eligible conservation plans would need to promote recovery and be approved by the Service. Activities potentially addressed under such a plan, and which would be exempt from the section 9 take provisions, could include, but are not limited to, construction of new breeding and upland habitats, fencing, and removal of bullfrogs or other exotic animals.

Reclassification of Santa Barbara County Population and Sonoma County Population

As noted above, we published a final determination on January 19, 2000, listing the Santa Barbara County tiger salamander as endangered (65 FR 3095). We hereby incorporate by reference in this document the provisions of that final determination. We determined that, based on geographic isolation, the lack of evidence of gene flow with other populations, and marked genetic differentiation, the Santa Barbara County population of California tiger salamanders meets the discreteness and significance criteria in our Policy Regarding the Recognition of Distinct Vertebrate Population Segments and qualifies as a DPS. In making this determination, we assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the Santa Barbara County population of California tiger salamanders. Like the California tiger salamander, the Santa Barbara population is restricted to breeding ponds threatened by agricultural conversion, fragmentation, and development. Ponds and upland habitats are being lost in all four regions of the county in which the species occurs. On the other hand, the Santa Barbara salamander occurs in a significant part of its historic range. There are 14 known breeding sites all located on privately owned land, and no conservation agreements or easements were in place as of the data of the final listing determination.

Also as noted above, on March 19, 2003, we published a final determination listing the Sonoma County tiger salamander as endangered (68 FR 13497). We incorporate by reference here the provisions of that determination. We determined that the population segment meets both the discreteness and significance criteria of our DPS policy and qualifies for listing. In making this determination, we carefully assessed the best scientific and commercial information available at that time regarding the past, present, and future threats faced by the Sonoma County California tiger salamander. We found that the DPS faces continuing habitat destruction, degradation, and fragmentation. We were able to identify only eight known breeding sites in Sonoma County. However, we observed: ''We note that the petition and subsequent emergency listing of this population has led to increased interest in this population by a variety of parties, and thus to an acceleration of the rate at which new information is becoming available. We expect this trend to continue subsequent to this final listing determination'' (68 FR 13502).

The analysis of threats for the Santa Barbara and Sonoma populations is virtually identical to that for the Central California population which we are proposing for threatened status. The research supporting the final Santa Barbara determination, the final Sonoma determination and this proposed rule is the same. In both cases, habitat loss is the apparent key threat. The remaining threats are precisely the same. Obviously there are site-specific distinctions which may be of significance. Given this identity of threat, it may be that the populations should have the same status. Such a determination may turn on a number of factors. For example, is the rate of habitat conversion in Santa Barbara County and Sonoma County more or less that of the 23-county area in which the Central California tiger salamander population is found? Is the habitat remaining in the Central Valley equivalent to that remaining in Santa Barbara County or Sonoma County? Is the tiger salamander population more or less imperiled in Santa Barbara and Sonoma Counties given that Santa Barbara's recent annual growth rate has been about 1 percent, Sonoma's has been under 1 percent, and in the counties in the range of the Central California tiger salamander, growth has averaged in excess of 1 percent (California Department of Finance 2003)?

In the final rule to list the Sonoma County population, we announced that: ''As a part of [this] rulemaking we intend to review all then-current information regarding both the Sonoma County and Santa Barbara County populations, including whether they constitute valid distinct population segments, and render a final

determination on the California tiger salamander accordingly'' (68 FR 13502).

Pursuant to that announcement and given the potential issues surrounding the correct status for the Sonoma and Santa Barbara populations, we now propose the following:

(1) That the Sonoma County DPS of the California tiger salamander be reclassified from endangered to threatened.

(2) That the Santa Barbara County DPS of the California tiger salamander be reclassified from endangered to threatened.

(3) That the proposed special rule under section 4(d) of the ESA be extended to the DPSs in Santa Barbara and Sonoma Counties, as well as to the Central California DPS.

The basis for proposing that the special rule be extended to Santa Barbara and Sonoma Counties is that our analysis in those areas, like that in the range of the Central California tiger salamander, shows that grazing generally is compatible with the continued use of rangelands by the California tiger salamander as long as intensive burrowing rodent control programs are not implemented on such areas and grazing is not excessive. Indeed, in Santa Barbara County, the only remaining sites with large amounts of suitable salamander habitat (eight ponds at five sites) currently are being grazed. These rangelands are the only undeveloped habitat in the area and thus provide the only chance for salamanders to breed successfully. Additionally, in all areas, to the extent that conversion of rangelands to more intensive agricultural activity is postponed, conservation of the tiger salamander will be enhanced.

If this proposal is finalized without change, all three DPSs will have the same status. We are not, however, proposing at this time to eliminate the DPSs in favor of a single listed population. We will take public comment on that issue.

Public Comments Solicited

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, we are soliciting comments from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We are particularly seeking comments concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the California tiger salamander;

(2) The location of any additional populations or breeding sites of this species, and the reasons why any habitat should or should not be determined to be critical habitat pursuant to section 4 of the Act;

(3) Additional information concerning the range, distribution, and population sizes of this species;

(4) Current or planned activities or land use practices in the subject area and their possible impacts on this animal;

(5) Additional information pertaining to the promulgation of a special rule to exempt from section 9 take prohibitions existing routine ranching practices located on private and Tribal lands where the Central DPS occurs; and

(6) Additional information pertaining to the Central, Sonoma County, and Santa Barbara County populations, including data on their validity as DPSs, or whether other designations, such as a single rangewide designation or combinations of designations including additional DPSs, is more appropriate.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods: (1) You may submit written comments and information to the Field Supervisor at the address provided in the **ADDRESSES** section above; (2) You also may comment via the electronic mail (e-mail) to *catiger@R1.fws.gov.* Please submit e-mail comments as an ASCII file avoiding the use of special characters and any form of encryption. Please also include ''Attn: [1018–AI68]'' and your name and address in your e-mail message. If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our Sacramento Fish and Wildlife Office at telephone number 916/414–6600. Please note the internet address CATIGER@R1.fws.gov will be terminated at the close of the comment period; and (3) You may hand-deliver comments to our Sacramento Fish and Wildlife Office (*see* **ADDRESSES** section above).

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Commenters may request that we withhold their home addresses from the rulemaking record, which we will honor to the extent allowed by law. There also may be circumstances in which we would withhold from the rulemaking record a commenter's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings must be made within 45 days of the publication of a proposed rule (section 4(b)(5)(E) of the Act). Given the high likelihood of requests, and the need to proceed as expeditiously as possible, the Service will hold public hearings on the dates and locations described in the **DATES** and **ADDRESSES** sections above.

The purpose of the public hearings announced here is to take oral comments on the proposed listing. Oral comments will be transcribed and will be given equal weight to comments submitted by other means. However, we encourage those commenting orally to submit written versions of their comments as well.

Persons needing reasonable accommodations in order to attend and participate in a public hearing should contact the Field Supervisor of the Sacramento Fish and Wildlife Office (*see* **ADDRESSES** section) as soon as possible. In order to allow sufficient time to process requests, please call no later than 1 week before the hearing.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we will solicit the expert opinions of at least three appropriate and independent specialists regarding the proposed rule. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed listing and special rule.

Executive Order 12866

Executive Order 12866 requires agencies to write regulations that are easy to understand. We invite your comments on how to make this proposal

easier to understand, including answers to questions such as the following—(1) Is the discussion in the ''Supplementary Information'' section of the preamble helpful in understanding the proposal? (2) Does the proposal contain technical language or jargon that interferes with its clarity? (3) Does the format of the proposal (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? What else could we do to make the proposal easier to understand?

Required Determinations

Paperwork Reduction Act

This rule does not contain any information collection requirements for which Office of Management and Budget (OMB) approval under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), is required. Any information collection related to the rule pertaining to permits for endangered and threatened species has OMB approval and is assigned clearance number 1018–0094. This rule does not alter that information collection requirement. For additional information concerning permit and associated requirements for threatened species, *see* 50 CFR 17.32.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This rule is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

National Environmental Policy Act

We have determined that an Environmental Assessment and Environmental Impact Statement, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951) and 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We will discuss this proposal with potentially affected Tribes before we make a final listing determination.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Sacramento Fish and Wildlife Office (*see* **ADDRESSES**).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

For the reasons given in the preamble, we hereby propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.11(h) by revising the entry for ''Salamander, California tiger'' under AMPHIBIANS in the List of Endangered and Threatened Wildlife as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
AMPHIBIAN							
*	*	*	*	*	*		*
Salamander, California tiger.	*Ambystoma californiense*.	U.S.A. (CA)	U.S.A. (CA—Central California except for Sonoma County and Santa Barbara County).	T		NA	§ 17.43(c)
Do	.....do	.....do	U.S.A. (CA—Santa Barbara County).	T	677E, 702	NA	§ 17.43(c)
Do	.....do	.....do	U.S.A. (CA—Sonoma County).	T	729E, 734	NA	§ 17.43(c)
*	*	*	*	*	*		*

3. Amend § 17.43 by adding a new paragraph (c) to read as follows:

§ 17. 43 Special rules—amphibians.

* * * * *

(c) California tiger salamander (*Abystoma californiense*).

(1) *Which populations of the California tiger salamander is covered by this special rule?* All three distinct population segments (DPSs) of the California tiger salamander (*Ambystoma californiense*) listed in § 17.11 (the Central California DPS, the Santa Barbara County DPS, and the Sonoma County DPS).

(2) *What activities are prohibited?* Except as noted in paragraph (c)(3) of this section, all prohibitions of § 17.31 will apply to all three population segments of the California tiger salamander.

(3) *What activities are allowed on private or Tribal land?* Incidental take of the California tiger salamander will not be a violation of section 9 of the Act, if the incidental take results from existing routine ranching activities located on private or Tribal lands. ''Existing'' is defined as any date on or before the effective date of the final rule to list the Central California tiger salamander. Existing routine ranching activities

include the following: (i) Livestock grazing according to normally acceptable and established levels of intensity in terms of the number of head of livestock per acre of rangeland; (ii) control of ground-burrowing rodents using poisonous grain according to the labeled directions and local, State, and Federal regulations and guidelines (The use of toxic or suffocating gases is not exempt from the prohibitions due to its non-target specific mode of action.); (iii) control and management of burrow complexes using discing and grading to destroy burrows and fill openings is exempt (This exemption does not apply to large-scale discing or grading of rangeland (more than 4 ha (10 ac)) within any one-quarter section of a single township and range for burrow control and management.); (iv) routine management and maintenance of stock ponds and berms to maintain livestock water supplies at levels present at the time of the listing of the Central California tiger salamander (This exemption does not include the introduction of species into the stock pond that may prey on California tiger salamander adult, larvae, or eggs; or the introduction of chemicals into the stock pond during the general breeding season of the California tiger salamander that would result in the take of California tiger salamander adults, larvae, or eggs, or result in decreased reproductive success.); and (v) control and management of noxious weeds.

Dated: May 15, 2003.

Matt Hogan,

Acting Director, Fish and Wildlife Service.

[FR Doc. 03–12695 Filed 5–22–03; 8:45 am]

BILLING CODE 4310–55–P

Federal Register

Friday,
May 23, 2003

Part V

Department of Commerce

National Technical Assistance, Training, Research, and Evaluation: University Research Parks, Technology-Led Economic Development Strategies, and Information Dissemination—Request for Proposals; Notices

DEPARTMENT OF COMMERCE

Economic Development Administration

[Docket No. 991215339–3117–07]

RIN 0610–ZA14

National Technical Assistance, Training, Research, and Evaluation: University Research Parks, Technology-Led Economic Development Strategies, and Information Dissemination—Request for Proposals

AGENCY: Economic Development Administration (EDA), Department of Commerce (DoC).

ACTION: Request for Grant Proposals (RFP) upon availability of funds.

SUMMARY: The role of government is to create conditions in which jobs are created, and in which people can find work. EDA is soliciting proposals (1) to measure the economic impact of university research parks in the United States, (2) to provide technical assistance to practitioners to accelerate transition to technology-led economic development strategies, and (3) to disseminate information to economic development practitioners serving distressed communities that will help our partners across the nation (States, regions and communities) create wealth and minimize poverty by promoting a favorable business environment to attract private capital investment and high skill, high wage jobs through world-class capacity building, infrastructure, business assistance, research grants and strategic initiatives. EDA will fulfill this mission by promoting progressive domestic business policies and growth, and by assisting States, communities, and individuals to achieve their highest economic potential.

DATES: Prospective applicants are advised that EDA will conduct a pre-proposal conference on June 12, 2003, at 2 p.m. e.d.t. in the Department of Commerce, Herbert C. Hoover Building, 1401 Constitution Avenue, NW., Washington, DC 20230, Room 1412, at which time questions regarding these projects can be answered. Prospective applicants unable to attend this pre-proposal conference may participate by teleconference. Teleconference information may be obtained by calling (202) 482–4085 between 8:30 a.m.–4:30 p.m. e.d.t. on June 11, 2003.

Proposals for funding under this program will be accepted through June 30, 2003, at either of the addresses provided below. Proposals received after 4 p.m. e.d.t., on June 30, 2003, will not be considered for funding.

By July 15, 2003, EDA will notify proposers whether they will be given further funding consideration. Each successful proponent will be invited to submit an Application for Federal Assistance, OMB Control Number 0610–0094. Projects will be funded no later than September 30, 2003.

ADDRESSES:

1. Proposals may be e-mailed to *jmcnamee@eda.doc.gov*, or
2. Proposals may be hand-delivered to: John J. McNamee, Director, Research and National Technical Assistance Division, Economic Development Administration, Room 1874, U.S. Department of Commerce, 1401 Constitution Avenue, NW., Washington, DC 20230, or
3. Proposals may be mailed to: John J. McNamee, Director, Research and National Technical Assistance Division, Economic Development Administration, Room 7019, U.S. Department of Commerce, 1401 Constitution Avenue, NW., Washington, DC 20230.

Proponents are encouraged to submit proposals by e-mail. Proponents are advised that, due to mail security measures, receipt of U.S.P.S. mail may be delayed for up to two weeks. EDA will not accept proposals submitted by FAX.

FOR FURTHER INFORMATION CONTACT: John J. McNamee (202) 482–4085; e-mail: *jmcnamee@eda.doc.gov*.

SUPPLEMENTARY INFORMATION: In a previous notice published on April 9, 2003 (68 FR 17520), EDA stated that it would publish a separate announcement for certain National Technical Assistance, Research, and Evaluation projects. Pursuant to that notice, EDA publishes program requirements and solicits applications for those programs.

I. Funding Availability

Funding appropriated under Public Law 108–07 is available for the National Technical Assistance, Training, Research, and Evaluation program authorized by the Public Works and Economic Development Act of 1965, as amended (Pub. L. 89–136, 42 U.S.C. 3121, *et seq.*) and as further amended by the Economic Development Administration Reform Act of 1998 (Pub. L. 105–393). Funds in the amount of $1,590,093 have been appropriated for these programs for FY 2003 and shall remain available until expended. Awards will be in the form of grants or cooperative agreements. In funding cooperative agreements, a common example of substantial involvement is collaboration between EDA program staff and the recipient of an information dissemination award to select topics and presenters for satellite telecasts and regional policy forums, or reviewing a research project's methodology at critical stages as well as reviewing the draft written report. The average funding level in FY 2002 for National Technical Assistance investments was $134,000, and for Research and Evaluation investments was $105,000. EDA anticipates using only a portion of the available funding for the three RFPs described below.

II. Authority

The authority for the programs listed above is the Public Works and Economic Development Act of 1965, as amended (Pub. L. 89–136, 42 U.S.C. 3121 *et seq.*), and as further amended by Pub.L. 105–393.

III. Eligibility

Eligible recipients of EDA financial assistance are defined at 13 CFR 300.2 and eligible applicants are specified at 13 CFR 301.1. An ''area'' is an eligible recipient and is defined at 13 CFR 301.2. One category of the areas eligible for financial assistance are those areas meeting the ''special needs'' criteria. The special needs criteria are published in part XV of the **Federal Register** notice of April 9, 2003 (68 FR 17524).

IV. Proposal Format

Each proposal submitted must include:

1. A description of how the researcher(s) intend(s) to carry out the scope of work (not to exceed 10 pages in length);
2. A proposed budget and accompanying explanation;
3. Resumes/qualifications of key staff (not to exceed two pages per individual, with an additional two pages allowed for a single summary description of all organizations/consultants named in the proposal); and
4. A proposed schedule for completion of the project.

V. Evaluation and Selection Process

To apply for an award under this request, an eligible recipient must submit a proposal to EDA during the specified timeframe, at one of the addresses specified above. Proposals that do not meet all items required or that exceed the page limitations of section IV of this RFP, will be considered nonresponsive, and will not be considered. Proposals that meet all the requirements will be evaluated by a review panel comprised of at least three members all of whom will be full-time Federal employees. The panel first

evaluates the proposals using the general evaluation criteria set forth in 13 CFR 304.1 and 304.2 and the supplemental evaluation criteria set out in part VI of the previous notice published on April 9, 2003 (68 FR 17520). Proposals that meet these threshold criteria will then be evaluated by the panel using the following criteria of approximate equal weight:

(1) The quality of a proposal's response to the Scope of Work and other requirements described in section VI below;

(2) The ability of the prospective applicant to successfully carry out the proposed activities; and

(3) Cost to the Federal government.

For the information dissemination proposal, the panel will also apply the following two criteria:

(1) How the proposal demonstrates partnership, particularly at the national level, between various economic development organizations, and

(2) The amount of the non-Federal share.

The Assistant Secretary for Economic Development is the Selecting Official. He may not make any selection, or he may substitute one of the lower rated proposals, if he determines that it better meets the overall objectives of the Public Works and Economic Development Act of 1965, as amended (Pub. L. 89–136, 42 U.S.C. 3121 *et seq.*), and as further amended by Pub. L. 105–393.

If a proposal is selected, EDA will provide the proponent with an Application for Federal Assistance (OMB Control Number 0610–0094).

VI. Areas of Special Interest

EDA is inviting proposals for National Technical Assistance, Training, Research, and Evaluation as described below.

A. Program: Research and Evaluation—(Pub. L. 89–136, as Amended by Pub. L. 105–393, 42 U.S.C. 3147)

(Catalog of Federal Domestic Assistance: 11.312 Research and Evaluation)

I: Measuring the Economic Impact of University Research Parks in the United States

EDA invites proposals to examine the impact of university research parks in creating jobs and growing regional economies.

Background: University research parks aim to create clusters of knowledge-based companies in close proximity to centers of research excellence. They are fast becoming engines of economic development in their communities. An increasing amount of applied research and development work is taking place at universities, many of which cultivate an environment of innovation and entrepreneurship that develops and promotes commercial partnerships, creating higher skill and higher wage jobs. Commercialization efforts take time and require patience. For those who fund research parks, determining the extent and precise nature of their contribution to economic development is important. Research parks must demonstrate the benefits of what they are doing.

Scope of Work: The successful applicant will:

1. Demonstrate familiarity with existing research on U.S. university research parks and any gaps that remain in the research;

2. Survey university research parks to identify diverse settings, including those that contribute to distressed area economic development;

3. Develop a methodology to identify and measure the impact of university research parks, including such measures as diversification of the regional economy, the numbers and kinds of jobs created, the private sector investments leveraged, the length of time to achieve significant impact, and how they contribute to the economic health of distressed areas;

4. Identify effective university research parks and analyze common and unique areas where they have contributed to local economic development;

5. Select a number of case studies for detailed review and analysis;

6. Provide 500 hard copies and an electronic version of a final report setting forth the evaluation methodology, results, and related recommendations; and

7. Conduct up to seven presentations of the study findings, as described in section VII.B.

Timing: This project must be completed and the final report submitted within one year of approval of the project.

II: Providing Technical Assistance to Practitioners To Accelerate Transition to Technology-Led Economic Development Strategies

EDA invites proposals to prepare a set of guides to assist economic development practitioners in their efforts to accelerate regional transition to technology-led economies.

Background: ''There are no low-tech industries, only low-tech firms.'' (Professor Michael E. Porter, Institute for Strategy and Competitiveness, Harvard Business School). Regardless of the type of local and regional clusters, innovation through higher technological advancements results in increased productivity which leads to increased wealth. Economies that capitalize on innovation will prosper.

States and localities have been involved in technology-led economic development for a long time. Much of what has been learned from successful efforts remains largely word of mouth. Increasing communication and cooperation among practitioners will result in greater effectiveness and maximum impact. Preparing a set of guides that captures what has been learned from successful efforts would increase communication and cooperation among practitioners and the private sector to determine rules of the trade, measures of effectiveness, and techniques for maximizing impact. More detailed and useful than simple reports on best practices, each guide would focus on a specific element of developing technology-led strategies to help transform local and regional economies. Innovation in all industries through the development, adoption, and creative application of technology contributes significantly to economic growth. At the same time, competitors across the globe have relatively equal access to new technologies. Regions and localities must adopt technology-led strategies to become and remain competitive globally. EDA's intent is to capture and share the expertise and experience that will help America's distressed communities develop a competitive edge globally.

Scope of Work: The successful applicant will:

1. Have an extensive knowledge of and experience in technology-led economic development;

2. Be familiar with the issues and the best approaches to building technology-led economies;

3. Identify a small number of key elements that are critical to building a technology-based economy;

4. Prepare a set of guides that focus on specific elements through which economic development practitioners in distressed areas can tap into the wealth of experience and expertise of other practitioners in building a technology-based economy;

5. Provide 500 hard copies and electronic versions of each guide; and

6. Conduct up to seven presentations about the results of the research, as described in section VII.B.

Timing: This project must be completed within one year of approval of the project.

B. Program: National Technical Assistance—(Pub. L. 89–136, as Amended by Pub. L. 105–393, 42 U.S.C. 3147)

(Catalog of Federal Domestic Assistance: 11.303 Economic Development Technical Assistance)

I: Information Dissemination to Practitioners Serving Distressed Areas

Background: As part of its ongoing mission to assist economically distressed areas, EDA supports the dissemination of information to economic development practitioners serving distressed communities. EDA is soliciting proposals to fund a project that will continue its mission of serving the economic development needs of distressed rural and urban areas, takes greater advantage of new technologies for information dissemination (including the Internet, videoconferencing, e-mail, *etc.*), and identifies and provides information, in new or emerging areas of economic development, needed by practitioners.

EDA anticipates funding a project that will include a variety of media, as set forth in the proposed scope of work below. Since it is unlikely that a single organization will have the capacity to implement all aspects of the scope of work, EDA encourages economic development organizations to partner with each other. Doing so would also increase the likelihood that an applicant team would reach a greater segment of the target audience. EDA's intent is to implement a coordinated and complementary information dissemination program that, through strategic linkages, reaches the maximum number of economic development practitioners.

Scope of Work: The successful applicant will:

1. Conduct four satellite economic development strategy telecasts targeted to practitioners nationwide. This includes selecting the topics, presenters or panelists, and case studies for each broadcast, subject to EDA's concurrence; arranging for the moderator and facilities to conduct each telecast; undertaking sufficient publicity that ensures the maximum audience is reached; ensuring that sufficient local download facilities are available; and building in a feedback mechanism that measures both the level of participation in and the effectiveness of the broadcasts. Each telecast must be recorded digitally so that it can be made available broadly, including on EDA's and other Web sites.

2. Conduct 20 regional economic development policy forums at various locations across the country. Each will be approximately two hours in length, and they will take place in distressed areas of the country that ordinarily are less served because of their locations away from major metropolitan areas. They will take place at times and locations agreed to by EDA. Conducting each forum will include selecting the topics and presenters or panelists, subject to EDA's concurrence; arranging for the facilities; undertaking sufficient publicity to ensure the maximum audience is reached; providing a written summary of key issues that emerge at each location; and building in a feedback mechanism that measures both the level of participation in and effectiveness of each forum.

3. Prepare and disseminate a monthly electronic newsletter with information targeted to a national audience of economic development practitioners. The newsletter must be in hypertext markup language (html), in an attractive and colorful format, but also be available as a plain text document for those who cannot access it in html. It will ordinarily be no more than two pages in length, cover three or four topics each month, and include summaries of critical information, subject to EDA's concurrence. Where appropriate, it will serve as a roadmap to other information resources through hot links that facilitate direct access to more in-depth information. It will be distributed at no cost to organizations and individuals working to improve the economic viability of distressed areas. The dissemination effort includes developing an inclusive e-mailing list, which will be made available to EDA. The e-mailing list may involve supplementing and/or combining existing lists that economic development organizations currently possess, to achieve maximum target audience penetration as quickly as possible.

4. Prepare a quarterly magazine of approximately 20–40 pages that will provide in-depth information to practitioners in four-color, high-quality format, on a range of timely topics consistent with EDA's mission, and subject to EDA's concurrence. It will cover subjects such as current administration policy, interviews with key decision-makers and practitioners, and present and analyze best practice case studies in economic development. EDA expects that this magazine will be mailed in hard copy to up to 4,000, depending on costs. In addition to the hard copy, an html counterpart will be made available for EDA's Web site.

5. EDA encourages the applicant to propose an innovative information dissemination effort that is likely to improve the quality, accessibility, and timeliness of critical information available to economic development practitioners. It must be consistent with EDA's mission of assistance to distressed communities that creates higher-skill, higher-wage jobs, and subject to EDA's concurrence.

Timing: All elements of the Scope of Work will take place between October 1, 2003, and September 30, 2004, but each has its own specific time line. The telecasts in Element (1) and the policy forums in Element (2) will take place at intervals during the year determined in conjunction with EDA. The electronic newsletter in Element (3) will be disseminated each month. The Element (5) time line should be consistent with the nature of the effort.

VII. Other Information and Requirements

EDA regulations at 13 CFR Chapter III are available on the EDA Web site *www.doc.gov/eda*. The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the **Federal Register** notice of October 1, 2001 (66 FR 49917), as amended by the **Federal Register** notice published on October 30, 2002 (67 FR 66109), are applicable to this solicitation and can be found on EDA's Web site *www.doc.gov/eda*. Certain Departmental and other requirements are noted below:

A. Projects are expected to be completed in a timely manner consistent with the nature of the project. The completion date for each project is specified in the RFP.

B. Two awards include a requirement that the successful applicant(s) conduct briefings and/or training workshops for individuals and organizations interested in the project results. The completion dates set forth above are only for completion of the project and submission of the written report. Briefings/workshops will take place no later than one year after submission of the final report. Locations and dates of the briefings/workshops are at EDA's sole discretion. Usually these consist of at least one briefing in Washington, DC, with the other briefings/workshops held in conjunction with one or more of EDA's regional conferences.

C. Ordinarily, the applicant is expected to provide a 50 percent non-Federal share of project costs. However, EDA may reduce or waive the required 50 percent matching share of the total project costs, provided the applicant demonstrates the project is not feasible without a reduction or waiver and the project merits a reduction or waiver.

D. Notwithstanding any other provision of law, no person is required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act (PRA) unless that collection of information displays a currently valid Office of Management and Budget (OMB) control number. This notice involves a collection of information requirement subject to the provisions of the PRA and has been approved by OMB under Control Number 0610–0094. The EDA application (ED–900A), which incorporates the SF–424, are the forms in the EDA application kit, approved under the aforementioned OMB control number.

E. If an application is selected for funding, EDA has no obligation to provide any additional future funding in connection with an award. Renewal of an award to increase funding or extend the period of performance is at the sole discretion of EDA.

F. EDA is committed to a policy of non-discrimination in the administration of all its programs.

G. EDA will notify unsuccessful proposers in writing and unsuccessful proposals will be maintained for not more than three years from the date of receipt.

H. The rulemaking requirements of 5 U.S.C. 553 are not applicable to this notice relating to public property, loans, grants, benefits or contracts (5 U.S.C. 553(a)(2)). Because notice and comment are not required under 5 U.S.C. 553, or any other law for this rule, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601) are not applicable. Thus, a Regulatory Flexibility Analysis is not required and has not been prepared for this rule.

I. It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

J. *See* EDA's Notice of Funding Availability for FY 2003 of April 9, 2003 (68 FR 17520), for additional information and requirements (available on the Internet at *http://www.doc.gov/eda*, under the heading ''Notice of Funding Availability'').

Dated: May 20, 2003.

David A. Sampson,

Assistant Secretary for Economic Development.

[FR Doc. 03–13025 Filed 5–22–03; 8:45 am]

BILLING CODE 3510–24–P

Federal Register

Friday,
May 23, 2003

Part VI

Department of Labor

Secretary's Order 3–2003; Update of Delegation of Authority and Assignment of Responsibility to the Chief Information Officer; Notice

DEPARTMENT OF LABOR

Office of the Secretary

Secretary's Order 3–2003; Update of Delegation of Authority and Assignment of Responsibility to the Chief Information Officer

1. Purpose

To update the delegation of authority and assignment of responsibilities for implementation of the Paperwork Reduction Act of 1995 (PRA) and the Clinger-Cohen Act of 1996 (also known as the Information Technology (IT) Management Reform Act of 1996) by: (1) Updating the Chief Information Officer's (CIO) and agencies' responsibilities to reflect new laws, regulations, and directives, including the Federal Information Security Management Act of 2002 (FISMA) and other provisions of the E-Government Act of 2002; (2) amending all references to the former Management Review Council (MRC) to reflect the new title of Management Review Board (MRB) as defined in Secretary's Order 5–2001; and (3) updating the Technical Review Board (TRB) membership.

2. Background

This Order replaces Secretary's Order 1–2000, which delegated authority and assigned responsibility for implementation of the PRA and the Clinger-Cohen Act.

The PRA of 1995, as well as its predecessor Act of 1980, was enacted to reduce paperwork and enhance the economy and efficiency between the government and the private sector by improving Federal information policy making and management. The Acts required agency heads to designate ''senior officials'' responsible for carrying out agency responsibilities.

Section 5125 of the Clinger-Cohen Act amended the PRA to (a) create the position of agency CIO and (b) assign all PRA duties previously assigned to agency ''senior officials'' to Federal agency CIOs. The Clinger-Cohen Act also requires the head of each executive agency, in fulfilling responsibilities under Section 3506(h) of the PRA [44 U.S.C. 3506(h)], to ''design and implement * * * a process for maximizing the value and assessing and managing the risks of the information technology acquisitions of the executive agency.'' Under the Clinger-Cohen Act, an agency's CIO must have information resources management (IRM) duties as his or her primary duty. Consistent with the foregoing statutory requirements, this Order establishes the position of CIO and outlines the CIO's responsibilities under the Clinger-Cohen Act and the PRA.

In October 1996, the Department established a Capital Planning and Investment Board (CPIB) as part of the Department's process under Clinger-Cohen. In April 1998, the Secretary established a Management Review Council (MRC) within the Department. In November 1998, the MRC voted to establish the TRB. The initial TRB Charter was developed and approved in March 1999 with final adoption on April 12, 1999. The current charter is attached to this Order. (See Attachment 1.) The MRC, TRB, and the process established by Secretary's Order 1–2000 replaced the CPIB. In 2001, the MRC became the MRB.

The E-Government Act of 2002, including FISMA, was enacted to, among other things:

- Promote use of the Internet, other information technologies, and interagency collaboration in providing E-Government services, to provide increased opportunities for citizen participation in Government;
- Improve the Government's ability to achieve agency missions and program performance goals;
- Reduce costs and burdens for businesses and other Government entities;
- Make the Federal Government more transparent and accountable; and
- Provide better access to Government information and services in a manner consistent with laws regarding protection of personal privacy, national security, records retention, access for persons with disabilities, and other relevant laws.

Signed into law by the President on December 17, 2002, the E-Government Act has expanded the Department's duties and responsibilities beyond those assigned by the Paperwork Reduction Act and the Clinger-Cohen Act.

This Secretary's Order updates the roles and responsibilities of the CIO and other agency heads at the Department of Labor to reflect the new responsibilities created by the E-Government Act. Additionally, this Secretary's Order reflects the CIO's responsibilities under the Department's Information Quality Guidelines, which are designed to implement Section 515 of H.R. 5658 (the Treasury and General Government Appropriations Act, 2001), as incorporated into the Consolidated Appropriations Act, 2001 (see Section 1(a)(3) of Pub. L. 106–554) and implementing Office of Management and Budget (OMB) guidelines. The Order also adopts changes made by Secretary's Order 5–2001 to establish the MRB for the Department, replacing the MRC. Finally, the membership of the TRB has been updated to reflect those changes that have occurred since its establishment.

3. Authority, References and Directives Affected

a. *Authority.* This Order is established pursuant to the Paperwork Reduction Act (PRA) [Sections 3505 and 3506; 44 U.S.C. 3505–3506]; the Clinger-Cohen Act [Sections 5122–5127; 40 U.S.C. 11312–17]; the E-Government Act of 2002 [Sections 101 (44 U.S.C. 3603, 3606), 202–204, 206–212, 214 (5 U.S.C. 3701–7, 41 U.S.C. 266a, 44 U.S.C. 3501 *note*); 301–3, 305 (15 U.S.C. 278g–3, 40 U.S.C. 11331, 44 U.S.C. 3505–6, 3541–3549)]; the Electronic Freedom of Information Act Amendments (E-FOIA) [Section 11; 5 U.S.C. 552(g)]; Consolidated Appropriations Act, 2001 [Pub. L. 106–554, Section 1(a) (incorporating Section 515 of H.R. 5658, the Treasury and General Government Appropriations Act]; OMB Circular A–130; 29 U.S.C. 551; 5 U.S.C. 301; Reorganization Plan Number 6 (1950).

b. *References.* Secretary's Order 2–2003 and Secretary's Order 5–2001.

c. *Directives Affected:*

(1) This Order does not affect the authorities and responsibilities assigned by any other Secretary's Order, unless otherwise expressly so provided in this or another Order.

(2) Secretary's Order 1–2000, which assigned responsibilities and delegated duties to the CIO under the PRA and Clinger-Cohen Act, is canceled.

(3) Except as provided in Paragraph 9, this Order does not affect Secretary's Order 4–76, which assigns procurement and contracting authority to the Assistant Secretary for Administration and Management.

(4) Except as provided in Paragraph 7, this Order does not affect Secretary's Orders 1–92, and 1–97, which establish responsibilities for implementation of the Chief Financial Officers Act of 1990.

(5) This Order amends paragraph 4(1) of Secretary's Order 5–2001 (establishing the MRB) to clarify MRB responsibilities with respect to Information Technology investment management. In addition, all references in Secretary's Order 5–2001 to ''Secretary's Order 1–2000'' are amended to refer to this Order.

(6) Except as provided in paragraph 14 of this Order, this Order does not affect Secretary's Order 4–2001, which establishes the responsibilities of the Assistant Secretary for Employment Standards.

(7) Except as provided in paragraph 15 of this Order, this Order does not affect the authorities or responsibilities

of the Office of Inspector General (OIG) under the Inspector General Act of 1978, as amended, or under Secretary's Order 2–90 (January 31, 1990).

(8) All references in Secretary's Order 2–2003 to ''Secretary's Order 1–2000'' are amended to refer to this Order.

4. The Chief Information Officer

As outlined above, Section 5125 of the Clinger-Cohen Act (40 U.S.C. 11315) established the position of Chief Information Officer. The DOL CIO reports directly to the Secretary and Deputy Secretary, has IRM duties as his or her primary duty and performs the responsibilities set forth in paragraphs 5 and 6 of this Order.

5. Delegation of Authorities and Assignment of Responsibilities

a. The CIO will have the following duties, which are assigned to the CIO by Section 3506(a) of the PRA [44 U.S.C. 3506(a)] and related OMB guidance:

(1) Ensure compliance by all DOL agencies with the prompt, efficient, and effective implementation of Information Resources Management responsibilities.

(2) Ensure compliance by all DOL agencies with the prompt, efficient, and effective reduction of information collection burdens on the public.

b. The CIO will have the following duties, which are assigned to the CIO by Sections 5125(b)–(c) of the Clinger-Cohen Act [40 U.S.C. 11315(b)–(c)] and related OMB guidance:

(1) Provide advice and other assistance to the Secretary of Labor and other senior management personnel of DOL to ensure that IT is acquired and information resources are managed effectively and efficiently.

(2) Develop, facilitate, and maintain the implementation of the enterprise architecture for DOL.

(3) Promote the effective and efficient design and operation of all major IRM processes for DOL, including improvements to work processes of the Department.

(4) Monitor and evaluate the performance of IT programs of DOL based on applicable performance measurements, and advise the Secretary of Labor and MRB regarding whether to continue, modify, or terminate a program or project.

(5) Annually, in consultation with DOL agencies and as part of the strategic planning and performance evaluation process, assess the requirements established for DOL personnel regarding knowledge and skill in IRM, develop plans for hiring and training aimed at meeting those requirements (consistent with the requirements of Section 209(b) of the E-Government Act—*see* Sections 5(c)(3) and 6(c)(7) of this Order), and report to the Secretary of Labor on the progress made in improving IRM capability.

c. The CIO will have the following duties, which are assigned to the CIO in accordance with the E-Government Act of 2002:

(1) Serve as a member of the executive branch Chief Information Officers Council, participate in its functions, and monitor the Department's implementation of information technology standards promulgated by the Secretary of Commerce.

(2) Serve as a representative to the Interagency Committee on Government Information established under Section 207(c) of the E-Government Act.

(3) Subject to the authority, direction, and control of the Secretary of Labor, and as outlined in Section 6(c)(7) of this Order, carry out all powers, functions, and duties of the Secretary with respect to implementation of the training requirements in Section 209(b) of the E-Government Act.

d. The CIO will perform any additional duties which are assigned to the CIO by applicable law, including OMB regulations and circulars.

6. Assignment of Additional Responsibilities to CIO

a. Subject to the Reservation of Authority in paragraph 19 of this Order, the CIO will have the following duties which are assigned by the PRA, Electronic Freedom of Information Act, and related legislation and OMB guidance to the Secretary and are hereby delegated to the CIO:

(1) Establish a process, sufficiently independent of DOL program agencies, to evaluate whether proposed collections of information should be approved under the PRA. The independent evaluation will:

(a) Consistent with Secretary's Order 3–2002 (Policy Planning Board) and other Administration or Department policies and procedures, review the need, function, plan, and burden of each information collection;

(b) Ensure that each information collection is inventoried, displays a control number, and discloses all necessary information, as described at 44 U.S.C. 3506(c)(1)(B); and

(c) Assess the information collection impact of proposed legislation affecting DOL.

(2) Coordinate with DOL agencies to ensure that proposed collections of information covered by Section 3506(c)(2)(A) of the PRA [44 U.S.C. 3506(c)(2)(A)] are published in the **Federal Register** in order to solicit comments from members of the public and affected agencies with regard to each collection, to:

(a) Evaluate whether the proposed collection of information is necessary and has practical utility;

(b) Evaluate the accuracy of the DOL program agency's burden estimate;

(c) Enhance the quality, utility, and clarity of the information collected; and

(d) Minimize the burden of the collection of information.

(3) Coordinate with DOL agencies to ensure that they provide notice and an opportunity to comment specifically on any collections of information contained within notices of proposed rule making published in the **Federal Register**.

(4) Certify and provide supporting documentation, for each collection of information submitted to OMB for review under 44 U.S.C. 3507, that the DOL program agency has fully complied with all PRA provisions, as described at 44 U.S.C. 3506(c)(3).

(5) Coordinate with DOL agencies to prepare and maintain the following, as required by the PRA and E–FOIA: An annual inventory of the DOL's major information systems (*see* 44 U.S.C. 3505(c)); a description of the DOL's major information and record locator systems; and a handbook for obtaining various types and categories of public information pursuant to the PRA and E–FOIA.

(6) Consistent with the Department's Information Quality Guidelines, which are designed to implement Section 515 of H.R. 5658 (the Treasury and General Government Appropriations Act, 2001), as incorporated into the Consolidated Appropriations Act, 2001 (*see* Section 1(a)(3) of Pub. L. 106–554) and implementing OMB guidelines:

(a) Maintain a leadership role in overseeing the implementation of the Department's guidelines and in providing guidance to the agencies on information quality matters.

(b) Coordinate, as appropriate, with other Federal organizations on cross-agency information quality issues; and

(c) Be responsible for the Department's annual Data Quality report to the Director of OMB beginning January 1, 2004. The report will:

(i) include the number and nature of complaints received by the Department regarding the accuracy of information disseminated by the Department;

(ii) indicate how such complaints were handled by the Department; and

(iii) indicate the number of administrative appeals.

b. Subject to the Reservation of Authority in paragraph 19 of this Order, the CIO will have the following duties, which are assigned by the Clinger-Cohen Act and related OMB guidance to

the Secretary and are hereby delegated to the CIO:

(1) Consistent with the roles and responsibilities of the MRB (*see* paragraph 17) and TRB (*see* paragraph 18), design, implement, and maintain DOL's process for maximizing the value and assessing and managing the risks of IT acquisitions, in accordance with Section 5122 of the Clinger-Cohen Act. The process will:

(a) Provide for the selection of IT investments to be made by DOL, the management of such investments, and the evaluation of the results of such investments;

(b) Be integrated with the processes for making budget, financial, and program management decisions within DOL;

(c) Include minimum criteria to be applied in considering whether to undertake a particular investment in information systems, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment and specific quantitative and qualitative criteria for comparing and prioritizing alternative information systems investment projects;

(d) Provide for identifying information systems investments that would result in shared benefits or costs for other Federal agencies or State or local governments;

(e) Provide for identifying quantifiable measurements for determining the net benefits and risks for a proposed investment; and

(f) Provide the means for DOL senior management personnel to obtain timely information regarding the progress of an investment in an information system, including a system of milestones for measuring progress, on an independently verifiable basis, in terms of cost, capability of the system to meet specified requirements, timeliness, and quality.

(2) Institutionalize performance-based and results-based management for IT in coordination with the Office of the Chief Financial Officer (OCFO), the Office of the Assistant Secretary for Administration and Management (OASAM), and other DOL agencies. In fulfilling this responsibility, the CIO will:

(a) Establish goals for improving the efficiency and effectiveness of DOL operations and, as appropriate, the delivery of services to the public through the effective use of IT;

(b) Prepare an annual report, as required by statute, to be included in the DOL's budget submission to Congress, on the progress in achieving the IT goals; and

(c) Issue DOL policies, directives, and instructions in accordance with Section 5123 of the Clinger-Cohen Act related to results-based management.

(3) In coordination with OASAM, acquire information technology for DOL and, in accordance with guidance issued by OMB, enter into contracts that provide for multi-agency acquisitions of information technology.

(4) Identify in the strategic information resources management plan required under 44 U.S.C. 3506(b)(2) any major information technology acquisition program, or any phase or increment of such a program, that has significantly deviated from the cost, performance, or schedule goals established for the program.

(5) Monitor the Department's compliance with the policies, procedures, and guidance in OMB Circular A–130 (or equivalent guidance), recommend or take appropriate corrective action in instances of failures to comply and, as required by the Circular, report to the OMB Director.

c. Subject to the Reservation of Authority in paragraph 19 of this Order, the CIO will have the following duties which are assigned by the E-Government Act of 2002 and FISMA (as incorporated into the E-Government Act at Section 301 (44 U.S.C. 3541–3549)), to the Secretary and are hereby delegated to the CIO:

(1) The CIO will consider the impact of Departmental E-Government policies and programs on persons without access to the Internet and work with all DOL agencies to ensure that, to the extent practicable, the availability of government information and services is not diminished for individuals who lack access to the Internet.

(2) The CIO is responsible for the annual submission to the OMB Director of the E-Government Status Report required by Section 202 of the E-Government Act.

(3) To meet the objectives of the Government Paperwork Elimination Act (Pub. L. 105–277), the CIO must ensure that the Department's methods for use and acceptance of electronic signatures are compatible with the relevant policies and procedures issued by the OMB Director.

(4) The CIO will work with the Office of Public Affairs (OPA) and the Office of the Solicitor (SOL) to ensure that a publicly accessible DOL Web site includes all information required to be published in the **Federal Register** under paragraphs (1) and (2) of Section 552(a) of Title 5 of the United States Code (Freedom of Information Act).

(5) In consultation with OMB, SOL, and other agencies as appropriate, the CIO will coordinate with the Office of the Assistant Secretary for Policy (OASP) to ensure that the Department implements Sections 206(c) and 206(d) of the E-Government Act (electronic rulemaking submissions and electronic dockets).

(6) To ensure that the Department carries out the E-Government Act's requirements for privacy impact analyses, as well as related OMB policies and guidance, the CIO will:

(a) In coordination with SOL, oversee the Department's preparation of privacy impact assessments;

(b) In coordination with OASAM, ensure that DOL privacy impact assessments are provided to OMB for each information system for which funding is requested; and

(c) In coordination with SOL and OPA, ensure that, if practicable and appropriate, DOL privacy impact assessments are made available to the public.

(7) Consistent with Section 5(c)(3) of this Order and Section 209(b) of the E-Government Act, the CIO, after consultation with the Director of the Office of Personnel Management (OPM), CIO Council, Administrator of the General Services Administration (GSA), and DOL agencies, will establish and operate IT training programs and encourage DOL employee participation in such programs.

(8) The CIO will coordinate the Department's collection and maintenance of standardized information on the IT and IRM workforce related to the implementation of the E-Government Act's training provisions.

(9) Consistent with Sections 209 of the E-Government Act (Federal Information Technology Workforce Development), and in consultation with OASAM, OCFO, the Office of Small Business Programs (OSBP), the Employment Standards Administration, SOL, and other DOL agencies as appropriate, the CIO may, with the concurrence of the employing agency, coordinate the assignment of a Department employee to a private sector organization or an employee of a private sector organization to the Department as part of an IT Exchange Program. The CIO also will ensure that the Department cooperates with OPM in fulfilling the related reporting requirements of Section 209.

(10) The CIO will have ultimate responsibility for ensuring that the Department fulfills its responsibilities under Title III of the E-Government Act,

the Federal Information Security Management Act, by:

(a) Consistent with Section 3544 of Title 44 of the U.S. Code, designating a senior Department official who will report to the CIO and have responsibility for Department-wide information security as his or her primary duty, including the following responsibilities:

(i) Developing and maintaining an OMB-approved Department-wide information security program, for the protection of information and information systems that support the Department's operations and assets. This information security program will be consistent with the requirements of Section 3544(b) of Title 44 of the U.S. Code, including periodic evaluation, testing, and remediation of the Department's information security policies, procedures and practices;

(ii) Ensuring that the Department effectively implements and maintains information security policies, procedures, and control techniques to address all applicable information security requirements, including those issued by OMB under Section 3543 of Title 44, and by the Secretary of Commerce under Section 11331 of Title 40, of the U.S. Code;

(iii) Training and overseeing personnel with significant responsibilities for information security with respect to such responsibilities;

(iv) Assisting senior Department officials in fulfilling their responsibility to provide information security for the information and information systems that support the operations and assets under their control (*see* 44 U.S.C. 3544(a)(2); and

(v) Assuming day-to-day responsibility for the CIO functions identified in subparagraphs (b) through (i), as well as any other related responsibilities assigned by the CIO.

(b) Ensure that the Department has trained personnel sufficient to assist in complying with the requirements of FISMA and related policies, procedures, standards, and guidelines.

(c) In coordination with appropriate senior Department officials, ensure that all required reports (to the Secretary, Congress and the Comptroller General) on the effectiveness of the Department's information security program, are submitted.

(d) In coordination with OASAM, ensure that the Department's information security management processes are integrated into its strategic and operational planning processes.

(e) Prepare the Department's annual report to the Congress and Comptroller General on compliance with FISMA, as required by Section 3544(c) of the E-Government Act.

(f) In coordination with OASAM and OCFO, ensure that the adequacy and effectiveness of information security policies, procedures, and practices is addressed in plans and reports relating to the Department's annual budget; information resources management; IT management; program performance under the Government Performance Results Act; financial management and financial management systems; and internal accounting and administrative controls.

(g) In coordination with OCFO, ensure that any significant deficiency in information security policies, practices or procedures is reported as a material weakness under Section 3512 of Title 31 of the U.S. Code and, if related to financial management systems, as an instance of a lack of substantial compliance under the Federal Financial Management Improvement Act.

(h) In coordination with OASAM, ensure that the Department's annual performance plan under Section 1115 of Title 31 of the U.S. Code includes a description of the time periods, budget resources, staffing and training necessary to implement the Department's information security program.

(i) In coordination with SOL, ensure that the public receives timely notice and opportunity for comment on proposed information security policies and procedures that affect communication with the public.

(j) Cooperate with the OIG on the annual independent evaluation of the Department's information security program and practices as required by Section 3545 of Title 44 of the U.S. Code, and in ensuring that the evaluation is submitted to OMB.

(k) In coordination with other relevant DOL agency heads, and as appropriate, consult with the National Institute of Standards and Technology (NIST) on the development of the Department's information security programs, practices, policies; the development of NIST information guidelines and standards; and the detection and handling of information security incidents.

(11) The CIO will establish a system for appropriately sharing OMB, Department of Commerce, and DOL policies, guidance, standards and other communications relating to IT and IRM.

(12) In coordination with OASP, OPA, SOL, OASAM, and other relevant agencies, the CIO will support OMB and GSA efforts to develop, maintain, and promote a Federal Internet Portal and to develop a Directory of Federal Government Web sites (*see* Sections 204 and 207(f)(3) of the E-Government Act).

(13) In coordination with OASAM, the CIO will ensure that the Department develops performance measures that demonstrate how electronic government enables progress toward DOL objectives, strategic goals, and statutory mandates.

(14) In consultation with SOL, the Office of Disability Employment Policy (ODEP), and OASAM, the CIO will ensure that the Department is in compliance with Section 508 of the Rehabilitation Act of 1974 (29 U.S.C. 794d).

(15) Consistent with Section 207(d) of the E-Government Act, the CIO will ensure that the Department complies with all OMB policies relating to the categorization of information.

(16) In coordination with OASP, SOL and OPA, the CIO will ensure that privacy notices posted on DOL Web sites comply with OMB guidance (*see* Section 208(c) of the E-Government Act).

(17) The CIO will ensure that the Department cooperates with OMB and other Federal agencies in preparing reports, conducting studies, or undertaking other Administration-wide activities required by the E-Government Act or implementing OMB guidance.

(18) The CIO will have overall responsibility for ensuring that the Department, consistent with guidance developed by the National Archivist, adopts policies and procedures to effectively and comprehensively fulfill its records management responsibilities with respect to DOL information on the Internet and other electronic records (*see* Section 207(e) of the E-Government Act). The CIO also will ensure that the Department's annual E-Government status report (*see* paragraph 6c2) includes information on the Department's compliance.

d. In addition to the above duties specifically assigned by the PRA, the Clinger-Cohen Act, and the E-Government Act, the CIO is delegated the following authority and assigned the following responsibilities, subject to the Reservation of Authority in paragraph 19:

(1) The CIO will fulfill the DOL website responsibilities outlined in Secretary's Order 2–2003.

(2) The CIO will act as the Department's spokesperson on all matters relating to Departmental IRM and IT management. The CIO will report to the Secretary, but may receive day-to-day guidance and direction from the Deputy Secretary.

(3) In consultation with ODEP, OASAM and SOL, the CIO will ensure that the DOL is responsive to the needs

of employees who require adaptive technologies and will represent the Department on GSA's Section 508 Committee.

(4) The CIO will oversee agency development of IT Strategic Plans that are in alignment with Agency Plans and Agency Budgets.

(5) The CIO, in consultation with OPA and DOL agencies, will ensure that Departmental communications and processes make maximum appropriate use of web technologies and electronic mail.

(6) The CIO will present TRB recommendations, with an evaluation of their merits, to the MRB for disposition and ensure that MRB decisions are implemented (unless overruled by the Secretary).

e. The CIO will perform any other related duties which are assigned by the Secretary.

7. Assignment of Responsibilities to the Chief Financial Officer

The CFO will have the following duties which are assigned by statute to the Secretary and are hereby delegated to the CFO:

a. Ensure that the accounting, financial, and asset management systems of DOL are designed, developed, maintained, and used effectively to provide financial or program performance data for financial statements of the Department.

b. Ensure that financial and related program performance data are provided on a reliable, consistent, and timely basis to DOL financial management systems.

c. Ensure that financial statements support:

(1) Assessments and revisions of mission-related processes and administrative processes of the Department; and

(2) Performance measurement of the performance in the case of investments made by the Department in information systems.

d. In appropriate consultation with the Office of the Chief Information Officer (OCIO), ensure that the accounting, financial, and asset management systems of the DOL are properly integrated into the DOL enterprise architecture.

e. In appropriate consultation with OCIO, ensure that the adequacy and effectiveness of information security policies, procedures, and practices are addressed in plans and reports relating to the Department's financial management and financial management systems, and internal accounting and administrative controls.

f. In appropriate consultation with OCIO, ensure that any significant deficiency in information security policies, practices or procedures is reported as a material weakness under Section 3512 of Title 31 of the U.S. Code and, if related to financial management systems, as an instance of a lack of substantial compliance under the Federal Financial Management Improvement Act.

g. Consistent with 5 U.S.C. 3702(b), manage the Department's collection of debts and claims waivers arising out of the Department's IT Exchange Program (*see* Paragraph 6c(9) above). The continued exercise of this authority will conform with the requirements of the General Accounting Office Act of 1996 (Pub. L. 104–316); the OMB Determination of December 17, 1996, with regard to Pub. L. 104–316; and Secretary's Order 01–97.

8. Responsibilities of the Office of the Solicitor of Labor

The Solicitor of Labor is responsible for:

a. Working with OCIO and OPA to ensure that a publicly accessible DOL website includes all information required to be published in the **Federal Register** under paragraphs (1) and (2) of Section 552(a) of Title 5 of the United States Code.

b. In coordination with OASP, OCIO and OPA, ensuring that privacy notices posted on DOL websites comply with OMB guidance (*see* Section 208(c) of the E-Government Act).

c. Providing legal advice and assistance to all Department of Labor officials relating to implementation and administration of all aspects of this Order. The Solicitor of Labor will have the responsibility for representing the Secretary, the Deputy Secretary, CIO and other officials of the Department in any administrative or judicial proceedings involving agency decisions issued pursuant to this Order, including representing officials of the Department. In addition, the Solicitor of Labor will have the responsibility for providing legal advice to the Secretary, the Deputy Secretary, CIO and other officials of the Department with respect to decisions covered by this Order, as well as the implementation and administration of this Order.

9. Assignment of Responsibilities to the Assistant Secretary for Administration and Management

The Assistant Secretary for Administration and Management is assigned responsibility for:

a. Consistent with applicable law, regulations and Administration or Department policies, coordinating with OCIO on the acquisition of information technology, including contracts that provide for multi-agency acquisitions of information technology and share-in-savings contracts for information technology.

b. Coordinating with OCIO to ensure that DOL privacy impact assessments are provided to OMB for each information system for which the Department requests funding.

c. Coordinating with OCIO on the assignment of Department employees to private sector organizations, or employees of private sector organizations to the Department, as part of an IT Exchange Program under Section 209 of the E-Government Act.

d. Coordinating with OCIO to ensure that the Department's information security management processes are integrated into its strategic and operational planning processes.

e. Coordinating with OCIO to ensure that the adequacy and effectiveness of information security policies, procedures, and practices is addressed in plans and reports relating to the Department's annual budget and program performance under the Government Performance Results Act.

f. Coordinating with OCIO to ensure that the Department's annual performance plan under Section 1115 of Title 31 of the U.S. Code includes a description of the time periods, budget resources, staffing and training necessary to implement the Department's information security program.

g. Coordinating with OASP, OPA, SOL, OCIO and other relevant agencies to support OMB and GSA efforts to develop, maintain, and promote a Federal Internet Portal and develop a Directory of Federal Government Web sites (*see* Sections 204 and 207(f)(3) of the E-Government Act).

h. Coordinating with OCIO, SOL and ODEP to ensure that the Department is in compliance with Section 508 of the Rehabilitation Act of 1974 (29 U.S.C. 794d) and that the Department is responsive to the needs of employees who require adaptive technologies.

i. Coordinating with OCIO to ensure that the Department develops performance measures that demonstrate how electronic government enables progress toward DOL objectives, strategic goals, and statutory mandates.

j. In consultation with SOL, ensuring, on a day-to-day basis, that the Department fulfills its records management responsibilities with respect to DOL information on the Internet and other electronic records

(*see* Section 207(e) of the E-Government Act).

10. Assignment of Responsibility to the Assistant Secretary for Policy

The Assistant Secretary for Policy is assigned responsibility for:

a. Coordinating with OASAM, OPA, SOL, OCIO, and other relevant agencies to support OMB and GSA efforts to develop, maintain, and promote a Federal Internet Portal and develop a Directory of Federal Government Websites (see Sections 204 and 207(f)(3) of the E-Government Act).

b. Coordinating with SOL, OCIO and OPA to ensure that privacy notices posted on DOL web sites comply with OMB guidance (*see* Section 208(c) of the E-Government Act).

c. In consultation with OMB, SOL, and other agencies as appropriate, coordinating with OCIO to ensure that the Department's implementation of Sections 206(c) and 206(d) of the E-Government Act (electronic rulemaking submissions and electronic dockets).

11. Assignment of Responsibility to the Assistant Secretary for Public Affairs

The Assistant Secretary for Public Affairs is assigned responsibility for:

a. Coordinating with OASP, OASAM, SOL, OCIO, and other relevant agencies to support OMB and GSA efforts to develop, maintain, and promote a Federal Internet Portal and develop a Directory of Federal Government Websites (*see* Sections 204 and 207(f)(3) of the E-Government Act).

b. Coordinating with ASP, SOL and OCIO to ensure that privacy notices posted on DOL web sites comply with OMB guidance (*see* Section 208(c) of the E-Government Act).

c. Coordinating with OCIO and DOL agencies to ensure that Departmental communications and processes make maximum appropriate use of web technologies and electronic mail.

d. Working with OCIO and SOL to ensure that a publicly accessible DOL website includes all information required to be published in the **Federal Register** under paragraphs (1) and (2) of Section 552(a) of Title 5 of the United States Code.

e. Working with OCIO and SOL to ensure that, if practicable and appropriate, DOL privacy impact assessments are made available to the public.

12. Assignment of Responsibility to the Assistant Secretary for Disability Employment Policy

The Assistant Secretary for Disability Employment Policy is assigned responsibility for coordinating with OCIO, SOL and OASAM to ensure that the Department is in compliance with Section 508 of the Rehabilitation Act of 1974 (29 U.S.C. 794d) and that the Department is responsive to the needs of employees who require adaptive technologies.

13. Assignment of Responsibility to the Director of the Office of Small Business Programs

The OSBP Director is assigned responsibility for coordinating with OCIO to ensure the Department's compliance with Section 209(e) of the E-Government Act (Federal Information Technology Workforce Development), including the filing of reports required by Section 209(e)(3).

14. Assignment of Responsibility and Delegation of Authority to the Assistant Secretary for Employment Standards

The Assistant Secretary for Employment Standards is delegated authority and assigned responsibility for coordinating with OCIO on the Department's IT Exchange Program (*see* paragraph 6c(9) above). This authority includes, consistent with paragraph 4a(10) of Secretary's Order 4–2001, the authority to interpret and administer the provisions of the E-Government Act which relate to the Federal Employees' Compensation Act (*see* Section 209 of the E-Government Act, creating 5 U.S.C. 3703(b) and 3704(c)).

15. Assignment of Responsibility to the Inspector General

The Inspector General is assigned responsibility for: Consistent with Section 3545 of Title 44 of the U.S. Code, performing, or arranging for the performance of, an annual independent evaluation of the Department's information security program and practices and submitting the evaluation to OMB.

16. Assignment of Responsibilities to Agency Heads

a. All DOL Agency Heads are assigned responsibility to ensure compliance by their organizations with the law, including the Paperwork Reduction Act, Clinger-Cohen Act, E-Government Act (including FISMA) and related CIO and OMB guidance and policies, consistent with their statutory responsibilities and other applicable Secretary's Orders and guidelines.

b. Consistent with their statutory responsibilities and other applicable Secretary's Orders and guidelines, all DOL Agency Heads are assigned responsibility to implement Department-wide IT initiatives approved by the MRB and sponsored by the CIO, re-engineer agencies' mission-related processes to maximize return on IT expenditures, and ensure that IT initiatives are managed for successful implementation.

c. Consistent with their statutory responsibilities and other applicable Secretary's Orders and guidelines, all DOL Agency Heads are assigned responsibility to assess the need and potential for re-engineering agencies' mission-related processes to ensure that such processes are performed efficiently and effectively and that automated processes are designed to properly support mission-related processes; ensure that return on IT expenditures is maximized; and ensure that IT initiatives are managed for successful implementation.

d. Consistent with their statutory responsibilities and other applicable Secretary's Orders and guidelines, all DOL Agency Heads are assigned responsibility to comply with IT security requirements and to help ensure that adequate resources are assigned to IT security projects.

17. Assignment of Responsibilities for the Management Review Board

For purposes of his Order, the MRB will have the following responsibilities:

a. Members must ensure their appropriate involvement with the duties delegated to the MRB.

b. Members will assist in preparation of draft documents for MRB discussions, recommendations, and/or decisions.

c. The MRB will evaluate and either approve, not approve, or approve with conditions, TRB recommendations and advise the CIO of the results.

d. The MRB will ensure that MRB decisions and recommendations pertaining to IT investment management deliver substantial business benefit to the Department and/or improved operational efficiency and/or substantial return-on-investment to the taxpayer.

e. The MRB may direct the TRB to undertake studies or prepare recommendations to address common IT issues.

18. Assignment of Responsibilities to the Technical Review Board

a. The TRB is established in the following manner:

(1) The MRB will determine the membership roster and charter of the TRB. The current charter, including the membership roster, are affixed to this Order as Attachment 1.

(2) The Deputy CIO will chair and manage the TRB.

(3) TRB membership may not be delegated. A DOL agency's permanent member may, with written Agency Head

approval, authorize a qualified alternate to attend and participate in the voting process at TRB meetings.

(4) Each agency represented on the TRB is allocated one vote. The agencies represented by rotating members also have one collective vote. The TRB may adopt resolutions, including recommendations to the MRB on the disposition of IT investments, by majority vote of participating agencies.

(5) The TRB will maintain a record, for internal use only, available to TRB members relating to proposed recommendations under consideration.

b. The TRB is an advisory body to the MRB and the CIO with the following responsibilities:

(1) Review IT initiatives to ensure risks and returns have been adequately and accurately assessed. Reviews of IT initiatives will include assessments of IT investment:

(a) Screening information;

(b) Scoring information;

(c) Return-on-investment information, including improved operational efficiency;

(d) Cost, schedule, and technical performance information;

(e) Supporting documentation, including business case, risk assessments, privacy impact assessments, financial information, technical documentation, and project planning documentation; and

(f) Other information as may be necessary to satisfy OMB budget justification requirements.

(2) Develop and provide recommendations to the MRB and CIO on the disposition of IT initiatives, the selection of new initiatives, or the continuation of existing IT initiatives.

(3) Develop and provide recommendations to the MRB and CIO on Departmental enterprise architecture management and IT capital planning and investment control process improvements.

(4) Develop and provide recommendations to the MRB and CIO on agency and Departmental IT investment portfolios.

(5) Create TRB sub-committees and provide appropriate guidance to sub-committees.

(6) Address common IT issues, investments, and security and provide recommendations to the CIO and/or MRB.

19. Reservation of Authority

a. The following functions are reserved to the Secretary:

(1) No delegation of authority or assignment of responsibility under this Order will be deemed to affect the Secretary's authority to continue to exercise or further delegate such authority or responsibility.

(2) The submission of reports and recommendations to the President and Congress concerning the administration of the statutory provisions and executive orders listed above is reserved to the Secretary.

20. Effective Date

This Order is effective immediately.

Dated: May 16, 2003.

Elaine L. Chao,

Secretary of Labor.

Attachment 1—Department of Labor Technical Review Board Charter

May 2003.

Table of Contents

Preface
Mission
Objectives
Membership
Technical Review Board Subcommittees
Temporary Working Groups
Adoption of Technical Review Board Resolutions
Responsibilities
Meeting Protocol

Preface

In November 1998, the Department's Management Review Council (MRC, now the Management Review Board (MRB)) approved the establishment of a two-tiered information technology (IT) Investment Review Board structure to conduct Departmental IT investment management. The new structure replaced the Capital Planning and Investment Review Board (CPIB) with the MRC and a Technical Review Board (TRB). In 2001, the MRC became the MRB. The two-tiered Investment Review Board structure is designed to ensure compliance with the Clinger-Cohen Act and the Department's enhanced IT capital planning process. This Charter establishes the mission, objectives, membership, and responsibilities of the TRB. The TRB operating procedures are presented in the Department's IT Capital Investment Management Guide.

Mission

The Technical Review Board serves as the Department's first tier Investment Review Board for above-threshold [1] information technology (IT) investments and as a forum to identify and resolve Department-wide IT-related issues. The TRB makes recommendations on the appropriate disposition of above-threshold IT investments to the MRB based on standardized investment review criteria, with a focus on the technical feasibility of the investments. The TRB also serves as a forum to conduct Departmental IT strategic planning, enterprise architecture management, and IT capital planning process improvements via permanent committees.

Objectives

The objectives of the TRB are to ensure compliance with the IT capital planning provisions of the Clinger-Cohen Act by:

- Conducting IT investment analysis on above-threshold IT investments and recommending the disposition of those IT investments to the MRB;
- Establishing above-threshold IT initiative review schedules and monitoring these IT investments throughout their lifecycle (control phase);
- Evaluating fully operational above-threshold IT initiatives by reviewing the results of post-implementation reviews conducted;
- Recommending to the MRB corrective actions for those above-threshold IT initiatives that are not performing in accordance with established cost, schedule, or technical performance parameters;
- Providing recommendations to the MRB on portfolio management;
- Providing input to the CIO and MRB on Departmental enterprise architecture management planning and IT capital planning process improvement activities;
- Identifying opportunities to minimize duplicate and overlapping information systems across the Department and the Federal Government;
- Addressing common IT issues and recommending the resolution of these issues to the MRB.

Membership

The Technical Review Board has the following membership:

Eight Non-voting members:

Chair: Deputy Chief Information Officer
Vice-Chair: Deputy Assistant Secretary for Operations, OASAM
Advisors:
Procurement Executive
Assistant Inspector General of the Office of Audit Operations
Senior Representative of the Office of the Solicitor
Senior Executive from the Office of Disability Employment Policy
Department Librarian
Department Records Officer

[1] "Above-threshold" refers to investment initiatives that are above a designated investment level or that have crosscutting implications or applicability. The amounts are set by the Secretary in consultation with the CIO and the MRB; more specific information about TRB jurisdiction may be obtained from the CIO.

Eleven Voting Members: Unless otherwise noted, the voting member for each of the following is either the Agency's Senior Agency IT Executive or Administrative Officer.

Office of the Assistant Secretary for Policy (Senior Management Representative)
Bureau of Labor Statistics
Employee Benefits Security Administration
Employment Standards Administration
Employment and Training Administration
Office of the Assistant Secretary for Administration and Management
Office of the Chief Financial Offier (Chief Financial Officer's Representative)
Office of Public Affairs (Departmental Web Sites Director)
Mine Safety and Health Administration
Occupational Safety and Health Administration
Small Agencies' Representative

The small agencies' representative is appointed for a one-year term by _____ from agencies and Departmental components without permanent voting representative on the TRB.

TRB Participation: TRB membership may not be delegated. Agency permanent members may, with written Agency Head approval, authorize a qualified alternate to attend and participate in the voting process at TRB meetings. Agency Senior IT Executives and Administrative Officers from agencies that are not permanent or rotating members may attend TRB meetings as observers.

Technical Review Board Sub-Committees

The Technical Review Board will have two standing sub-committees, the IT Architecture Sub-Committee and the IT Capital Planning Sub-Committee, for purposes of carrying out the roles and responsibilities of the CIO. The CIO will appoint a Chair to preside over each standing sub-committee from the TRB membership. The CIO will solicit a call from the TRB for three nominations per sub-committee for consideration as sub-committee Chairpersons on an annual basis. The CIO will appoint the sub-committee Chairpersons for a period of one year. The sub-committee Chairs will be responsible for carrying out the duties and responsibilities of the sub-committees and regularly reporting status to the TRB. Sub-committee membership will include representatives from all of the major agencies and other smaller agencies are encouraged to participate. Sub-committee members will be recognized as authoritative subject matter experts and will be appointed by the TRB.

A. Enterprise Architecture Sub-Committee

Provides enterprise architecture baseline management, configuration control, standards adoption, and enterprise architecture migration recommendations to the full TRB. The enterprise architecture committee will focus on interoperability issues as they pertain to crosscutting IT infrastructure issues.

B. IT Capital Planning Sub-Committee

Assesses the effectiveness of the Departmental IT capital planning process and provides recommendations to the full TRB for refining and improving the process. Process improvement analysis includes: Assessments of screening criteria; IT investment criteria (selection, control, and evaluation procedures); IT capital planning process timing issues; Information Technology Investment Portfolio System (I-TIPS); and integration of IT capital planning activities with other major management processes.

Temporary Working Groups

Temporary working groups will be established by a majority vote of the TRB. The temporary working group chair will be one of the permanent members of the TRB, but other members on the working group may include Federal and contractor staff who are not on the Board. The establishment of a temporary working group requires the following:

- Assignment of working group chair and members;
- Identification of working group scope and objectives; and
- Identification of working group deliverables and schedules.

Adoption of Technical Review Board Resolutions

(1) The Technical Review Board is a consensus-driven body designed to maximize departmental IT investment decision-making through the objective, impartial application of each member's technical and business management expertise.

(2) Technical Review Board resolutions, including recommendations to the MRB on the disposition of IT investments, require a majority vote of participating agencies' representatives. Each agency represented on the TRB is allocated one vote. The agencies represented by rotating members also have one collective vote (resulting in a total of eleven (11) votes).

(3) Voting will be recorded in the TRB meeting minutes and provided to the MRB as part of the disposition recommendation.

Responsibilities

A. Management Review Board

(1) Evaluate and either ''approve'', ''not approve'', or ''approve with conditions'' TRB recommendations.

(2) Ensure that MRB decisions pertaining to IT investment management deliver substantial business benefit to the Department and/or, improved operational efficiency and/or substantial return on investment to the taxpayer.

(3) Direct the TRB to undertake studies or prepare recommendations to address common IT issues.

B. Chief Information Officer

(1) Provide advice and other assistance to the Secretary of Labor and MRB to ensure that information technology is acquired and information resources are managed for the Department consistent with the Clinger-Cohen Act, departmental missions and objectives, and the Department's IT capital planning process.

(2) Present TRB recommendations with an evaluation of their merit to the MRB for disposition.

(3) Conduct strategic analysis of the Department's IT investment portfolio. Issue Departmental IT strategic planning guidance.

(4) Develop, maintain, and facilitate implementation of a sound and integrated enterprise architecture for the Department.

(5) Promote the effective and efficient design and operation of all major information management processes for the Department.

C. Deputy Chief Information Officer

(1) Serve as the Chair of the Technical Review Board.

(2) Ensure that the TRB provides comprehensive evaluations of all above threshold IT projects and that the results of these evaluations are presented to the MRB for final disposition.

(3) Ensure that the TRB conducts enterprise architecture management and IT capital planning process improvement activities.

(4) Ensure that common IT issues are fully addressed and recommended resolution of these issues are provided to the CIO and/or MRB.

(5) Responsible for overseeing and providing guidance to TRB sub-committees.

D. Deputy Assistant Secretary for Operations, OASAM

(1) Serve as the TRB Vice Chair.

(2) Serve as the TRB Chair in the absence of the Deputy Chief Information Officer.

(3) Coordinate and confer with the TRB Chair on all matters before the Board.

E. Deputy Chief Financial Officer (CFO)

Provide assessments of proposed or enhanced financial systems, which address the issues of compliance with government wide standards. Without such compliance, the proposed system cannot be considered under TRB rules. The Deputy CFO may ask for technical review by one or more of the TRB committees or working groups to assist in the compliance determination.

F. Director, Office of the Chief Information Officer (OCIO) Programs

(1) Serve as the Executive Secretary for the TRB. Executive Secretary duties include:

—Manage TRB administrative staff support;
—Prepare read-ahead materials and agendas, in consultation with the Chair and membership, for TRB meetings;
—Prepare meeting minutes;
—Post agendas and minutes in the Public Library section of the I-TIPS;
—Oversee and direct all votes taken by the TRB; and
—Support the Chair in preparing for and conducting meetings.

G. Technical Review Board Members

Coordinate and consult with senior policy and program officials within their respective agencies to:

(1) Review IT initiatives to ensure risks and returns have been adequately and accurately assessed. Reviews of IT initiatives will include assessments of IT investment:

—Screening information
—Scoring information
—Return-on-investment information
—Cost, schedule, and technical performance information
—Alignment with e-government and IT security issues
—IT initiative supporting documentation, including business case, risk assessments, financial information, technical documentation, project planning documentation, privacy impact assessments, and vulnerability assessments.

(2) Develop and provide recommendations to the MRB.

(3) Participate as members on TRB sub-committees.

(4) Address common IT issues, including security and privacy, and provide recommendations for the resolution of these issues to the CIO and/or MRB.

(5) Communicate the direction of IT initiatives, particularly those which are Secretarial initiatives.

(6) Provide guidance to the standing sub-committees on IT Capital Planning and Enterprise Architecture.

(7) Identify opportunities for common IT investments and initiate studies and recommendations to the MRB and/or the CIO.

H. Technical Review Board Advisors

Provide advice commensurate with their specific area of expertise to the TRB Chair and Vice Chair on matters before the TRB. The advisors do not have votes in addition to their agencies' votes as members. (SOL, OIG and ODEP are considered ''small agencies'' with rotating members for purposes of TRB voting.)

Meeting Protocol

(1) The TRB meets on a monthly basis, with additional or special meetings called by the Chair, as necessary.

(2) At least one TRB member from a majority of TRB member agencies must be present to adopt a TRB resolution.

(3) The Executive Secretary acts as facilitator and parliamentary authority for all meetings.

[FR Doc. 03–12997 Filed 5–22–03; 8:45 am]

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Federal Register

Vol. 68, No. 100

Friday May 23, 2003

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Executive orders and proclamations	**741–6000**
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FEDERAL REGISTER PAGES AND DATE, MAY

23183–23376 1
23377–23568 2
23569–23884 5
23885–24332 6
24333–24604 7
24605–24858 8
24859–25278 9
25279–25478 12
25479–25808 13
25809–26200 14
26201–26456 15
26457–26980 16
26981–27426 19
27427–27726 20
27727–27890 21
27891–28110 22
28111–28686 23

CFR PARTS AFFECTED DURING MAY

At the end of each month, the Office of the Federal Register publishes separately a List of CFR Sections Affected (LSA), which lists parts and sections affected by documents published since the revision date of each title.

3 CFR

Proclamations:
7668 23821
7669 23823
7670 23825
7671 23827
7672 23829
7673 24333
7674 25277
7675 26195
7676 26197
7677 26199
7678 27427
7679 27889

Executive Orders:
12863 (Amended by 13301) 26981
12865 (Revoked by 13298) 24857
13069 (Revoked by 13298) 24857
13070 (Amended by 13301) 26981
13047 (Continued by Notice of May 16, 2003) 27425
13098 (Revoked by 13298) 24857
13298 24857
13299 25477
13300 25807
13301 26981
13212 (Amended by 13302) 27429
13302 27429

Administrative Orders:
Memorandums:
Memorandum of May 6, 2003 25275
Memorandum of May 7, 2003 26457
Presidential Determinations:
No. 2003-22 of May 6, 2003 25809
No. 2003-23 of May 7, 2003 26459
Notices:
Notice of May 16, 2003 27425

5 CFR

213 24605
Ch. XIV 23885
2424 23885
2429 23885
2471 23885
2472 23885
2606 27891

Proposed Rules:
2601 23876

7 CFR

1 27431
2 27431
6 25479
15 27431
15f 27431
28 27897
29 25484
46 23377
56 25484
300 28111
301 ..... 24605, 24613, 26983
318 ..... 28111, 28114
319 ..... 28114, 28115
371 27431
868 24589
932 23378
985 ..... 23569, 25486
989 25279
1205 27898
1410 24830
1424 24596
1491 26461
1710 24335

Proposed Rules:
51 28141
205 27941
274 23927
276 23927
278 23927
279 23927
280 23927
301 28157
319 ..... 27480, 28157, 28161
360 23425
930 27943
1530 23230

9 CFR

82 ..... 26986, 26988
91 26990

Proposed Rules:
2 24052
71 28167
82 28169
130 25308
145 28169
147 28169

10 CFR

20 27903
40 25281
70 23574
71 23574
72 23183
73 23574
150 25281

Proposed Rules:
20 23618
50 26511
490 23620

11 CFR

Proposed Rules:
104 26237
107 26237
110 26237
9003 26237
9004 26237
9008 26237
9032 26237
9033 26237
9034 26237
9035 26237
9036 26237
9038 26237

12 CFR

21 25090
208 25090
211 25090
326 25090
563 25090
740 23381
748 25090

Proposed Rules:
11 27753
16 27753
Ch. 6 26551
613 ....23425, 23426, 27757
614 27757
618 27757

14 CFR

1 25486
11 25486
25 ....24336, 24338, 26991
39 ....23183, 23186, 23190, 23384, 23387, 23575, 23886, 24614, 24861, 25488, 25811, 26201, 26478, 26481, 26482, 27450, 28119
71 ....23577, 23579, 23580, 23581, 23682, 24340, 24341, 24342, 24864, 24866, 24868, 24869, 24870, 24871, 24872, 24874, 25489, 25491, 25492, 25493, 25494, 25495, 25684, 26202, 26687, 26993, 26994, 28121, 28122, 28123, 28124, 28125, 28126, 28127, 28128
73 25495
77 23583
97 ....23888, 23889, 26484, 26486
382 24874

Proposed Rules:
3 ....23808, 27006
25 26237
39 ....23231, 23235, 23427, 23620, 24383, 25543, 26239, 26242, 26244, 26552, 26553, 27006, 27492, 28175, 28177
71 ....23622, 23624, 23625, 23626, 27007, 27946, 28179
91 28181
119 24810
121 24810
135 24810
145 24810
255 ....24896, 25844, 27948
330 23627
399 ....24896, 25844, 27948

15 CFR

0 24878
270 24343
902 24615

16 CFR

305 23584

Proposed Rules:
309 24669

17 CFR

42 25149
211 26840
230 25788
232 ....24345, 25788
239 25788
240 25788
241 25281
249 25788
250 25788
259 25788
260 25788
269 25788
270 25131
274 25788

Proposed Rules:
240 27722

18 CFR

375 25814
376 25814

Proposed Rules:
35 24679

19 CFR

178 24052

20 CFR

Proposed Rules:
404 ....23192, 24896
416 ....23192, 24896

21 CFR

Ch. 1 24879
10 25283
14 25283
20 25283
310 24347
314 25283
358 24347
510 26995
522 26995
520 26204
522 26205
558 27727
573 27904
720 25283
1300 23195
1310 23195

Proposed Rules:
1 ....23630, 25242, 25188
11 25188
16 25242
101 23930
111 27008
112 27008
315 27008
601 27008
1308 26247
1310 24689

22 CFR

32 26488
41 28129
42 24638
121 25088
228 23891

23 CFR

140 24639
646 24639
661 24642

Proposed Rules:
630 ....23239, 24384

24 CFR

5 28102
200 26946
203 23370

Proposed Rules:
1000 26555

25 CFR

Proposed Rules:
170 23631

26 CFR

1 ....23586, 24349, 24351, 24644, 24880
301 24644
602 24644

Proposed Rules:
1 ....23632, 23931, 24404, 24405, 24406, 24898, 24903, 25310, 25845, 27493
54 24406
602 24406

27 CFR

Proposed Rules:
4 24903
5 24903
7 24903
9 25851
13 24903

28 CFR

Proposed Rules:
513 25545

29 CFR

Proposed Rules:
1480 23634
1910 23528
4022 26206
4044 26206

30 CFR

36 23892
917 24644
948 24355
950 24647

31 CFR

103 ....25090, 25149, 25113, 25163, 26489, 26996
315 24794
351 24794
353 24794
359 24794
360 24794
363 24794

Proposed Rules:
103 ....23640, 23646, 23653, 25163

32 CFR

3 27452
207 27904
299 28132
311 24880
505 25816
574 28138
806B 24881

Proposed Rules:
3 27497
701 24904

33 CFR

100 ....25817, 25818, 27459
110 25496
117 ....23390, 23590, 24882, 24883, 25818, 26208, 27460
160 27907
165 ....23390, 23393, 23399, 23591, 23594, 23595, 23893, 23894, 23896, 24359, 24361, 24883, 25288, 25498, 25500, 25818, 26208, 26490, 27462, 27464, 27466, 27469, 27727

Proposed Rules:
62 25855
66 25855
67 25855
72 ....25855, 28052
100 27498
110 27501
117 ....27498, 27504
165 ....23935, 24406, 24408, 26247, 27501, 27948
401 25546

34 CFR

674 25821
682 25821
685 25821

36 CFR

Proposed Rules:
251 ....25748, 25751
1280 23430

37 CFR

Proposed Rules:
262 ....23241, 27506

38 CFR

2 25503
4 25822

Proposed Rules:
39 23249

39 CFR

Proposed Rules:
111 ....23937, 27760

40 CFR

51 25684
52 ....23206, 23207, 23404, 23597, 23604, 24363, 24365, 24368, 24885, 25414, 25418, 25442, 25504, 26210, 26212, 26492, 26495, 27471, 27908
62 ....23209, 25291, 27911
63 ....23898, 24562, 24653, 26690, 27646, 27913, 28606
71 25507
80 24300
81 ....24368, 25418, 25442, 26212
89 25823
180 ....24370, 25824, 25831, 27729, 27740
271 ....23407, 23607
300 ....23211, 27746, 27931, 27933
312 24888
438 25686

Proposed Rules:
Ch. 1 ....24410, 25312
52 ....23270, 23430, 23661,

23662, 24416, 24417, 25547, 26248, 26556, 27513
60 24692
62 ....23272, 25313, 27953
63 26249
69 28328
71 25548
80 ....24311, 28328
81 ....26248]
89 28328
146 ....23666, 23673
258 25550
300 ....23939, 27954
1039 28328
1065 28328
1068 28328

41 CFR

301-53 27936
301-74 27936

42 CFR

8 27937
Proposed Rules:
409 26758
412 ....26786, 27154
413 ....26758, 27154
440 26758
483 26758

43 CFR

Proposed Rules:
4 27955

44 CFR

64 23408
65 27473
67 ....23898, 27477
Proposed Rules:
67 ....23941, 27514, 27515

45 CFR

2 25838
32 24052
148 23410
301 25293
302 25293
303 25293
304 25293
307 25293
1309 23212

46 CFR

Proposed Rules:
540 23947

47 CFR

0 26997
Ch. 1 25840
1 ....23417, 25841, 26997
2 25512
52 25843
73 ....23613, 23900, 23901, 25512, 25542, 26220, 26497, 27478, 27939, 27940, 28138
74 ....25512, 26220
76 26997
78 ....26997, 28139
80 25512
90 25512
97 25512
Proposed Rules:
1 23431
15 ....23677, 28182
64 25313
73 ....24417, 26556, 26557, 27767, 27960, 27961, 28186

48 CFR

Ch. 1 ....28078, 28098
2 ....28079, 28091, 28092
3 28079
4 ....28079, 28093
5 28079
6 28079
8 ....28079, 28094, 28095
9 28079
14 28079
19 28079
22 28079
23 28079
25 28079
26 28079
28 28079
29 28079
31 ....28079, 28091
32 28092
35 28079
36 28079
42 ....28079, 28095
45 28079
47 ....28079, 28091
52 ....28079, 28091, 28092, 28096, 28098
53 28079
511 24372
516 24372
532 24372
538 24372
546 24372
552 24372
1802 23423
1806 23423
1815 23423
1816 23423
1843 23423
1845 23424
Proposed Rules:
31 28108
208 26265
219 26265
239 28187
245 25313
252 ....26265, 28187

49 CFR

107 ....23832, 24653
171 ....23832, 24653
173 24653
176 23832
177 ....23832, 24653
180 24653
209 24891
383 23844
384 23844
571 ....23614, 24664
1180 28139
1510 27747
1511 27747
1570 23852
1572 23852
Proposed Rules:
193 23272
571 ....26269, 26384
572 24417
1137 ....23947, 25859

50 CFR

17 ....25934, 26498, 28054
216 24905
300 ....23224, 23901
600 ....23901, 26230
660 27004
622 26230
648 ....24914, 25305, 26510
660 ....23901, 23913, 23924
679 ....23925, 24615, 24667, 24668, 27479
Proposed Rules:
17 ....27961, 28648
18 24700
20 24324
216 24905
622 23686
648 ....23275, 23948, 23949, 24914, 27516, 27768, 27774, 28188
660 ....26557, 27969, 27972

REMINDERS

The items in this list were editorially compiled as an aid to Federal Register users. Inclusion or exclusion from this list has no legal significance.

RULES GOING INTO EFFECT MAY 23, 2003

AGRICULTURE DEPARTMENT
Animal and Plant Health Inspection Service
Plant Protection and Quarantine Treatment Manual; incorporation by reference:
Mangoes; hot water dip treatment; published 5-23-03

DEFENSE DEPARTMENT
Army Department
United States Soldier's and Airmen's Home; published 5-23-03

ENVIRONMENTAL PROTECTION AGENCY
Air pollutants, hazardous; national emission standards:
Metal furniture surface coating operations; published 5-23-03
Air quality implementation plans; approval and promulgation; various States:
California; published 3-24-03
Pennsylvania; published 3-24-03

FEDERAL TRADE COMMISSION
Customer information; safeguard standards; published 5-23-02

STATE DEPARTMENT
Visas; nonimmigrant documentation:
Student and Exchange Visitor Information System; published 5-23-03

COMMENTS DUE NEXT WEEK

AGRICULTURE DEPARTMENT
Food Safety and Inspection Service
Meat and poultry inspection:
Safe and suitable binder or antimicrobial agent usage in products with standards of identity or composition; comments due by 5-29-03; published 4-29-03 [FR 03-10392]

COMMERCE DEPARTMENT
National Oceanic and Atmospheric Administration
Fishery conservation and management:
Alaska; fisheries of Exclusive Economic Zone—
Bering Sea and Aleutian Islands groundfish; Pacific cod; comments due by 5-27-03; published 4-25-03 [FR 03-10282]
Caribbean, Gulf, and South Atlantic fisheries—
Gulf of Mexico shrimp; comments due by 5-29-03; published 4-29-03 [FR 03-10558]
Northeastern United States fisheries—
Northeast multispecies; comments due by 5-27-03; published 4-24-03 [FR 03-10163]

COMMERCE DEPARTMENT
Patent and Trademark Office
Patent cases:
Fee revisions (2004 FY); comments due by 5-30-03; published 4-30-03 [FR 03-10583]
Trademarks:
Madrid Protocol Implementation Act; rules of practice—
International applications and registrations; trademark-related filings; comments due by 5-27-03; published 3-28-03 [FR 03-07392]

ENVIRONMENTAL PROTECTION AGENCY
Air pollution control:
Interstate ozone transport reduction—
Nitrogen oxides budget trading program; Section 126 petitions; findings of significant contribution and rulemaking; withdrawal provision; comments due by 5-24-03; published 4-4-03 [FR 03-08152]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
Alabama; comments due by 5-27-03; published 4-24-03 [FR 03-10061]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
Alabama; comments due by 5-27-03; published 4-24-03 [FR 03-10062]
California; comments due by 5-27-03; published 4-25-03 [FR 03-10267]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
California; comments due by 5-30-03; published 4-30-03 [FR 03-10426]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
Florida; comments due by 5-27-03; published 4-24-03 [FR 03-10063]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
Florida; comments due by 5-27-03; published 4-24-03 [FR 03-10064]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
Idaho and Oregon; comments due by 5-27-03; published 4-24-03 [FR 03-10066]

ENVIRONMENTAL PROTECTION AGENCY
Air quality implementation plans; approval and promulgation; various States:
Idaho and Oregon; comments due by 5-27-03; published 4-24-03 [FR 03-10067]

FEDERAL COMMUNICATIONS COMMISSION
Radio stations; table of assignments:
California; comments due by 5-27-03; published 4-15-03 [FR 03-09164]
Florida; comments due by 5-27-03; published 4-15-03 [FR 03-09165]
Texas; comments due by 5-27-03; published 4-15-03 [FR 03-09170]

FEDERAL MARITIME COMMISSION
Passenger vessel financial responsibility:
Performance and casualty rules, Alternative Dispute Resolution program, etc.; miscellaneous amendments; oral comments and hearing; comments due by 5-30-03; published 4-8-03 [FR 03-08611]

HOMELAND SECURITY DEPARTMENT
Coast Guard
Ports and waterways safety:
Hampton Roads, VA; regulated navigation area; comments due by 5-29-03; published 4-29-03 [FR 03-10214]
Port Valdez and Valdez Narrows, AK; security zone; comments due by 5-27-03; published 3-27-03 [FR 03-07299]
Portland Captain of Port Zone, OR; safety zones; comments due by 5-27-03; published 3-27-03 [FR 03-07300]
Regattas and marine parades:
Thunder on the Narrows boat races; comments due by 5-30-03; published 3-31-03 [FR 03-07545]

HOMELAND SECURITY DEPARTMENT
Customs Service
Andean Trade Promotion and Drug Eradication Act; implementation; comments due by 5-27-03; published 3-25-03 [FR 03-06867]

INTERIOR DEPARTMENT
Minerals Management Service
Outer Continental Shelf; oil, gas, and sulphur operations:
OCS rights-of-use and easement and pipeline rights-of-way; requirements revision; comments due by 5-27-03; published 4-24-03 [FR 03-10173]
Royalty management:
Marginal properties; accounting and auditing relief; comments due by 5-30-03; published 3-31-03 [FR 03-06703]
Relief or reduction in rates; deep gas provisions; comments due by 5-27-03; published 3-26-03 [FR 03-07353]

INTERIOR DEPARTMENT
Surface Mining Reclamation and Enforcement Office
Permanent program and abandoned mine land reclamation plan submissions:
Kentucky; comments due by 5-29-03; published 4-29-03 [FR 03-10533]

SOCIAL SECURITY ADMINISTRATION

Organization and procedures:

Assignment of Social Security numbers for nonwork purposes; evidence requirements; comments due by 5-27-03; published 3-26-03 [FR 03-07188]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness directives:

Boeing; comments due by 5-27-03; published 5-1-03 [FR 03-10727]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness directives:

Bombardier; comments due by 5-29-03; published 4-29-03 [FR 03-10235]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness directives:

CFM International; comments due by 5-27-03; published 3-25-03 [FR 03-07003]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness directives:

Empresa Brasileira de Aeronautica, S.A. (EMBRAER); comments due by 5-29-03; published 4-29-03 [FR 03-10236]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness directives:

Pratt & Whitney; comments due by 5-27-03; published 3-25-03 [FR 03-06997]

Rolls-Royce plc; comments due by 5-27-03; published 3-25-03 [FR 03-07004]

Textron Lycoming; comments due by 5-27-03; published 3-25-03 [FR 03-06998]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness standards:

Special conditions—

Learjet Model 24/25 Series airplanes; comments due by 5-29-03; published 4-29-03 [FR 03-10450]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Class E airspace; comments due by 5-29-03; published 3-31-03 [FR 03-07663]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Class E airspace; comments due by 5-30-03; published 4-15-03 [FR 03-09179]

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Class E airspace; comments due by 5-30-03; published 4-23-03 [FR 03-10047]

TRANSPORTATION DEPARTMENT

Maritime Administration

Coastwise trade laws; administrative waivers for eligible vessels; comments due by 5-30-03; published 4-30-03 [FR 03-10578]

TREASURY DEPARTMENT

Alcohol and Tobacco Tax and Trade Bureau

Alcohol; vitcultural area designations:

Red Hill, Douglas County, OR; comments due by 5-27-03; published 4-24-03 [FR 03-10095]

VETERANS AFFAIRS DEPARTMENT

Adjudication; pensions, compensation, dependency, etc.:

Chronic lymphocytic leukemia; presumptive service connection; comments due by 5-27-03; published 3-26-03 [FR 03-07221]

LIST OF PUBLIC LAWS

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The text of laws is not published in the **Federal Register** but may be ordered in ''slip law'' (individual pamphlet) form from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (phone, 202–512–1808). The text will also be made available on the Internet from GPO Access at *http://www.access.gpo.gov/nara/nara005.html*. Some laws may not yet be available.

H.R. 289/P.L. 108–23

Ottawa National Wildlife Refuge Complex Expansion and Detroit River International Wildlife Refuge Expansion Act (May 19, 2003; 117 Stat. 704)

Last List May 16, 2003

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