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CONSUMER PRODUCT SAFETY COMMISSION

5 CFR Chapter LXXI

16 CFR Part 1030

RIN 3209–AA15

Supplemental Standards of Ethical Conduct for Employees of the Consumer Product Safety Commission

AGENCY: Consumer Product Safety Commission (CPSC).

ACTION: Final rule.

SUMMARY: The Consumer Product Safety Commission, with the concurrence of the Office of Government Ethics (OGE), is issuing regulations for CPSC employees that supplement the Standards of Ethical Conduct for Employees of the Executive Branch issued by OGE. These supplemental regulations address outside employment by CPSC employees. The CPSC is also revoking its existing agency employee conduct regulations which addressed outside employment by CPSC employees.

EFFECTIVE DATE: December 13, 1996.

FOR FURTHER INFORMATION CONTACT: Richard W. Allen, Assistant General Counsel for General Law, Consumer Product Safety Commission, Washington, DC 20207; telephone (301) 504–0980, extension 2212.

SUPPLEMENTARY INFORMATION:

I. Background

On August 7, 1992 the Office of Government Ethics (OGE) published the Standards of Ethical Conduct for Employees of the Executive Branch (the Standards). See 57 FR 35006–35067, as corrected at 57 FR 48557 and 52583 and 60 FR 51667, and amended at 61 FR 42965–42970 (as corrected at 61 FR 48733) and 61 FR 50689–50691, with additional grace period extensions at 59 FR 4779–4780, 60 FR 6390–6391 and 66857–66858, and 61 FR 40950–40952. The Standards, codified at 5 CFR part 2365, became effective February 3, 1993, and established uniform standards of ethical conduct applicable to personnel of all executive branch agencies.

Section 2635.105 of the Standards authorizes executive agencies, with the concurrency of OGE, to publish agency-specific supplemental regulations that are necessary to implement their ethics programs. The CPSC, with OGE's concurrence, has determined that the following supplemental regulations are necessary for successful implementation of the CPSC ethics program. By this notice, CPSC is also revoking its old conduct regulations as codified at 16 CFR part 1030, subpart D and adding a single section in subpart A, previously reserved, that provides cross-references to 5 CFR parts 735, 2634 and 2635, as well as to the CPSC's new supplemental regulation and, for CPSC Commissioners, to the statutory provisions of 15 U.S.C. 2053(c).

II. Analysis of the Regulations

Section 8101.101 General

Section 8101.101(a) explains that the regulations apply to all CPSC employees and supplement the standards of ethical conduct which are applicable to all executive branch personnel.

Section 8101.102 Prohibitions Applicable to Commissioners

This section references and summarizes the statutory prohibitions on outside employment applicable to the CPSC Commissioners is Section 4(c) of the Consumer Product Safety Act, 15 U.S.C. 2053(c).

Section 8101.103 Prior Approval for Outside Employment

Sections 2635.803 of the Standards authorizes agencies to issue supplemental regulations requiring employees to obtain prior approval before engaging in outside employment. The CPSC has long required employees to obtain prior written approval before engaging in outside employment or activities. Provisions of the now superseded CPSC regulations codifies at 16 CFR part 1030, subpart D, have required CPSC employees to obtain advance approval for outside employment since those regulations were issued in 1976. The CPSC has found this requirement useful in ensuring that the outside employment of employees conform with all applicable laws and regulations and had determined that it is necessary to the administration of its ethics program that employees now continue to obtain prior approval before engaging in outside employment.

Therefore, section 8101.103(a) of the supplemental regulations reinstates the requirement for prior approval of outside employment of CPSC employees other than special Government employees.

Section 8101.103(b) sets forth the criteria to be used in approving or denying requests for approval of outside employment.

Section 8101.103(c) provides that employees will be notified in writing of the action taken on their requests and that all requests will be maintained in the Designated Agency Ethics Official's files.

Section 8101.103(d) states that approvals will be for a period of up to two years. An employee must submit a new request for approval two years after the date of approval, when the scope of the approved activity changes, or when the employee's position changes, whichever occurs first.

Section 8101.103(e) defines the term ''employment'' and describes the circumstances in which prior approval must be obtained.

III. Repeal of Existing CPSC Outside Employment Regulations and Addition of Cross-References

The CPSC is repealing its recently superseded conduct regulations governing outside activities, codified at 16 CFR part 1030, subpart D—Outside Employment and Other Activities. Other portions of the CPSC regulations governing CPSC employees' responsibilities and conduct in 16 CFR Part 1030 were previously superseded when the executive branch wide Standards of Ethical Conduct at 5 CFR part 2635 became generally effective in February 1993 and were repealed by the CPSC. See 58 FR 12335 (March 4, 1993).

At this time, the CPSC is also issuing a residual provision at 16 CFR part 1030, subpart A, to cross-reference the executive branch-wide Standards, this supplemental regulation, the executive branch-wide financial disclosure regulations at 5 CFR part 2634 and, for CPSC Commissioners, the statutory

provisions of section 4(c) of the Consumer Product Safety Act, 15 U.S.C. 2053(c). The CPSC will also leave in 16 CFR part 1030, subpart M, the existing rules of conduct required by the Privacy Act of 1974, at 5 U.S.C. 552 a(e)(9). Subparts B–L of part 1030 are reserved.

IV. Matters of Regulatory Procedure

Generally, the Administrative Procedure Act (APA) (5 U.S.C. 553) requires agencies to publish a notice of proposed rulemaking and provide opportunity for public comment before issuing or revoking regulations. However, the APA provides at 5 U.S.C. 553(b)(B) that the requirement for a notice of proposed rulemaking is not applicable when the agency finds for good cause that notice of proposed rulemaking and public participation are ''impracticable, unnecessary, or contrary to the public interest.''

The CPSC finds for good cause that notice of proposed rulemaking and public participation are unnecessary because the CPSC is essentially reissuing existing regulations in a different form; the regulations pertain wholly to internal agency personnel matters; and they affect only CPSC employees. Furthermore, it is in the public interest that these CPSC supplemental ethics rules become effective as soon as possible.

The APA also requires at 5 U.S.C. 553(d) that a substantive rule must be published at least 30 days before its effective date unless the agency finds for good cause that such delay is not needed. Again, because the CPSC is essentially reissuing prior longstanding requirements, the CPSC finds for good cause that a delayed effective date is unnecessary. Consequently, this amendment and revocation shall become effective immediately.

List of Subjects

5 CFR Part 8101

Conflict of interests, Government employees.

16 CFR Part 1030

Conflict of interests, Government employees, Privacy.

Dated: November 22, 1996.

Sadye E. Dunn,

Secretary, Consumer Product Safety Commission.

Approved: December 5, 1996.

Stephen D. Potts,

Director, Office of Government Ethics.

For the reasons set forth above, the Consumer Product Safety Commission, with the concurrence of the Office of Government Ethics, is amending title 5 and title 16 of the Code of Federal Regulations as follows:

TITLE 5—[AMENDED]

1. A new chapter LXXI, consisting of part 8101, is added to title 5 of the Code of Federal Regulations to read as follows:

CHAPTER LXXI—CONSUMER PRODUCT SAFETY COMMISSION

PART 8101—SUPPLEMENTAL STANDARDS OF ETHICAL CONDUCT FOR EMPLOYEES OF THE CONSUMER PRODUCT SAFETY COMMISSION

Sec.
8101.101 General.
8101.102 Prohibitions applicable to Commissioners.
8101.103 Prior approval for outside employment.

Authority: 5 U.S.C. 7301; 5 U.S.C. App. (Ethics in Government Act of 1978); 15 U.S.C. 2053(c); E.O. 12674, 54 FR 15139, 3 CFR, 1989 Comp., p. 215, as modified by E.O. 12731, 55 FR 42547, 3 CFR, 1990 Comp., p. 306; 5 CFR 2635.105, 2635.803.

§ 8101.101 General.

In accordance with 5 CFR 2635.105, the regulations in this part apply to employees of the Consumer Product Safety Commission (CPSC). These regulations supplement the Standards of Ethical Conduct for Employees of the Executive Branch contained in 5 CFR part 2635.

§ 8101.102 Prohibitions applicable to Commissioners.

The Commissioners of the Consumer Product Safety Commission are subject to section 4(c) of the Consumer Product Safety Act, 15 U.S.C. 2053(c). That statutory provision provides that a Commissioner may not engage in any other business, vocation, or employment.

§ 8101.103 Prior approval for outside employment.

(a) *Prior approval requirement.* Before engaging in any outside employment, with or without compensation, an employee, other than a special Government employee. shall obtain prior written approval from his or her supervisor and the Designated Agency Ethics Official (DAEO) or Alternate DAEO. The Request for Approval of Outside Activity (CPSC Form 241), available from the DAEO or unit administrative officer, may be used to request approval. Requests for approval shall be forwarded through normal supervisory channels.

(b) *Standard of approval.* Approval shall be granted only upon a determination that the outside employment is not expected to involve conduct prohibited by Federal statute or regulation, including 5 CFR part 2635.

(c) *Notification of action.* Employees will be notified in writing of the action taken on their requests. All requests will be maintained in the files of the Designated Agency Ethics Official for the duration of the requester's CPSC employment.

(d) *Duration and scope of approval.* Approval will be for a period not to exceed two years, after which renewal approval must be sought. An employment must submit a new request for approval after two years or earlier upon either a significant change in the nature or scope of the outside employment or a change in the employee's CPSC position.

(e) *Definition of employment.* For purposes of this section, ''employment'' means any form of non-Federal employment, business relationship or activity involving the provision of personal services by the employee, whether or not for compensation. Employment includes, but is not limited to, personal services as an officer, director, employee, agent, attorney, consultant, contractor, general partner, trustee, teacher or speaker. Employment also includes writing when done under an arrangement with another person for production or publication of the written product. Employment does not, however, include participation in the activities of a nonprofit charitable, religious, professional, social, fraternal, educational, recreational, public service, consumer or civic organization, unless such activities are for compensation other than reimbursement for expenses or involve the provision of professional services or advice to, or serving as an officer, trustee, or member of a board or other such body of, an organization that is a prohibited source as defined in 5 CFR 2635.203(d).

TITLE 16—[AMENDED]

CHAPTER II—CONSUMER PRODUCT SAFETY COMMISSION

PART 1030—EMPLOYEE STANDARDS OF CONDUCT—[AMENDED]

2. The authority citation for part 1030 is revised to read as follows:

Authority: 5 U.S.C. 552a, 7301; 15 U.S.C. 2053(c).

3. Subpart A, previously reserved, is added to read as follows:

Subpart A—General

§ 1030.101 Cross-references to employee ethical conduct standards and financial disclosure regulations.

Employees of the Consumer Product Safety Commission are subject to the

Standards of Ethical Conduct, 5 CFR part 2635, which are applicable to all executive branch personnel; the CPSC regulations at 5 CFR part 8101, which supplement the executive branch standards; the Office of Personnel Management regulations on employee conduct at 5 CFR part 735; and the financial disclosure regulations at 5 CFR part 2634, which are applicable to all executive branch personnel. In addition, the Commissioners of the CPSC are subject to the statutory provisions of 15 U.S.C. 2053(c).

Subpart D—[Removed]

4. Subpart D is removed and reserved.

[FR Doc. 96–31591 Filed 12–12–96; 8:45 am]

BILLING CODE 6355–01–M

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Part 301

[Docket No. 96–063–2]

Imported Fire Ant; Approved Treatments

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Withdrawal of a direct final rule.

SUMMARY: This document withdraws the direct final rule that notified the public of our intention to amend the imported fire ant regulations. The direct final rule was to lengthen the certification period for containerized nursery stock treated with a 10 parts per million dosage of the insecticide tefluthrin in its granular formulation and to remove the 15 parts per million dosage rate for granular tefluthrin. This withdrawal is necessary because we received a written adverse comment in response to the direct final rule.

EFFECTIVE DATE: December 13, 1996.

FOR FURTHER INFORMATION CONTACT: Mr. Ronald P. Milberg, Operations Officer, Program Support, PPQ, APHIS, 4700 River Road Unit 134, Riverdale, MD 20737–1236, (301) 734–5255; or E-mail: rmilberg@aphis.usda.gov.

SUPPLEMENTARY INFORMATION:

Background

In a direct final rule published in the Federal Register on October 15, 1996 (61 FR 53601–53603, Docket No. 96–063–1), we notified the public of our intention to amend the imported fire ant regulations to lengthen the certification period for containerized nursery stock treated with a 10 parts per million (ppm) dosage of the insecticide tefluthrin in its granular formulation and to remove the 15 ppm dosage rate for granular tefluthrin.

We solicited comments concerning the direct final rule for 30 days ending November 14, 1996. We stated that the effective date of the direct final rule would be 60 days after publication of the direct final rule in the Federal Register, unless we received a written adverse comment or a written notice of intent to submit an adverse comment. We also stated that if we received any written adverse comment or any written notice of intent to submit an adverse comment, we would publish a notice in the Federal Register withdrawing the direct final rule before the scheduled effective date and would publish a proposed rule for public comment.

We received one written adverse comment and a written notice of intent to submit an adverse comment. Therefore, we are withdrawing the direct final rule and, at a later date, we will publish a proposed rule in the Federal Register.

Authority: 7 U.S.C. 150bb, 150dd, 150ee, 150ff, 161, 162, and 164–167; 7 CFR 2.22, 2.80, and 371.2(c).

Done in Washington, DC, this 9th day of December 1996.

A. Strating,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 96–31602 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–34–P

Food Safety and Inspection Service

9 CFR Part 391

[Docket No. 96–013F]

RIN 0583–AC13

Fee Increase for Inspection Services

AGENCY: Food Safety and Inspection Service, USDA.

ACTION: Final rule.

SUMMARY: The Food Safety and Inspection Service (FSIS) is increasing the fees charged to meat and poultry establishments, importers, and exporters for providing voluntary inspection, identification, and certification services; overtime and holiday services. The fee increases are based on the Agency's analysis of projected costs for fiscal year 1996, which identifies increased costs resulting from the January 1996 FSIS national and locality pay raise average of 2.4 percent for Federal employees and increased health insurance costs.

At the same time, FSIS is reducing the fees charged for providing laboratory services to meat and poultry establishments. The Agency's analysis of projected costs for fiscal year 1996 identified decreased costs resulting from the use of automated equipment for testing laboratory samples.

EFFECTIVE DATE: December 13, 1996.

ADDRESSES: FSIS's cost analysis is on file with the FSIS Docket Clerk, Room 3806, South Agriculture Building, Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, DC 20250–3700. It is available for public inspection in the FSIS Docket Room from 8:30 a.m. to 1 p.m. and from 2 p.m. to 4:30 p.m., Monday through Friday.

FOR FURTHER INFORMATION CONTACT: William L. West, Director, Budget and Finance Division, Administrative Management, (202) 720–3367.

SUPPLEMENTARY INFORMATION:

Background

The Federal Meat Inspection Act (FMIA) and the Poultry Products Inspection Act (PPIA) provide for mandatory inspection of meat and poultry slaughtered or processed at official establishments. Such inspection is required to ensure the safety, wholesomeness, and proper labeling of meat and poultry products. The costs of mandatory inspection (excluding services performed on holidays or on an overtime basis) are borne by FSIS.

In addition to mandatory inspection, FSIS provides a range of voluntary inspection services. Under the Agricultural Marketing Act of 1946, as amended (7 U.S.C. 1621 *et seq.*), FSIS provides these services to assist in the orderly marketing of various animal products and byproducts not subject to the FMIA or the PPIA. The costs of voluntary inspection are totally recoverable by the Federal Government.

Each year, FSIS reviews the fees it charges meat and poultry establishments, importers, and exporters for providing voluntary inspection, identification, and certification services, as well as overtime and holiday services, and performs a cost analysis to determine whether such fees are adequate to recover the costs FSIS incurs in providing the services. In its analysis of projected costs for fiscal year 1996, FSIS identified increases in the costs of providing voluntary inspection, identification, and certification services, as well as overtime and holiday services. The increases are attributable to the average FSIS national and locality pay raise of 2.4 percent for Federal employees effective January 1996 and increased health insurance costs.

On July 3, 1996, FSIS published a proposed rule in the Federal Register (61 FR 34748) to increase the fees charged by FSIS to provide voluntary inspection, identification, and certification services, and overtime and holiday services. FSIS also proposed to reduce the fees charged for providing laboratory services to meat and poultry establishments.

FSIS did not receive any comments in response to the proposed rule and is finalizing the rule as proposed. FSIS maintains that the increased rates are necessary and reflect the cost of providing inspection services. The new rates reflect only a minimal increase in the costs currently borne by those entities which elect to utilize certain inspection services and a decrease in program support costs.

Accordingly, FSIS is amending § 391.2 to increase the base time rate for providing voluntary inspection, identification, and certification services from $31.92 per hour, per program employee to $32.88 per hour, per program employee. FSIS is amending § 391.3 to increase the rate for providing overtime and holiday services from $32.96 per hour per program employee to $33.76 per hour, per program employee.

In its analysis of projected costs for fiscal year 1996, FSIS also identified a decrease in the cost of providing laboratory services to meat and poultry establishments resulting from the use of automated equipment for testing laboratory samples and for other inspection services not covered under the base time, overtime, and holiday costs, such as travel expenses. Therefore, FSIS is amending § 391.4 of the regulations to reduce the fee charged for providing laboratory services from $52.92 per hour, per program employee, to $48.56 per hour per program employee.

To recover the increased costs in an expeditious manner, the Administrator has determined that these amendments should be effective less than 30 days after publication in the Federal Register.

Executive Order 12866 and Regulatory Flexibility Act

This final rule has been determined to be significant and was reviewed by the Office of Management and Budget under Executive Order 12866. The fee increases for voluntary inspection, identification, and certification services, overtime, and holiday inspection services primarily reflect the 1996 increase in salaries of Federal employees allocated by Congress under the Federal Employees Pay Comparability Act of 1990. The fee decrease for laboratory services reflects the use of automated equipment for testing laboratory samples and other inspection related services not covered under the base time, overtime, and holiday costs such as travel expenses.

The Administrator, FSIS, has determined that this action will not have a significant economic impact on a substantial number of small entities as defined by the Regulatory Flexibility Act (5 U.S.C. 601). The fee increases provided for in this document will reflect a minimal increase in the costs currently borne by those entities which elect to utilize certain inspection services and a decrease in program support costs.

Executive Order 12778

This final rule has been reviewed under Executive Order 12778, Civil Justice Reform. This rule (1) preempts all State and local laws, 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.

List of Subjects in 9 CFR Part 391

Fees and charges, Meat inspection, Poultry products inspection.

For the reasons set out in the preamble, 9 CFR part 391 is amended as follows:

PART 391—FEES AND CHARGES FOR INSPECTION SERVICES

1. The authority citation for part 391 continues to read as follows:

Authority: 7 U.S.C. 138f; 7 U.S.C. 394, 1622, and 1624; 21 U.S.C. 451 *et seq.*; 21 U.S.C. 601–695; 7 CFR 2.18 and 2.53.

2. Sections 391.2, 391.3, and 391.4 are revised to read as follows:

§ 391.2 Base time rate.

The base time rate for inspection services provided pursuant to §§ 350.7, 351.8, 351.9, 352.5, 354.101, 355.12, and 362.5 shall be $31.92 per hour, per program employee.

§ 391.3 Overtime and holiday rate.

The overtime and holiday rate for inspection services provided pursuant to §§ 307.5, 350.7, 351.8, 351.9, 352.5, 354.101, 355.12, 362.5, and 381.38 shall be $32.96 per hour, per program employee.

§ 391.4 Laboratory services rate.

The rate for laboratory services provided pursuant to §§ 350.7, 351.9, 352.5, 354.101, 355.12, and 362.5 shall be $52.92 per hour, per program employee.

Done at Washington, DC, on December 6, 1996.

Thomas J. Billy,

Administrator.

[FR Doc. 96–31609 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–DM–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM–136; Special Conditions No. 25–ANM–122]

Special Conditions: Gulfstream Model G1159A Airplane; High-Intensity Radiated Fields

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the Gulfstream Model G1159A airplane, modified by Chrysler Pentastar to include a Flight Vision Heads-Up Display (FV–2000) system, that provides critical data to the flightcrew. The applicable regulations do not contain adequate or appropriate safety standards for the protection of this system from the effects of high-intensity radiated fields (HIRF). These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: The effective date of these special conditions is December 4, 1996. Comments must be received on or before January 13, 1997.

ADDRESSES: Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Office of the Assistant Chief Counsel, Attn: Rules Docket (ANM–7), Docket No. NM–136, 1601 Lind Avenue SW., Renton, Washington, 98055–4056; or delivered in duplicate to the Office of the Assistant Chief Counsel at the above address. Comments must be marked: Docket No. NM–136. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4:00 p.m.

FOR FURTHER INFORMATION CONTACT: Connie Bean, FAA, Standardization Branch, ANM–113, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98055–4056; telephone (206) 227–2796; facsimile (206) 227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA has determined that good cause exists for making these special conditions effective upon issuance; however, interested persons are invited to submit such written data, views, or arguments as they may desire. Communications should identify the regulatory docket and special condition number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments will be considered by the Administrator. These special conditions may be changed in light of the comments received. All comments submitted will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Persons wishing the FAA to acknowledge receipt of their comments submitted in response to this request must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. NM–136.'' The postcard will be date stamped and returned to the commenter.

Background

Chrysler Pentastar Aviation, Inc., Waterford, Michigan, has applied for a supplemental type certificate in the transport airplane category for the Gulfstream Model G1159A, modified to include a new Flight Vision Heads-UP Display (FV–2000) system. The Model G1159A is a T-tail, low swept-wing, small transport airplane powered by two Rolls Royce SPEY RB (163–25) engines mounted on pylons extending from the aft fuselage. The airplane has a maximum takeoff weight of 69,700 pounds.

Type Certification Basis

Under the provisions of § 21.101 of 14 CFR part 21, Chrysler Pentastar must show that the Model G1159A, as changed, continues to meet the applicable provisions of the regulations incorporated by reference in Type Certificate A12EA, or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the ''original type certification basis.'' The regulations incorporated by reference in Type Certificate No. A12EA are as follows:

Part 25 of the FAR, effective February 1, 1965, as amended by Amendments 25–1 through 25–8, 25–10, 25–12, 25–16 through 25–22, 25–24, 25–26, 25–27, 25–29 through 25–31, 25–34, 25–37, 25–40 (as applicable to a new APU installation); § 25.1309, as amended by Amendment 25–41, and § 25.329 (as applied to a new autopilot installation), § 25.994 (crashworthiness fuel system components), and § 25.581 (lightning protection), as amended by Amendment 25–23; Special FAR part 27, as amended by Amendment 27–2 (fuel venting emission); and part 36, as amended by Amendment 36–8 (noise requirements). The special conditions contained in the FAA's letter to Grumman dated September 27, 1965, applicable to the Gulfstream Model G–1159 airplane, are also applicable to the Gulfstream Model G–11159A airplane, except that reference to § 4b.450 in the ''Cooling Systems'' special conditions is replaced by § 25.1043, effective February 1, 1965. In addition, the certification basis includes special conditions pertaining to dynamic gust loads contained in the enclosed to FAA AEA–212 letter dated July 22, 1980.

These special conditions form an additional part of the type certification basis.

If the Administrator finds that the applicable airworthiness regulations (i.e., part 25, as amended) do not contain adequate or appropriate safety standards for the Gulfstream Model G1159A because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions, as appropriate, are issued in accordance with 14 CFR § 11.49 after public notice, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 21.101(b)(2).

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, these special conditions would also apply to the other model under the provisions of § 21.101(a)(1).

Novel or Unusual Design Features

The Model G1159A is modified to incorporate a new avionic/electronic installation, including the Flight Vision Heads-Up Display (FV–2000) system. This system may be vulnerable to high-intensity radiated fields (HIRF) external to the airplane.

Discussion

There is no specific regulation that addresses protection requirements for electrical and electronic systems from HIRF. Increased power levels from ground-based radio transmitters and the growing use of sensitive electrical and electronic systems to command and control airplanes have made it necessary to provide adequate protection.

To ensure that a level of safety is achieved equivalent to that intended by the regulations incorporated by reference, a special condition is needed for the Model G–1159A, as modified by Chrysler Pentastar, which requires that new electrical and electronic systems, such as the Heads-Up Display, that perform critical functions be designed and installed to preclude component damage and interruption of function due to both the direct and indirect effects of HIRF.

High-Intensity Radiated Fields (HIRF)

With the trend toward increased power levels from ground-based transmitters, plus the advent of space and satellite communications, coupled with electronic command and control of the airplane, the immunity of critical digital avionics systems, such as Heads-Up Display, to HIRF must be established.

It is not possible to precisely define the HIRF to which the airplane will be exposed in service. There is also uncertainty concerning the effectiveness of airframe shielding for HIRF. Furthermore, coupling of electromagnetic energy to cockpit-installed equipment through the cockpit window apertures is undefined. Based on surveys and analysis of existing HIRF emitters, an adequate level of protection exists when compliance with the HIRF protection special condition is shown with either paragraphs 1 OR 2 below:

1. A minimum threat of 100 volts per meter peak electric field strength from 10 KHz to 18 GHz.

a. The threat must be applied to the system elements and their associated wiring harnesses without the benefit of airframe shielding.

b. Demonstration of this level of protection is established through system tests and analysis.

2. A threat external to the airframe of the following field strengths for the frequency ranges indicated.

Frequency	Peak (V/M)	Average (V/M)
10 KHz–100 KHz	50	50
100 KHz–500 KHz	60	60
500 KHz–2 MHz	70	70
2 MHz–30 MHz	200	200
30 MHz–100 MHz	30	30
100 MHz–200 MHz	150	33
200 MHz–400 MHz	70	70
400 MHz–700 MHz	4,020	935
700 MHz–1 GHz	1,700	170
1 GHz–2 GHz	5,000	990
2 GHz–4 GHz	6,680	840
4 GHz–6 GHz	6,850	310
6 GHz–8 GHz	3,600	670
8 GHz–12 GHz	3,500	1,270

Frequency	Peak (V/M)	Average (V/M)
12 GHz–18 GHz	3,500	360
18 GHz–40 GHz	2,100	750

As discussed above, these special conditions are applicable to the Gulfsteam Model G–1159A, modified by Chrysler Pentastar to incorporate a Flight Vision Heads-Up Display. Should Chrysler Pentastar apply at a later date for a Supplemental Type Certificate to modify any other model included on Type Certificate No. A12EA to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well, under the provisions of § 21.101(a)(1).

Conclusion

This action affects only certain design features on Gulfstream Model G–1159A airplanes, modified by Chrysler Pentastar to include a Flight Vision Heads-Up Display. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

The substance of the special conditions for this airplane has been subject to the notice and comment procedure in several prior instances and has been derived without substantive change from those previously issued. It is unlikely that prior public comment would result in a significant change from the substance contained herein. For this reason, and because a delay would significantly affect the certification of the airplane, which is imminent, the FAA has determined that prior public notice and comment are unnecessary and impracticable, and good cause exists for adopting these special conditions immediately. Therefore, these special conditions are being made effective upon issuance. The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to the prior opportunities for comment described above.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and record keeping requirements.

The authority citation for this special condition is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the supplemental type certification basis for the Gulfstream Model G–1159A airplane, as modified by Chrysler Pentastar.

1. *Protection from Unwanted Effects of High-Intensity Radiated Fields (HIRF).* Each electrical and electronic system that performs critical functions must be designed and installed to ensure that the operation and operational capability of these systems to perform critical functions are not adversely affected when the airplane is exposed to high-intensity radiated fields.

2. For the purpose of this special condition, the following definition applied: *Critical Functions.* Functions whose failure would contribute to or cause a failure condition that would prevent the continued safe flight and landing of the airplane.

Issued in Renton, Washington, on December 4, 1996.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate Aircraft Certification Service, ANM–100.

[FR Doc. 96–31728 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF COMMERCE

Bureau of Export Administration

15 CFR Parts 734, 740, 742, 762 and 774

[Docket No. 960918265–6296–02]

RIN 0694–AB09

Licensing of Key Escrow Encryption Equipment and Software

AGENCY: Bureau of Export Administration, Commerce.

ACTION: Interim final rule.

This interim final rule amends the Export Administration Regulations (EAR) by imposing national security controls on Key escrow information security (encryption) equipment and software transferred from the U.S. Munitions List to the Commerce Control List following a commodity jurisdiction determination by the Department of State.

This interim final rule also amends the EAR to exclude key escrow items from the *de minimis* provisions for items exported from abroad and to exclude key escrow encryption software from mass market eligibility. Further, key escrow encryption software is subject to the EAR even when made publicly available.

DATES: *Effective date.* This rule is effective December 13, 1996. *Comment date:* Comments, should be submitted on or before January 13, 1997.

ADDRESSES: Written comments should be sent to Nancy Crowe, Regulatory Policy Division, Office of Exporter Services, Bureau of Export Administration, Room 2705, 14th Street and Pennsylvania Avenue, N.W., Washington, D.C. 20230.

FOR FURTHER INFORMATION CONTACT: James A. Lewis, Office of Strategic Trade and Foreign Policy Controls, Telephone (202) 482–0092.

SUPPLEMENTARY INFORMATION:

Background

In August 1995 the United States decided to ease export licensing requirements for key escrow encryption software products. As part of this decision to allow the export of these products, draft criteria were developed for key escrow products and for key holders. Products that conform to these criteria will be considered for transfer from the U.S. Munitions List to the Commerce Control List following a case-by-case determination by the Department of State through the commodity jurisdiction procedures.

Once transferred, key escrow encryption items will be controlled for national security reasons. A license will be required from the Department of Commerce to all destinations, except Canada. This is an initial step in liberalizing the treatment of encryption exports.

The Bureau of Export Administration is preparing regulations to further implement the Administration's encryption policies, which will be published in the Federal Register in the near future. These further measures are based upon the Administration's October 1, 1996 announcement of plans to make it easier for Americans to use stronger encryption products to protect their privacy, intellectual property and other valuable information, and the November 15, 1996, Presidential Memorandum and Executive Order 13026 (15 November 1996, 61 FR 58767) (Memorandum) directing that all encryption items controlled on the U.S. Munitions List, except those specifically designed, developed, configured, adapted, or modified for military applications, be transferred to the Commerce Control List. The plan to make it easier for Americans to use stronger encryption products to protect their privacy, intellectual property and other valuable information envisions a worldwide key management infrastructure with the use of key recovery and key escrow encryption items to promote electronic commerce

and secure communications while protecting national security and public safety. The Memorandum sets forth certain additional provisions with respect to controls on such encryption items to be imposed by the Department of Commerce. The Executive Order also provides for appropriate controls on the export and foreign dissemination of encryption items controlled on the U.S. Munitions List that are placed on the Commerce Control List.

This interim final rule amends that EAR to reflect the new licensing policy for key escrow encryption items. The Bureau of Export Administration will accept license applications for the export and reexport of key escrow encryption items in unlimited quantities for all destinations except to embargoed destinations and destinations the Secretary of State has determined to support international terrorism. Such applications will receive favorable consideration provided that, prior to the export or reexport, a key holder satisfactory to the Department of Commerce has been identified (see new Supplement No. 5 part 742) and procedures for safeguarding the key as described in a Supplement No. 5 to part 742 are established to the satisfaction of the Department of Commerce and are maintained after export or reexport as required by the EAR and any license conditions. In addition, the key escrow system must meet the criteria identified in a new Supplement No. 4 to part 742.

This interim final rule also amends part 734 of the EAR to reflect that key escrow encryption software will be subject to the EAR even when made publicly available, and to exclude key escrow encryption software and items from the *de minimis* provision for items. Further, this interim final rule amends part 740 of the EAR to exclude key escrow encryption software from the mass market provisions of License Exception TSU, and amends part 762 of the EAR to clarify the additional records that must be kept for compliance with the recordkeeping provisions of the EAR.

Finally, this interim final rule also amends Supplement No. 1 to part 774 (the Commerce Control List) by clarifying that once transferred from the U.S. Munitions List (USML) to the Commerce Control List (CCL) following a case-by-case determination by the Department of State through the commodity jurisdiction procedures, key escrow encryption items and software are controlled on the CCL under Export Control Classification Numbers 5A002.a and 5D002.c.1 respectively.

This rule involves no new curtailment of exports, because the transfer or removal of items from the United States Munitions List to the CCL maintains a continuity of controls. Therefore, the provisions regarding the impact of new controls do not apply, and contract sanctity also does not apply to this imposition of controls.

Although the Export Administration Act (EAA) expired on August 20, 1994, the President invoked the International Emergency Economic Powers Act and continued in effect, to the extent permitted by law, the provisions of the EAA and the EAR in Executive Order 12924 of August 19, 1994, notice of August 15, 1995 (60 FR 42767), and notice of August 14, 1996 (60 FR 42527).

1. This interim final rule has been determined to be significant for purposes of E.O. 12866.

2. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information, subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. This rule involves collections of information subject to the Paper work Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These collections have been approved by the Office of Management and Budget under control number 0694–0088.

3. This rule does not contain policies with Federalism implications sufficient to warrant preparation of a Federalism assessment under Executive Order 12612.

4. The provisions of the Administrative Procedure Act (5 U.S.C. 553) requiring notice of proposed rulemaking, the opportunity for public participation, and a delay in effective date, are inapplicable because this regulation involves a military and foreign affairs functions of the United States (Sec. 5 U.S.C. 553(a)(1)). Further, no other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this interim final rule. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule under 5 U.S.C. or by any other law, the requirements of the Regulatory Flexibility Act (5 U.S.C 601 *et seq.*) are not applicable.

However, because of the importance of the issues raised by these regulations, this rule is issued in interim final form and comments will be considered in the development of final regulations. Accordingly, the Department encourages interested persons who wish to comment to do so at the earliest possible time to permit the fullest consideration of their views.

The period for submission of comments will close January 13, 1997. The Department will consider all comments received before the close of the comment period in developing final regulations. Comments received after the end of the comment period will be considered if possible, but their consideration cannot be assured. The Department will not accept public comments accompanied by a request that a part or all of the material be treated confidentially because of its business proprietary nature or for any other reason. The Department will return such comments and materials to the person submitting the comments and will not consider them in the development of final regulations. All public comments on these regulations will be a matter of public record and will be available for public inspection and copying. In the interest of accuracy and completeness, the Department requires comments in written form.

Oral comments must be followed by written memoranda, which will also be a matter of public record and will be available for public review and copying. Communications from agencies of the United States Government or foreign governments will not be made available for public inspection.

The public record concerning these regulations will be maintained in the Bureau of Export Administration, Freedom of Information Records Inspection Facility, Room 4525, Department of Commerce, 14th Street and Pennsylvania Avenue, N.W., Washington, DC 20230. Records in this facility, including written public comments and memoranda summarizing the substance of oral communications, may be inspected and copied in accordance with regulations published in Part 4 of Title 15 of the Code of Federal Regulations. Information about the inspection and copying of records at the facility may be obtained from Margaret Cornejo, Bureau of Export Administration, Freedom of Information Officer, at the above address or by calling (202) 482–5653.

List of Subjects

15 CFR Part 734

Administrative practice and procedure, Exports, Foreign trade.

15 CFR Part 740

Administration practice and procedure, Exports, Foreign trade, Reporting and recordkeeping requirements.

15 CFR Parts 742 and 774

Exports, Foreign trade.

15 CFR Part 762

Administrative practice and procedure, Business and industry, Confidential business information, Export, Foreign trade, Reporting and recordkeeping requirements.

Accordingly, parts 734, 740, 742, 762 and 774 of the Export Administration Regulations (15 CFR Parts 730–799) are amended as follows:

1. The authority citation for 15 CFR part 734 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* E.O. 12924, 59 FR 43437, 3 CFR, 1994 Comp., p. 917; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; Executive Order 13026 (November 15, 1996, 61 FR 58767); Notice of August 15, 1995 (60 FR 42767, August 17, 1995); and Notice of August 14, 1996 (61 FR 42527).

2. The authority citation for 15 CFR part 740 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* E.O. 12924, 59 FR 43437, 3 CFR, 1994 Comp., p. 917; Executive Order 13026 (November 15, 1996, 61 FR 58767); Notice of August 15, 1995 (60 FR 42767, August 17, 1995); and Notice of August 14, 1996 (61 FR 42527).

3. The authority citation for 15 CFR part 742 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* 18 U.S.C. 2510 *et seq.;* 22 U.S.C. 3201 *et seq.;* 42 U.S.C. 2139a; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p. 608; E.O. 12924, 59 FR 43437, 3 CFR, 1994 Comp., p. 917; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; Executive Order 13026 (November 15, 1996, 61 FR 48767); Notice of August 15, 1995 (60 FR 42767, August 17, 1995); and Notice of August 14, 1996 (61 FR 42527).

4. The authority citation for 15 CFR part 762 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* E.O. 12924, 59 FR 43427, 3 CFR, 1994 Comp., p. 917; Executive Order 13026 (November 15, 1996, 61 FR 58767); Notice of August 15, 1995 (60 FR 42767, August 17, 1995); and Notice of August 14, 1996 (61 FR 42527).

5. The authority citation for 15 CFR part 774 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* 10 U.S.C. 7420; 10 U.S.C. 7430(e); 18 U.S.C. 2510 *et seq.;* 22 U.S.C. 287c; 22 U.S.C. 3201 *et seq.;* 22 U.S.C. 6004; Sec. 201, Pub. L. 104–58, 109 Stat. 557 (30 U.S.C. 185(s)); 30 U.S.C. 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 46 U.S.C. app. 466c; 50 U.S.C. app. 5; E.O. 12924, 59 FR 43437, 3 CFR, 1994 Comp., p. 917; Executive Order 13026 (November 15, 1996, 61 FR 58767); Notice of August 15, 1995 (60 FR 42767, August 17, 1995); and Notice of August 14, 1996 (61 FR 42527).

PART 834—[AMENDED]

6. Section 734.3 is amended by redesignating paragraphs (b)(3)(i) through (b)(3)(iv) as paragraphs (b)(3)(i)(A) through (b)(3)(i)(D), and adding a new paragraph (b)(3)(ii) to read as follows:

§ 734.3 Items subject to the EAR.

* * * * *

(b) * * *

(3) * * *

(ii) Key escrow encryption software controlled under ECCN 5D002.c.1 remains subject to the EAR even when made publicly available (see Supplement No. 1 to part 774 of the EAR).

* * * * *

7. Section 734.4 is amended by revising paragraph (b) and revising paragraph (h) to read as follows:

§ 734.4 De minimis U.S. content.

* * * * *

(b) There is no *de minimis* level for the reexport of foreign- origin items that incorporate the following:

(1) Items controlled by ECCN 9A004.a; or

(2) Key escrow encryption software controlled under ECCN 5D002.c.1 or equipment designed or modified to use key escrow encryption items controlled under ECCN 5A002.a. transferred from the U.S. Munitions List following a case-by-case determination by the Department of State through the commodity jurisdiction procedure.

* * * * *

(h) Notwithstanding the provisions of paragraphs (c) and (d) of this section, U.S.-origin technology controlled by ECCN 9E003a.1 through a.12, and .f, and related controls, and key escrow encryption software controlled under ECCN 5D002.c.1 do not lose their U.S.-origin when redrawn, used, consulted, or otherwise commingled abroad in any respect with other software or technology of any other origin. Therefore, any subsequent or similar software or technology prepared or engineered abroad for the design, construction, operation, or maintenance of any plant or equipment, or part thereof, which is based on or uses any such U.S.-origin software or technology is subject to the EAR.

8. Section 734.7 is amended by revising paragraph (b) to read as follows:

§ 734.7 Published information and software.

* * * * *

(b) Software and information is published when it is available for general distribution either for free or at a price that does not exceed the cost of reproduction and distribution. See Supplement No. 1 to this part, Questions G(1) through G(3). Note that key escrow encryption software controlled under ECCN 5D002.c.1 remains subject to the EAR even when made publicly available (see Supplement No. 1 to part 774 of the EAR).

PART 740—[AMENDED]

9. Section 740.12 is amended by redesignating paragraph (d)(2) as paragraph (d)(3) and adding a new paragraph (d)(2) to read as follows:

§ 740.12 Technology and software—unrestricted (TSU).

* * * * *

(d) * * *

(2) *Software not eligible for this License Exception.* This License Exception is not available for key escrow encryption software controlled by ECCN 5D002.c.1.

* * * * *

PART 742—[AMENDED]

10. Part 742 is amended by adding a new § 742.15, and new Supplements 4 and 5 to read as follows:

§ 742.15 Key escrow encryption items.

(a) *License requirements.* Licenses are required for all destinations, except Canada, for key escrow encryption software controlled under ECCN 5D002.c.1; and equipment designed or modified to use key escrow encryption items controlled under ECCN 5A002.a

(b) *Licensing policy.* BXA will accept license applications for the export and reexport of key escrow encryption software controlled by ECCN 5D002.c.1 and equipment designed or modified to use key escrow encryption software controlled by ECCN 5A002.a in unlimited quantities for all destinations except Country Groups E:1 and E:2 (see Supplement No. 1 to part 742), Iran, Syria, and Sudan. Such applications will receive favorable consideration provided that, prior to the export or reexport, keys are escrowed with a key holder satisfactory to the Department of Commerce (see Supplement No. 5 to this part) and procedures for safeguarding the key as described in Supplement No. 5 to this part are established to the satisfaction of the Department of Commerce and are maintained after export or reexport as required by the EAR and any license conditions. In addition, the key escrow system must meet the criteria identified in Supplement No. 4 to this part. This includes a legally binding arrangement

between the exporter or reexporter and the key holder, satisfactory to BXA, which ensures that appropriate key escrow safeguard procedures will be carried out by the key holder. If the exporter or reexporter intends to be the key holder, then the exporter or reexporter must meet all of the requirements of a key holder. Continuing compliance by the key holder with the key safeguard procedures shall be made a condition of any license issued. Because BXA will be relying on representations and undertakings of the key holder to make decisions on license applications, the key holder is required to comply with all applicable record requirements in the EAR, including the record retention requirements. In addition, the key holder shall be required to carry out the key holding obligations as approved by BXA, and any violation of any of the key holding obligations shall also constitute a violation of the EAR. Applicants should list in their license applications those countries for which they seek approval to export or reexport, or identify that you seek export or reexport to all destinations except Country Groups E:1 and E:2, Iran, Syria, and Sudan.

(c) *Contract sanctity.* Contract sanctity provisions are not available for license applications reviewed under this section.

(d) [Reserved]

* * * * *

Supplement No. 4 to Part 742—Key Criteria

Key Recovery Feature

(1) The key(s) required to decrypt the product's key escrow cryptographic functions ciphertext shall be accessible through a key escrow feature.

(2) The product's key escrow cryptographic functions shall be inoperable until the key is or the keys are escrowed in accordance with the criteria identified in Supplement 5 to this part.

(3) The product's key escrow cryptographic functions ciphertext shall contain, in an accessible format and with a reasonable frequency, the identity of the key escrow holder(s) and information sufficient for the recovery holder(s) to identify the keys required to decrypt the ciphertext.

(4) The product's key escrow feature shall allow access to the key(s) needed to decrypt the product's ciphertext regardless of whether the product generated or received the ciphertext.

(5) The product's key escrow feature shall allow for the recovery of multiple decryption keys during the period of authorized access without requiring repeated presentations of access authorization to the key escrow holder(s).

Key Length Feature

(6) The product's key escrow functions shall use an unclassified encryption algorithm.

Interoperability Feature

(7) The product's cryptographic functions shall interoperate only with other key escrow products that meet these criteria, and shall not interoperate with products whose key escrow feature has been altered, bypassed, disabled, or otherwise rendered inoperative. Key escrow products shall interoperate with non-key escrow products only when the key escrow product permits access to the keys or other escrowed material/information needed to decrypt ciphertext generated or received by the key escrow product.

Design, Implementation and Operational Assurance

(8) The product shall be resistant to efforts to disable or circumvent the attributes described in criteria one through seven.

Supplement No. 5 to Part 742-Key Holder Requirements; Safeguard Procedures; Key Escrow Procedures

This Supplement sets forth criteria that BXA, in consultation with other departments and agencies, will use to approve key holders to support approval of the export or reexport of key escrow encryption items controlled by ECCNs 5A002.a and 5D002.c.1. Any arrangements between the exporter or reexporter and the key holder reflects the provisions contained in this Supplement in a manner satisfactory to BXA. This Supplement also outlines the criteria for employing key holder personnel and key escrow procedures. An applicant for a license to export or reexport key escrow encryption items shall provide, or cause the proposed key holder to provide, to BXA sufficient information concerning any proposed key holder arrangements permit BXA to evaluate the key holder's safeguard procedures, suitability and trustworthiness to maintain the confidentiality of the key and key components, and its key escrow procedures. The key holder may be the applicant for the export or reexport license or another party legally obligated to the applicant to provide recovery services, as approved by BXA. BXA retains the right, in addition to any other remedies, to revoke export or reexport licenses if a key holder no longer meets these criteria. The safeguard procedures, procedures related to the key holder's suitability and trustworthiness, and key escrow procedures of the key holder generally shall be made terms and conditions of the export or reexport license for key escrow encryption software if granted. BXA may require the key holder to provide a representation that it will comply with such terms and conditions.

(a) *Key holder requirements.*

(1) To become a qualified key holder, the key holder's personnel involved in the recovery of keys with access to escrowed keys or key escrow access request information, or in responding to key escrow requests, and persons in control of the key holder with access or authority to obtain access to keys or key components must be suitable and trustworthy as determined by the Bureau of Export Administration prior to export or reexport of the recovery product, and BXA may evaluate and determine the suitability and trustworthiness of such personnel thereafter from time to time. Evidence of an individual's suitability and trustworthiness could include:

(i) Information indicating the individual(s);

(A) Have no felony convictions or pending felony charges;

(B) Are not currently serving a term of probation;

(C) Have satisfactorily performed any positions of a fiduciary nature, for example have had no violations of surety or performance bonds; and

(D) Have favorable results of criminal background and credit checks; or

(ii) Have an active U.S. government security clearance of secret or higher issued or updated within the last five years.

(2) Suitable evidence of the key holder's corporate viability and financial responsibility (e.g. a certificate of good standing from the state of incorporation, credit reports, and errors/omissions insurance) must be submitted with an application to export or reexport key escrow item.

(3) Key holder operating procedures shall provide for the designation of individual(s) to be responsible as security and operations officers.

(4) Upon the request of BXA, key holders shall provide to BXA information concerning compliance with or violations of federal, state, and local laws and regulations determined by BXA to be relevant to the evaluation of trustworthiness of the key holders, its personnel, and persons in control of the key holder.

(5) Policies and procedures shall be designed and implemented to preclude disclosure of keys or key components to additional persons in control not previously authorized by BXA. For purposes of these criteria in this Supplement No. 5, a person in control is each of the following:

(i) A person with the power, direct or indirect, whether exercised or not exercised, and whether or not exercisable, through the ownership of the key holder's securities, by contractual arrangements or other means, to direct or decide matters affecting the management or operations of the key holder in a manner which may result in the unauthorized disclosure of a key or key component or a breach of the terms and conditions of an export or reexport license;

(ii) A person with ownership or beneficial ownership, direct or indirect, of 5 percent or more of the key holder's voting securities;

(iii) A person with ownership or beneficial ownership, direct or indirect, of 25 percent or more of the key holder's non-voting securities;

(iv) Management positions, such as directors, officers, or executive personnel of the key holder held by non U.S. citizens;

(v) A person with the power, direct or indirect, to control the election, appointment, or tenure of directors, officers, or executive personnel of the key holder; or

(vi) A person with a contract, agreement, understanding, or arrangement to manage the key holder.

(b) *Safeguard procedures.*

(1) Key holders must implement safeguard procedures that assure the confidentiality, integrity, and availability of the key to key escrow encryption software or key products.

(i) Procedures to assure the confidentiality of this information may include:

(A) Encrypting all keys or key components while in storage, transmission, or transfer; or

(B) Applying reasonable measures to limit access to the recovery database (e.g. using keyed or combination locks on the entrances to recovery facilities and limiting the personnel with knowledge of or access to the keys/combinations).

(ii) Procedures to assure the integrity of the recovery database (i.e. assuring the recovered key/key components are protected against unauthorized changes) may include the use of access controls based on an appropriate use of database password controls, digital signatures, system auditing, and physical access restrictions.

(iii) Procedures to assure the availability of the recovery database (i.e. assuring recovered keys/key components are retrievable at any time) may include system redundance, physical security, and the use of cryptography to control access.

(2) Policies and procedures shall be designed and implemented so that a failure by a single person, procedures, or mechanism does not compromise key or key component confidentiality, integrity and availability. Such measures could include two person control of access to recoverable keys, split keys, and back-up capabilities.

(3) Key holders shall implement policies that protect against unauthorized disclosure of information regarding the identity of owners or end users of encryption products whose keys are recoverable, the fact that a key or key component was requested or provided, and the identity of a requester. Procedures to assure the confidentiality of this information could include those described in paragraph (a)(1)(i).

(4) Policies and procedures shall be designed and implemented to provide notice to BXA of a compromise of the confidentiality of a key or key component, or other safeguards.

(c) *Key escrow procedures.*

(1) In the event the key holder dissolves or otherwise terminates recovery operations, or if BXA determines that there is a risk of such dissolution or termination, or if BXA determines the key holder is no longer suitable or trustworthy, then the key holder must transfer all of its recovery equipment and recovered information to another key holder that is approved by the Bureau of Export Administration.

(2) Key holders will maintain the ability to make the key available in accordance with appropriate State and Federal legal authority until notified otherwise by BXA. Key holders shall make requested keys and key components available, to the extent required by the request, within two hours from the time they receive a request from a government agency acting under appropriate legal authority that requires or compels the key holder to produce the key or key components. The requesting government agency will be responsible for obtaining the keys or key components from the key holder.

(3) Key holders shall enter keys and key components into the recovery data base upon receipt of new or replacement keys and key components.

(4) Key holders must agree to maintain data regarding key requests received, keys and key components released, database changes, system administration access, dates of such events, etc., for purposes of audits by BXA.

PART 762—[AMENDED]

11. Section 762.2 is amended by redesignating paragraphs (b)(6) through (b)(35) as paragraphs (b)(7) through (b)(36) and adding a new paragraph (b)(6) to read as follows:

§ 762.2 Records to be retained.

* * * * *

(b) * * *

(6) Section 742.15;

* * * * *

PART 774—[AMENDED]

12. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5 (Telecommunications and Information Security), II. Information Security, ECCNs 5A002 and 5D002 are revised to read as follows:

Supplement No. 1 to Part 774—The Commerce Control List

* * * * *

II. Information Security

* * * * *

5A002 Systems, equipment, application specific ''electronic assemblies'', modules or integrated circuits for ''information security'', and specially designed components therefor.

License Requirements

Reason for Control: NS, AT, EI

Control(s)	Country chart
NS applies to entire entry ..	NS Column 1.
AT applies to entire entry ..	AT Column 1.

License Exceptions

LVS: N/A
GBS: N/A
CIV: CPSC

List of Items Controlled

Unit: value
Related Controls: N/A
RElated Definitions: N/A
Items:

a. Designed or modified to use ''cryptography'' employing digital techniques to ensure ''information security'';

Note: 5A002.a includes controls key escrow encryption items transferred from the U.S. Munitions List following a case-by-case determination by the Department of State through the commodity jurisdiction procedure. (See § 742.15 of the EAR)

b. Designed or modified to perform cryptoanalytic functions;

c. Designed or modified to use ''cryptography'' employing analog techniques to ensure ''information security'';

Note: 5A002.c does not control the following:

1. Equipment using ''fixed'' band scrambling not exceeding 8 bands and in which the transpositions change not more frequently than once every second;

2. Equipment using ''fixed'' band scrambling exceeding 8 bands and in which the transpositions change not more frequently than once every ten seconds;

3. Equipment using ''fixed'' frequency inversion and in which the transpositions change not more frequently than once every second;

4. Facsimile equipment;

5. Restricted audience broadcast equipment; and

6. Civil television equipment.

d. Designed or modified to suppress the compromising emanations of information-bearing signals;

Note: 5A002.d does not control equipment specially designed to suppress emanations for reasons of health and safety.

e. Designed or modified to use cryptographic techniques to generate the spreading code for ''spread spectrum'' or hopping code for ''frequency agility'' systems;

f. Designed or modified to provide certified or certifiable ''multilevel security'' or user isolation at a level exceeding Class Be of the Trusted Computer System Evaluation Criteria (TCSEC) or equivalent;

g. Communications cable systems designed or modified using mechanical, electrical or electronic means to detect surreptitious intrusion.

Note: 5A002 does not control:

a. ''Personalized smart cards'' or specially designed components therefor, with any of the following characteristics:

1. Not capable of message traffic encryption or encryption of user-supplied data or related key management functions therefor; or

2. When restricted for use in equipment or systems excluded from control under the note to 5A002.c, or under paragraphs b through h of this note.

b. Equipment containing ''fixed'' data compression or coding techniques;

c. Receiving equipment for radio broadcast, pay television or similar restricted audience television of the consumer type, without digital encryption and where digital decryption is limited to the video, audio or management functions;

d. Portable or mobile radiotelephones for civil use (e.g., for use with commercial civil cellular radiocommunications systems) that are not capable of end-of-end encryption;

e. Decryption functions specially designed to allow the execution of copy-protected ''software'', provided the decryption functions are not user-accessible;

f. Access control equipment, such as automatic teller machines, self-service statement printers or point of sale terminals, that protects password or personal identification numbers (PIN) or similar data to prevent unauthorized access to facilities but does not allow for encryption of files or text, except as directly related to the password or PIN protection;

g. Data authentication equipment that calculates a Message Authentication Code (MAC) or similar result to ensure no alteration of text has taken place, or to authenticate users, but does not allow for encryption of data, text or other media other than that needed for the authentication;

h. Cryptographic equipment specially designed and limited for use in machines for banking or money transactions, such as automatic teller machines, self-service statement printers or point of sale terminals.

* * * * *

5D002 Information Security Software

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart
NS applies to entire entry ..	NS Column 1.
AT applies to entire entry ..	AT Column 1.

Note: Key escrow encryption software controlled under 5D002.c.1. remains subject to the EAR even when made publicly available in accordance with § 734.7 of the EAR, and it is not eligible for mass market treatment under License Exception TSU for mass market software. See § 742.15(b)(1) of the EAR.

License Exceptions

GBS: N/A
CIV: N/A

List of Items Controlled

Unit: $ value
Related Controls: NA
Related Definitions: N/A
Items:

a. ''software'' specially designed or modified for the ''development'', ''production'' or ''use'' of equipment or ''software'' controlled by 5A002, 5B002 or 5D002.

b. ''Software'' specially designed or modified to support ''technology'' controlled by 5E002.

c. Specific ''software'' as follows:

c.1. ''Software'' having the characteristics, or performing or simulating the functions of the equipment controlled by 5A002 or 5B002;

Note: 5D002.c.1 includes controls key escrow encryption software transferred from the U.S. Munitions List following a case-by-case determination by the Department of State through the commodity jurisdiction procedure. See § 742.15 of the EAR.

c.2. ''Software'' to certify ''software'' controlled by 5D002.c.1;

c.3. ''Software'' designed or modified to protect against malicious computer damage, e.g., viruses;

Note: 5D002 does not control:

a. ''Software'' required'' for the ''use'' of equipment excluded from control under the Note to 5A002.

b. ''Software'' providing any of the functions of equipment excluded from control under the Note to 5A002.

13. Supplement No. 2 to Part 774 is amended by revising the 2. General Software Note to read as follows:

Supplement No. 2 to Part 774—General Technology and Software Notes

* * * * *

2. *General Software Note.* License Exception TSU (mass market software) is available to all destinations, except Cuba, Iran, Libya, North Korea, Sudan, and Syria, for release of software that is generally available to the public by being:

a. Sold from stock at retail selling points, without restriction, by means of:

1. Over the counter transactions;
2. Mail order transactions; or
3. Telephone call transactions; and

b. Designed for installation by the user without further substantial support by the supplier.

Note: License Exception TSU for mass market software does not apply to key escrow encryption software controlled under ECCN 5D002.c.1. that has been transferred from the U.S. Munitions list following a commodity jurisdiction determination by the Department of State.

Dated: December 6, 1996.

Sue E. Eckert,

Assistant secretary for Export Administration.

[FR Doc. 96–31583 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–33–M

SOCIAL SECURITY ADMINISTRATION

20 CFR Part 498

RIN 0960–AE41

Hearings and Appeals for Civil Monetary Penalty Cases

AGENCY: Social Security Administration (SSA).

ACTION: Final rule.

SUMMARY: We are adding new rules that establish hearing procedures for the Social Security Administration's civil monetary penalty cases. These rules implement the provisions of section 1129 and section 1140 of the Social Security Act which require an opportunity to be heard on the record before a determination to impose penalties or assessments becomes final.

EFFECTIVE DATE: These rules are effective January 13, 1997.

FOR FURTHER INFORMATION CONTACT: Henry D. Lerner, Legal Assistant, Division of Regulations and Rulings, Social Security Administration, 6401 Security Blvd., Baltimore, MD 21235, (410) 965–1762 for information about these rules. For information on eligibility or claiming benefits, call our national toll-free number, 1–800–772–1213.

SUPPLEMENTARY INFORMATION:

Background

The Social Security Administration (SSA) was established as an independent agency effective March 31, 1995, under Public Law 103–296, the Social Security Independence and Program Improvements Act of 1994 (SSIPIA). The SSIPIA also created an independent Office of the Inspector General (OIG), to which the Commissioner of Social Security (Commissioner) delegated certain authority under the civil monetary penalty (CMP) provisions on June 28, 1995. However, the Commissioner retained the authority to conduct initial hearings and review initial hearing decisions related to the imposition of CMPs and assessments.

On November 27, 1995, the OIG published a final rule at 60 FR 58225 establishing a new part 498 in title 20 of the *Code of Federal Regulations.* This new part serves as a repository for the SSA's existing CMP regulations which implemented section 1140 of the Social Security Act (the Act). These regulations were previously located at 42 CFR part 1003.

In addition, the OIG published a final rule on April 24, 1996, at 61 FR 18078 to implement SSA's new CMP authority provided under section 206(b) of the SSIPIA, which added section 1129 to the Act, effective October 1, 1994. This authority allows for the imposition of penalties and assessments against any individual, organization, agency, or other entity that makes or causes to be made a false or misleading statement or representation of a material fact for use in determining initial or continuing rights to Old-Age, Survivors, and Disability Insurance or supplemental security income benefit payments if the person knew or should have known that such statement or representation is false, misleading, or omits a material fact.

These hearing regulations complete the final phase of the implementation process for the provisions of section 1129 and section 1140 of the Act which require that a person be given an

opportunity to be heard on the record prior to a final determination to impose penalties or assessments.

Hearing Process

The Commissioner has decided to retain the Departmental Appeals Board (DAB) of the Department of Health and Human Services (HHS) on an interim basis to conduct hearings and appeals, and to issue recommended decisions in SSA's CMP cases. SSA has entered into a reimbursable agreement with the DAB under the Economy Act, 31 U.S.C. 1535(a).

The Commissioner's decision was based on a number of criteria, including the DAB's expertise in handling CMP cases and its reputation for rendering decisions in an efficient and timely manner. Moreover, in light of the fact that the authority under section 1129 is new, this will give SSA the opportunity to assess the volume of CMP cases and projected resource requirements prior to establishing its own internal hearing mechanism.

These rules require adherence to various deadlines to ensure the expeditious conduct of proceedings and prompt resolution of CMP cases. In accordance with § 498.109, these hearing regulations provide a person, upon whom the OIG seeks to impose penalties and assessments, as applicable, the right to request an initial hearing within 60 days of notification by the OIG. As described in § 498.202 of these rules, the person's request for a hearing must be in writing and contain a statement of the specific issues and conclusions of law with which the person disagrees. These rules also provide that a hearing request must be dismissed if not filed in a timely manner unless, upon a showing of good cause, an extension is granted to the respondent.

Initial hearings in CMP cases will be conducted by an administrative law judge. At the hearing, a person will be entitled to be represented by counsel, to present witnesses, and to cross-examine witnesses.

These hearing regulations have been modeled on the HHS's hearing regulations which govern CMP cases for which the DAB also conducts hearings and appeals on behalf of the Secretary of the HHS. As indicated in the final rule published on April 24, 1996, we have reserved the issue of recommended exclusions of physicians and medical providers from the Medicare program at this time.

Comments on Notice of Proposed Rulemaking

These regulations were published in the Federal Register (61 FR 39921) as a notice of proposed rulemaking (NPRM) on July 31, 1996. Interested parties were given 60 days to submit comments. No public comments were received. We are, therefore, publishing the final rules with no substantive changes from the proposed rules.

Regulatory Procedures

Executive Order 12866

We have consulted with the Office of Management and Budget (OMB) and have determined that these rules do not meet the criteria for a significant regulatory action under Executive Order 12866. Thus, they are not subject to OMB review.

Paperwork Reduction Act

These regulations impose no new reporting or recordkeeping requirements requiring OMB clearance.

Regulatory Flexibility Act

We have determined that no regulatory impact analysis is required for these regulations. Based on our determination, the Commissioner certifies that these regulations will not have a significant economic impact on a number of small business entities. Therefore, we have not prepared a regulatory flexibility analysis.

(Catalog of Federal Domestic Assistance Program Nos. 96.001, Social Security-Disability Insurance; 96.002, Social Security-Retirement Insurance; 96.004, Social Security-Survivors Insurance; 96.006, Supplemental Security Income Program)

List of Subjects in 20 CFR Part 498

Administrative practice and procedure, Fraud, Penalties.

Approved: December 5, 1996.

Shirley S. Chater,

Commissioner of Social Security.

For reasons set forth in the preamble, part 498 of chapter III of the Code of Federal Regulations is amended as follows:

PART 498—HEARINGS AND APPEALS FOR CIVIL MONETARY PENALTY CASES

1. The authority citation for part 498 continues to read as follows:

Authority: Secs. 205(a), 205(b), 702(a)(5), 1129, and 1140 of the Social Security Act (42 U.S.C. 405(a), 405(b), 902(a)(5), 1320a–8, and 1320b–10).

2. The table of contents is amended by adding §§ 498.201 through 498.224 to read as follows:

Sec.

* * * * *

498.201 Definitions.
498.202 Hearing before an administrative law judge.
498.203 Rights of parties.
498.204 Authority of the administrative law judge.
498.205 Ex parte contacts.
498.206 Prehearing conferences.
498.207 Discovery.
498.208 Exchange of witness lists, witness statements and exhibits.
498.209 Subpoenas for attendance at hearing.
498.210 Fees.
498.211 Form, filing and service of papers.
498.212 Computation of time.
498.213 Motions.
498.214 Sanctions.
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498.222 Final decision of the Commissioner.
498.223 Stay of initial decision.
498.224 Harmless error.

3. New §§ 498.201 through 498.224 are added to read as follows:

§ 498.201 Definitions.

As used in this part—

ALJ refers to an Administrative Law Judge of the Departmental Appeals Board.

Civil monetary penalty cases refer to all proceedings arising under any of the statutory bases for which the Inspector General, Social Security Administration has been delegated authority to impose civil monetary penalties.

DAB refers to the Departmental Appeals Board of the U.S. Department of Health and Human Services.

§ 498.202 Hearing before an administrative law judge.

(a) A party sanctioned under any criteria specified in §§ 498.100 through 498.132 may request a hearing before an ALJ.

(b) In civil monetary penalty cases, the parties to a hearing will consist of the respondent and the Inspector General.

(c) The request for a hearing must be:

(1) In writing and signed by the respondent or by the respondent's attorney; and

(2) Filed within 60 days after the notice, provided in accordance with § 498.109, is received by the respondent or upon a showing of good cause, the time permitted by an ALJ.

(d) The request for a hearing shall contain a statement as to the:

(1) Specific issues or findings of fact and conclusions of law in the notice

letter with which the respondent disagrees; and

(2) Basis for the respondent's contention that the specific issues or findings and conclusions were incorrect.

(e) For purposes of this section, the date of receipt of the notice letter will be presumed to be five days after the date of such notice, unless there is a reasonable showing to the contrary.

(f) The ALJ shall dismiss a hearing request where:

(1) The respondent's hearing request is not filed in a timely manner and the respondent fails to demonstrate good cause for such failure;

(2) The respondent withdraws or abandons respondent's request for a hearing; or

(3) The respondent's hearing request fails to raise any issue which may properly be addressed in a hearing under this part.

§ 498.203 Rights of parties.

(a) Except as otherwise limited by this part, all parties may:

(1) Be accompanied, represented, and advised by an attorney;

(2) Participate in any conference held by the ALJ;

(3) Conduct discovery of documents as permitted by this part;

(4) Agree to stipulations of fact or law which will be made part of the record;

(5) Present evidence relevant to the issues at the hearing;

(6) Present and cross-examine witnesses;

(7) Present oral arguments at the hearing as permitted by the ALJ; and

(8) Submit written briefs and proposed findings of fact and conclusions of law after the hearing.

(b) Fees for any services performed on behalf of a party by an attorney are not subject to the provisions of section 206 of title II of the Social Security Act, which authorizes the Commissioner to specify or limit these fees.

§ 498.204 Authority of the administrative law judge.

(a) The ALJ will conduct a fair and impartial hearing, avoid delay, maintain order and assure that a record of the proceeding is made.

(b) The ALJ has the authority to:

(1) Set and change the date, time, and place of the hearing upon reasonable notice to the parties;

(2) Continue or recess the hearing in whole or in part for a reasonable period of time;

(3) Hold conferences to identify or simplify the issues, or to consider other matters that may aid in the expeditious disposition of the proceeding;

(4) Administer oaths and affirmations;

(5) Issue subpoenas requiring the attendance of witnesses at hearings and the production of documents at or in relation to hearings;

(6) Rule on motions and other procedural matters;

(7) Regulate the scope and timing of documentary discovery as permitted by this part;

(8) Regulate the course of the hearing and the conduct of representatives, parties, and witnesses;

(9) Examine witnesses;

(10) Receive, exclude, or limit evidence;

(11) Take official notice of facts;

(12) Upon motion of a party, decide cases, in whole or in part, by summary judgment where there is no disputed issue of material fact; and

(13) Conduct any conference or argument in person, or by telephone upon agreement of the parties.

(c) The ALJ does not have the authority to:

(1) Find invalid or refuse to follow Federal statutes or regulations, or delegations of authority from the Commissioner;

(2) Enter an order in the nature of a directed verdict;

(3) Compel settlement negotiations;

(4) Enjoin any act of the Commissioner or the Inspector General; or

(5) Review the exercise of discretion by the Office of the Inspector General to seek to impose a civil monetary penalty or assessment under §§ 498.100 through 498.132.

§ 498.205 Ex parte contacts.

No party or person (except employees of the ALJ's office) will communicate in any way with the ALJ on any matter at issue in a case, unless on notice and opportunity for all parties to participate. This provision does not prohibit a person or party from inquiring about the status of a case or asking routine questions concerning administrative functions or procedures.

§ 498.206 Prehearing conferences.

(a) The ALJ will schedule at least one prehearing conference, and may schedule additional prehearing conferences as appropriate, upon reasonable notice to the parties.

(b) The ALJ may use prehearing conferences to address the following:

(1) Simplification of the issues;

(2) The necessity or desirability of amendments to the pleadings, including the need for a more definite statement;

(3) Stipulations and admissions of fact as to the contents and authenticity of documents and deadlines for challenges, if any, to the authenticity of documents;

(4) Whether the parties can agree to submission of the case on a stipulated record;

(5) Whether a party chooses to waive appearance at a hearing and to submit only documentary evidence (subject to the objection of other parties) and written argument;

(6) Limitation of the number of witnesses;

(7) The time and place for the hearing and dates for the exchange of witness lists and of proposed exhibits;

(8) Discovery of documents as permitted by this part;

(9) Such other matters as may tend to encourage the fair, just, and expeditious disposition of the proceedings; and

(10) Potential settlement of the case.

(c) The ALJ shall issue an order containing the matters agreed upon by the parties or ordered by the ALJ at a prehearing conference.

§ 498.207 Discovery.

(a) For the purpose of inspection and copying, a party may make a request to another party for production of documents which are relevant and material to the issues before the ALJ.

(b) Any form of discovery other than that permitted under paragraph (a) of this section, such as requests for admissions, written interrogatories and depositions, is not authorized.

(c) For the purpose of this section, the term documents includes information, reports, answers, records, accounts, papers, memos, notes and other data and documentary evidence. Nothing contained in this section will be interpreted to require the creation of a document, except that requested data stored in an electronic data storage system will be produced in a form accessible to the requesting party.

(d)(1) A party who has been served with a request for production of documents may file a motion for a protective order. The motion for protective order shall describe the document or class of documents to be protected, specify which of the grounds in § 498.207(d)(2) are being asserted, and explain how those grounds apply.

(2) The ALJ may grant a motion for a protective order if he or she finds that the discovery sought:

(i) Is unduly costly or burdensome;

(ii) Will unduly delay the proceeding; or

(iii) Seeks privileged information.

(3) The burden of showing that discovery should be allowed is on the party seeking discovery.

§ 498.208 Exchange of witness lists, witness statements and exhibits.

(a) At least 15 days before the hearing, the parties shall exchange:

(1) Witness lists;

(2) Copies of prior written statements of proposed witnesses; and

(3) Copies of proposed hearing exhibits, including copies of any written statements that the party intends to offer in lieu of live testimony in accordance with § 498.216.

(b)(1) Failure to comply with the requirements of paragraph (a) of this section may result in the exclusion of evidence or testimony upon the objection of the opposing party.

(2) When an objection is entered, the ALJ shall determine whether good cause justified the failure to timely exchange the information listed under paragraph (a) of this section. If good cause is not found, the ALJ shall exclude from the party's case-in-chief:

(i) The testimony of any witness whose name does not appear on the witness list; and

(ii) Any exhibit not provided to the opposing party as specified in paragraph (a) of this section.

(3) If the ALJ finds that good cause exists, the ALJ shall determine whether the admission of such evidence would cause substantial prejudice to the objecting party due to the failure to comply with paragraph (a) of this section. If the ALJ finds no substantial prejudice, the evidence may be admitted. If the ALJ finds substantial prejudice, the ALJ may exclude the evidence, or at his or her discretion, may postpone the hearing for such time as is necessary for the objecting party to prepare and respond to the evidence.

(c) Unless a party objects by the deadline set by the ALJ's prehearing order pursuant to § 498.206 (b)(3) and (c), documents exchanged in accordance with paragraph (a) of this section will be deemed authentic for the purpose of admissibility at the hearing.

§ 498.209 Subpoenas for attendance at hearing.

(a) A party wishing to procure the appearance and testimony of any individual, whose appearance and testimony are relevant and material to the presentation of a party's case at a hearing, may make a motion requesting the ALJ to issue a subpoena.

(b) A subpoena requiring the attendance of an individual may also require the individual (whether or not the individual is a party) to produce evidence at the hearing in accordance with § 498.207.

(c) A party seeking a subpoena will file a written motion not less than 30 days before the date fixed for the hearing, unless otherwise allowed by the ALJ for good cause shown. Such request will:

(1) Specify any evidence to be produced;

(2) Designate the witness(es); and

(3) Describe the address and location with sufficient particularity to permit such witness(es) to be found.

(d) Within 20 days after the written motion requesting issuance of a subpoena is served, any party may file an opposition or other response.

(e) If the motion requesting issuance of a subpoena is granted, the party seeking the subpoena will serve the subpoena by delivery to the individual named, or by certified mail addressed to such individual at his or her last dwelling place or principal place of business.

(f) The subpoena will specify the time and place at which the witness is to appear and any evidence the witness is to produce.

(g) The individual to whom the subpoena is directed may file with the ALJ a motion to quash the subpoena within 10 days after service.

(h) When a subpoena is served by a respondent on a particular individual or particular office of the Office of the Inspector General, the OIG may comply by designating any of its representatives to appear and testify.

(i) In the case of contumacy by, or refusal to obey a subpoena duly served upon any person, the exclusive remedy is specified in section 205(e) of the Social Security Act (42 U.S.C. 405(e)).

§ 498.210 Fees.

The party requesting a subpoena will pay the cost of the fees and mileage of any witness subpoenaed in the amounts that would be payable to a witness in a proceeding in United States District Court. A check for witness fees and mileage will accompany the subpoena when served, except that when a subpoena is issued on behalf of the Inspector General, a check for witness fees and mileage need not accompany the subpoena.

§ 498.211 Form, filing and service of papers.

(a) *Form*. (1) Unless the ALJ directs the parties to do otherwise, documents filed with the ALJ will include an original and two copies.

(2) Every document filed in the proceeding will contain a caption setting forth the title of the action, the case number, and a designation of the pleading or paper.

(3) Every document will be signed by, and will contain the address and telephone number of the party or the person on whose behalf the document was filed, or his or her representative.

(4) Documents are considered filed when they are mailed.

(b) *Service.* A party filing a document with the ALJ will, at the time of filing, serve a copy of such document on every other party. Service upon any party of any document will be made by delivering a copy, or placing a copy of the document in the United States mail, postage prepaid and addressed, or with a private delivery service, to the party's last known address. When a party is represented by an attorney, service will be made upon such attorney. Proof of service should accompany any document filed with the ALJ.

(c) *Proof of service.* A certificate of the individual serving the document by personal delivery or by mail, setting forth the manner of service, will be proof of service.

§ 498.212 Computation of time.

(a) In computing any period of time under this part or in an order issued thereunder, the time begins with the day following the act, event or default, and includes the last day of the period unless it is a Saturday, Sunday or legal holiday observed by the Federal Government, in which event it includes the next business day.

(b) When the period of time allowed is less than 7 days, intermediate Saturdays, Sundays and legal holidays observed by the Federal Government will be excluded from the computation.

(c) Where a document has been served or issued by placing it in the mail, an additional 5 days will be added to the time permitted for any response. This paragraph does not apply to requests for hearing under § 498.202.

§ 498.213 Motions.

(a) An application to the ALJ for an order or ruling will be by motion. Motions will:

(1) State the relief sought, the authority relied upon and the facts alleged; and

(2) Be filed with the ALJ and served on all other parties.

(b) Except for motions made during a prehearing conference or at a hearing, all motions will be in writing.

(c) Within 10 days after a written motion is served, or such other time as may be fixed by the ALJ, any party may file a response to such motion.

(d) The ALJ may not grant or deny a written motion before the time for filing responses has expired, except upon consent of the parties or following a hearing on the motion.

(e) The ALJ will make a reasonable effort to dispose of all outstanding

motions prior to the beginning of the hearing.

(f) There is no right to appeal to the DAB any interlocutory ruling by the ALJ.

§ 498.214 Sanctions.

(a) The ALJ may sanction a person, including any party or attorney, for:

(1) Failing to comply with an order or procedure;

(2) Failing to defend an action; or

(3) Misconduct that interferes with the speedy, orderly or fair conduct of the hearing.

(b) Such sanctions will reasonably relate to the severity and nature of the failure or misconduct. Such sanction may include—

(1) In the case of refusal to provide or permit discovery under the terms of this part, drawing negative factual inferences or treating such refusal as an admission by deeming the matter, or certain facts, to be established;

(2) Prohibiting a party from introducing certain evidence or otherwise supporting a particular claim or defense;

(3) Striking pleadings, in whole or in part;

(4) Staying the proceedings;

(5) Dismissal of the action; or

(6) Entering a decision by default.

(c) In addition to the sanctions listed in paragraph (b) of this section, the ALJ may:

(1) Order the party or attorney to pay attorney's fees and other costs caused by the failure or misconduct; or

(2) Refuse to consider any motion or other action that is not filed in a timely manner.

§ 498.215 The hearing and burden of proof.

(a) The ALJ will conduct a hearing on the record in order to determine whether the respondent should be found liable under this part.

(b) In civil monetary penalty cases under §§ 498.100 through 498.132:

(1) The respondent has the burden of going forward and the burden of persuasion with respect to affirmative defenses and any mitigating circumstances; and

(2) The Inspector General has the burden of going forward and the burden of persuasion with respect to all other issues.

(c) The burden of persuasion will be judged by a preponderance of the evidence.

(d) The hearing will be open to the public unless otherwise ordered by the ALJ for good cause.

(e)(1) A hearing under this part is not limited to specific items and information set forth in the notice letter to the respondent. Subject to the 15-day requirement under § 498.208, additional items or information may be introduced by either party during its case-in-chief, unless such information or items are inadmissible under § 498.217.

(2) After both parties have presented their cases, evidence may be admitted on rebuttal as to those issues presented in the case-in-chief, even if not previously exchanged in accordance with § 498.208.

§ 498.216 Witnesses.

(a) Except as provided in paragraph (b) of this section, testimony at the hearing will be given orally by witnesses under oath or affirmation.

(b) At the discretion of the ALJ, testimony (other than expert testimony) may be admitted in the form of a written statement. Any such written statement must be provided to all other parties along with the last known address of such witness, in a manner that allows sufficient time for other parties to subpoena such witness for cross-examination at the hearing. Prior written statements of witnesses proposed to testify at the hearing will be exchanged as provided in § 498.208.

(c) The ALJ will exercise reasonable control over the mode and order of witness direct and cross examination and evidence presentation so as to:

(1) Make the examination and presentation effective for the ascertainment of the truth;

(2) Avoid repetition or needless waste of time; and

(3) Protect witnesses from harassment or undue embarrassment.

(d) The ALJ may order witnesses excluded so that they cannot hear the testimony of other witnesses. This does not authorize exclusion of:

(1) A party who is an individual;

(2) In the case of a party that is not an individual, an officer or employee of the party appearing for the entity pro se or designated as the party's representative; or

(3) An individual whose presence is shown by a party to be essential to the presentation of its case, including an individual engaged in assisting the attorney for the Inspector General.

§ 498.217 Evidence.

(a) The ALJ will determine the admissibility of evidence.

(b) Except as provided in this part, the ALJ will not be bound by the Federal Rules of Evidence, but may be guided by them in ruling on the admissibility of evidence.

(c) Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or by considerations of undue delay or needless presentation of cumulative evidence.

(d) Although relevant, evidence must be excluded if it is privileged under Federal law, unless the privilege is waived by a party.

(e) Evidence concerning offers of compromise or settlement made in this action will be inadmissible to the extent provided in Rule 408 of the Federal Rules of Evidence.

(f)(1) Evidence of crimes, wrongs or acts other than those at issue in the instant case is admissible in order to show motive, opportunity, intent, knowledge, preparation, identity, lack of mistake, or existence of a scheme.

(2) Such evidence is admissible regardless of whether the crimes, wrongs or acts occurred during the statute of limitations period applicable to the acts which constitute the basis for liability in the case, and regardless of whether they were referenced in the IG's notice sent in accordance with § 498.109.

(g) The ALJ will permit the parties to introduce rebuttal witnesses and evidence as to those issues raised in the parties' case-in-chief.

(h) All documents and other evidence offered or taken for the record will be open to examination by all parties, unless otherwise ordered by the ALJ for good cause.

§ 498.218 The record.

(a) The hearing shall be recorded and transcribed. Transcripts may be obtained following the hearing from the ALJ.

(b) The transcript of testimony, exhibits and other evidence admitted at the hearing, and all papers and requests filed in the proceeding constitute the record for the decision by the ALJ.

(c) The record may be inspected and copied (upon payment of a reasonable fee) by any person, unless otherwise ordered by the ALJ for good cause.

§ 498.219 Post-hearing briefs.

(a) Any party may file a post-hearing brief.

(b) The ALJ may require the parties to file post-hearing briefs and may permit the parties to file reply briefs.

(c) The ALJ will fix the time for filing briefs, which is not to exceed 60 days from the date the parties receive the transcript of the hearing or, if applicable, the stipulated record.

(d) The parties' briefs may be accompanied by proposed findings of fact and conclusions of law.

§ 498.220 Initial decision.

(a) The ALJ will issue an initial decision, based only on the record, which will contain findings of fact and conclusions of law.

(b) The ALJ may affirm, deny, increase, or reduce the penalties or assessments proposed by the Inspector General.

(c) The ALJ will issue the initial decision to all parties within 60 days after the time for submission of post-hearing briefs or reply briefs, if permitted, has expired. The decision will be accompanied by a statement describing the right of any party to file a notice of appeal with the DAB and instructions for how to file such appeal. If the ALJ cannot issue an initial decision within the 60 days, the ALJ will notify the parties of the reason for the delay and will set a new deadline.

(d) Unless an appeal or request for extension pursuant to § 498.221(a) is filed with the DAB, the initial decision of the ALJ becomes final and binding on the parties 30 days after the ALJ serves the parties with a copy of the decision. If service is by mail, the date of service will be deemed to be five days from the date of mailing.

§ 498.221 Appeal to DAB.

(a) Any party may appeal the decision of the ALJ to the DAB by filing a notice of appeal with the DAB within 30 days of the date of service of the initial decision. The DAB may extend the initial 30-day period for a period of time not to exceed 30 days if a party files with the DAB a request for an extension within the initial 30-day period and shows good cause.

(b) If a party files a timely notice of appeal with the DAB, the ALJ will forward the record of the proceeding to the DAB.

(c) A notice of appeal will be accompanied by a written brief specifying exceptions to the initial decision and reasons supporting the exceptions, and identifying which finding of fact and conclusions of law the party is taking exception to. Any party may file a brief in opposition to exceptions, which may raise any relevant issue not addressed in the exceptions, within 30 days of receiving the notice of appeal and accompanying brief. The DAB may permit the parties to file reply briefs.

(d) There is no right to appear personally before the DAB, or to appeal to the DAB any interlocutory ruling by the ALJ.

(e) No party or person (except employees of the DAB) will communicate in any way with members of the DAB on any matter at issue in a case, unless on notice and opportunity for all parties to participate. This provision does not prohibit a person or party from inquiring about the status of a case or asking routine questions concerning administrative functions or procedures.

(f) The DAB will not consider any issue not raised in the parties' briefs, nor any issue in the briefs that could have been, but was not, raised before the ALJ.

(g) If any party demonstrates to the satisfaction of the DAB that additional evidence not presented at such hearing is relevant and material and that there were reasonable grounds for the failure to adduce such evidence at such hearing, the DAB may remand the matter to the ALJ for consideration of such additional evidence.

(h) The DAB may remand a case to an ALJ for further proceedings, or may issue a recommended decision to decline review or affirm, increase, reduce, or reverse any penalty or assessment determined by the ALJ.

(i) When the DAB reviews a case, it will limit its review to whether the ALJ's initial decision is supported by substantial evidence on the whole record or contained error of law.

(j) Within 60 days after the time for submission of briefs or, if permitted, reply briefs has expired, the DAB will issue to each party to the appeal and to the Commissioner a copy of the DAB's recommended decision and a statement describing the right of any respondent who is found liable to seek judicial review upon a final decision.

§ 498.222 Final decision of the Commissioner.

(a) Except with respect to any penalty or assessment remanded to the ALJ, the DAB's recommended decision, including a recommended decision to decline review of the initial decision, shall become the final decision of the Commissioner 60 days after the date on which the DAB serves the parties to the appeal and the Commissioner with a copy of the recommended decision, unless the Commissioner reverses or modifies the DAB's recommended decision within that 60-day period. If the Commissioner reverses or modifies the DAB's recommended decision, the Commissioner's decision is final and binding on the parties. In either event, a copy of the final decision will be served on the parties. If service is by mail, the date of service will be deemed to be five days from the date of mailing.

(b) There shall be no right to personally appear before or submit additional evidence, pleadings or briefs to the Commissioner.

(c)(1) Any petition for judicial review must be filed within 60 days after the parties are served with a copy of the final decision. If service is by mail, the date of service will be deemed to be five days from the date of mailing.

(2) In compliance with 28 U.S.C. 2112(a), a copy of any petition for judicial review filed in any U.S. Court of Appeals challenging a final action of the Commissioner will be sent by certified mail, return receipt requested, to the SSA General Counsel. The petition copy will be time-stamped by the clerk of the court when the original is filed with the court.

(3) If the SSA General Counsel receives two or more petitions within 10 days after the final decision is issued, the General Counsel will notify the U.S. Judicial Panel on Multidistrict Litigation of any petitions that were received within the 10-day period.

§ 498.223 Stay of initial decision.

(a) The filing of a respondent's request for review by the DAB will automatically stay the effective date of the ALJ's decision.

(b)(1) After issuance of the final decision, pending judicial review, the respondent may file a request for stay of the effective date of any penalty or assessment with the ALJ. The request must be accompanied by a copy of the notice of appeal filed with the Federal court. The filing of such a request will automatically act to stay the effective date of the penalty or assessment until such time as the ALJ rules upon the request.

(2) The ALJ may not grant a respondent's request for stay of any penalty or assessment unless the respondent posts a bond or provides other adequate security.

(3) The ALJ will rule upon a respondent's request for stay within 10 days of receipt.

§ 498.224 Harmless error.

No error in either the admission or the exclusion of evidence, and no error or defect in any ruling or order or in any act done or omitted by the ALJ or by any of the parties is ground for vacating, modifying or otherwise disturbing an otherwise appropriate ruling or order or act, unless refusal to take such action appears to the ALJ or the DAB to be inconsistent with substantial justice. The ALJ and the DAB at every stage of the proceeding will disregard any error or defect in the proceeding that does not affect the substantial rights of the parties.

[FR Doc. 96–31536 Filed 12–12–96; 8:45 am]

BILLING CODE 4190–29–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

25 CFR Part 10

RIN 1076–AD77

Indian Country Detention Facilities and Programs; Correction

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Correction to final regulations.

SUMMARY: This document contains corrections to the final regulations which were published Tuesday, July 2, 1996 (61 FR 34371). The final regulations establish standards for the operation, maintenance, design and construction, or renovation of detention facilities.

EFFECTIVE DATE: August 1, 1996.

FOR FURTHER INFORMATION CONTACT: Harry DeLashmutt, Office of Law Enforcement Services, Bureau of Indian Affairs (202) 208–5786.

SUPPLEMENTARY INFORMATION

Background

The final regulations that are the subject of these corrections supersede the table of contents and §§ 10.1, 10.4, 10.8, 10.9 and 10.11 and affect those Bureau of Indian Affairs officials and Tribes that operate, maintain, design and construct, or renovate detention facilities.

Need for Correction

As published, the final regulations contain errors which may prove to be misleading and are in need of clarification.

Correction of Publication

Accordingly, the publication on July 2, 1996 of the final regulations, which were the subject of FR Doc. 96–16042, is corrected as follows:

PART 10—[CORRECTED]

1. On page 34374, in the first column, table of contents, in the heading of § 10.5, line 5, the words ''Inmate Handbook'' are corrected to read ''community residential.''

2. On page 34374, in the first column, table of contents, in the heading of § 10.8, line 3, the words ''Inmate Handbook'' are corrected to read ''community residential.''

3. On page 34374, in the first column, table of contents, in the heading of § 10.9, lines 2 and 3, the words ''Inmate Handbook'' are corrected to read ''community residential.''

§ 10.1 [Corrected]

4. On page 34374, in the first column, in the text of § 10.1, line 7, the words ''Inmate Handbook'' are corrected to read ''community residential.''

§ 10.5 [Corrected]

5. On page 34374, in the third column, in the heading of § 10.5, line 4, the words ''Inmate Handbook,'' are corrected to read ''community residential.''

§ 10.8 [Corrected]

6. On page 34374, in the third column, in the heading of § 10.8, line 3, the words ''Inmate Handbook,'' are corrected to read ''community residential.''

§ 10.9 [Corrected]

7. On page 34374, in the third column, in the heading of § 10.9, line 3, the words ''Inmate Handbook,'' are corrected to read ''community residential.''

8. On page 34374, in the third column, in the text of § 10.9, lines 2 and 3, the words ''Inmate Handbook'' are corrected to read ''community residential.''

§ 10.11 [Corrected]

9. On page 34375, in the first column, in the text of § 10.11, line 1, the words ''Inmate Handbook'' are corrected to read ''community residential.''

Dated: November 4, 1996.

Ada E. Deer,

Assistant Secretary—Indian Affairs.

[FR Doc. 96–31586 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–02–P

PENSION BENEFIT GUARANTY CORPORATION

29 CFR Parts 4011 and 4022

Disclosure to Participants; Benefits Payable in Terminated Single-Employer Plans

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Final rule.

SUMMARY: This rule amends the appendix to the Pension Benefit Guaranty Corporation's regulation on Benefits Payable in Terminated Single-Employer Plans by adding the maximum guaranteeable pension benefit that may be paid by the PBGC with respect to a plan participant in a single-employer pension plan that terminates in 1997. This rule also amends Appendix B to the PBGC's regulation on Disclosure to Participants by adding information on 1997 maximum guaranteed benefit amounts. The amendment is necessary because the maximum guarantee amount changes each year, based on changes in the contribution and benefit base under section 230 of the Social Security Act. The effect of the amendment is to advise plan participants and beneficiaries of the increased maximum guarantee amount for 1997.

EFFECTIVE DATE: January 1, 1997.

FOR FURTHER INFORMATION CONTACT: Harold J. Ashner, Assistant General Counsel, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street, NW., Washington, DC 20005–4026, 202–326–4024 (202–326–4179 for TTY and TDD).

SUPPLEMENTARY INFORMATION: Section 4022(b) of the Employee Retirement Income Security Act of 1974 provides for certain limitations on benefits guaranteed by the PBGC in terminating single-employer pension plans covered under Title IV of ERISA. One of the limitations, set forth in section 4022(b)(3)(B), is a dollar ceiling on the amount of the monthly benefit that may be paid to a plan participant (in the form of a life annuity beginning at age 65) by the PBGC. The ceiling is equal to ''$750 multiplied by a fraction, the numerator of which is the contribution and benefit base (determined under section 230 of the Social Security Act) in effect at the time the plan terminates and the denominator of which is such contribution and benefit base in effect in calendar year 1974 [$13,200]''. This formula is also set forth in § 4022.22(b) of the PBGC's regulation on Benefits Payable in Terminated Single-Employer Plans (29 CFR Part 4022).

Section 230(d) of the Social Security Act (42 U.S.C. 430(d)) provides special rules for determining the contribution and benefit base for purposes of ERISA section 4022(b)(3)(B). Each year the Social Security Administration determines, and notifies the PBGC of, the contribution and benefit base to be used by the PBGC under these provisions. The PBGC has been notified by the Social Security Administration that, under section 230 of the Social Security Act, $48,600 is the contribution and benefit base that is to be used to calculate the PBGC maximum guaranteeable benefit for 1997. Accordingly, the formula under section 4022(b)(3)(B) of ERISA and 29 CFR § 4022.22(b) is: $750 multiplied by $48,600/$13,200. Thus, the maximum monthly benefit guaranteeable by the PBGC in 1997 is $2,761.36 per month in the form of a life annuity beginning at age 65. If a benefit is payable in a

different form or begins at a different age, the maximum guaranteeable amount will be the actuarial equivalent of $2,761.36 per month.

The appendix to part 4022 lists the maximum guaranteeable benefit payable by the PBGC to participants in single-employer plans that have terminated in each year from 1974 through 1996. This amendment updates the appendix for plans that terminate in 1997.

Section 4011 of ERISA requires plan administrators of certain underfunded plans to provide notice to plan participants and beneficiaries of the plan's funding status and the limits of the PBGC's guarantee. The PBGC's regulation on Disclosure to Participants (29 CFR Part 4011) implements the statutory notice requirement. This rule amends Appendix B to the regulation on Disclosure to Participants by adding information on 1997 maximum guaranteed benefit amounts. Plan administrators may, subject to the requirements of that regulation, include this information in participant notices.

Because the maximum guaranteeable benefit is determined according to the formula in section 4022(b)(3)(B) of ERISA, and these amendments make no change in its method of calculation but simply list 1997 maximum guaranteeable benefit amounts for the information of the public, general notice of proposed rulemaking is not required. Moreover, because the 1997 maximum guaranteeable benefit is effective, under the statute, at the time that the Social Security contribution and benefit base is effective, *i.e.*, January 1, 1997, and is not dependent on the issuance of this rule, the PBGC finds that good cause exists for making these amendments effective less than 30 days after publication (5 U.S.C. 553).

The PBGC has determined that this action is not a ''significant regulatory action'' under the criteria set forth in Executive Order 12866.

Because no general notice of proposed rulemaking is required for this regulation, the Regulatory Flexibility Act of 1980 does not apply (5 U.S.C. 601(2)).

List of Subjects

29 CFR Part 4011

Pensions, Reporting and recordkeeping requirements.

29 CFR Part 4022

Pension insurance, Pensions, Reporting and recordkeeping requirements.

In consideration of the foregoing, 29 CFR parts 4011 and 4022 are amended as follows:

PART 4022—BENEFITS PAYABLE IN TERMINATED SINGLE-EMPLOYER PLANS

1. The authority citation for Part 4022 continues to read as follows:

Authority: 29 U.S.C. 1302, 1322, 1322b, 1341(c)(3)(D), and 1344.

2. The appendix to part 4022 is amended by adding a new entry to the table to read as follows. The introductory text is reproduced for the convenience of the reader and remains unchanged.

Appendix to Part 4022—Maximum Guaranteeable Monthly Benefit

The following table lists by year the maximum guaranteeable monthly benefit payable in the form of a life annuity commencing at age 65 as described by § 4022.22(b) to a participant in a plan that terminated in that year:

Year	Maximum guaranteeable monthly benefit
* * * * *	
1997	2,761.36

PART 4011—DISCLOSURE TO PARTICIPANTS

3. The authority citation for Part 4011 continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1311.

4. Appendix B to part 4011 is amended by adding a new entry to the table to read as follows. The introductory text is reproduced for the convenience of the reader and remains unchanged.

APPENDIX B TO PART 4011—TABLE OF MAXIMUM GUARANTEED BENEFITS

If a plan terminates in—	The maximum guaranteed benefit for an individual starting to receive benefits at the age listed below is the amount (monthly or annual) listed below:							
	Age 65		Age 62		Age 60		Age 55	
	Monthly	Annual	Monthly	Annual	Monthly	Annual	Monthly	Annual
*	*	*	*	*	*	*	*	
1997	$2,761.36	$33,136.32	$2,181.47	$26,177.64	$1,794.88	$21,538.56	$1,242.61	$14,911.32

Issued at Washington, D.C., this 10th day of December, 1996.

Martin Slate,

Executive Director, Pension Benefit Guaranty Corporation.

[FR Doc. 96–31715 Filed 12–12–96; 8:45 am]

BILLING CODE 7708–01–P

29 CFR Part 4044

Allocation of Assets in Single-Employer Plans; Interest Assumptions for Valuing Benefits

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Final rule.

SUMMARY: The Pension Benefit Guaranty Corporation's regulation on Allocation of Assets in Single-Employer Plans prescribes interest assumptions for valuing benefits under terminating single-employer plans. This final rule amends the regulation to adopt interest assumptions for plans with valuation dates in January 1997.

EFFECTIVE DATE: January 1, 1997.

FOR FURTHER INFORMATION CONTACT: Harold J. Ashner, Assistant General Counsel, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street, NW., Washington, DC 20005, 202–326–4024 (202–326–4179 for TTY and TDD).

SUPPLEMENTARY INFORMATION: The PBGC's regulation on Allocation of Assets in Single-Employer Plans (29 CFR part 4044) prescribes actuarial assumptions for valuing plan benefits of terminating single-employer plans covered by title IV of the Employee Retirement Income Security Act of 1974.

Among the actuarial assumptions prescribed in part 4044 are interest assumptions. These interest assumptions are intended to reflect current conditions in the financial and annuity markets.

Two sets of interest assumptions are prescribed, one set for the valuation of benefits to be paid as annuities and one set for the valuation of benefits to be paid as lump sums. This amendment adds to appendix B to part 4044 the annuity and lump sum interest assumptions for valuing benefits in plans with valuation dates during January 1997.

For annuity benefits, the interest assumptions will be 5.80 percent for the first 25 years following the valuation date and 5.00 percent thereafter. The above annuity assumptions (in comparison with those in effect during December 1996) reflect a 5-year increase in the period during which the initial rate applies (from a period of 20 years following the valuation date to a period of 25 years following the valuation date). The initial rate, in effect during the 25-year period, represents a decrease (from the initial rate in effect for December 1996) of .20 percent. The ultimate rate, in effect thereafter, represents an increase of .25 percent over the previous ultimate rate.

For benefits to be paid as lump sums, the interest assumptions to be used by the PBGC will be 4.50 percent for the period during which a benefit is in pay status and 4.00 percent during any years preceding the benefit's placement in pay status. The lump sum interest assumptions represent a decrease (from those in effect for December 1996) of .25 percent for the period during which a benefit is in pay status and are otherwise unchanged.

The PBGC has determined that notice and public comment on this amendment are impracticable and contrary to the public interest. This finding is based on the need to determine and issue new interest assumptions promptly so that the assumptions can reflect, as accurately as possible, current market conditions.

Because of the need to provide immediate guidance for the valuation of benefits in plans with valuation dates during January 1997, the PBGC finds that good cause exists for making the assumptions set forth in this amendment effective less than 30 days after publication.

The PBGC has determined that this action is not a ''significant regulatory action'' under the criteria set forth in Executive Order 12866.

Because no general notice of proposed rulemaking is required for this amendment, the Regulatory Flexibility Act of 1980 does not apply. See 5 U.S.C. 601(2).

List of Subjects in 29 CFR Part 4044

Pension insurance, Pensions.

In consideration of the foregoing, 29 CFR part 4044 is amended as follows:

PART 4044—[AMENDED]

1. The authority citation for part 4044 continues to read as follows:

Authority: 29 U.S.C. 1301(a), 1302(b)(3), 1341, 1344, 1362.

2. In appendix B, a new entry is added to Table I, and Rate Set 39 is added to Table II, as set forth below. The introductory text of each table is republished for the convenience of the reader and remains unchanged.

Appendix B to Part 4044—Interest Rates Used to Value Annuities and Lump Sums

TABLE I.—[ANNUITY VALUATIONS]

[This table sets forth, for each indicated calendar month, the interest rates (denoted by i_1, i_2, * * *, and referred to generally as i_t) assumed to be in effect between specified anniversaries of a valuation date that occurs within that calendar month; those anniversaries are specified in the columns adjacent to the rates. The last listed rate is assumed to be in effect after the last listed anniversary date]

For valuation dates occurring in the month—	The values of i_t are:					
	i_t	for t=	i_t	for t=	i_t	for t=
* * *	*	*	*	*		
January 1997	.0580	1–25	.0500	>25	N/A	N/A

TABLE II.—[LUMP SUM VALUATIONS]

[In using this table: (1) For benefits for which the participant or beneficiary is entitled to be in pay status on the valuation date, the immediate annuity rate shall apply; (2) For benefits for which the deferral period is y years (where y is an integer and $0 < y \leq n_1$), interest rate i1 shall apply from the valuation date for a period of y years, and thereafter the immediate annuity rate shall apply; (3) For benefits for which the deferral period is y years (where y is an integer and $n_1 < y \leq n_1 + n_2$), interest rate i2 shall apply from the valuation date for a period of y—n_1 years, interest rate i_1 shall apply for the following n_1 years, and thereafter the immediate annuity rate shall apply; (4) For benefits for which the deferral period is y years (where y is an integer and $y > n_1 + n_2$), interest rate i_3 shall apply from the valuation date for a period of y—n_1—n_2 years, interest rate i_2 shall apply for the following n_2 years, interest rate i1 shall apply for the following n_1 years, and thereafter the immediate annuity rate shall apply]

Rate set	For plans with a valuation date		Immediate annuity rate (percent)	Deferred annuities (percent)				
	On or after	Before		i_1	i_2	i_3	n_1	n_2
* * *								
39	01–1–97	02–1–97	4.50	4.00	4.00	4.00	7	8

Issued in Washington, DC, on this 10th day of December 1996.

Martin Slate,

Executive Director, Pension Benefit Guaranty Corporation.

[FR Doc. 96–31714 Filed 12–12–96; 8:45 am]

BILLING CODE 7708–01–P

29 CFR Part 4044

Allocation of Assets in Single-Employer Plans; Valuation of Benefits and Assets; Expected Retirement Age

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Final rule.

SUMMARY: This rule amends the Pension Benefit Guaranty Corporation's regulation on Allocation of Assets in Single-Employer Plans by substituting new Table I–97 in place of existing Table I–96 in appendix D. Table I–97 applies to any plan being terminated either in a distress termination or involuntarily by the PBGC with a valuation date falling in 1997, and is used to determine expected retirement ages for plan participants. This table is needed in order to compute the value of early retirement benefits and, thus, the total value of benefits under the plan.

EFFECTIVE DATE: January 1, 1997.

FOR FURTHER INFORMATION CONTACT: Harold J. Ashner, Assistant General Counsel, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street, NW., Washington, DC 20005–4026; 202–326–4024 (202–326–4179 for TTY and TDD).

SUPPLEMENTARY INFORMATION: The PBGC's regulation on Allocation of Assets in Single-Employer Plans (29 CFR part 4044) sets forth (in subpart B) the methods for valuing plan benefits of terminating single-employer plans covered under Title IV of the Employee Retirement Income Security Act of 1974. Under ERISA section 4041(c), plans wishing to terminate in a distress termination must value guaranteed benefits and benefit liabilities under the plan in accordance with part 4044, subpart B. In addition, when the PBGC terminates an underfunded plan involuntarily pursuant to ERISA Section 4042(a), it uses the subpart B valuation rules to determine the amount of the plan's underfunding.

Under § 4044.51(b), early retirement benefits are valued based on the annuity starting date, if a retirement date has been selected, or the expected retirement age, if the annuity starting date is not known on the valuation date. Sections 4044.55 through 4044.57 set forth rules for determining the expected retirement ages for plan participants entitled to early retirement benefits. Appendix D of part 4044 contains tables to be used in determining the expected early retirement ages.

Table I in appendix D (Selection of Retirement Rate Category) is used to determine whether a participant has a low, medium, or high probability of retiring early. The determination is based on the year a participant would reach ''unreduced retirement age'' (*i.e.*, the earlier of the normal retirement age or the age at which an unreduced benefit is first payable) and the participant's monthly benefit at unreduced retirement age. The table applies only to plans with valuation dates in the current year and is updated annually by the PBGC to reflect changes in the cost of living, etc.

Tables II–A, II–B, and II–C (Expected Retirement Ages for Individuals in the Low, Medium, and High Categories respectively) are used to determine the expected retirement age after the probability of early retirement has been determined using Table I. These tables establish, by probability category, the expected retirement age based on both the earliest age a participant could retire under the plan and the unreduced retirement age. This expected retirement age is used to compute the value of the early retirement benefit and, thus, the total value of benefits under the plan.

This document amends appendix D to replace Table I–96 with Table I–97 in order to provide an updated correlation, appropriate for calendar year 1997, between the amount of a participant's benefit and the probability that the participant will elect early retirement. Table I–97 will be used to value benefits in plans with valuation dates during calendar year 1997.

The PBGC has determined that notice of and public comment on this rule are impracticable and contrary to the public interest. Plan administrators need to be able to estimate accurately the value of plan benefits as early as possible before initiating the termination process. For that purpose, if a plan has a valuation date in 1997, the plan administrator needs the updated table being promulgated in this rule. Accordingly, the public interest is best served by issuing this table expeditiously, without an opportunity for notice and comment, to allow as much time as possible to estimate the value of plan benefits with the proper table for plans with valuation dates in early 1997. Moreover, because of the need to provide immediate guidance for the valuation of benefits under such plans, and because no adjustment by ongoing plans is required by this amendment, the PBGC finds that good cause exists for making this amendment to the regulation effective less than 30 days after publication.

The PBGC has determined that this action is not a ''significant regulatory action'' under the criteria set forth in Executive Order 12866.

Because no general notice of proposed rulemaking is required for this regulation, the Regulatory Flexibility Act of 1980 does not apply (5 U.S.C. 601(2)).

List of Subjects in 29 CFR Part 4044

Pension insurance, Pensions.

In consideration of the foregoing, 29 CFR part 4044 is amended as follows:

PART 4044—[AMENDED]

1. The authority citation for part 4044 continues to read as follows:

Authority: 29 U.S.C. 1301(a), 1302(b)(3), 1341, 1344, 1362.

2. Appendix D to part 4044 is amended by removing Table I–96 and adding in its place Table I–97 to read as follows:

Appendix D to Part 4044—Tables Used to Determine Expected Retirement Age

TABLE I–97—SELECTION OF RETIREMENT RATE CATEGORY

[For Plans with valuation dates after December 31, 1996, and before January 1, 1998]

Participant reaches URA in year—	Participant's Retirement Rate Category is—			
	Low [1] if monthly benefit at URA is less than—	Medium [2] if monthly benefit at URA is		High [3] if monthly benefit at URA is greater than—
		From	To	
1998	409	409	1,723	1,723
1999	421	421	1,771	1,771

TABLE I–97—SELECTION OF RETIREMENT RATE CATEGORY—Continued

[For Plans with valuation dates after December 31, 1996, and before January 1, 1998]

Participant reaches URA in year—	Participant's Retirement Rate Category is—			
	Low [1] if monthly benefit at URA is less than—	Medium [2] if monthly benefit at URA is		High [3] if monthly benefit at URA is greater than—
		From	To	
2000	432	432	1,821	1,821
2001	445	445	1,872	1,872
2002	457	457	1,924	1,924
2003	470	470	1,978	1,978
2004	483	483	2,033	2,033
2005	496	496	2,090	2,090
2006	510	510	2,149	2,149
2007 or later	525	525	2,209	2,209

[1] Table II–A.
[2] Table II–B.
[3] Table II–C.

* * * * *

Issued at Washington, D.C., this 10th day of December, 1996.

Martin Slate,

Executive Director, Pension Benefit Guaranty Corporation.

[FR Doc. 96–31713 Filed 12–12–96; 8:45 am]

BILLING CODE 7708–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

42 CFR Part 57, Subpart B

RIN 0906–AA39

Grants for the Construction of Teaching Facilities for Health Professions Personnel

AGENCY: Health Resources and Services Administration, HHS.

ACTION: Final rule.

SUMMARY: This final rule removes obsolete regulations that governed old sections 720–726, Part B, Title VII, of the Public Health Service (PHS) Act, which addressed the award of grants and loan guarantees and interest subsidies for the construction of teaching facilities for medical, dental, and other health personnel. The Health Professions Education Extension Amendments of 1992, Pub. L. 102–408, repealed Part B of Title VII, Public Health Service Act. Accordingly, the provisions of 42 CFR Part 57, Subpart B, are obsolete.

EFFECTIVE DATE: This regulation is effective December 13, 1996.

FOR FURTHER INFORMATION CONTACT: Mrs. Charlotte G. Pascoe, Director, Division of Facilities Compliance and Recovery, Bureau of Health Resources Development, Health Resources and Services Administration, room 7–31, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857; telephone: (301) 443–5656.

SUPPLEMENTARY INFORMATION: The Health Professions Education Extension Amendments of 1992, Pub. L. 102–408, repealed Part B of Title VII, Public Health Service Act. Accordingly, the provisions of 42 CFR Part 57, Subpart B, are obsolete. Sections 57.101 through 57.112 and Appendix A are removed from the Code of Federal Regulations.

The Public Health Service strongly encourages all grant and contract recipients to provide a smoke-free workplace and to promote the non-use of all tobacco products. In addition, Pub.L. 103–227, the Pro-Children Act of 1994, prohibits smoking in certain facilities (or, in some cases, any portion of a facility) in which regular or routine education, library, day care, health care or early childhood development services are provided to children.

Justification for Omitting Notice of Proposed Rulemaking

Since this amendment is of a technical nature, the Secretary has determined, pursuant to 5 U.S.C. 553 and departmental policy, that it is unnecessary and impractical to follow proposed rulemaking procedures or to delay the effective date of these regulations.

Economic Impact

Executive Order 12866 requires that all regulations reflect consideration of alternatives, of costs, of benefits, of incentives, of equity, and of available information. Regulations must meet certain standards, such as avoiding unnecessary burden. Regulations which are ''significant'' because of cost, adverse effects on the economy, inconsistency with other agency actions, effects on the budget, or novel legal or policy issues, require special analysis.

The Department believes that the resources required to implement the requirements in this regulation are minimal. Therefore, in accordance with the Regulatory Flexibility Act of 1980, the Secretary certifies that this regulation will not have a significant impact on a substantial number of small entities. For the same reasons, the Secretary has also determined that this is not a ''significant'' rule under Executive Order 12866.

Paperwork Reduction Act of 1980

This final rule contains no information collection or reporting requirements which are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1980.

List of Subjects in 42 CFR Part 57

Aged, Dental Health, Education of the Disadvantaged, Educational facilities, Educational study program, Grant programs—education, Grant programs—health, Health facilities, Health professions, Loan programs, Medical and dental schools, Scholarships and fellowships, Student aid.

Dated: July 15, 1996.

Ciro V. Sumaya,

Administrator.

Approved: November 26, 1996.

Donna Shalala,

Secretary.

Accordingly, under the authority of Public Law 102–408, 42 CFR part 57 is amended as follows:

PART 57—GRANTS FOR CONSTRUCTION OF TEACHING FACILITIES, EDUCATION IMPROVEMENTS, SCHOLARSHIPS AND STUDENT LOANS

Subpart B—Grants for Construction of Teaching Facilities for Health Professions Personnel

Subpart B to Part 57-[Removed]

Appendix A to Subpart B-[REMOVED]

1. Part 57, Subpart B, is removed.

Part 57, Subpart B, §§ 57.101–57.112

[FR Doc. 96–30910 Filed 12–12–96; 8:45 am]

BILLING CODE 4160–15–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 95–152; RM–8700]

Radio Broadcasting Services; Brackettville, TX

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Commission, at the request of Tim Walker, allots Channel 234A to Brackettville, Texas. *See* 60 FR 52641, October 10, 1995. Channel 234A can be allotted to Brackettville in compliance with the Commission's distance separation requirements with a site restriction of 0.7 kilometers (0.4 miles) south. The coordinates for Channel 234A at Brackettville are 29–19–00 and 100–25–03. Because the allotment at Brackettville creates a short-spacing to Station XHTA(FM), Piedras Negras, Coahuila, Mexico, we have obtained Mexican approval for Channel 234A at Brackettville, Texas, as a limited and restricted short-spaced allotment. With this action, this proceeding is terminated.

DATES: Effective January 21, 1997. The window period for filing applications will open on January 21, 1997, and close on February 21, 1997.

FOR FURTHER INFORMATION CONTACT: Pam Blumenthal, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Report and Order, MM Docket No. 95–152, adopted November 29, 1996, and released December 6, 1997. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M Street, NW, Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractor, ITS, Inc., (202) 857–3800, 2100 M Street, NW, Suite 140, Washington, D.C. 20037.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Part 73 of title 47 of the Code of Federal Regulations is amended as follows:

PART 73—[AMENDED]

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

Authority: Secs. 303, 48 Stat., as amended, 1082; 47 U.S.C. 154, as amended.

§ 73.202 [Amended]

2. Section 73.202(b), the Table of FM Allotments under Texas, is amended by adding Brackettville, Channel 234A.

Federal Communications Commission

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–31660 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

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47 CFR Part 73

[MM Docket No. 96–15; RM–8748 and RM–8798]

Radio Broadcasting Services; Barron and Rice Lake, WI

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: Action in this document allots Channel 249A to Barron, Wisconsin, in response to a petition filed by Barron Broadcasting Corporation. *See* 61 FR 8230, March 4, 1996. The coordinates for Channel 249A are 45–29–00 and 91–49–30. There is a site restriction 9.5 kilometers (5.9 miles) north of the community. In response to a counterproposal filed by Red Cedar Broadcasters, Inc., we shall substitute Channel 256C2 for Channel 249C3 at Rice Lake, Wisconsin, and modify the license for Station WAQE–FM accordingly. The coordinates for Channel 256C2 at Rice Lake are 45–23–00 and 91–51–00. Canadian concurrence has been obtained for the allotment of Channel 249A at Barron and Channel 256C2 at Rice Lake. With this action, this proceeding is terminated.

DATES: Effective January 21, 1997. The window period for filing applications for Channel 249A at Barron, Wisconsin, will open on January 21, 1997, and close on February 21, 1997.

FOR FURTHER INFORMATION CONTACT: Kathleen Scheuerle, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order, MM Docket No. 96–15, adopted November 29, 1996, and released December 6, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in the Commission's Reference Center (Room 239), 1919 M Street, NW, Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Services, Inc., 2100 M Street, N.W., Suite 140, Washington, D.C. 20037, (202) 857–3800.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Part 73 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 73—[AMENDED]

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

Authority: Secs. 303, 48 Stat., as amended, 1082; 47 U.S.C. 154, as amended.

§ 73.202 [Amended]

2. Section 73.202(b), the Table of FM Allotments under Wisconsin, is amended by removing Channel 249C3 and adding Channel 256C2 at Rice Lake and by adding Barron, Channel 249A.

Federal Communications Commission.

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division Mass Media Bureau.

[FR Doc. 96–31658 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF DEFENSE

48 CFR Part 231

[DFARS Case 96–D330]

Defense Federal Acquisition Regulation Supplement; Individual Compensation

AGENCY: Department of Defense (DoD).

ACTION: Interim rule with request for comments.

SUMMARY: The Director of Defense Procurement has issued an interim rule amending the Defense Federal Acquisition Regulation Supplement (DFARS) to implement Section 8071 of Pub. L. 104–208 by placing a ceiling on allowable individual compensation

under DoD contracts when payments are from funds appropriated in fiscal year 1997.

DATES: *Effective date:* December 13, 1996.

Comment date: Comments on the interim rule should be submitted in writing to the address shown below on or before February 11, 1997, to be considered in the formulation of the final rule.

ADDRESSES: Interested parties should submit written comments to: Defense Acquisition Regulations Council, Attn: Ms. Sandra G. Haberlin, PDUSD (A&T) DP (DAR), IMD 3D139, 3062 Defense Pentagon, Washington, DC 20301–3062. Telefax number (703) 602–0350. Please cite DFARS Case 96–D330 in all correspondence related to this issue.

FOR FURTHER INFORMATION CONTACT: Ms. Sandra G. Haberlin, (703) 602–0131.

SUPPLEMENTARY INFORMATION:

A. Background

This interim rule revises DFARS 231.205–6, Compensation for Personal Services, to implement Section 8071 of the National Defense Appropriations Act for Fiscal Year 1997 (Pub. L. 104–208). Section 8071 limits allowable individual compensation costs for all contractor personnel to $250,000 per year. This restriction applies to DoD contracts when payments are from funds appropriated in fiscal year 1997.

B. Determination to Issue an Interim Rule

A determination has been made under the authority of the Secretary of Defense to issue this rule as an interim rule. Urgent and compelling reasons exist to promulgate this rule without prior opportunity for public comment. This rule implements Section 8071 of the National Defense Appropriations Act for Fiscal Year 1997 (Pub. L. 104–208), which was effective upon enactment on September 30, 1996. However, comments received in response to the publication of this rule will be considered in formulating the final rule.

C. Regulatory Flexibility Act

The interim rule is not expected 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 most contracts awarded to small entities use simplified acquisition procedures or are awarded on a competitive, fixed-price basis, and do not require application of the cost principle contained in this rule. An Initial Regulatory Flexibility Analysis has, therefore, not been performed. Comments are invited from small businesses and other interested parties. Comments from small entities concerning the affected DFARS subpart also will be considered in accordance with Section 610 of the Act. Such comments should be submitted separately and should cite DFARS Case 96–D330 in correspondence.

D. Paperwork Reduction Act

The Paperwork Reduction Act does not apply because the interim rule does not impose any new reporting or recordkeeping requirements which require the approval of the Office of Management and Budget under 44 U.S.C. 3501, *et seq.*

List of Subjects in 48 CFR Part 231

Government procurement.

Michele P. Peterson,

Executive Editor, Defense Acquisition Regulations Council.

Therefore, 48 CFR Part 231 is amended as follows:

1. The authority citation for 48 CFR Part 231 continues to read as follows:

Authority: 41 U.S.C. 421 and 48 CFR Chapter 1.

PART 231—CONTRACT COST PRINCIPLES AND PROCEDURES

2. Section 231.205–6 is amended by redesignating paragraphs (a)(2)(i) and (a)(2)(ii) as paragraphs (a)(2)(i)(A) and (a)(2)(i)(B), respectively, and by adding a new paragraph (a)(2)(ii) to read as follows:

231.205–6 Compensation for personal services.

(a)(2) * * *

(ii) Costs for individual compensation in excess of $250,000 per year are unallowable under new DoD contracts funded by fiscal year 1997 appropriations (Section 8071 of Public Law 104–208). For purposes of this limitation, the term ''compensation'' means—

(A) The total amount of taxable wages paid to the employee for the year concerned; plus

(B) The total amount of elective deferred compensation earned by the employee in the year concerned.

* * * * *

[FR Doc. 96–31677 Filed 12–12–96; 8:45 am]

BILLING CODE 5000–04–M

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Chapter I

[Notice No. 96–25]

Advisory Notice: Transportation of Air Carrier Company Materials (COMAT) by Aircraft

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Advisory guidance.

SUMMARY: This document provides advisory guidance as to the extent and application of exceptions from the Hazardous Materials Regulations applicable to the transportation of an air carrier's company materials.

FOR FURTHER INFORMATION CONTACT: Edward T. Mazzullo, Director, Office of Hazardous Materials Standards, RSPA, Department of Transportation, 400 Seventh Street, S.W., Washington, DC 20590–0001, Telephone (202) 366–8553.

SUPPLEMENTARY INFORMATION: In testimony at a recent hearing conducted by the National Transportation Safety Board (NTSB), and in a position paper prepared for the hearing by the Air Line Pilots Association (ALPA), concerns were expressed with regard to the provisions of § 175.10(a)(2) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–80), applicable to an air carrier's transportation of its own company materials (COMAT). This advisory guidance is being issued to clarify the application of these provisions of the HMR and to overcome a number of apparent misunderstandings of them.

Part 175 of the HMR is entitled ''Carriage By Aircraft'' and applies to the acceptance for transportation, loading, and transportation of hazardous materials in any aircraft in the United States and in aircraft of U.S. registry anywhere in air commerce. Section 175.10 of the part is entitled ''Exceptions.'' Paragraph (a)(2) of the section (herein referred to as the COMAT exception) follows an introduction stating ''This subchapter [the HMR] does not apply to:'' and reads as follows:

(2) Hazardous materials required aboard an aircraft in accordance with the applicable airworthiness requirements and operating regulations. Unless otherwise approved by the Associate Administrator for Hazardous Materials Safety, items of replacement for such hazardous materials must be transported in accordance with this subchapter except that—

(i) In place of the required packagings, packagings specially designed for the

transport of aircraft spares and supplies may be used, provided such packagings provide at least an equivalent level of protection to those that would be required by this subchapter;

(ii) Aircraft batteries are not subject to quantity limitations such as those provided in § 172.101 or § 175.75(a) of this subchapter; and, (iii) A tire assembly with a serviceable tire is not subject to the provisions of this subchapter provided the tire is not inflated to a gauge pressure exceeding the maximum rated pressure for that tire.

The first sentence of paragraph (a)(2) addresses hazardous materials required for the operation of an aircraft under applicable provisions of Federal Aviation Administration regulations in 14 CFR. These items include equipment required to be carried aboard the aircraft, such as portable fire extinguishers, and installed equipment containing hazardous materials, such as cylinders containing oxygen. This sentence simply reiterates that the HMR do not apply to installed components of an aircraft and other items required to be on the aircraft, because the HMR regulate hazardous materials transported in commerce (e.g., hazardous materials transported as cargo, baggage, or as items carried on by passengers or crewmembers).

The second sentence of paragraph (a)(2) contains introductory text and three subparagraphs and states, in part, that '' * * * items of replacement *for such hazardous materials* must be transported in accordance with this subchapter [the HMR] * * * '' [emphasis added]. The sentence addresses only items of replacement for those hazardous materials required aboard an aircraft in accordance with the applicable airworthiness requirements and operating regulations. These replacement items are transported in commerce and must be offered and transported in conformance with the HMR, except for the limited relief provided in subparagraphs (i), (ii), and (iii).

The exceptions in the second sentence do not apply to many of the hazardous materials consumed or used in the aircraft industry such as paints, chemicals for corrosion removal, automotive batteries, engine-powered ground equipment containing fuel, and wastes. These materials must be offered and transported in conformance with the HMR.

Serviceable items and items removed for servicing or repair, that are items of replacement, are eligible for the exceptions in § 175.10(a)(2) when otherwise offered for transportation in compliance with the HMR. However, an expendable device such as a fuel saturated filter or an oxygen generator removed from an aircraft for immediate or eventual disposal is not an item of replacement and may not be carried aboard aircraft under § 175.10(a)(2).

Subparagraph (a)(2)(i) permits the use of packagings specially designed for the transport of aircraft spares and supplies, provided such packagings provide at least an equivalent level of protection to those that would otherwise be required by the HMR. This exception allows air carriers to use specialized packagings not specifically addressed in the HMR, such as lined aluminum cases for overpacking cylinders. It does not address materials that are not necessary to meet applicable airworthiness requirements and operating regulations. Subparagraph (a)(2)(ii) provides relief from quantity limitations for aircraft batteries, allowing aircraft batteries which are COMAT to be transported in larger sizes or in greater quantities than would normally be permitted, when all other provisions of the HMR are followed.

Subparagraph (a)(2)(iii) removes the application of the HMR from a tire assembly with a serviceable tire provided the tire is not inflated to a gauge pressure exceeding the maximum rated pressure for that tire. Only this third exception relating to tires, removes the application of the HMR. Therefore, among other requirements, the following apply to *all* hazardous materials carried as items of replacement (as discussed above) under the COMAT provisions of subparagraphs (a)(2)(i) and (ii):

Subject	Citation: 49 CFR—
Training	Part 172, Subpart H and § 175.20.
Forbidden Materials	§§ 173.21 and 173.54.
Packaging	Parts 172, 173 and 178. In particular 173.24, 173.24a and 173.27.
Marking	Part 172, Subpart D.
Labeling	Part 172, Subpart E.
Shipping Papers and Certification.	Part 172, Subpart C.
Quantity limitations per package—Passenger Aircraft.	§§ 172.101 and 173.27.
Quantity limitations per package—Cargo Aircraft.	§§ 172.101 and 173.27.
Quantity limitations—Inaccessible cargo compartments.	§ 175.75.
Notification of Pilot-in-Command.	§ 175.33.
Reports of discrepancies.	§ 175.31.
Incident Reporting	§§ 171.15 and 171.16.

RSPA published a document entitled ''Advisory Guidance; Offering, Accepting, and Transporting Hazardous Materials'' in the Federal Register on June 14, 1996 (61 FR 30444). The guidance addressed a number of topics related to the safe transportation of hazardous materials.

Persons who supervise or perform hazardous materials functions, including persons who manufacture packagings, prepare and package hazardous materials and otherwise perform functions leading to the introduction of hazardous materials into transportation, are encouraged to review the guidance in its entirety. See the definition of ''Hazmat employer'' and ''Hazmat employee'' in 49 CFR 171.8. In many cases, more than one person may be involved in the performance of offering functions in addition to the person executing the certification required by § 172.204. *See* RSPA's interpretations at 55 FR 6758 (Feb. 26, 1990) and 57 FR 48740 (Oct. 28, 1992).

As stated in section III of the advisory guidance (61 FR at 30446):

> The HMR are only effective when persons who engage in day-to-day transportation-related activities make a concerted effort to ensure their own compliance, as well as that of others from who they may receive shipments.

RSPA urges all persons involved in hazardous materials transportation activities to carefully examine all of their procedures to ensure conformance with the HMR.

Issued in Washington, DC, on December 10, 1996.

Alan I. Roberts,

Associate Administrator for Hazardous Materials Safety.

[FR Doc. 96–31648 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–60–P

49 CFR Chapter I

[Notice No. 96–24]

Advisory Guidance; Transportation of Hazardous Materials in MC 330 and MC 331 Cargo Tanks

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Advisory guidance.

SUMMARY: Recently, RSPA was advised by the Federal Highway Administration of a hazardous materials incident which occurred in North Carolina on September 8, 1996. Preliminary information suggests there may be a problem in the unloading configuration of a number of MC 330 and MC 331 cargo tank motor vehicles used to

transport liquefied petroleum gas. The problem may result in a failure of a cargo tank's excess flow feature within its emergency discharge control system to function when a transfer hose or piping fails. Persons involved in the design, manufacture, assembly, maintenance, or transportation of hazardous materials in MC 330 and MC 331 cargo tank motor vehicles are reminded that these tanks and their components must conform to the Hazardous Materials Regulations.

FOR FURTHER INFORMATION CONTACT: Ron Kirkpatrick, Office of Hazardous Materials Technology, Research and Special Programs Administration, telephone (202) 366–4545, or Steve Keppler, Office of Motor Carrier Safety and Technology, Safety & Hazardous Materials Division, Federal Highway Administration, telephone (202) 366–2978, U.S. Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590–0001.

SUPPLEMENTARY INFORMATION: On September 8, 1996, more than 35,000 gallons of propane were released during a delivery at a bulk storage facility in Sanford, NC. During the unloading of an MC 331 cargo tank into two 30,000-gallon storage tanks, the discharge hose became separated from its hose coupling at the storage tank inlet connection. Most of the cargo tank's 9800 gallons and more than 30,000 gallons from the storage tanks were released during this incident.

The driver became aware of the system failure when the hose began to violently oscillate while releasing liquid propane. He immediately shut down the engine, stopping the discharge pump, but he could not access the remote closure control to close the internal stop valve. The excess flow feature of the emergency discharge control system did not function, and propane continued to be released from the system. Additionally, the back flow check valve on the storage tank system did not function and propane was released from the storage tanks. In light of the large quantity of propane released, this incident could have resulted in a loss of life and significant property damage if the gas had reached an ignition source. Fortunately, there was no fire.

Over the past ten years, nine similar instances of propane release have been reported that involved local deliveries by small cargo tank motor vehicles. In each instance, the amount of propane released was much less than in the Sanford incident. However, fires resulted in the majority of these incidents, and several persons were injured. From a review of the reports, it appears that the excess flow feature of the emergency discharge control systems did not function as intended. In most cases, leakage was stopped by using the remote emergency shut-down operator to close the internal stop valve.

Manufacturers of MC 331 cargo tanks and persons who operate, repair, test, inspect, assemble or modify MC 330 or MC 331 cargo tanks are reminded of the following requirement in the Hazardous Materials Regulations (HMR):

For MC 331 cargo tanks intended for use in transporting compressed gas (except carbon dioxide, refrigerated liquid), § 178.337–11(a)(1)(i) specifies: Each internal self-closing stop valve and excess flow valve must automatically close if any of its attachments are sheared off or if any attached hoses or piping are separated.

Although the regulatory citation is not the same as when the rule was first adopted, this requirement has been in the HMR for more than forty years.

For MC 330 and MC 331 cargo tanks, § 173.315(n) specifies: Each MC 330 and MC 331 cargo tank used to transport a flammable gas, anhydrous ammonia or hydrogen chloride, refrigerated liquid must have each liquid opening equipped in accordance with § 178.337–11 of this subchapter.

Similar requirements also are specified in Occupational Safety and Health Administration regulations (29 CFR 1910.110) and in the National Fire Protection Association's ''Standard for the Storage and Handling of Liquefied Petroleum Gases'' (NFPA 58).

On June 14, 1996, RSPA published a document entitled *''Advisory Guidance; Offering, Accepting, and Transporting Hazardous Materials''* in the Federal Register (61 FR 30444). The guidance addressed a number of topics related to the safe transportation of hazardous materials. Persons who supervise or perform hazardous materials functions, including persons who design, manufacture, assemble, maintain or operate cargo tanks, or otherwise perform functions leading to the introduction of hazardous materials into transportation, are encouraged to review the guidance in its entirety and to take all necessary measures to ensure compliance with the HMR.

Issued in Washington, DC on December 10, 1996.

Alan I. Roberts,

Associate Administrator for Hazardous Materials Safety.

[FR Doc. 96–31731 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 960919266–6336–02; I.D. 082096D]

RIN 0648–AD91

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands; Initial Regulations

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS issues this final rule to implement the Fishery Management Plan for Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands (FMP). The FMP restricts the taking of queen conch in or from the exclusive economic zone (EEZ) around Puerto Rico and the U.S. Virgin Islands (USVI) in order to restore overfished stocks.

EFFECTIVE DATE: January 13, 1997.

ADDRESSES: Requests for copies of the Final Regulatory Flexibility Analysis (FRFA) should be sent to the Southeast Regional Office, NMFS, 9721 Executive Center Drive N., St. Petersburg, FL 33702. Requests for copies of the FMP, which includes a regulatory impact review (RIR)/initial regulatory flexibility analysis (IRFA), and a final environmental impact statement (FEIS), should be sent to the Caribbean Fishery Management Council (Council), 268 Muñoz Rivera Avenue, Suite 1108, San Juan, PR 00918–2577.

FOR FURTHER INFORMATION CONTACT: Georgia Cranmore, 813–570–5305.

SUPPLEMENTARY INFORMATION: The FMP was prepared by the Council under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Background information on the conch resources of the Caribbean EEZ and the rationale for the management measures in the FMP were contained in the preamble to the proposed rule (61 FR 50794, September 27, 1996) and are not repeated here.

Public comments were invited on the FMP, the proposed rule, the IRFA, and other supporting documents through November 12, 1996. NMFS approved the FMP on November 22, 1996.

Comments and Responses

Comments were received from the U.S. Fish and Wildlife Service

(USFWS), the Environmental Protection Agency (EPA), and the Center for Marine Conservation (CMC). USFWS believes the FMP and associated documents outline the resource and proposed impacts adequately. The EPA concluded that it has no objection to the implementation of the FMP.

Comment: CMC supports the management measures but is concerned that these measures alone may not accomplish the goals of eliminating overfishing, ensuring a sustainable fishery, or restoring healthy conch populations. CMC urges NMFS to consider a prohibition of scuba harvest, the establishment of protected areas, and the development of management measures for other species in the management unit.

Response: NMFS believes that the FMP is a good first step in the restoration of queen conch populations in the U.S. Caribbean; however, NMFS agrees with CMC that more needs to be done in the very near future to further reduce fishing mortality. Although the prohibition on harvest by scuba diving was a preferred option, the Council heard testimony from conch fishermen during public hearings that most of their recent catches are from the EEZ. The Council was unwilling to impose such a major burden on the conch fishermen without additional information on catch histories and population trends. Puerto Rico is considering a number of marine reserves in State waters, and the Council is developing an amendment to its coral plan to establish a marine reserve off St. John, USVI. Additional protected areas, which will benefit conch populations, are expected to be established in the U.S. Caribbean as an alternative to more traditional fishery management measures. Most organisms sold as curios and used in handicrafts in Puerto Rico are imported, primarily from the Philippines. Commercial shell collecting does not appear to be a problem here as it is in other areas. However, the Council is prepared to address impacts of the collection of mollusk shells for the curio market if information becomes available indicating the need for action.

Classification

The Regional Administrator, Southeast Region, NMFS, determined that the FMP is necessary for the conservation and management of the conch resources of the Caribbean Sea and that it is consistent with the Magnuson-Stevens Act and other applicable law.

This action has been determined to be not significant for purposes of E.O. 12866.

The Council prepared an FEIS for this FMP; a notice of availability for public comment was published on August 29, 1966 (61 FR 45395). According to the FEIS, the restrictions in the FMP would benefit the natural environment for the queen conch fishery.

The Council prepared an IRFA for the proposed rule as required under the Regulatory Flexibility Act. The IRFA concluded that the FMP's proposed measures would, if approved and implemented, have a significant economic effect on a substantial number of small entities. Copies of the IRFA are available from the Council (see **ADDRESSES**).

Following the public comment, NMFS prepared an FRFA. Copies of the FRFA are available from NMFS (see **ADDRESSES**). The following is a summary of the FRFA.

This final rule is necessary to rebuild the overfished queen conch resource in the U.S. EEZ around Puerto Rico and the USVI (Caribbean EEZ). Trends in queen conch landings since the early 1980s suggest declines in abundance of over 50 percent. This rule is designed to rebuild the overfished conch resources in the Caribbean EEZ by protecting spawning stocks and reducing fishing effort. This rule (1) requires that a Caribbean conch resource in or from the Caribbean EEZ be landed in its shell; (2) prohibits possession and sale of queen conch below a minimum size; (3) establishes daily recreational and commercial harvest limits for queen conch; (4) establishes a 3-month closed season regarding the harvest of queen conch; and (5) prohibits the use of hookah gear for harvesting queen conch.

The one substantive public comment received on the proposed rule suggested that the Council should propose additional actions to restore queen conch stocks, such as a prohibition of the use of scuba for harvesting conch. NMFS observes, however, that the Council did consider and assess options for additional management actions in its RIR/IRFA and in other analyses of the impacts of various management options (e.g., the FEIS). The Council concluded that the other options considered were likely to increase short-term, adverse economic impacts or were unnecessary at this time for achieving the FMP's objectives. In approving the FMP, NMFS agreed with the conclusions of the Council's analyses of regulatory impacts. Accordingly, this comment did not result in changes to the conclusions of the IRFA.

The FRFA indicates that this rule will result in significant economic impacts on a substantial number of small entities. The commercial queen conch fishery is composed entirely of small businesses. Although the exact number of small businesses is unknown, the Council's analyses indicate that at least 30 percent of all queen conch fishing trips will be affected by the rule. The requirement to land queen conch in the shell, rather than discarding the shell at sea, can reduce the ex-vessel value of a day's catch because vessel capacity may be exceeded in certain small vessels traditionally used in this fishery. The size limit would increase the cost of fishing and reduce the amount of conch taken on some trips, at least in the short term. However, the Council was unable to quantify these potential changes in net benefits because most quantitative data have not been collected for this previously unregulated fishery. Assuming fishermen do not compensate for the reduction in queen conch harvests through increased harvests of other species, estimated reductions in gross revenues per trip in Puerto Rico under a commercial trip limit of 150 queen conch will average $12, a decline of about 7.5 percent. Average gross revenues per trip in the USVI will decline by $5, a decline of less than 2 percent. Assuming most U.S. Caribbean commercial queen conch fishermen reside in Puerto Rico, the 5 percent criterion for significant effects will probably be met. Impacts on small entities from the closed season (July–September) are expected to be minimal because fishermen will shift effort to other fisheries, such as lobsters and snappers, during the summer season. Revenues for USVI queen conch fishermen did not decline significantly when a seasonal closure went into effect in USVI waters. Prohibiting diving gear that provides a continuous air supply from the surface, such as hookah, is likely to have only a very minor impact on small entities. Although no data exist to document the extent of the use of hookah to take queen conch, it is thought to be insignificant relative to scuba and free-diving.

In trying to minimize significant economic impacts on small entities, the Council and NMFS considered numerous management alternatives in selecting the preferred management measures regarding landing conch whole, size limits, harvest limits, closed season, and gear restrictions. In general, the approved FMP measures will create unavoidable short-term economic losses for the impacted small business entities. However, all these measures were proposed by the Council and approved by NMFS because they are considered the most appropriate means of rebuilding the overfished queen conch

resource while maintaining an ongoing commercial fishery. The long-term biological and economic benefits of these measures are expected to exceed any short-term economic costs to the fishery. The Council considered a 5-year moratorium on harvesting queen conch, which would have had severe economic impacts. The Council chose, instead, to pursue an effort-reduction program with fewer economic impacts than the total closure. Regarding the measure requiring landing of whole conch, the FRFA indicates that this would allow enforcement personnel to identify the conch species and, thus, enforce the minimum size limit for queen conch. This provision is expected to reduce fishing effort by limiting the amount of queen conch that can be carried aboard a fishing vessel. Conch fishermen testified that they would prefer to land conch meat only; however, there is no readily available method of distinguishing between the meats of queen conch and other conch resources. In addition, there is no reliable correlation between the age of a queen conch and the weight of its meat. Regarding the size limits, recent scientific studies indicate that protecting queen conch less than 9 inches (22.9 cm) in length and less than ⅜ inch (9.5 mm) in lip width is likely to increase the spawning stock biomass. Lower size limits are not expected to achieve this objective although they would likely have a reduced impact on small entities. Regarding harvest limits, the Council believes that the limit of 150 queen conch per day will restrict commercial fishermen to approximately current levels of harvest. An alternative considered by the Council was to establish a harvest limit of 75 queen conch per commercial fisherman. However, the Council decided, based on anticipated adverse economic impacts, to maintain current levels of harvest until data show that a reduction in the harvest limit is necessary. Regarding the closed season from July through September, impacts on small entities are expected to be minimal because fishermen will shift effort to other fisheries, such as spiny lobsters and reef fish, during this period. Regarding gear restrictions, overfishing of nearshore areas has led to an increased reliance on the harvest of queen conch in deeper waters by scuba and hookah diving. Increased access to deeper waters by these methods could result in the elimination of some of the last remaining sources of conch recruitment. Although the Council considered a prohibition on harvest of queen conch by scuba in the EEZ, potential adverse economic impacts of this alternative convinced the Council to recommend only a prohibition against devices that provide a continuous air supply from the surface, such as hookah. Such devices are not often used in the EEZ of the U.S. Caribbean. By allowing extended time on the ocean floor, hookah diving significantly increases harvesting time compared to scuba and free-diving.

This action would not revise existing, or establish any new reporting, recordkeeping, or other compliance requirements.

List of Subjects in Part 622

Fisheries, Fishing, Puerto Rico, Reporting and recordkeeping requirements, Virgin Islands.

Dated: December 6, 1996.

Charles Karnella,

Acting Deputy Assistant Administrator for Fisheries.

For the reasons set out in the preamble, 50 CFR part 622 is amended as follows:

PART 622—FISHERIES OF THE CARIBBEAN, GULF, AND SOUTH ATLANTIC

1. The authority citation for part 622 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq.*

2. In § 622.1, table 1, an entry is added in alphabetical order to read as follows:

§ 622.1 Purpose and scope.

* * * * *

TABLE 1.—FMPS IMPLEMENTED UNDER PART 622

FMP title	Responsible fishery management council(s)	Geographical area
* *	* *	*
FMP for Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands.	CFMC	Caribbean.
* *	* *	*

3. In § 622.2, the definition for ''Caribbean conch resource'' is added in alphabetical order to read as follows:

§ 622.2 Definitions and acronyms.

* * * * *

Caribbean conch resource means one or more of the following species, or a part thereof:

(1) Atlantic triton's trumpet, *Charonia variegata.*

(2) Cameo helmet, *Cassis madagascarensis.*

(3) Caribbean helmet, *Cassis tuberosa.*

(4) Caribbean vase, *Vasum muricatum.*

(5) Flame helmet, *Cassis flammea.*

(6) Green star shell, *Astrea tuber.*

(7) Hawkwing conch, *Strombus raninus.*

(8) Milk conch, *Strombus costatus.*

(9) Queen conch, *Strombus gigus.*

(10) Roostertail conch, *Strombus gallus.*

(11) True tulip, *Fasciolaria tulipa.*

(12) West Indian fighting conch, *Strombus pugilis.*

(13) Whelk (West Indian top shell), *Cittarium pica.*

* * * * *

4. In § 622.33, paragraph (c) is added to read as follows:

§ 622.33 Caribbean EEZ seasonal and/or area closures.

* * * * *

(c) *Queen conch closure.* From July 1 through September 30, each year, no person may fish for queen conch in the Caribbean EEZ and no person may possess on board a fishing vessel a queen conch in or from the Caribbean EEZ.

5. In § 622.37, paragraph (g) is added to read as follows:

§ 622.37 Minimum sizes.

* * * * *

(g) *Caribbean queen conch*—9 inches (22.9 cm) in length, that is, from the tip of the spire to the distal end of the shell, and ⅜ inch (9.5 mm) in lip width at its widest point. A queen conch with a length of at least 9 inches (22.9 cm) or a lip width of at least ⅜ inch (9.5 mm) is not undersized.

6. In § 622.38, paragraph (g) is added to read as follows:

§ 622.38 Landing fish intact.

* * * * *

(g) A Caribbean conch resource in or from the Caribbean EEZ must be maintained with meat and shell intact.

7. In § 622.39, paragraph (e) is added to read as follows:

§ 622.39 Bag and possession limits.

* * * * *

(e) *Caribbean queen conch*—(1) *Applicability.* Paragraph (a)(1) of this section notwithstanding, the bag limit of paragraph (e)(2) of this section does not apply to a fisherman who has a valid commercial fishing license issued by Puerto Rico or the U.S. Virgin Islands. See § 622.44 for the commercial daily trip limit.

(2) *Bag limit.* The bag limit for queen conch in or from the Caribbean EEZ is 3 per person or, if more than 4 persons are aboard, 12 per boat.

8. In § 622.41, paragraph (f) is added to read as follows:

§ 622.41 Species specific limitations.

* * * * *

(f) *Caribbean queen conch.* In the Caribbean EEZ, no person may harvest queen conch by diving while using a device that provides a continuous air supply from the surface.

9. In § 622.44, paragraph (f) is added to read as follows:

§ 622.44 Commercial trip limits.

* * * * *

(f) *Caribbean queen conch.* A person who fishes in the Caribbean EEZ and is not subject to the bag limit may not possess in or from the Caribbean EEZ more than 150 queen conch per day.

[FR Doc. 96–31588 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–22–W

Proposed Rules

Federal Register
Vol. 61, No. 241
Friday, December 13, 1996

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

Commodity Credit Corporation

Natural Resources Conservation Service

7 CFR Part 1470

RIN 0578–AA21

Wildlife Habitat Incentives Program

AGENCY: Commodity Credit Corporation; Natural Resources Conservation Service, United States Department of Agriculture.

ACTION: Notice of proposed rulemaking with request for comments.

SUMMARY: The Federal Agriculture Improvement and Reform Act authorized the establishment of a Wildlife Habitat Incentives Program within NRCS. The Commodity Credit Corporation (CCC) and the Natural Resources Conservation Service (NRCS) are issuing a proposed rule for implementation of the Wildlife Habitat Incentives Program.

DATES: Comments must be received by January 27, 1997.

ADDRESSES: All comments concerning this proposed rule should be addressed to Warren M. Lee, Director, Watersheds and Wetlands Division, Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013–2890. Attention: WHIP. Fax: 202–690–1462. This rule may also be accessed, and comments submitted, via Internet. Users can access the NRCS Federal Register homepage and submit comments at http://astro.itc.nrcs.usda.gov:6500.

FOR FURTHER INFORMATION CONTACT: Jeanne Melanson, Program Manager, Watersheds and Wetlands Division, Natural Resources Conservation Service, (202) 720–3534.

SUPPLEMENTARY INFORMATION:

Background

The desirability of an area for habitat depends upon the wildlife species involved. Even so, wildlife habitats of all types have become degraded as a result of development pressures. As development encroaches and replaces the existing habitat, the wildlife dependent upon that habitat is also replaced. A number of habitat types that existed at the time of European settlement (including many of our native grasslands, savannas, barrens, and certain types of forestlands) have almost disappeared from the landscape.

Often, the loss of a habitat means the irretrievable loss of the species dependent upon that habitat. Of all North American birds, those occupying grasslands throughout the Great Plains are experiencing the steepest, most consistent, and most widespread declines. Approximately 83 percent of these species show decreasing population trends from 1963 to 1993. In the West, intensification of cultivated cropland, especially in irrigated areas, has contributed to a 68 percent decrease in the harvest of ring-necked pheasants. Other habitats such as wetlands, riparian forests, and rivers and streams have suffered a serious decline in quality and or quality. These changes also impact wildlife populations.

Executive Order 12866

The Office of Management and Budget (OMB) determined that this proposed rule is significant and was reviewed by the Office of Management and Budget under Executive Order 12866. Pursuant to § 6(a)(3) of Executive Order 12866, CCC and NRCS conducted a benefit-cost assessment of the potential impacts associated with this proposed rule. CCC and NRCS concluded from the benefit-cost assessment that the overall impacts of WHIP will be beneficial. CCC and NRCS determined that the development of partnerships to provide expert technical assistance will ensure customers are afforded the best opportunity for success. In this manner, CCC and NRCS believe that WHIP will provide for wildlife habitat, help improve the quality of life for participants, and have a neutral to positive impact on local economies. Copies of the benefit-cost assessment are available upon request from Jeanne Melanson, Program Manager, Watersheds and Wetlands Division, Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013–2890.

Regulatory Flexibility Act

It has been determined that the Regulatory Flexibility Act is not applicable to this rule because neither the CCC or NRCS are required by 5 U.S.C. 553 or any other provision of law to publish a notice of proposed rulemaking with respect to the subject matter of this rule.

Environmental Evaluation

It has been determined through an environmental review that the issuance of this proposed rule will not have a significant impact upon the human environment. Copies of the environmental assessment may be obtained from Jeanne Melanson, Program Manager, Watersheds and Wetlands Division, Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013–2890.

Executive Order 12372

This program/activity is not subject to the provisions of Executive Order 12372 because it involves direct payments to individuals and not to State and local officials. See notice related to 7 CFR Part 3015, Subpart V, published at 48 FR 29115 (June 24, 1983).

Federal Domestic Assistance Program

The title and number of the Federal Domestic Assistance Program, as found in the Catalog of Federal Domestic Assistance, to which this rule applies are: Wildlife Habitat Incentives Program—10.914.

Paperwork Reduction Act

This proposed rule sets forth procedures for implementing WHIP. CCC needs certain information from potential applicants, in order to carry out the requirements of the program. CCC submitted the information collection requirements in this proposed rule to the Office of Management and Budget (OMB) for approval under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* CCC prepared an Information Collection Request (ICR) document; the public may obtain a copy of this request from Jeanne Melanson, Program Manager, Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013–2890.

Title: Environmental Quality Incentives Program, Wildlife Habitat Improvement Program, and Farmland Protection Program.

OMB Control Number: 0560–0174.

Expiration Date of Approval: 3 Years from OMB Approval.

Type of Request: Revision.

Abstract: The Federal Agriculture Improvement and Reform Act of 1996, Pub. L. 104–127, authorized the implementation of the Wildlife Habitat Incentives Program. This rule sets forth the procedures for producers to apply and participate in the program. Pursuant to § 1470.5, producers may file an application for participation at a USDA service center. NRCS will collect information from a participant on the resource problems to be addressed, evaluate the information, and, working with the participant, develop a wildlife habitat development plan that describes the needed practices or land management changes. This plan becomes a part of the WHIP contract, and CCC will make payments to participants as the participants carry out the provisions of the contract. CCC submitted to OMB proposed forms that CCC will use for the application, the contract, and for the NRCS collection of information related to resource needs.

Estimate of Burden: CCC estimates the public reporting for this information collection associated with WHIP forms is an average of 90 minutes per applicant.

Respondents: Persons who wish to participate in WHIP.

Estimated Number of Respondents: 5,000.

Estimated Number of Responses per Respondent: 6.

Estimated Total Annual Burden on Respondents: 7,900 hours.

Additionally, CCC shall utilize information supplied by local work groups to designate particular geographic areas as priority areas for program funding under WHIP. Staff from State and local governments shall comprise part of these local work groups, and thus information collected from these groups is governed under the Paperwork Reduction Act.

For the local work groups, the annualized cost to WHIP respondents is $1,680,000. CCC based this figure on 120,000 burden hours times an average wage of $14.00 an hour (wages for State and local agency staff average approximately $14 an hour).

There also exists a burden associated with development of conservation plans and follow-up verification of the conservation practices adopted pursuant to the WHIP wildlife habitat development plan. For the collection of information resulting from the development of conservation plans and subsequent verification of practices, the annualized cost to respondents is $480,000. This figure is based on 40,000 burden hours times the wage of $12.00 an hour.

CCC requests comments regarding: (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; (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.

USDA will accept comments on this information collection at: Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503, and to Jeanne Melanson, Program Manager, Natural Resources Conservation Service, P.O. Box 2890, Washington, D.C. 20013–2890. USDA will incorporate all comments as part of the public record.

The Paperwork Reduction Act requires OMB to make a decision concerning the collection(s) of information contained in this proposed rule between 30 and 60 days after publication of this document in the Federal Register. Therefore, a comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication. This does not affect the deadline for the public to comment to the Department on the proposed regulations.

Executive Order 12778

This proposed rule has been reviewed in accordance with Executive Order 12778. The provisions of this proposed rule are not retroactive. Furthermore, the provisions of this proposed rule preempt State and local laws to the extent such laws are inconsistent with this proposed rule. Before an action may be brought in a Federal court of competent jurisdiction, the administrative appeal rights afforded persons at 7 CFR part 614 or 780, as appropriate, must be exhausted.

Unfunded Mandates Reform Act of 1995

Pursuant to Title II of the Unfunded Mandates Reform Act of 1995, Pub. L. 104–4, the affects of this rulemaking action on State, local, and tribal governments, and the public have been assessed. This action does not compel the expenditure of $100 million or more by any State, local or tribal governments, or anyone in the private sector, and therefore a statement under section 202 of the Unfunded Mandates Reform Act of 1995 is not required.

Discussion of the Program

The Federal Agriculture Improvement and Reform Act of 1996 (the 1996 Act), Pub. L. 104–127, provides the authority for several conservation programs. Section 387 of the 1996 Act authorizes the establishment of a Wildlife Habitat Incentives Program (WHIP) specifically under the supervision of the NRCS. The primary purpose of WHIP is to help landowners ''develop upland wildlife, wetland wildlife, threatened and endangered species, fish, and other types of wildlife habitat.''

Section 387 of the 1996 Act provides that funds from CCC that are available for implementing the Conservation Reserve Program, 16 U.S.C. 3831–3836, will be used to implement WHIP. The Chief, NRCS, is a Vice-President of the CCC and WHIP will be under the general supervision and direction of the Vice President of CCC who is the Chief of NRCS. Through WHIP, CCC provides cost-share assistance to those landowners who wish to integrate wildlife considerations into the overall management of their operations or who simply desire to ''do more for wildlife.'' NRCS, using CCC funds, will implement WHIP in harmony with other programs to achieve more comprehensive advancement of wildlife objectives.

WHIP offers an opportunity to encourage development of improved wildlife habitat on eligible lands. As participants make decisions about the wildlife habitat development plan for their particular land, they will gain a greater awareness about the diversity of wildlife needs and how wildlife management can fit into their farming or ranching activities. NRCS believes that the efforts made by participants in this program will serve as a catalyst for improving wildlife conditions throughout the Nation.

Public Listening Forums

In April 1996, USDA held nine forums to provide opportunities for public comment in advance of this rulemaking action. These forums were held at Sacramento, California; Longmont, Colorado; Columbus, Georgia; Springfield, Illinois; Wyomissing, Pennsylvania; Sioux Falls, South Dakota; Abilene, Texas; Spokane, Washington; and Washington, D.C. More than 850 people, including 206 speakers, attended these forums. In addition, USDA accepted written

comments. USDA considered the public comments provided at these forums in the preparation of this proposed rule. The documents relating to these forums are available for public inspection at Room 6029 South Building, USDA, 14th and Independence Ave. SW, Washington, D.C.

All the commenters who addressed WHIP expressed support for the program and the increased role wildlife objectives have in the Conservation Title programs.

Several commenters suggested that WHIP funds should fill gaps and target practices with respect to other programs authorized by Title III of the 1996 Act that may not otherwise receive funding. NRCS will coordinate the implementation of WHIP with the other program efforts to avoid program duplication. In particular, § 1470.4(c) provides that CCC may not share the cost of practices on land where other programs have sufficiently met wildlife objectives. However, it is anticipated that there will be significant opportunities to further wildlife objectives through collaborative efforts with other public and private organizations. Other provisions in the rule encourage program innovation to achieve broader wildlife benefits through cooperative agreements and related mechanisms for coordinating resources.

USDA received five comments related to the types of practices that should or should not be eligible for cost-share funds. Section 1470.7 describes the types of practices that will be eligible.

USDA received three comments expressing a desire that WHIP funds be allocated evenly between the States and three other comments suggesting a more focused targeting of program funds. Section 1470.6 provides that funds will be targeted according to NRCS State, regional, and national priorities.

Eleven commenters expressed support for the continuing close relationship between NRCS and conservation districts in the development of conservation plans. Section 1470.8 provides that wildlife habitat development plans will be developed by NRCS or other public or private natural resource professional, and approved by the conservation district. Additional provisions of the regulation authorize conservation districts to be involved in the modification or termination of plans.

Summary of Provisions

The following is a summary of the WHIP provisions in this proposed rule:

Section 1470.1 describes the purpose of the Wildlife Habitat Incentives Program and where the program may be offered. Through WHIP, NRCS will provide participants with the technical expertise to establish realistic wildlife goals for their land and CCC will provide cost-share assistance to help establish practices. Section 387 of the 1996 Act provides that 50 million dollars is available through 2002 for program implementation. Within the limits of that amount, CCC will fund projects in those areas where it is determined that the greatest benefit can be achieved.

Section 1470.2 provides that WHIP will be administered under the supervision of the Chief, NRCS as Vice President of CCC. As provided by section 387 of the 1996 Act, the program will be developed in consultation with the State Technical Committees. The NRCS State Conservationist, with advice from the State Technical Committee, will develop and submit to the Chief a plan for implementing and administering the WHIP program in each State, i.e. a NRCS State plan. The NRCS State plan will include the NRCS State objectives, NRCS State wildlife priorities, partnership involvement, the application ranking process and criteria, and other provisions necessary to assure successful implementation of the program. The Chief will allocate WHIP funds to the NRCS State level based on these NRCS State plans.

Section 1470.3 defines the terms that are used in this proposed rule.

Section 1470.4 describes the general program requirements. Under WHIP, CCC will enter into cost-share contracts, for a minimum duration of 10 years, with persons who want to implement practices that improve habitat conditions for wildlife. According to Department wildlife biologists, there often exists a time lag between when a practice is installed and the wildlife benefits are realized. Therefore, a participant will receive cost-share assistance upon completion of the installation of the practice but must maintain the practice for the duration of the contract period. CCC requests comments from the public related to the proposed duration of the contract.

To participate in WHIP, a person must either own the land on which the practices will be implemented or have control and possession of the land for the duration of the contract. The land cannot be owned by a Federal agency or have on-site or off-site conditions that could undermine the successful establishment of habitat development practices.

Section 1470.5 provides that a person who wants to receive cost-share assistance must submit an application to a CCC representative. If an applicant is eligible, a CCC representative will visit the site and gather information relevant to the eligibility of the land, the objectives of the applicant, the habitat needs, and other information necessary to evaluate the relative merits of the project.

Section 1470.6 describes the national criteria that the NRCS State plan must incorporate into its ranking scheme. The NRCS will give priority to projects on private lands or eligible Tribal lands. NRCS may consider projects on State or local public land only if a priority project on private lands contains a public land component or the project otherwise merits special consideration. In general, NRCS will not implement WHIP on State forest-, park-, or gamelands because NRCS assumes that the State has already assumed responsibility for implementing wildlife habitat development practices on such land.

The NRCS State plan may also include additional criteria relevant to the particular habitat concerns of State or regional importance. Funds will not be allocated evenly to all States. The Chief may focus program funds to particular habitat needs of target species based upon the NRCS State plan or national goals and priorities.

Section 1470.7 includes the provisions related to cost-share assistance. The NRCS State Conservationist, in consultation with the State Technical Committee, will develop from the NRCS field office technical guides a list of practices eligible for WHIP cost-share assistance. Any practice in the field office technical guide that provides positive benefits to wildlife habitat may be eligible for cost-share funds. Cost-share assistance will be used to implement the practices contained in the conservation plan prepared to obtain the desired habitat response. CCC will not contribute more than 75 percent towards the cost of installing or implementing a practice. If a practice fails for reasons beyond a participant's control such as drought or flood, cost-share assistance may be available (at the sole discretion of CCC) for the re-establishment of the necessary practices.

Section 1470.8 addresses the necessary elements of a cost-share contract, including the incorporation of a Wildlife Habitat Development Plan (WHDP). The participant develops the WHDP with the NRCS (or public or private natural resource professional) and the conservation district. The WHDP provides the participants with a record of the decisions made regarding the implementation of practices, the

associated costs, and a schedule of installation, operation, and maintenance of the practice. The WHDP forms the basis of the contract for cost-share assistance.

Section 1470.9 allows for the modification of a contract or a WHDP as long as the modification meets program objectives.

Section 1470.10 provides that a contract will need to be modified or terminated if the participant transfers an interest in the land under contract or otherwise loses control of the subject land.

Section 1470.11 allows for a contract to be terminated voluntarily for reasons of undue economic hardship, an inability to comply with the terms of the contract as a result of conditions beyond a participant's control, or the NRCS State Conservationist determines that termination would be in the public interest.

Section 1470.12 provides that a participant may be given at least 30 days to correct a violation of a cost-share contract before CCC will seek remedies for breach of the contract.

Section 1470.13 addresses actions that CCC will consider as a scheme or device to defeat the purposes of the program.

Section 1470.14 are provisions related to the assignment of payments and payments that are not subject to claims of creditors.

Section 1470.15 provides that a person may obtain a review of an adverse agency decision by utilizing the appeal provisions found at 7 CFR part 614 or 780, as appropriate.

List of Subjects in 7 CFR Part 1470

Administrative practices and procedures, Conservation, Habitat, Wildlife.

Accordingly, it is proposed that Title 7, Chapter XIV, of the Code of Federal Regulations be amended by adding a new part 1470 to read as follows:

PART 1470—WILDLIFE HABITAT INCENTIVES PROGRAM

Sec.

1470.1 Applicability.
1470.2 Administration.
1470.3 Definitions.
1470.4 Program requirements.
1470.5 Application procedures.
1470.6 Establishing priority for enrollment in WHIP.
1470.7 Cost-share payments.
1470.8 The wildlife habitat development plan (WHDP)
1470.9 Modifications.
1470.10 Transfer of interest in a contract.
1470.11 Termination of contracts.
1470.12 Violations and remedies.
1470.13 Misrepresentation and scheme or device.
1470.14 Offsets and assignments.
1470.15 Appeals.

Authority: 15 U.S.C. 714b and 714c; 16 U.S.C. 590a *et seq.*, 3836a.

§ 1470.1 Applicability.

(a) The purpose of the WHIP is to help participants develop habitat for upland wildlife, wetland wildlife, threatened and endangered species, fish, and other types of wildlife.

(b) The regulations in this part set forth the requirements for the Wildlife Habitat Incentives Program (WHIP).

(c) The Chief, NRCS may implement WHIP in any of the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands of the United States, American Samoa, and the Commonwealth of the Northern Mariana Islands.

§ 1470.2 Administration.

(a) The regulations in this part will be administered under the general supervision and direction of the Chief, NRCS as Vice President of CCC and as Chief of NRCS. In the field, the regulations in this part will be administered by NRCS.

(b) The State Conservationist will consult with the State Technical Committee in the implementation of the program and in establishing program policies for the NRCS in the applicable State. The State Conservationist has the authority to accept or reject the State Technical Committee recommendation; however, the State Conservationist will give strong consideration to the State Technical Committee's recommendation.

(c) CCC may enter into cooperative agreements with Federal agencies, State and local agencies, conservation districts, local watershed groups, and with private entities to assist with program implementation, including contract execution, assistance, planning, and monitoring responsibilities.

(d) CCC may allocate funds for such purposes related to wildlife priority areas; special pilot programs for wildlife habitat development, targeted species or targeted species habitat problems; cooperative agreements with other Federal, State, or local agencies, conservation districts, local watershed groups, or private entities for program implementation; coordination of enrollment of contracts; or for other goals consistent with the program provided for in this part.

(e) No delegation herein shall preclude the Vice President of CCC who is the Chief of NRCS, or a designee, from determining any question arising under this part or from reversing or modifying any determination made under this part.

§ 1470.3 Definitions.

Chief means the Chief of the Natural Resources Conservation Service or the person delegated authority to act for the Chief.

Conservation district means a political subdivision of a State, Native American Tribe, or territory, organized pursuant to the State or territorial soil conservation district law, or Tribal law. The subdivision may be a conservation district, soil conservation district, soil and water conservation district, resource conservation district, natural resource district, land conservation committee, or similar legally constituted body.

Contract means the document that specifies the obligations and the rights of any person who has been accepted for participation in the program.

Cost-share payment means the payments under this part to develop wildlife habitat.

Habitat development means the physical actions or practices undertaken to establish, improve, protect, enhance, or restore the present conditions of the land for the specific purpose of improving conditions for wildlife.

Participant means an applicant who is a party to a WHIP contract.

Person means an individual, partnership, association, corporation, cooperative, estate, trust, joint venture, joint operation, or other business enterprise or other legal entity and, whenever applicable, a State, a political subdivision of a State, or any agency thereof.

Practice means a specified treatment, such as a structural or land management measure, which is planned and applied according to NRCS standards and specifications.

State Conservationist means the NRCS employee authorized to direct and supervise NRCS activities in a State, the Caribbean Area, or the Pacific Basin Area.

State Technical Committee means a committee established by the Secretary of the United States Department of Agriculture in a State pursuant to 16 U.S.C. 3861.

WHDP means the Wildlife Habitat Development Plan.

WHIP means the Wildlife Habitat Incentives Program.

Wildlife means birds, fishes, reptiles, invertebrates, and mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

§ 1470.4 Program requirements.

(a) Under WHIP, CCC will enter into wildlife habitat development cost-share contracts, for a minimum of 10 years

duration, with persons who voluntarily seek to cooperate in the development of wildlife habitat. To participate in WHIP, a person must agree to implement a Wildlife Habitat Development Plan (WHDP). As specified in § 1470.7, CCC will provide cost-share assistance for the implementation of the habitat development practices.

(b) To participate in WHIP, a person must:

(1) Own or have legal control and possession of the land for which enrollment is sought; and

(2) Agree to provide such information to the NRCS as the agency deems necessary to assist in the determination of the merits of a proposed project.

(c) *Ineligible land*. CCC shall not provide cost-share assistance with respect to practices on land:

(1) Enrolled in a program where wildlife habitat objectives have been sufficiently achieved through other forms of assistance or without assistance, as determined by NRCS.

(2) With on-site or off-site conditions which NRCS determines would undermine the benefits of the habitat development or otherwise reduce its value;

(3) NRCS determines that the wildlife habitat development benefits attainable are of lesser value than would occur on other lands; or

(4) Owned by the United States.

§ 1470.5 Application procedures.

(a) To apply for WHIP cost-share assistance, a person must submit an application for participation in the WHIP at a USDA service center or to an authorized CCC representative.

(b) By filing an application for participation, a person consents to allowing CCC and NRCS representatives entering upon the land for purposes of assessing the wildlife habitat development potential, and for other activities such as the development of the WHDP that are necessary or desirable for program participation.

§ 1470.6 Establishing priority for enrollment in WHIP.

(a) In response to national and regional needs, the Chief may limit program implementation in any given year to specific geographic areas or to address specific habitat development needs of targets species of special concern.

(b) The State Conservationist, in consultation with the State Technical Committee, may limit implementation of WHIP to address unique species, habitats, or special geographic areas of the State. Subsequent contract offers that would complement previous contracts due to geographic proximity of the lands involved or other relationships may, at any time, receive priority consideration for participation.

(c) NRCS will evaluate the applications and make enrollment decisions based on the relative:

(1) Contribution to resolving an identified habitat problem of national, regional, or state importance;

(2) Significance of the habitat development in response to any established species or habitat priority;

(3) Relationship to any established wildlife or conservation priority areas;

(4) Duration of benefits to be obtained from the habitat development practices;

(5) Self-sustaining nature of the habitat development practices;

(6) Availability of other partnership matching funds or reduced funding request by the person applying for participation; and

(7) Estimated costs of wildlife habitat development activities.

(d) The State Conservationist, in consultation with the State Technical Committee, may determine that an application which meets the eligibility requirements under § 1470.4 should not be enrolled because such application is not:

(1) Valuable to wildlife habitat improvement;

(2) Technically feasible;

(3) Cost-effective;

(4) On private or Tribal land; or

(5) Sufficiently cost-effective relative to other applications, given available funds.

§ 1470.7 Cost-share payments.

(a) CCC may share the cost with a participant for implementing the practices as provided in the WHDP. CCC shall offer to pay no more than 75 percent of such costs.

(b) Cost-share payments may be made only upon a determination by the NRCS that an eligible practice or an identifiable unit of the practice has been established in compliance with appropriate standards and specifications. Identified practices may be implemented by the participant, or other designee.

(c) Cost-share payments may be made for the establishment and installation of additional eligible practices, or the maintenance or replacement of an eligible practice, but only if NRCS determines the practice is needed to meet the objectives of the program, and the failure of the original practice was due to reasons beyond the control of the participant.

(d) A participant may seek additional assistance from other public or private organizations as long as the activities funded are in compliance with this part. However, in the event that the total amount of assistance or payments that the participant would otherwise receive from all sources would exceed 100 percent of the cost of the practice, the participant shall be ineligible for further payments and shall refund that amount received under this part which is equal to such excess over 100 percent.

§ 1470.8 The wildlife habitat development plan (WHDP).

(a) The participant develops a WHDP with the assistance of NRCS or other public or private natural resource professionals, and the WHDP is approved by the local conservation district. A WHDP encompasses the parcel of land that has the wildlife habitat conditions that are of concern to the participant.

(b) The WHDP forms the basis for the contract and is incorporated therein. The WHDP includes a schedule for installation of the wildlife habitat development practices and related requirements to maintain the habitat for the life of the contract.

(c) A WHIP contract shall:

(1) Incorporate all portions of a WHDP;

(2) Include all provisions as required by law or statute;

(3) Specify the requirements for operation and maintenance of applied wildlife habitat development practices;

(4) Include any participant reporting and recordkeeping requirements to determine compliance with the contract and program;

(5) Be signed by the participant, and by the owner if the participant is not the owner of the land subject to the contract; and

(6) Any other provision determined necessary or appropriate by the CCC representative.

§ 1470.9 Modifications.

(a) Upon request of the participant, NRCS, with the concurrence of the conservation district, may approve modifications to a WHDP.

(b) Upon request of the participant, CCC may approve modifications to a contract.

(c) Any modifications made under this section must meet WHIP program objectives, and must be in compliance with this part.

§ 1470.10 Transfer of interest in a contract.

(a) If the ownership or operation of the land under contract changes in such a manner that the contract no longer contains the necessary signatures of persons required to sign the contract, CCC shall modify the contract to reflect

the new interested persons and new divisions of payments. CCC shall make eligible cost-share payments upon presentation of an assignment of rights or other evidence that title had passed.

(b) If such persons are not willing to become parties to the modified contract or for any other reason a modified contract is not executed, CCC shall terminate the contract and may require that all cost-share payments may be forfeited, refunded, or both.

(c) The signatories to the contract prior to the change of ownership or operation shall be jointly and severally responsible for refunding the cost-share payments pursuant to paragraph (b).

(d) With respect to any and all payments owed to participants, CCC shall bear no responsibility for any full payments or partial distributions of funds between the original party and that party's successor. In the event of a dispute or claim on the distribution of cost-share payments, CCC may withhold payments without the accrual of interest pending a settlement or adjudication on the rights to the funds.

§ 1470.11 Termination of contracts.

(a) The State Conservationist may, by mutual agreement with the parties to the contract, consent to the termination of the contract where:

(1) The parties to the contract are unable to comply with the terms of the contract as the result of conditions beyond their control;

(2) Compliance with the terms of the contract would work a severe hardship on the parties to the contract; or

(3) Termination of the contract would, as determined by the State Conservationist, be in the public interest.

(b) If a contract is terminated in accordance with the provisions of this section, the State Conservationist may allow the participants to retain any cost-share payments received under the contract.

§ 1470.12 Violations and remedies.

In the event of a violation of a contract or any associated WHDP, CCC may give the parties to the contract reasonable notice and an opportunity to voluntarily correct the violation within 30 days of the date of the notice, or such additional time as CCC may allow.

§ 1470.13 Misrepresentation and scheme or device.

(a) A person who is destermined to have erroneously represented any fact affecting a program determination made in accordance with this part shall not be entitled to contract payments and must refund all payments, plus interest determined in accordance with this part.

(b) A person who is determined to have knowingly:

(1) Adopted any scheme or device that tends to defeat the purpose of the program;

(2) Made any fraudulent representation; or

(3) Misrepresented any fact affecting a program determination shall refund to CCC all payments, plus interest determined in accordance with part 1403 of this chapter received by such person with respect to all contracts. The person's interest in all contracts shall be terminated.

§ 1470.14 Offsets and assignments.

(a) Except as provided in paragraph (b) of this section, any payment or portion thereof to any person shall be made without regard to questions of title under State law and without regard to any claim or lien against the land, or proceeds thereof, in favor of the owner or any other creditor except agencies of the U.S. Government. The regulations governing offsets and withholdings found at part 1403 of this chapter shall be applicable to contract payments.

(b) Any person entitled to any payment may assign any payments in accordance with regulations governing assignment of payment found at part 1404 of this chapter.

§ 1470.15 Appeals.

(a) Any person may obtain reconsideration and review of determinations affecting participation in this program in accordance with part 614 or 780 of this title, as appropriate.

(b) Before a person may seek judicial review of any action taken under this part, the person must exhaust all administrative appeal procedures set forth in paragraph (a) of this section.

Signed at Washington, D.C. on November 6, 1996.

Pearlie Reed,

Acting Chief, Natural Resources Conservation Service, Acting Vice President, Commodity Credit Corporation.

[FR Doc. 96–31676 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–16–P

Food Safety and Inspection Service

9 CFR Parts 317 and 381

[Docket No. 96–022P]

RIN 0583–AC15

Nutrition Labeling; Reference Daily Intakes

AGENCY: Food Safety and Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: The Food Safety and Inspection Service (FSIS) is proposing to establish Reference Daily Intakes (RDI's) for vitamin K, selenium, manganese, chromium, molybdenum, and chloride for use in calculating the ''percent daily values'' of these nutrients per serving of a meat or poultry product. Percent daily values are presented in the ''Nutrition Facts'' boxes on meat, poultry, and other food product labels. FSIS is also proposing to modify the units of measure of the RDI's for calcium, folate, biotin, and phosphorous. The proposed actions would help provide consumers with accurate, informative labeling on meat and poultry products that conforms with the labeling on other foods.

DATES: Comments must be received on or before February 11, 1997.

ADDRESSES: Submit an original and two copies of comments to: FSIS Docket Clerk, Docket #96–022P, Room 3806, 1400 Independence Avenue, SW, Washington, DC 20250–3700. Reference material cited in this document and any comments received will be available for public inspection in the FSIS Docket Room from 8:30 a.m. to 1 p.m. and from 2 p.m. to 4:30 p.m., Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Charles R. Edwards, Director, Facilities, Equipment, Labeling & Compounds Review Division, Office of Policy, Program Development, and Evaluation, (202) 418–8900.

SUPPLEMENTARY INFORMATION:

Background

The meat and poultry inspection regulations at 9 CFR part 317, subpart B, and 381, subpart Y, establish, among other things, the voluntary nutrition labeling requirements for raw, single-ingredient, meat and poultry products and the mandatory nutrition labeling requirements for all other meat and poultry products. The FSIS nutrition labeling regulations parallel, to the extent possible, those administered by the Food and Drug Administration (FDA), because FSIS and FDA agree that conveying nutrition information to consumers in a clear, uniform way for all types of foods helps them in making informed dietary choices. FSIS's nutrition labeling regulations list the same reference values for vitamins, minerals, and other nutrients as do FDA's regulations.

FDA amended its nutrition labeling regulations on December 28, 1995, with a final rule (60 FR 67164, ''Food Labeling: Reference Daily Intakes'')

establishing RDI's for vitamin K, selenium, manganese, chromium, molybdenum, and chloride. The FDA rule also modified the units of measure used in expressing the RDI values for calcium, folate, biotin, and phosphorus. RDI's for vitamins and minerals and daily reference values (DRV's) for other nutrients are used by food companies in calculating the ''percent daily values'' that appear in the ''Nutrition Facts'' boxes on food product labels. The RDI's themselves do not appear on the labels.

The RDI's adopted by FDA for the vitamin and minerals addressed in that Agency's final rule are based on recommendations made during the 1980's by the National Academy of Sciences (NAS). FSIS agrees with FDA's decision to adopt these RDI's and proposes to require use of the same RDI's, as applicable, in developing nutrition labeling for meat and poultry products. Specifically, FSIS proposes to amend 9 CFR 317.309(c)(8)(iv) and 381.409(c)(8)(iv) to include the following RDI values: Vitamin K, 80 micrograms; selenium, 70 micrograms; molybdenum, 75 micrograms; and chloride, 3,400 milligrams.

In the same December 1995 final rule, FDA changed the units of measure for expressing the RDI's for biotin and folate from milligrams to micrograms and for calcium and phosphorous from grams to milligrams. These are the same units that the NAS used for expressing quantities of these minerals in the recommendations followed by FDA. FSIS concurs with FDA's choice of these units and is proposing to amend 9 CFR 317.309(c)(8)(iv) and 381.409(c)(8)(iv) by changing the units of measure for calcium, folate, biotin, and phosphorus to the following: Calcium, milligrams; folate, micrograms; biotin, micrograms; and phosphorous, milligrams.

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 inconsistent 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.

Executive Order 12866 and Regulatory Flexibility Act

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

The Administrator has made an initial determination that this proposed rule will not have a significant economic impact on a substantial number of small entities, as defined by the Regulatory Flexibility Act (5 U.S.C. 601). Small meat and poultry establishments are exempt from nutrition labeling, as long as labeling of their products bears no nutrition claims or information. The proposed rule will not impose any new requirements on affected establishments. Rather, it will provide greater flexibility for declaring nutrient information on the labeling of meat and poultry products.

Paperwork Requirements

This proposed rule contains no information collection or recordkeeping requirements under the Paperwork Reduction Act.

List of Subjects

9 CFR Part 317

Food labeling, Food packaging, Meat inspection.

9 CFR Part 381

Food labeling, Poultry and poultry products.

For reasons discussed in the preamble, FSIS is proposing to amend 9 CFR parts 317 and 381 of the Federal meat and poultry products inspections regulations as follows:

PART 317—LABELING, MARKING DEVICES, AND CONTAINERS

1. The authority citation for part 317 would continue to read as follows:

Authority : 21 U.S.C. 601–695; 7 CFR 2.18, 2.53.

2. Section 317.309 would be amended by revising paragraph (c)(8)(iv) to read as follows:

§ 317.309 Nutrition label content.

* * * * *

(c) * * *

(8) * * *

(iv) The following RDI's and nomenclature are established for the following vitamins and minerals which are essential in human nutrition:

Vitamin A, 5,000 International Units
Vitamin C, 60 milligrams
Calcium, 1,000 milligrams
Iron, 18 milligrams
Vitamin D, 400 International Units
Vitamin E, 30 International Units
Vitamin K, 80 micrograms
Thiamin, 1.5 milligrams
Riboflavin, 1.7 milligrams
Niacin, 20 milligrams
Vitamin B_6, 2.0 milligrams
Folate, 400 micrograms
Vitamin B12, 6 micrograms
Biotin, 300 micrograms
Pantothenic acid, 10 milligrams
Phosphorus, 1,000 milligrams
Iodine, 150 micrograms
Magnesium, 400 milligrams
Zinc, 15 milligrams
Selenium, 70 micrograms
Copper, 2.0 milligrams
Manganese, 2.0 milligrams
Chromium, 120 micrograms
Molybdenum, 75 micrograms
Chloride, 3,400 milligrams

* * * * *

PART 381—POULTRY PRODUCTS INSPECTION REGULATIONS

3. The authority citation for part 381 would continue to read as follows:

Authority: 7 U.S.C. 138f; 7 U.S.C. 450; 21 U.S.C. 451–470; 7 CFR 2.18, 2.53.

4. Section 381.409 would be amended by revising paragraph (c)(8)(iv) to read as follows:

§ 381.409 Nutrition label content.

* * * * *

(c) * * *

(8) * * *

(iv) The following RDI's and nomenclature are established for the following vitamins and minerals which are essential in human nutrition:

Vitamin A, 5,000 International Units
Vitamin C, 60 milligrams
Calcium, 1,000 milligrams
Iron, 18 milligrams
Vitamin D, 400 International Units
Vitamin E, 30 International Units
Vitamin K, 80 micrograms
Thiamin, 1.5 milligrams
Riboflavin, 1.7 milligrams
Niacin, 20 milligrams
Vitamin B_6, 2.0 milligrams
Folate, 400 micrograms
Vitamin B_{12}, 6 micrograms
Biotin, 300 micrograms
Pantothenic acid, 10 milligrams
Phosphorus, 1,000 milligrams
Iodine, 150 micrograms
Magnesium, 400 milligrams
Zinc, 15 milligrams
Selenium, 70 micrograms
Copper, 2.0 milligrams
Manganese, 2.0 milligrams
Chromium, 120 micrograms
Molybdenum, 75 micrograms
Chloride, 3,400 milligrams

* * * * *

Done at Washington, DC, on: December 6, 1996.

Thomas J. Billy,

Administrator.

[FR Doc. 96–31637 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–DM–P

SMALL BUSINESS ADMINISTRATION

13 CFR Part 121

Proposed Rule; Small Business Size Standards; Waiver of the Nonmanufacturer Rule

AGENCY: Small Business Administration.

ACTION: Notice of intent to waive the Nonmanufacturer Rule for Airborne Integrated Data Components (master units, remote units, bus monitors, analog multiplexers, convolutional encoders, digital multiplexers, signal conditioners, and time code readers).

SUMMARY: The Small Business Administration (SBA) is considering granting a waiver of the Nonmanufacturer Rule for Airborne Integrated Data Components. The basis for a waiver of the Nonmanufacturer Rule for this product is that there are no small business manufacturers or processors available to supply these products to the Federal Government. The effect of a waiver would be to allow an otherwise qualified Nonmanufacturer to supply other than the product of a domestic small business manufacturer or processor on a Federal contract set aside for small businesses or awarded through the SBA 8(a) Program. The purpose of this notice is to solicit comments and potential source information from interested parties.

DATES: Comments and sources must be submitted on or before January 6, 1997.

ADDRESSES: David Wm. Loines, Procurement Analyst, U.S. Small Business Administration, 409 3rd Street S.W., Washington, DC 20416, Tel:(202) 205–6475.

FOR FURTHER INFORMATION CONTACT: David Wm. Loines, Procurement Analyst, U.S. Small Business Administration, 409 3rd Street S.W., Washington, DC 20416, Tel:(202) 205–6475, Fax:(202)205–7324.

SUPPLEMENTARY INFORMATION: Public law 100–656, enacted on November 15, 1988, incorporated into the Small Business Act the previously existing regulation that recipients of Federal contracts set-aside for small businesses or the SBA 8(a) Program, must provide the product of a small business manufacturer or processor, if the recipient is other than the actual manufacturer or processor. This requirement is commonly referred to as the Nonmanufacturer Rule. The SBA regulations imposing this requirement are found at 13 CFR 121.406(b). Section 303(h) of the law provides for waiver of this requirement by SBA for any ''class of products'' for which there are no small business manufacturers or processors in the Federal market. To be considered available to participate in the Federal market on these classes of products, a small business manufacturer must have submitted a proposal for a contract solicitation or received a contract from the Federal Government within the last 24 months. The SBA defines ''class of products'' based on two coding systems. The first is the Office of Management and Budget Standard Industrial Classification Manual. The second is the Product and Service Code established by the Federal Procurement Data System.

The Small Business Administration is currently processing a request for a waiver of the Nonmanufacturer Rule for Airborne Integrated Data Components (SIC 3812, PSC 5821) and invites the public to comment or provide information on potential small business manufacturers for this product.

In an effort to identify potential small business manufacturers, the SBA has searched the Procurement Automated Source System (PASS) and Thomas Register, and the SBA will publish a notice in the Commerce Business Daily. The public is invited to comment or provide source information to SBA on the proposed waiver of the Nonmanufacturer Rule for this class of products.

Dated: December 9, 1996.

Judith A. Roussel,

Associate Administrator for Government Contracting.

[FR Doc. 96–31703 Filed 12–12–96; 8:45 am]

BILLING CODE 8025–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96–NM–116–AD]

RIN 2120–AA64

Airworthiness Directives; Dornier Model 328–100 Series 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 Dornier Model 328–100 series airplanes. This proposal would require a one-time check of the clearance between certain braces that connect the wings to the fuselage and the frame to which the top fairing is attached; and modification of the frame's Z-profile if the clearance is insufficient to prevent the braces from coming in contact with the frame. In addition, the proposed AD would require a one-time check of these braces to detect damage or wear; and repair, if necessary. This proposal is prompted by a report indicating that insufficient clearance between these braces and the frame could result in wear and consequent breaking of the braces. The actions specified by the proposed AD are intended to prevent failure of these braces, which could result in unstable movement of the wings in relation to the fuselage and adversely affect the aerodynamic characteristics of the wings.

DATES: Comments must be received by January 23, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–103, Attention: Rules Docket No.96–NM–116–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Dornier Luftfahrt GmbH, P.O. Box 1103, D–82230 Wessling, Germany. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Connie Beane, Aerospace Engineer, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (206) 227–2796; fax (206) 227–1149.

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 notice may be changed in light of the comments received.

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 96–NM–116–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–103, Attention: Rules Docket No. 96–NM–116–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

The Luftfahrt-Bundesamt (LBA), which is the airworthiness authority for Germany, recently notified the FAA that an unsafe condition may exist on certain Dornier Model 328–100 series airplanes. The LBA advises that it has received a report indicating that there may not be sufficient clearance between the diagonal braces that connect the left and right wings to the fuselage and the frame to which the top fairing is attached. A design analysis detected this discrepancy during certification of the airplane.

Continuous contact between the diagonal brace and the frame could cause the brace to become worn, and ultimately break. Should the brace fail, it could result in unstable movement of the wing in relation to the fuselage and adversely affect the wing's aerodynamic characteristics.

Explanation of Relevant Service Information

Dornier has issued Service Bulletin SB–328–53–051, dated August 16, 1994, which describes procedures for checking the clearance between the diagonal braces on the left and right wings and the frame to which the top fairing is attached; and modifying the frame's Z-profile, if there is not a certain minimum clearance between each brace and the frame. In addition, this service bulletin describes procedures for checking each diagonal brace for damage or wear resulting from contact between the brace and the frame. The LBA classified this service bulletin as mandatory and issued German airworthiness directive 94–353, dated November 21, 1994, in order to assure the continued airworthiness of these airplanes in Germany.

FAA's Conclusions

This airplane model is manufactured in Germany 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, the LBA has kept the FAA informed of the situation described above. The FAA has examined the findings of the LBA, 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 a check of the clearance between the diagonal braces on the left and right wings and the frame to which the top fairing is attached; and modification of the frame's Z-profile if there is not a certain minimum clearance between each brace and the frame. In addition, the proposed AD would require a check of these braces to detect damage or wear resulting from contact between each brace and the frame. The actions would be required to be accomplished in accordance with the service bulletin described previously. Repair of damaged or worn braces would be required to be accomplished in accordance with a method approved by the FAA.

Cost Impact

The FAA estimates that 5 Dornier Model 328–100 series 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 actions, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be $1,200, or $240 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 AD were not adopted.

Regulatory Impact

The regulations proposed herein would 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 Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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:

Dornier: Docket 96–NM–116–AD.

Applicability: Model 328–100 series airplanes having serial numbers 3005 through 3014 inclusive; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 (b) 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 failure of the diagonal braces that connect the left and right wings to the fuselage, which could result in unstable movement of the wings and adversely affect the aerodynamic characteristics of the wings, accomplish the following:

(a) Within 90 days after the effective date of this AD, perform the actions required by paragraphs (a)(1) and (a)(2) of this AD.

(1) Check the clearance between the diagonal braces that connect the left and right wings to the fuselage and the Z-profile of the frame to which the top fairing is attached, in accordance with Dornier Service Bulletin SB–328–53–051, dated August 16, 1994.

(i) If the clearance meets or exceeds the minimum limits specified in the service bulletin, no further action is required by paragraph (a)(1) of this AD.

(ii) If the clearance is less than the minimum limits specified in the service bulletin, prior to further flight, modify the Z-profile of the frame to which the top fairing is attached, in accordance with the service bulletin.

(2) Check each diagonal brace for damage or wear, in accordance with the service bulletin.

(i) If no damage or wear is detected, no further action is required by paragraph (a)(2) of this AD.

(ii) If any damage or wear is detected, prior to further flight, repair the diagonal brace in accordance with a method approved by the Manager Standardization Branch, ANM–113, FAA, Transport Airplane Directorate.

(b) 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, Standardization Branch, ANM–113. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standardization Branch, ANM–113.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Standardization Branch, ANM–113.

(c) 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 December 6, 1996.

S.R. Miller,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 96–31607 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–13–U

14 CFR Part 39

[Docket No. 96–NM–117–AD]

RIN 2120–AA64

Airworthiness Directives; Dornier Model 328–100 Series Airplanes Equipped With Burns Aerospace Corporation Commuter Seat Models JB6.8–1–22 and JB6.8–2–42 Passenger Seats

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 Dornier Model 328–100 series airplanes. This proposal would require modification of the restraining systems of certain passenger seats by replacing anchor point fasteners with fasteners that are able to withstand required 16g load conditions. This proposal is prompted by a report indicating that the restraining systems on these seats failed to meet 16g test load requirements during dynamic testing. The actions specified by the proposed AD are intended to prevent the fasteners from failing, which could result in release of the seat restraint and consequent injury to passengers.

DATES: Comments must be received by January 23, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 96–NM–117–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Dornier Luftfahrt GmbH, P.O. Box 1103, D–82230 Wessling, Germany. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Connie Beane, Aerospace Engineer, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (206) 227–2796; fax (206) 227–1149.

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 notice may be changed in light of the comments received.

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 96–NM–117–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–103, Attention: Rules Docket No. 96–NM–117–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

The Luftfahrt-Bundesamt (LBA), which is the airworthiness authority for Germany, recently notified the FAA that an unsafe condition may exist on certain Dornier Model 328–100 series airplanes. The LBA advises that it has received reports indicating that the restraining system on certain passenger seats installed on these airplanes may not meet the 16g test load requirements. The manufacturer of the restraining system, Burns Aerospace Corporation, detected this discrepancy in design during its dynamic testing of commuter seat models JB6.8–1–22 and JB6.8–2–42. These tests showed that the anchor point fasteners for the restraining system failed when subjected to loads that the fasteners were required to carry. Should these fasteners fail, the seat restraint could release and consequently, passengers could be injured. No such occurrences have been reported in service, however.

Explanation of Relevant Service Information

Dornier has issued Service Bulletin SB–328–25–114, dated July 10, 1995, which describes procedures for replacement of the anchor point fasteners on Model 328–100 series airplanes equipped with Burns Aerospace Corporation commuter seat models JB6.8–1–22 and JB6.8–2–42 passenger seats. (This service bulletin references Burns Aerospace Corporation Service Bulletin SB–25–20–989 Revision B, dated June 14, 1995, as an additional source of procedural service information.) The replacement fasteners have been redesigned so that the restraining system is able to withstand the required 16g test load conditions. The LBA classified the Dornier service bulletin as mandatory and issued German airworthiness directive 95–240/2, dated August 10, 1995, in order to assure the continued airworthiness of these airplanes in Germany.

FAA's Conclusions

This airplane model is manufactured in Germany 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, the LBA has kept the FAA informed of the situation described above. The FAA has examined the findings of the LBA, 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 replacement of the anchor point fasteners on Burns Aerospace Corporation commuter seat models JB6.8–1–22 and JB6.8–2–42 passenger seats, with fasteners that will ensure that the restraining system for these seats is able to withstand the required 16g test load conditions. The actions would be required to be accomplished in accordance with the Dornier service bulletin described previously.

Cost Impact

The FAA estimates that 36 Dornier Model 328–100 series airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 1 work hour per seat to accomplish the proposed actions, at an average labor rate of $60 per work hour. There are normally 30 seats per airplane. Required parts would be provided by the manufacturer at no cost to operators. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be $64,800, or $1,800 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 AD were not adopted.

Regulatory Impact

The regulations proposed herein would 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 Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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:

Dornier: Docket 96–NM–117–AD.

Applicability: Model 328–100 series airplanes equipped with Burns Aerospace Corporation commuter seat models JB6.8–1–22 and JB6.8–2–42 passenger seats; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 (b) 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 failure of the anchor point fasteners on the seat restraining systems, which could result in release of the seat restraint and consequent injury to passengers, accomplish the following:

(a) Within 60 days after the effective date of this AD, replace each anchor point fastener on the restraining system of each seat with a fastener of improved design, in accordance with Dornier Service Bulletin SB–328–25–114, dated July 10, 1995.

Note 2: The service bulletin references Burns Aerospace Corporation Service Bulletin SB–25–20989, Revision B, dated June 14, 1995, as an additional source of procedural service information for replacement of the anchor point fastener.

(b) 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, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standardization Branch, ANM–113.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Standardization Branch, ANM–113.

(c) 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 December 6, 1996.

S.R. Miller,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 96–31606 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–13–U

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[GA–34–2–9644; FRL–5656–2]

Approval and Promulgation of Air Quality Implementation Plans; Georgia: Enhanced Motor Vehicle Inspection and Maintenance Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed interim rule.

SUMMARY: EPA is proposing a conditional, interim approval of a State Implementation Plan (SIP) revision submitted by the State of Georgia. This revision establishes and requires the implementation of an enhanced inspection and maintenance (I/M) program in Cherokee, Clayton, Cobb, Coweta, Dekalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale Counties. The intended effect of this action is to propose conditional interim approval of an I/M program proposed by the State, based upon the State's good faith estimate, which asserts that the State's network design credits are appropriate and the revision is otherwise in compliance with the Clean Air Act (CAA). This action is being taken under the National Highway System Designation Act of 1995 (NHSDA) and section 110 of the CAA.

If the State commits within 30 days of this proposed conditional interim approval notice to correct the major deficiencies by dates certain as described below, then this proposed conditional approval shall expire pursuant to the NHSDA and section 110 of the CAA on the earlier of 18 months from final interim approval, or on the date of EPA takes final action on the states full I/M SIP. In the event that the State fails to submit a commitment to correct all of the major deficiencies within 30 days after the publication of this proposed conditional interim approval notice, then EPA is proposing in the alternative to dissaprove the SIP revision. If the State does make a timely commitment but the conditions are not met by the specified date within one year, EPA proposes that this proposed conditional interim approval will convert to final disapproval. If the conditional interim approval is converted to a disapproval, EPA will notify the State by letter that the conditions have not been met and that the conditional approval has converted to a disapproval.

DATES: Comments must be received on or before January 13, 1997.

ADDRESSES: Comments may be mailed to Benjamin Franco at the EPA Regional Office listed below. Copies of the documents relevant to this action are available for public inspection during normal business hours at the following locations. The interested persons wanting to examine these documents should make an appointment with the appropriate office at least 24 hours before visiting day.

Air and Radiation Docket and Information Center (Air Docket 6102), U.S. Environmental Protection Agency, 401 M St, SW, Washington, D.C. 20460.

Environmental Protection Agency, Region 4, Air Planning Branch, 100 Alabama St., SW, Atlanta, Georgia 30303.

Georgia Environmental Protection Division, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

FOR FURTHER INFORMATION CONTACT: Benjamin Franco, Mobile Source and Community Planning Section, Air Planning Branch, Air, Pesticides & Toxics Management Division, Region 4 Environmental Protection Agency, 100 Alabama St., SW Atlanta, Georgia 30303. The telephone number is 404/562–9039. Reference file GA 34–2–9644.

SUPPLEMENTARY INFORMATION:

I. Background

A. Impact of the National Highway System Designation Act on the Design and Implementation of Enhanced Inspection and Maintenance Programs Under the Clean Air Act

The National Highway System Designation Act of 1995 (NHSDA) establishes two key changes to the enhanced I/M rule requirements previously developed by EPA. Under the NHSDA, EPA cannot require states to adopt or implement centralized, test-only IM240 enhanced vehicle inspection and maintenance programs as a means of compliance with section 182, 184 or 187 of the CAA. Also under the NHSDA, EPA cannot disapprove a SIP revision, nor apply an automatic discount to a SIP revision under section 182, 184 or 187 of the CAA, because the I/M program in such plan revision is decentralized, or a test-and-repair program. Accordingly, the so-called 50% credit discount that was established by the EPA's I/M Program Requirements Final Rule, (published November 5, 1992, and herein referred to as the I/M Rule) has been effectively replaced with a presumptive equivalency criteria, which places the emission reductions credits for decentralized networks on par with credit assumptions for centralized networks, based upon a state's good faith estimate of reductions as provided by the NHSDA and explained below in this section.

EPA's I/M Rule established many other criteria unrelated to network design or test type for states to use in designing enhanced I/M programs. All other elements of the I/M Rule, and the statutory requirements established in the CAA continue to be required of those states submitting I/M SIP revisions under the NHSDA, and the NHSDA specifically requires that these submittals must otherwise comply in all respects with the I/M Rule and the CAA.

The NHSDA also requires states to swiftly develop, submit, and begin implementation of these enhanced I/M programs, since the anticipated start-up dates developed under the CAA and EPA's rules have already been delayed. In requiring states to submit these plans within 120 days of the NHSDA passage, and in allowing these states to submit proposed regulations for this plan (which can be finalized and submitted to EPA during the interim period) it is clear that Congress intended for states to begin testing vehicles as soon as practicable, now that the decentralized credit issue has been clarified and directly addressed by the NHSDA.

Submission criteria described under the NHSDA allow a state to submit proposed regulations for this interim program, provided that the state has all of the statutory authority necessary to carry out the program. Also, in proposing the interim credits for this program, states are required to make good faith estimates regarding the performance of their enhanced I/M program. Since these estimates are expected to be difficult to quantify, the state need only provide that the proposed credits claimed for the submission have a basis in fact. A good faith estimate of a state's program may be one based on any of the following: the performance of any previous I/M program; the results of remote sensing or other roadside testing techniques; fleet and vehicle miles traveled (VMT) profiles; demographic studies; or other evidence which has relevance to the effectiveness or emissions reducing capabilities of an I/M program.

This action is being taken under the authority of both the NHSDA and section 110 of the CAA. Section 348 of the NHSDA expressly directs EPA to issue this interim approval for a period of 18 months, at which time the interim program will be evaluated. At that time, the Conference Report on section 348 of the NHSDA states that it is expected that the proposed credits claimed by the state in its submittal, and the emissions reductions demonstrated through the program data may not match exactly. Therefore, the Conference Report suggests that EPA use the program data to appropriately adjust these credits.

Furthermore, EPA believes that in also taking action under section 110 of the CAA, it is appropriate to grant a conditional approval to this submittal since there are some deficiencies with respect to CAA statutory or regulatory requirements (identified herein) that EPA believes can be corrected by the State during the interim period.

B. Interim Approvals Under the NHSDA

The NHSDA directs EPA to grant interim approval for a period of 18 months to approvable I/M submittals under this Act. This Act also directs EPA and the states to review the interim program results at the end of 18 months, and to make a determination as to the effectiveness of the interim program. Following this demonstration, EPA will adjust any credit claims made by the state in its good faith effort to reflect the emissions reductions actually measured by the state during the program evaluation period. The NHSDA is clear that the interim approval shall last for only 18 months, and that the program evaluation is due to EPA at the end of that period. Therefore, EPA believes Congress intended for these programs to start-up as soon as possible, which EPA believes should be at the latest, November 15, 1997, so that approximately six months of operational program data can be collected to evaluate the interim program. EPA believes that in setting such a strict timetable for program evaluations under the NHSDA, that Congress recognized and attempted to mitigate any further delay with the start-up of this program. For the purposes of this program, start-up is defined as a fully operational program which has begun regular, mandatory inspections and repairs, using the final test strategy and covering each of a state's required areas. EPA proposes that if the state fails to start its program on this schedule, the approval granted under the provisions of the NHSDA will convert to a disapproval after a finding letter is sent to the state.

The program evaluation to be used by the state during the 18 month interim period must be acceptable to EPA. EPA anticipates that such a program evaluation process will be developed by the Environmental Council of State (ECOS) group that is convening now and that was organized for this purpose. EPA further anticipates that in addition to the interim, short term evaluation, the state will conduct a long term, ongoing evaluation of the I/M program as required by the I/M Rule in §§ 51.353 and 51.366.

C. Process for Full Approvals of This Program Under the CAA

As per the NHSDA requirements, this interim rulemaking will expire within 18 months of the final interim approval, or the date of final full approval. A full approval of the state's final I/M SIP revision (which will include the state's program evaluation and final adopted state regulations) is still necessary under section 110 and under section 182, 184 or 187 of the CAA. After EPA reviews the state's submitted program evaluation, final rulemaking on the state's SIP revision will occur.

II. EPA's Analysis of Georgia's Submittal

On March 27, 1996, the Georgia Environmental Protection Division (GAEPD) submitted a revision to its State Implementation Plan (SIP) for an enhanced I/M program to qualify under the NHSDA. The revision consists of enabling legislation that will allow the State to implement the I/M program, proposed regulations, a description of the I/M program (including a modeling analysis and detailed description of program features), and a good faith estimate that includes the State's basis in fact for emission reductions claims. The State's credit assumptions were based upon the removal of the 50% credit discount for all portions of the program that are based on a test-and-repair network, and the application of the State's own good faith estimate of the effectiveness of its decentralized test and repair program. Georgia's credit assumption were based upon a remote sensing study performed by Georgia Tech. Subsequently, on June 17, 1996, GAEPD submitted amendments to the earlier SIP revisions.

A. Analysis of the NHSDA Submittal Criteria

Transmittal Letter

On March 27, 1996, Georgia submitted an enhanced I/M SIP revision to EPA, requesting action under the NHSDA of 1995 and the CAA of 1990. A subsequent submittal amending the I/M program was submitted to EPA on June 17, 1996. The official submittal was made by the appropriate State official, Harold Reheis of the Georgia EPD, and was addressed to the appropriate EPA official, John Hankinson, the Regional Administrator.

Enabling Legislation

The State of Georgia has legislation in Chapter 391–3–10 and 391–3–20 enabling the implementation of a hybrid program consisting of the use of a two speed idle exhaust emission test and an Accelerated Simulation Mode (ASM) exhaust emission test.

Proposed Regulations

On August 16, 1995, the State of Georgia, proposed regulations in accordance with 40 CFR part 51, establishing an enhanced I/M program. The State adopted, under emergency rule, Chapter 39–3–20, Rules for Enhanced Inspection and Maintenance, on May 29, 1996. This rule was permanently adopted by Georgia on August 26, 1996. Also, Chapter 391–3–10, Rules for Inspection and Maintenance, was adopted on June 24, 1996.

Program Description

The Georgia program is a decentralized hybrid program consisting of an Acceleration Simulation Mode test for older vehicles, and a 2 speed idle test for newer vehicles. All vehicles will receive a gas cap pressure integrity test. The primary compliance mechanism is registration denial. Newer vehicles are those with a designated model year which is of the current test year and up to five years older than the current test year. Older vehicles are those more than five years older than the current test year and through the 1975 model year. Stations may be either test-only or test-and-repair. Fleets are allowed to self test. Vehicles that are 10 or more years old, driven less than 5000 miles per year, and owned by persons aged 65 years or older are exempt from testing, as are antique or collector cars or trucks 25 years old or older. The Management Contractor will be responsible for quality control, quality assurance, program oversight, and outreach. The idle test portion of the program was expanded to all 13 metro Atlanta nonattainment counties on October 1, 1996. ASM testing will begin on July 1, 1997.

Emission Reduction Claim and Basis for the Claim

B. Analysis of the EPA I/M Regulation and CAA Requirements

As previously stated, the NHSDA left those elements of the I/M Rule that do not pertain to network design or test type intact. Based upon EPA's review of Georgia's submittal, EPA believes the State has not complied with all aspects of the NHSDA, the CAA and the I/M Rule. For those sections of the I/M Rule, or of the CAA identified below, with which the State has not yet fully complied, EPA proposes to conditionally approve the SIP if it receives a commitment from the State to correct said deficiency. Before EPA can continue with the interim rulemaking process, the State must make a commitment within 30 days of December 13, 1996 to correct these major SIP elements by a date certain within one year of interim approval. If the State does not make this commitment, EPA proposes in the alternative to disapprove the State submittal. The State must correct these major deficiencies by the date specified in the commitment or this proposed approval will convert to a disapproval under CAA section 110(k)(4).

Applicability—40 CFR 51.350

The Atlanta area is classified as a serious ozone nonattainment area and also required to implement an enhanced I/M program as per section 182(c)(3) of the CAA and 40 CFR 51.350(2).

Under the requirements of the Clean Air Act, the following counties in Georgia are subject to the enhanced I/M program requirements: Cherokee, Clayton, Cobb, Coweta, Dekalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale.

The Georgia I/M legislative authority provides the legal authority to establish the geographic boundaries. The program boundaries are listed in Chapter 391–3–20–0.32-.02. EPA is proposing to find that the geographic applicability requirements are satisfied. The federal I/M regulation requires that the state program shall not sunset until it is no longer necessary.

EPA interprets the federal regulation as stating that a SIP which does not sunset prior to the attainment deadline for each applicable area satisfies this requirement. The Georgia I/M regulation provides for the program to continue past the attainment dates for all applicable nonattainment areas in the Georgia.

The State submission meets the Applicability requirements of the Federal I/M regulation for interim approval.

Enhanced I/M Performance Standard—40 CFR 51.351

The enhanced I/M program must be designed and implemented to meet or exceed a minimum performance standard, which is expressed as emission levels in area-wide average grams per mile (gpm) for certain pollutants. The performance standard shall be established using local characteristics, such as vehicle mix and local fuel controls, and the following model I/M program parameters: network type, start date, test frequency, model year coverage, vehicle type coverage, exhaust emission test type, emission standards, emission control device, evaporative system function checks, stringency, waiver rate, compliance rate and evaluation date. The emission levels achieved by the State's program design shall be calculated using the most current version, at the time of submittal, of the EPA mobile source emission factor model. At the time of the Georgia submittal the most current version was MOBILE5a. Areas shall meet the performance standard for the pollutants which cause them to be subject to enhanced I/M requirements. In the case of ozone nonattainment areas, the performance standard must be met for both nitrogen oxides (NO_x) and hydrocarbons (HC). The state's submittal must meet the enhanced I/M performance standard for HC and NO_x in the subject I/M area.

The Georgia submittal includes the following program design parameters:

Network type—Hybrid, consisting of a test and repair program and a test only program, modeled as test-only for 100% emission reduction credit.

Start date—1982.

Test frequency—Biennial.

Model year/vehicle type coverage—1975/LDGV, LDGT1, LDGT2.

Exhaust emission test type—ASM for vehicles seven years old back to 1975, 2-speed idle for newest six model years.

Emission standards—ASM: .8 g/mile HC, 15.0 g/mile CO, 2.0 g/mile NO_x. 2-speed idle: 220 ppm HC, 1.2 ppm CO, and 999 ppm NO_x.

Emission control device—Visual inspections of catalyst.

Evaporative system function checks—gas cap pressure test.

Stringency (pre-1981 failure rate)—20%.

Waiver rate—3% for all model years.

Compliance rate—97%.

Evaluation dates—January 2000.

The Georgia program design parameters meet the federal I/M regulations and are approvable.

The State program demonstrates compliance with the low enhanced performance standard established in 40 CFR 51.351(g). That section provides that states may select the low enhanced performance standard if they have an approved SIP for reasonable further progress in 1996, commonly known as a 15 percent reduction SIP. In fact EPA approval of 15 percent plans has been delayed, and although EPA is preparing to take action on 15 percent plans in the near future, it is unlikely that EPA will have completed final action on most 15 percent plans prior to the time EPA believes it would be appropriate to give final interim approval to I/M programs under the NHSDA.

In enacting the NHSDA, Congress evidenced an intent to have states promptly implement I/M programs under interim approval status to gather the data necessary to support state claims of appropriate credit for alternative network design systems. By providing that such programs must be submitted within a four month period, that EPA could approve I/M programs on an interim basis based only upon proposed regulations, and that such approvals would last only for an 18 month period, it is clear that Congress anticipated both that these programs would start quickly and that EPA would act quickly to give them interim approval.

Many states have designed a program to meet the low enhanced performance standard, and have included that program in their 15 percent plan submitted to EPA for approval. Such states anticipated that EPA would propose approval both of the I/M programs and the 15 percent plans on a similar schedule, and thus that the I/M programs would qualify for approval under the low performance standard. EPA does not believe it would be consistent with the intent of the NHSDA to delay action on interim I/M approval until the Agency has completed action on the corresponding 15 percent plans. Although EPA acknowledges that under its regulations full final approval of a low enhanced I/M program after the 18 month evaluation period would have to await approval of the corresponding 15 percent plan, EPA believes that in light of the NHSDA it can take final interim approval of such I/M plans provided that the Agency has determined as an initial matter that approval of the 15 percent plan is appropriate, and has issued a proposed approval of that 15 percent plan.

Georgia has submitted a 15 percent plan which includes the low enhanced I/M program. EPA is currently reviewing that program and plans to

propose action on it shortly. EPA here proposes to approve the I/M program as satisfying the low enhanced performance standard provided that EPA does propose to approve the 15 percent plan containing that program. Should EPA propose approval of the 15 percent plan, EPA will proceed to take final interim approval action on the I/M plan. EPA proposes in the alternative that if the Agency proposes instead to disapprove the 15 percent plan, EPA would then disapprove the I/M plan as well because the State would no longer be eligible to select the low enhanced performance standard under the terms of 51.351(g).

The emission levels achieved by GAEPD were modeled using MOBILE5a and utilizing the ASM2 credit matrix in that model. The modeling demonstration was performed correctly, used local characteristics and demonstrated that the program design will meet the minimum enhanced I/M performance standard, expressed in gpm, for HC, and NOx, for each milestone and for the attainment deadline. In addition, the existing I/M rules require that the modeling demonstrate that the state program has met the performance standard by fixed evaluation dates. The first such date is January 1, 2000. However, few state programs will be able to demonstrate compliance with the performance standard by that date as a result of delays in program start up and phase in of testing requirements. EPA believes that based on the provisions of the NHSAD, the evaluation dates in the current I/M rule have been superseded. Congress provided in the NHSDA for programs that would start significantly later than the start dates in the current I/M rule. Consistent with Congressional intent, such programs by definition will not achieve full compliance with the performance standard by the beginning of 2000.

As explained above, EPA has concluded that the NHSDA superseded the start date requirements of the I/M rule, but that states should still be required to start their programs as soon as possible, which EPA has determined would be by November 15, 1997. Therefore, EPA believes that pursuant to the NHSDA, delaying program implementation for approximately two years, the initial evaluation date for modeling purposes should also be pushed back two years to January 1, 2002. This evaluation date will allow states to fully implement their I/M programs and complete one cycle of testing at full cut points in order to demonstrate compliance with the performance standard.

Georgia will be required to repeat the modeling demonstration if EPA provides the appropriate ASM1 credit matrix as part of the MOBILE model. The enhanced performance standard required for the Georgia program is 1.684 grams per mile for VOC and 1.968 grams per mile for NOx. The low enhanced performance standard required for the Georgia program is 2.254 grams per mile for VOC and 2.231 grams per mile for NOx. The model results for the Georgia I/M program are 2.002 grams per mile for VOC and 1.996 grams per mile for NOx. While the Georgia program falls below the enhanced I/M performance standard, it is above the low enhanced I/M performance standard. GAEPD will achieve additional emission reductions elsewhere, consistent with the requirements of the EPA flexibility rule creating the low enhanced standard. Georgia will implement a ban on all open-burning in addition to a 7.0 Reid Vapor Pressure program in order to achieve the necessary reductions.

The State submittal meets the Performance Standard requirements of the federal I/M regulation for interim approval.

Network Type and Program Evaluation—40 CFR 51.353

The enhanced program must include an ongoing evaluation to quantify the emission reduction benefits of the program, and to determine if the program is meeting the requirements of the Act and the federal I/M regulation. The SIP must include details on the program evaluation and must include a schedule for submittal of biennial evaluation reports, data from a state monitored or administered mass emission test of at least 0.1% of the vehicles subject to inspection each year, description of the sampling methodology, the data collection and analysis system and the legal authority enabling the evaluation program. ECOS has formed a committee to develop an evaluation protocol to be used by states in order to evaluate program effectiveness. ECOS has recommended that states follow the evaluation procedure in EPA's Final I/M rule. In a letter dated October 2, 1996, the Georgia EPD committed to a program evaluation that will comply with both the ECOS recommendation and 40 CFR 51.353(c). EPA interprets this to mean the evaluation program shall consist, at a minimum, of those items described in 40 CFR 51.353(b)(1) and mass emission test data using the procedure specified in 40 CFR 51.357(a)(11), or any other transient, mass emission test procedure approved as equivalent, and evaporative system checks. The first of the required biennial reports will be provided to EPA by July 1, 1998, with subsequent reports on July 1 every second year following.

The network is composed of private and public testing stations. Public testing stations may be test-only or test and repair. Fleets are allowed to conduct tests on their own vehicles, and are considered private testing stations.

The Georgia submittal meets the Network Type and Program Evaluation requirements of the federal I/M regulation for interim approval.

Adequate Tools and Resources—40 CFR 51.354

The federal regulation requires the state to demonstrate that adequate funding of the program is available. A portion of the test fee or separately assessed per vehicle fee shall be collected, placed in a dedicated fund and used to finance the program. Alternative funding approaches are acceptable if it is demonstrated that the funding can be maintained. Reliance on funding from the state or local General Fund is not acceptable unless doing otherwise would be a violation of the state's constitution. The SIP shall include a detailed budget plan which describes the source of funds for personnel, program administration, program enforcement, and purchase of equipment. The SIP shall also detail the number of personnel dedicated to the quality assurance program, data analysis, program administration, enforcement, public education and assistance and other necessary functions.

Georgia requires quality assurance, data analysis and reporting, audits, and other oversight and management functions to be performed by the Management Contractor. A portion of the test fee will be used to pay the Management Contractor, and another portion will be paid to GAEPD to cover program oversight. The Management Contractor will receive $5.45 for each vehicle inspected at a public test station. GAEPD will receive $0.95 per vehicle inspected at a public test station in order to cover the cost of providing oversight and implementation of the program. The inspection fee at a fleet test station will be $8.40. The Management Contractor will receive $5.45 per vehicle inspected at a fleet testing station. GAEPD will receive $1.95 per vehicle inspected at a fleet test station in order to cover the cost of providing oversight and implementation of the program. The State constitution prohibits a dedicated fund for the operation of the program. The General Assembly will provide appropriations

equal to fees collected. The expected staff level at GAEPD will be approximately five persons. Most of the work will be done by the Management Contractor, therefore the State's primary function is to oversee contractor's operation. The Georgia submittal meets the Adequate Tools and Resources requirements set forth in the federal I/M regulations and is approvable.

Test Frequency and Convenience—40 CFR 51.355

The enhanced I/M performance standard assumes an annual test frequency; however, other schedules may be approved if the performance standard is achieved. The SIP shall describe the test year selection scheme, how the test frequency is integrated into the enforcement process and shall include the legal authority, regulations or contract provisions to implement and enforce the test frequency. The program shall be designed to provide convenient service to the motorist by ensuring short wait times, short driving distances and regular testing hours.

The Georgia I/M program will be a biennial program testing even model year vehicles in even test years, and testing odd model years in odd test years. Legislation was passed to allow for a 12-month registration period beginning in January 1, 1998. Currently, all vehicles are required to be registered in a four month period (January–April). Stations will be required to operate a minimum of 40 hours per week. As the program will operate on a decentralized basis, it is anticipated that there will be ample coverage in the I/M program.

The State submittal meets the Test Frequency and Convenience requirements of the federal I/M regulation for interim approval.

Vehicle Coverage—40 CFR 51.356

The performance standard for enhanced I/M programs assumes coverage of all 1968 and later model year light duty vehicles and light duty trucks up to 8,500 pounds gross vehicle weight rating (GVWR), and includes vehicles operating on all fuel types. Other levels of coverage may be approved if the necessary emission reductions are achieved. Vehicles registered or required to be registered within the I/M program area boundaries and fleets primarily operated within the I/M program area boundaries and belonging to the covered model years and vehicle classes comprise the subject vehicles. Fleets may be officially inspected outside of the normal I/M program test facilities, if such alternatives are approved by the program administration, but shall be subject to the same test requirements using the same quality control standards as non-fleet vehicles and shall be inspected in the same type of test network as other vehicles in the state, according to the requirements of 40 CFR 51.353(a). Vehicles which are operated on Federal installations located within an I/M program area shall be tested, regardless of whether the vehicles are registered in the state or local I/M area.

The federal I/M regulation requires that the SIP must include the legal authority or rule necessary to implement and enforce the vehicle coverage requirement, a detailed description of the number and types of vehicles to be covered by the program and a plan for how those vehicles are to be identified, including vehicles that are routinely operated in the area but may not be registered in the area, and a description of any special exemptions, including the percentage and number of vehicles to be impacted by the exemption. Such exemptions shall be accounted for in the emissions reduction analysis.

The Georgia program will cover 1975 and later model years light duty vehicles and light duty trucks weighing up to 8500 pounds gross vehicle weight rating (GVWR). Based on parking lot surveys, the current program compliance rate is estimated at 99 percent. GAEPD used 97 percent in its demonstration allowing for vehicles operating in but not registered in the program area, and for changes in the compliance rate as a result of the more stringent emission standards. Vehicles that are 10 years old, driven less than 5000 miles and owned by persons aged 65 or older are exempted from the test. The loss of credit due to this exemption was accounted for in the performance demonstration. The Georgia I/M program requires that federal fleets operating and registered in the covered area be tested. The Georgia submittal meets the Vehicle Coverage requirements of the federal I/M regulations for interim approvable.

Test Procedures and Standards—40 CFR 51.357

Written test procedures and pass/fail standards shall be established and followed for each model year and vehicle type included in the program. Test procedures and standards are detailed in 40 CFR 51.357 and in the EPA documents entitled ''High-Tech I/M Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications,'' EPA–AA–EPSD–IM–93–1, dated April 1994 and ''Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications,'' EPA–AA–RSPD–IM–96–2, dated July 1996. The federal I/M regulation also requires vehicles that have been altered from their original certified configuration (i.e. engine or fuel switching) to be subject to the requirements of § 51.357(d).

The Georgia I/M program will consist of a single mode ASM and two-speed idle test, and a gas cap integrity test. A visual emission control inspection for the presence of the catalytic converter on all 1975 and newer model year vehicles will be required. The ASM test will be conducted using a chassis dynamometer. Georgia has been working with other states and the equipment manufacturers, in coordination with EPA, to develop their own procedures, specifications and standards. Georgia, in the June 17, 1996 amendments, stated a two phase approach for the ASM portion of the program. They included a copy of the draft EPA ASM specifications and noted that due to the short time available to manufacturers, current specifications would be used to the maximum extent possible. They also noted that Phase I will only require the analyzer portion of ASM needed to perform the two speed idle testing and that the Phase II upgrade will include the hardware and software needed to perform ASM. It is anticipated that these test procedures, specifications and standards will be released in the near future. The 2 speed idle test procedure is one of the test methods described in EPA's ''Recommended I/M Short Test Procedures for the 1990's: Six Alternatives.'' All vehicles will receive a gas cap pressure integrity test. For 1996 and later vehicles, a check of the on-board diagnostic system to detect any emission control system problems will be performed. Georgia will use a form of phased in cutpoints while implementing the ASM portion of their enhanced I/M program. Less stringent phase in cutpoints will be utilized from the start of ASM testing, on July 1, 1997, till December 31, 1997. Final ASM cutpoints will be utilized after that time. The reason for this is two fold. One is to introduce ASM testing to the area. However, the primary reason is to encourage people to have their cars tested before they are required. This unique situation is due to the current four month registration window (January-April) in Georgia. However, Georgia will start a 12 month registration period beginning January 1, 1998. This is why final cutpoints will be implemented at that time. Georgia is hoping to encourage people to bring

their cars in after they have their 1997 registration (again, after January-April), but prior to the 1998 registration in order to more evenly distribute the testing load. The two-speed idle test will start with the final cutpoints and experience no phase in standards.

Georgia's submittal does not include a description of the final ASM test procedure which is acceptable to both Georgia and EPA for one-mode ASM testing and the gas cap integrity test. The Georgia submittal does not establish HC, CO, and CO_2 pass/fail exhaust standards for the one-mode ASM test procedure. The Georgia regulation does not establish gas cap integrity standards. The final Georgia I/M regulation must include the test procedures and emission standards for these items. The emission standards found in the final regulation must be identical to the standards found in the modeling in the March 27, 1996 SIP revision and the June 17, 1996 SIP supplement.

If the State: (a) commits within 30 days of this proposal, to correct these deficiencies by a date certain within one year of interim approval; and (b) corrects the deficiencies by that date, then this interim approval shall expire pursuant to the NHSDA on the earlier of 18-months from final interim approval, or on the date of EPA action taking final full approval of this program. If the commitment is not made within 30 days, EPA proposes in the alternative to disapprove the SIP revision. If the State does make a timely commitment but the conditions are not met by the date committed to, EPA proposes that this rulemaking will convert to a final disapproval. EPA will notify the State by letter that the conditions have not been met and that the conditional approval has converted to a disapproval.

The Georgia submittal does not meet the Test Procedures and Standards requirements of the federal I/M regulations and is not approvable. Georgia must commit to correct the deficiencies to enable EPA to conditionally approve the program.

Test Equipment—40 CFR 51.358

Computerized test systems are required for performing any measurement on subject vehicles. The federal I/M regulation requires that the SIP submittal include written technical specifications for all test equipment used in the program. The specifications shall describe the emission analysis process, the necessary test equipment, the required features, and written acceptance testing criteria and procedures.

Georgia has proposed a hybrid program requiring subject vehicles to be tested with either a one-mode ASM exhaust test or a two speed idle test, depending upon the age of the vehicle, and all vehicles to be tested with a gas cap integrity test in the 13 county metro Atlanta area. Older vehicles would be subject to the ASM test while newer vehicles are subject to a two speed idle test. Georgia has been working with other states and the equipment manufacturers, in coordination with EPA, to develop their own procedures, specifications and standards for one mode ASM testing. As noted above, Georgia, in the June 17, 1996, amendments identified a two phase equipment specification. Phase I will allow manufacturers to produce an analyzer that perform the two speed idle test. Phase II will include the hardware and software needed to perform the ASM test. It is anticipated that these test procedures, specifications and standards will be released in the near future. In addition to the emission testing and gas cap integrity check, a visual emission control inspection for the presence of the catalytic converter on 1975 and newer model year vehicles will be required.

Georgia's regulation does not include a description of a final ASM test procedure. Georgia's submittal does not establish final equipment specifications for the one-mode ASM test procedure. The State regulation also does not establish gas cap integrity test specifications. The final Georgia I/M regulation must include the test procedures, equipment specifications and emission standards for these items.

If the State: (a) commits within 30 days of this proposal, to correct these deficiencies by a date certain within one year of interim approval; and (b) corrects the deficiencies by that date, then this interim approval shall expire pursuant to the NHSDA on the earlier of 18-months from final interim approval, or on the date of EPA action taking final full approval of this program. If the commitment is not made within 30 days, EPA proposes in the alternative to disapprove the SIP revision. If the State does make a timely commitment but the conditions are not met by the date committed to, EPA proposes that this rulemaking will convert to a final disapproval. EPA will notify the State by letter that the conditions have not been met and that the conditional approval has converted to a disapproval.

The Georgia submittal does not meet the Test Equipment requirements of the federal I/M regulations and is not approvable. Georgia must commit to correct the deficiencies to enable EPA to conditionally approve the program.

Quality Control—40 CFR 51.359

Quality control measures shall insure that emission measurement equipment is calibrated and maintained properly, and that inspection, calibration records, and control charts are accurately created, recorded and maintained.

Georgia commits to implement quality control measures for the emission measurement equipment, record keeping requirements and measures to maintain the security of all documents used to establish compliance with the inspection requirements. These measures are to be implemented by the Management Contractor as per the request for proposal, which was submitted as part of the SIP revision package. The Georgia submittal meets the Quality Control requirements of the federal I/M regulation for interim approval.

Waivers and Compliance Via Diagnostic Inspection—40 CFR 51.360

The federal I/M regulation allows for the issuance of a waiver, which is a form of compliance with the program requirements that allows a motorist to comply without meeting the applicable test standards. For enhanced I/M programs, an expenditure of at least $450 in repairs, adjusted annually to reflect the change in the Consumer Price Index (CPI) as compared to the CPI for 1989, is required in order to qualify for a waiver. Waivers can only be issued after a vehicle has failed a retest performed after all qualifying repairs have been made. Any available warranty coverage must be used to obtain repairs before expenditures can be counted toward the cost limit. Tampering related repairs shall not be applied toward the cost limit. Repairs must be appropriate to the cause of the test failure. Repairs for 1980 and newer model year vehicles must be performed by a recognized repair technician. The federal regulation allows for compliance via a diagnostic inspection after failing a retest on emissions and requires quality control of waiver issuance. The SIP must set a maximum waiver rate and must describe corrective action that would be taken if the waiver rate exceeds that committed to in the SIP.

Georgia will phase in the waiver requirements. Between October 1, 1996, and December 31, 1997, the waiver limit will be $200 for qualifying repairs. Starting January 1, 1998, the waiver rate will be $450 (with appropriate CPI adjustment). GAEPD established a waiver rate of 3 percent. If this waiver rate is exceeded, GAEPD will take corrective action to; (1) reduce the rate to 3 percent, (2) revise the SIP emission

reduction claimed to reflect the actual rate, or (3) make other program changes needed to ensure the emission reductions committed to in the SIP. The Georgia submittal meets the Waiver requirements of the federal I/M regulations for interim approval.

Motorist Compliance Enforcement—40 CFR 51.361

The federal regulation requires that compliance shall be ensured through the denial of motor vehicle registration in enhanced I/M programs unless an exception for use of an existing alternative is approved. An enhanced I/M area may use either sticker-based enforcement programs or computer-matching programs if either of these programs were used in the existing program, which was operating prior to passage of the 1990 Clean Air Act Amendments, and it can be demonstrated that the alternative has been more effective than registration denial. For newly implementing enhanced areas, there is no provision for enforcement alternatives in the CAA. The SIP shall provide information concerning the enforcement process, legal authority to implement and enforce the program, and a commitment to a compliance rate to be used for modeling purposes and to be maintained in practice.

Georgia uses registration denial as an enforcement mechanism. The Georgia SIP commits to a compliance rate of 97 percent which was used in the performance standard modeling demonstration. The Georgia submittal meets the Motorist Compliance Enforcement requirements of the federal I/M regulation for interim approval.

Motorist Compliance Enforcement Program Oversight—40 CFR 51.362

The federal I/M regulation requires that the enforcement program shall be audited regularly and shall follow effective program management practices, including adjustments to improve operation when necessary. The SIP shall include quality control and quality assurance procedures to be used to insure the effective overall performance of the enforcement system. An information management system shall be established which will characterize, evaluate and enforce the program.

The Georgia program requires the Management Contractor to analyze registration and inspection databases to ensure that all subject vehicles are presented for inspection. Registration and inspection databases will be completely automated. Cross checking of the two databases will be used to identify any vehicles which, by any means, obtain registration without complying with the inspection requirement, and to otherwise assess program effectiveness. The Georgia submittal meets the Motorist Compliance Enforcement program oversight provisions of the federal I/M regulation for interim approval.

Quality Assurance—40 CFR 51.363

An ongoing quality assurance program shall be implemented to discover, correct and prevent fraud, waste, and abuse in the program. The program shall include covert and overt performance audits of the inspectors, audits of station and inspector records, equipment audits, and formal training of all state I/M enforcement officials and auditors. A description of the quality assurance program which includes written procedure manuals on the above discussed items must be submitted as part of the SIP.

GAEPD included in their request for proposal (RFP) a requirement that quality control procedures which meet the requirements of the EPA rule be established by the Management Contractor. Additional quality control measures for the program will be established by GAEPD as part of its operations manual. These quality control requirements will apply to all testing stations regardless of the test. The Georgia submittal meets the Quality Control requirements of the federal I/M regulation for interim approval.

Enforcement Against Contractors, Stations and Inspectors—40 CFR 51.364

Enforcement against licensed stations, contractors and inspectors shall include swift, sure, effective, and consistent penalties for violation of program requirements. The federal I/M regulation requires the establishment of minimum penalties for violations of program rules and procedures which can be imposed against stations, contractors and inspectors. The legal authority for establishing and imposing penalties, civil fines, and license suspensions and revocations must be included in the SIP. State quality assurance officials shall have the authority to temporarily suspend station and/or inspector licenses immediately upon finding a violation that directly affects emission reduction benefits, unless constitutionally prohibited. An official opinion explaining any state constitutional impediments to immediate suspension authority must be included in the submittal. The SIP shall describe the administrative and judicial procedures and responsibilities relevant to the enforcement process, including which agencies, courts and jurisdictions are involved, who will prosecute and adjudicate cases and the resources and sources of those resources which will support this function.

GAEPD has the authority to penalize, suspend or revoke certification of inspectors and stations for violation of program regulations. The Management Contractor will promptly prepare recommendations for suspensions or other penalties whenever violations of program requirements are discovered as a result of overt and covert audits. GAEPD will maintain records of all program enforcement activity. The Georgia submittal meets the Enforcement Against Contractors, Stations and Inspectors requirements of the federal I/M regulation for interim approval.

Data Collection—40 CFR 51.365

Accurate data collection is essential to the management, evaluation and enforcement of an I/M program. The federal I/M regulation requires data to be gathered on each individual test conducted and on the results of the quality control checks of test equipment required under 40 CFR 51.365.

The Georgia program requires the Management Contractor to collect and maintain all inspection and quality control data required by 40 CFR 51.365. The Georgia submittal meets the Data Collection requirements of the federal I/M regulation for interim approval.

Data Analysis and Reporting—40 CFR 51.366

Data analysis and reporting are required to allow for monitoring and evaluation of the program by the state and EPA. The federal I/M regulation requires annual reports to be submitted which provide information and statistics and summarize activities performed for each of the following programs: testing, quality assurance, quality control and enforcement. These reports are to be submitted to EPA by July and shall provide statistics for the period of January to December of the previous year. A biennial management report shall be submitted to EPA which addresses changes in program design, regulations, legal authority, program procedures and any weaknesses in the program found during the two year period and how these problems will be or were corrected.

GAEPD will prepare annual reports containing summaries of test data, quality assurance and quality control activities and enforcement. GAEPD will submit the required biennial management report on July 1, 1998, and every year thereafter. The Georgia

submittal meets the Data Analysis and Reporting requirements of the federal I/M regulation for interim approval.

Inspector Training and Licensing or Certification—40 CFR 51.376

The federal I/M regulation requires all inspectors to be formally trained and licensed or certified to perform inspections.

The Georgia program will require that all inspectors receive training and be certified by GAEPD. The Management Contractor will supply the training. GAEPD will monitor the training and testing of inspectors. Inspectors must pass with 80% correct answers. Inspectors will be required to take a refresher course after two years in order to renew the certification. The Georgia submittal meets the Inspector Training and Certification requirements of the federal I/M regulation for interim approval.

Public Information and Consumer Protection—40 CFR 51.368

The federal I/M regulations require the SIP to include public information and consumer protection programs.

The Georgia program requires the Management Contractor to develop a public information program. The Georgia Request for Proposal specifies that all requirements of this section must be met by the contractor. This program will include general information on the I/M program, information on repair facilities, and emission warranty coverage. In addition, the Management Contractor will provide a referee program for resolving complaints about the validity of tests. The Georgia submittal meets the Public Information and Consumer Protection requirements of the federal I/M regulation for interim approval.

Improving Repair Effectiveness—40 CFR 51.369

Effective repairs are the key to achieving program goals. The federal regulation requires states to take steps to ensure that the capability exists in the repair industry to repair vehicles. The SIP must include a description of the technical assistance program to be implemented, a description of the procedures and criteria to be used in meeting the performance monitoring requirements required in the federal regulation, and a description of the repair technician training resources available in the community.

Georgia's repair effectiveness program includes an outreach program and a repair technician hotline. The Management Contractor will oversee this, and will be required to collect information on repair facilities. This information will be available for vehicle owners. The Management Contractor will be required to meet all components of 40 CFR 51.369. GAEPD has contracted with vocational-technical schools to provide an updated training program for repair technicians. The Georgia submittal meets the Improving Repair Effectiveness requirements of the federal I/M regulation for interim approval.

Compliance With Recall Notices—40 CFR 51.370

The federal regulation requires the states to establish methods to ensure that vehicles that are subject to enhanced I/M and are included in a emission related recall receive the required repairs prior to completing the emission test and/or renewing the vehicle registration.

The Georgia program requires that vehicle owners comply with emission recall notices issued after January 1, 1995. Vehicles which have not completed the recall requirements within six months after the initial notification will be required to obtain the recall repairs prior to obtaining a test. The Georgia submittal meets the Compliance Recall Notices requirements of the federal I/M regulation for interim approval.

On-Road Testing—40 CFR 51.371

On-road testing is required in enhanced I/M areas. The use of either remote sensing devices (RSD) or roadside pullovers including tailpipe emission testing can be used to meet the federal regulations. The program must include on-road testing of 0.5 percent of the subject fleet or 20,000 vehicles, whichever is less, in the nonattainment area or the I/M program area. Motorists that have passed an emission test and are found to be high emitters as a result of an on-road test shall be required to pass an out-of-cycle test.

The Georgia Institute of Technology, under contract with GAEPD, will test 0.5 percent of the subject fleet per year using remote sensing devices. Vehicles that fail will have to undergo a two-speed idle or ASM inspection, depending on the age of the vehicles. The Georgia submittal meets the on-road testing requirements of the federal I/M regulation for interim approval.

State Implementation Plan Submissions/Implementation Deadlines—40 CFR 51.372 through 51.373

GAEPD has submitted a schedule that meets EPA approval. The State signed a contract on March 1996 with the Management Contractor, and the idle test program will be expanded to all 13 nonattainment counties on October 1, 1996. Starting July 1, 1997, the GAEPD will implement the ASM test.

III. Discussion for Rulemaking Action

Today's notice of proposed rulemaking begins a 30-day clock for the State to make a commitment to EPA to correct the major elements of the SIP that EPA considers deficient, by a date certain within one year of interim approval. These elements are: The submittal does not contain the necessary details of the final ASM program. Within 30 days, the State must make a commitment to EPA to correct these deficiencies by a date certain within one year of interim approval. If the State does not make such a commitment within 30 days, EPA today is proposing in the alternative that this SIP revision be disapproved.

If the State makes the commitment within 30 days, EPA's conditional approval of the plan will last until the date by which the State has committed to correct all of the deficiencies.

EPA expects that within this period the State will not only correct the deficiencies as committed to by the State, but that the State will also begin program start-up by November 15, 1997. If the State does not correct deficiencies and implement the interim program by November 15, 1997, EPA is proposing in this notice that the interim approval will convert to a disapproval after a finding letter is sent to the State.

IV. Explanation of the Interim Approval

At the end of the 18 month interim period, the approval status for this program will automatically lapse pursuant to the NHSDA. It is expected that the State will at that time be able to make a demonstration of the program's effectiveness using an appropriate evaluation criteria. As EPA expects that these programs will have started by November 15, 1997, the State will have approximately six months of program data that can be used for the demonstration, in accordance to the evaluation procedure agreed upon by ECOS. If the State fails to provide an adequate demonstration of the program's effectiveness to EPA within 18 months of the final interim rulemaking, the interim approval will lapse, and EPA will be forced to disapprove the State's permanent I/M SIP revision. If the State's program evaluation demonstrates a lesser amount of emission reductions actually realized than were claimed in the State's previous submittal, EPA will adjust the

State's credits accordingly, and use this information to act on the State's permanent I/M program.

V. Further Requirements for Permanent I/M SIP Approval

At the end of the 18 month period, final approval of the State's plan will be granted based upon the following criteria:

1. The State has complied with all the conditions of its commitment to EPA,
2. EPA's review of the State's program evaluation confirms that the appropriate amount of program credit was claimed by the State and achieved with the interim program,
3. Final program regulations are submitted to EPA, and
4. The State I/M program meets all of the requirements of EPA's I/M rule, including those deficiencies found de minimis for purposes of interim approval.

VI. EPA's Evaluation of the Interim Submittal

EPA's review of this material indicates that Georgia is deficient in providing the details of the final ASM procedures, standards and specification requirements. EPA is proposing a conditional, interim approval of the Georgia SIP revision for the Inspection and Maintenance Program, which was submitted on March 27, 1996. EPA is soliciting public comments on the issues discussed in this notice or on other relevant matters. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to the EPA Regional office listed in the **ADDRESSES** section of this document.

Proposed Action

EPA is proposing to conditionally approve this revision to the Georgia SIP for an enhanced I/M program based on certain conditions. The conditions for approvability are as follows: Georgia must submit the required final ASM and gas cap test details that are acceptable to EPA.

Nothing in this action should be construed as permitting or allowing or establishing a precedent for any future request for revision to any State implementation plan. Each request for revision to the State implementation plan shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

Under the Regulatory Flexibility Act, 5 U.S.C. 600 *et seq.*, EPA must prepare a regulatory flexibility analysis assessing the impact of any proposed or final rule on small entities. 5 U.S.C. 603 and 604. Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and government entities with jurisdiction over populations of less than 50,000.

SIP approvals under section 110 and subchapter I, part D of the Clean Air Act do not create any new requirements but simply approve requirements that the State is already imposing. Therefore, because the Federal SIP approval does not impose any new requirements, the Administrator certifies that it does not have a significant impact on any small entities affected. Moreover, due to the nature of the Federal-State relationship under the CAA, preparation of a flexibility analysis would constitute Federal inquiry into the economic reasonableness of State action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co.* v. *U.S. EPA*, 427 U.S. 246, 255–66 (1976); 42 U.S.C. 7410(a)(2).

Under Section 202 of the Unfunded Mandates Reform Act of 1995 (''Unfunded Mandates Act''), signed into law on March 22, 1995, EPA must prepare a budgetary impact Statement to accompany any proposed or final that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of $100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the approval action proposed does not include a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This Federal action approves pre-existing requirements under State or local law, and imposes no new Federal requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

This action has been classified as a Table 3 action for signature by the Regional Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214–2225), as revised by a July 10, 1995 memorandum from Mary Nichols, Assistant Administrator for Air and Radiation. The Office of Management and Budget (OMB) has exempted this regulatory action from E.O. 12866 review.

The Administrator's decision to approve or disapprove the SIP revision will be based on whether it meets the requirements of section 110(a)(2)(A)–(K) and part D of the Clean Air Act, as amended, and EPA regulations in 40 CFR Part 51.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and Recordkeeping requirements.

Authority: 42 U.S.C. 7401–7671q.

Dated: November 12, 1996.

A. Stanley Meiburg,

Acting Regional Administrator.

[FR Doc. 96–31737 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–P

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40 CFR Part 52

[TX76–1–7324; FRL–5664–7]

Approval and Promulgation of Extension of Temporary Section 182(f) and Section 182(b) Exemption to the Nitrogen Oxides (NO_x) Control Requirements for the Houston/Galveston and Beaumont/Port Arthur Ozone Nonattainment Areas; Texas

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA proposes to extend the temporary exemption from the NO_x control requirements of sections 182(f) and 182(b) of the Clean Air Act (the Act) for the Houston/Galveston (HGA) and Beaumont/Port Arthur (BPA) ozone nonattainment areas. The State of Texas submitted a petition to EPA requesting the extension to permit additional time to complete Urban Airshed Modeling (UAM). A temporary NO_x exemption was granted by EPA because preliminary photochemical grid modeling shows that reductions in NO_x would be detrimental to attaining the National Ambient Air Quality Standards for ozone in these areas. Approval of the petition will extend the temporary exemption from the NO_x requirements for NO_x Reasonably Available Control Technology (RACT), New Source Review (NSR), Vehicle Inspection/

Maintenance (I/M), and conformity by one year to December 31, 1997, and the implementation date for NO_x RACT by two years to May 31, 1999.

DATES: Comments on this proposed action must be received in writing on or before January 13, 1997.

ADDRESSES: Written comments on this action should be addressed to Mr. Thomas H. Diggs, Chief, Air Planning Section, at the EPA Regional Office listed below. Copies of the documents relative to this action are available for public inspection during normal business hours at the following locations. Interested persons wanting to examine these documents should make an appointment with the appropriate office at least 24 hours before the visiting day.

Environmental Protection Agency, Region 6, Air Planning Section, 1445 Ross Ave, Suite 1200, Mailcode 6PD–L, Dallas, TX 75202

Texas Natural Resource Conservation Commission, 12100 Park 35 Circle, PO Box 13087, Austin, Texas 78711–3087

FOR FURTHER INFORMATION CONTACT: Mr. Herbert R. Sherrow, Jr., Air Planning Section (6PD-L), Multimedia Planning and Permitting Division, Environmental Protection Agency, Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202. The telephone number is 214–665–7237.

SUPPLEMENTARY INFORMATION:

I. Background

NO_x are precursors to ground level (tropospheric) ozone, or urban ''smog.'' When released into the atmosphere, NO_x will react with volatile organic compounds (VOC) in the presence of sunlight to form ozone. Tropospheric ozone is an important contributor to the nation's urban air pollution problem.

The Act made significant changes to the air quality planning requirements for areas that do not meet the ozone standard. Subparts 1 and 2 of part D, title I of the Act contain the air quality planning requirements for ozone nonattainment areas. Title I includes new requirements to control NO_x emissions in certain ozone nonattainment areas and ozone transport regions. Section 182(f) requires States to apply the same control requirements to major stationary sources of NO_x as are applied to major stationary sources of VOC. Section 182(c) NO_x requirements are RACT and nonattainment NSR. In addition, there are new NO_x requirements under the conformity provisions of section 176(c). A 182(f) exemption would also relieve certain NO_x requirements of the vehicle I/M rule. This approval would temporarily extend the current exemption for the areas from the section 182(f) NO_x RACT, NSR, I/M, and general conformity requirements (see the NO_x Supplement to the General Preamble 57 FR 55620), and pursuant to section 182(b)(1) from the NO_x ''build/no build'' and ''less-than-1990 emissions'' tests of the transportation conformity rules (60 FR 57179).

The HGA area was designated nonattainment for ozone and classified as severe pursuant to sections 107(d)(4) and 181(a) of the Act, and has an attainment deadline of 2007. The HGA nonattainment area includes the cities of Houston and Galveston, and consists of the following eight counties: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller. The BPA area was initially classified as a serious nonattainment area, but EPA corrected the classification to moderate on June 3, 1996 (61 FR 14496), and BPA now has an attainment deadline of 1996. The BPA nonattainment area includes the cities of Beaumont and Port Arthur, and consists of the following three counties: Hardin, Jefferson, and Orange. See 56 FR 56694 (November 6, 1991, codified for Texas at title 40 of the Code of Federal Regulations (CFR) in § 81.344).

On August 17, 1994, the Texas Natural Resource Conservation Commission (TNRCC) submitted to EPA a petition pursuant to section 182(f) which requested that the HGA and BPA nonattainment areas be temporarily exempted by EPA from the NO_x control requirements of section 182(f) of the Act. The State based its petition on the use of a UAM demonstration showing, pursuant to EPA guidelines, that NO_x reductions would not contribute to attainment in either area because the decrease in ozone concentrations resulting from VOC reductions alone is equal to or greater than the decrease obtained from NO_x reductions or a combination of VOC and NO_x reductions.

The petition for the temporary exemption was approved by EPA and published at 60 FR 19519 (April 19, 1995). The approval was granted on a temporary basis because TNRCC had planned to complete additional UAM modeling that would be a basis for re-evaluating the contributions of NO_x reductions to attainment between November of 1995 and May of 1996 using the results of an intensive 1993 field study, the Coastal Oxidant Assessment for Southeast Texas (COAST). The data collected through the COAST study consist of hourly point source emissions, gridded typical summer day on-road mobile source emissions, hourly air quality data, and detailed meteorological data for specific ozone exceedance episodes in the HGA/BPA domain. Because it is intended to be the most comprehensive data set available, it should result in greater accuracy in the modeling and therefore in the attainment control strategy. Since the modeling was expected to be completed by May of 1996, TNRCC requested only a temporary NO_x exemption. The EPA granted the exemption until December of 1996 and established that, if warranted, NO_x RACT compliance should be as expeditious as practicable, but no later than May 31, 1997. The exemption applied to NO_x RACT, NSR, I/M, and general conformity. The exemption also applied to transportation conformity since, at that time, the transportation conformity rule cited section 182(f) as the appropriate authority for granting such relief. The transportation conformity rule was later amended to reference section 182(b)(1) for areas subject to 182(b)(1).

II. Applicable EPA Guidance

The Act specifies in section 182(f) that if one of the conditions listed below is met, the new NO_x requirements would not apply:

1. In any area, the net air quality benefits are greater without NO_x reductions from the sources concerned;
2. In a nontransport region, additional NO_x reductions would not contribute to ozone attainment in the nonattainment area; or
3. In a transport region, additional NO_x reductions would not produce net ozone benefits in the transport region.

In addition, section 182(f)(2) states that the application of the new NO_x requirements may be limited to the extent that any portion of those reductions are demonstrated to result in ''excess reductions'' of NO_x. The previously-described NO_x provisions of the conformity rules would also not apply in certain areas that are granted a section 182(f)(3) or 182(b)(1) exemption (60 FR 57179). In addition, certain NO_x provisions of the I/M rule would not apply in an area that is granted a section 182(f) exemption (57 FR 52989).

The EPA's Guideline for Determining the Applicability of Nitrogen Oxides Requirements under Section 182(f) (December 1993), and 2 revisionary memoranda signed by John S. Seitz, Director of the EPA Office of Air Quality Planning and Standards, dated May 27, 1994, and February 8, 1995, describe how the EPA will interpret the NO_x exemption provisions of section 182(f). As described more fully in the Seitz

memoranda, petitions submitted under section 182(f)(3) are not required to be submitted as State Implementation Plan (SIP) revisions. Consequently, the State is not required under the Act to hold a public hearing in order to petition for an area-wide NO_x exemption determination. Similarly, it is not necessary to have the Governor submit the petition.

The application of section 182(f) NO_x waivers to certain NO_x requirements of the transportation conformity rule is no longer appropriate. The EPA has revised the transportation conformity rule to ensure consistency with section 176(c) (60 FR 57179). This rule revision makes it clear that areas that are subject to section 182(b)(1) (moderate and above) must submit transportation conformity NO_x exemption requests as revisions to the SIP. Because HGA is classified as severe and BPA is classified as moderate, the revision addressing 182(b)(1) must be submitted as a revision to the SIP. The state adopted the proposal through public notice, hearing, and comment, and submitted it as a SIP revision with the petition.

III. State Submittal

On March 6, 1996, the State of Texas submitted a petition to EPA which requests that the HGA and BPA nonattainment areas be granted an extension to the temporary exemption from NO_x control requirements of sections 182(f) and 182(b) of the Act. The State's petition was transmitted by a letter from George W. Bush, Governor, State of Texas, to Jane Saginaw, Regional Administrator of EPA Region 6. The petition was accompanied by the records of public hearing on the petition to satisfy the requirements of section 182(b). The petition requests an extension of one year, from December 31, 1996, to December 31, 1997, for the exemption and an extension of the NO_x compliance date from May 31, 1997, to May 31, 1999. The petition was subjected to public notice on September 5, 1995, and hearing on October 2, 1995. Since the petition for extension went through the State's public participation procedures prior to submittal, EPA considers it to be submitted as a revision to the SIP and, thus meets the requirements of section 182(b).

The State based its petition on needing additional time to complete UAM modeling using data from the COAST study. The preliminary modeling showed that NO_x reductions would not contribute to attainment in either area because domain-wide predicted maximum ozone concentrations are lowest when only VOC reductions are modeled. The schedule submitted in the State's original section 182(f) petition was determined based on completion of the UAM COAST modeling for attainment demonstration purposes by May 31, 1996. The additional year extension would allow for UAM using COAST data to accommodate recent improvements in the modeling process. These improvements will allow the development of better substantiated control programs and minimize the possibility that earlier modeling could result in unnecessary or counterproductive control programs, particularly if NO_x controls are detrimental. The petition also includes a description of the improvements in data quantity and quality which will result from the additional time to conduct UAM.

Some of the advantages of taking additional time to conduct the modeling are: (1) The use of the UAM, version V, which is an improved model over the UAM, version IV, previously used, particularly in the reduced use of national defaults; (2) the development of more detailed emissions inventory data; (3) the use of additional monitored data; and (4) the use of more refined meteorological data. The current modeling effort is estimated by the State to be an order of magnitude increase over that for the preliminary modeling, with an attendant increase in the quality-assurance effort required. Because of the large economic impact of the future ozone control strategy on the Texas Gulf Coast Region, it is essential that the modeling be based on the best available science and the most complete, quality assured data possible.

Also submitted with the petition was a revision to previously-adopted NO_X RACT rules (30 TAC 117) which would extend the compliance dates from May 31, 1997, to May 31, 1999. The State first submitted the NO_X RACT rules to EPA on December 6, 1993.

A revision to the Texas (Nonattainment) New Source Review rule (30 TAC section 116.150), adopted on October 11, 1995, temporarily extends the suspension of the NO_X NSR requirements in HGA and BPA through December 31, 1997. This rule revision was submitted to EPA on November 1, 1995, and was not resubmitted with the petition.

IV. Analysis of State Submittal

The petition requests an extension of the exemption previously approved by EPA which was based on preliminary UAM modeling indicating that VOC controls would be more effective than NO_X controls. Since the technical basis for the original extension and this extension is the same (i.e., preliminary modeling demonstrated that there would be more ozone reduction with VOC only controls through 1999), EPA is proposing to approve the extension. Please refer to the original extension notice (60 FR 19515) and the accompanying technical support document for details of the technical basis for the exemption.

The current request also seeks to extend the NO_X RACT compliance implementation date for 2 years, until May 31, 1999. This is based on the fact that the schedule previously proposed in August 1994, for completing the modeling has been displaced by as much as 15 months, until March 1997, to allow time for analysis of the COAST data before input to the model. Texas has indicated that if this modeling shows NO_X reductions are beneficial in controlling ozone, specific modeling sensitivity analyses, to be completed by March 1997, would be performed which simulate various reductions required to attain the ozone standard. As further indicated by the State, the additional time needed for documenting model results, holding public hearings, and taking action by TNRCC adds 4 to 6 months to the process before industry will have the information needed to proceed with rule implementation. Since industry has to budget for control equipment and set implementation dates to coincide with equipment scheduled outages, which usually have annual or longer time frames, a two-year extension beyond the May 1997 compliance date in the original submittal is necessary. This two-year extension is also consistent with the two-year lead time originally requested by Texas (59 FR 64641).

In summary, approval of the petition would permit the State to improve the UAM. Moreover, the demonstration that was based on the original modeling showed that NO_X controls through 1999 would not be beneficial, and thus, would also support the one-year extension to December 31, 1997. Also, the requested compliance date extension is consistent with the original lead time considered reasonable for implementation. Therefore, EPA believes that the extension requests contained in the petition are reasonable.

V. Proposed Rulemaking Action

In today's action, EPA proposes to approve the petition submitted by the State of Texas requesting an extension of the temporary NO_X exemption for the HGA and BPA ozone nonattainment areas. The extension, if granted, will expire on December 31, 1997, without further notice from EPA. The extension

applies to NO_X RACT, NSR, I/M, general and transportation conformity requirements.

The State had previously adopted and submitted to EPA complete NO_X RACT, NSR, I/M, and conformity rules. Along with the exemption extension submittal, NO_X RACT rules providing for extending the current implementation date, were resubmitted. During the extension of the temporary exemption period, EPA will not act upon the State's NO_X RACT rules. The EPA plans to act upon the State's NO_X, NSR, I/M, and general and transportation conformity provisions in separate rulemaking actions because those provisions are contained in broader rules that also control VOC emissions.

Upon the expiration of the extension to the temporary exemption on December 31, 1997, the State is required to either; (1) have received an additional extension to the temporary NO_X exemption or a permanent exemption from EPA prior to that time, or (2) begin implementing the State's NO_X RACT, NSR, I/M, general and transportation conformity requirements, with NO_X RACT compliance required as expeditiously as practicable but no later than May 31, 1999. The EPA will begin rulemaking on the NO_X RACT SIP upon the expiration of the extension to the temporary exemption if the State has not received an additional temporary extension or a permanent exemption by that time.

Since the original temporary exemption and this temporary exemption is based on preliminary modeling, and additional time is being granted to allow for conducting modeling with improved data from the COAST study, any future petition for an extension of the temporary exemption or contingent exemption must be accompanied by UAM modeling based on the COAST data, as stated in the petition. Preliminary modeling cannot be used as a basis for any further extensions or a contingent exemption. It is technically insufficient to support a second extension or a contingent exemption. In addition, a further two-year extension of the NO_X RACT compliance date based on the preliminary modeling would not be possible since it would extend the date beyond 1999, the last year included in the preliminary modeling.

Other specific requirements that would reapply upon expiration are: (1) Any NSR permits that had not been deemed complete prior to January 1, 1998, must comply with the NO_X NSR requirements, consistent with the policy set forth in the EPA's NSR Supplemental Guidance memo dated September 3, 1992, from John Seitz, Director, EPA's Office of Air Quality Planning and Standards; (2) any conformity determination (for either a new or revised transportation plan and Transportation Improvement Program) made after January 1, 1998 must comply with the NO_X conformity requirements; and (3) any I/M vehicle inspection made after January 1, 1998, must comply with the I/M NO_X requirements.

The EPA requests comments on all aspects of this proposal. Therefore, as indicated at the beginning of this action, EPA will consider any comments received by January 13, 1997.

Nothing in this action should be construed as permitting or allowing or establishing a precedent for any future request for revision to any SIP. Each request for revision to the SIP shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

VI Administrative Requirements

A. Executive Order (E.O.) 12866

This action has been classified as a Table 1 action for signature by the Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214–2225), as revised by a July 10, 1995, memorandum from Mary Nichols, Assistant Administrator for Air and Radiation. The Office of Management and Budget has exempted this regulatory action from E.O. 12866 review.

B. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 U.S.C. 600 et seq., EPA must prepare a regulatory flexibility analysis assessing the impact of any proposed or final rule on small entities. See 5 U.S.C. 603 and 604. Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and government entities with jurisdiction over populations of less than 50,000.

The SIP approvals under section 110 and subchapter I, part D of the Act do not create any new requirements but simply approve requirements that the State is already imposing. Therefore, because the Federal SIP approval does not impose any new requirements, I certify that it does not have a significant impact on any small entities affected. Moreover, due to the nature of the Federal-State relationship under the Act, preparation of a flexibility analysis would constitute Federal inquiry into the economic reasonableness of State action. The Act forbids EPA to base its actions concerning SIPs on such grounds. See *Union Electric Co.* v. *U.S. EPA*, 427 U.S. 246, 255–66 (1976); 42 U.S.C. 7410(a)(2).

C. Unfunded Mandates

Under section 202 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to private sector, of $100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA's proposed action relieves requirements otherwise imposed under the Act and, hence, does not impose any federal intergovernmental mandates, as defined in section 101 of the Unfunded Mandates Act. This action will also not impose a mandate that may result in estimated costs of $100 million or more to either state, local, or tribal governments, in the aggregate, or the private sector. Since this action will not significantly impact any small governments, EPA is not required to establish a plan pursuant to section 203.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Intergovernmental Relations, Nitrogen dioxide, Ozone, Volatile Organic Compounds.

Dated: December 6, 1996.

Carol M. Browner,

Administrator.

40 CFR part 52 is proposed to be amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

Subpart SS—Texas

2. Section 52.2308 is amended by adding paragraph (e) to read as follows:

§ 52.2308 Area-wide nitrogen oxides (NO_X) exemptions.

* * * * *

(e) The TNRCC submitted to EPA on March 6, 1996, a petition requesting that the Houston/Galveston and Beaumont/Port Arthur ozone nonattainment areas be granted an extension to a previously-granted temporary exemption from the NO_X control requirements of sections 182(f) and 182(b) of the Clean Air Act. The temporary exemption was granted on April 19, 1995. The current petition is based on the need for more time to complete UAM to confirm the need for, and the extent of, NO_X controls required. On December 6, 1996, EPA approved the State's request for an extension to the temporary exemption. The temporary extension automatically expires on December 31, 1997, without further notice from EPA. Upon expiration of the extension, the requirements pertaining to NO_X RACT, NSR, I/M, general and transportation conformity will become applicable, except that the NO_X RACT compliance date shall be implemented as expeditiously as practicable, but no later than May 31, 1999, unless the State has received a contingent NO_X exemption from the EPA prior to that time.

[FR Doc. 96–31705 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 96–244, RM–8936]

Radio Broadcasting Services; Madison, IN

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: This document requests comments on a petition for rule making filed on behalf of Edward E. Guinn requesting the allotment of Channel 266A to Madison, Indiana, as that community's second local FM service. Coordinates used for this proposal are 38–49–15 and 85–18–46.

DATES: Comments must be filed on or before January 27, 1997, and reply comments on or before February 11, 1997.

ADDRESSES: Secretary, Federal Communications Commission, Washington, D.C. 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner's counsel, as follows: Harry F. Cole, Esq., Bechtel & Cole, 1901 L Street, N.W., Suite 250, Washington, D.C. 20036.

FOR FURTHER INFORMATION CONTACT: Nancy Joyner, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 96–244, adopted November 29, 1996, and released December 6, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC's Reference Center (Room 239), 1919 M Street, NW, Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, Inc., (202) 857–3800, 2100 M Street, N.W., Suite 140, Washington, D.C. 20037.

Provisions of the Regulatory Flexibility Act of l980 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 broadcasting.

Federal Communications Commission.

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–31659 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

47 CFR Part 73

[MM Docket No. 96–241, RM–8928]

Radio Broadcasting Services; Minden and Natchitoches, Louisiana

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a petition by Ninety-Five Point Seven, Inc., assignee of Station KASO (FM), Channel 239A, Minden, Louisiana, and Bundrick Communications, Inc., licensee of Station KZBL (FM), Channel 240A, Natchitoches, Louisiana, requesting the substitution of Channel 239C2 for Channel 239A at Minden, Louisiana, and the modification of Station KASO (FM)'s authorization to specify the higher powered channel. Petitioners also request the substitution of Channel 264A for Channel 240A at Natchitoches, Louisiana, and modification of Station KZBL (FM)'s license to reflect the new channel. Channel 239C2 and Channel 264A can be allotted to Minden and Natchitoches, respectively, in compliance with Commission's minimum distance separation requirements. Channel 239C2 can be allotted to Minden with a site restriction of 9.2 kilometers (5.7 miles) northwest. Channel 264A can be allotted to Natchitoches at the transmitter site specified in Station KZBL (FM)'s license. *See* Supplemental Information, *infra*.

DATES: Comments must be filed on or before January 27, 1997, and reply comments on or before February 11, 1997.

ADDRESSES: Federal Communications Commission, Washington, D.C. 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: William J. Pennington, III, Post Office Box 403, Westfield, Massachusetts 01086 (Counsel for petitioners).

FOR FURTHER INFORMATION CONTACT: Pam Blumenthal, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 96–241, adopted November 29, 1996, and released December 6, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC's Reference Center (Room 239), 1919 M Street, NW, Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractor, ITS, Inc., (202) 857–3800, 2100 M Street, NW, Suite 140, Washington, D.C. 20037.

The coordinates for Channel 239C2 at Minden are 32–39–06 and 93–22–15. The coordinates for Channel 264A at Natchitoches are 31–48–18 and 93–01–29. In accordance with Section 1.420(g) of the Commission's Rules, we will not accept competing expressions of interest for the use of Channel 239C2 at Minden or require petitioner to demonstrate the availability of an additional equivalent class channel.

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 broadcasting.

Federal Communications Commission.

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–31657 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

47 CFR Part 73

[MM Docket No. 96–242; RM–8940]

Radio Broadcasting Services; Cheyenne, Wyoming

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a petition filed by Montgomery Broadcasting Limited Liability Company proposing the allotment of Channel 229A at Cheyenne, Wyoming, as the community's sixth local FM transmission service. Channel 229A can be allotted to Cheyenne in compliance with the Commission's minimum distance separation requirements with a site restriction of 9.7 kilometers (6.0 miles) northeast to avoid a short-spacing to the vacant allotment site for Channel 232C3, Wellington, Colorado. The coordinates for Channel 229A at Cheyenne are North Latitude 41–12–39 and West Longitude 104–44–54.

DATES: Comments must be filed on or before January 27, 1997, and reply comments on or before February 11, 1997.

ADDRESSES: Federal Communications Commission, Washington, D.C. 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Allan G. Moskowitz, Esq., Kaye, Scholer, Fierman, Hays & Handler, LLP, 901 15th Street, N.W., Suite 1100, Washington, D.C. 20005 (Counsel for Petitioner).

FOR FURTHER INFORMATION CONTACT: Sharon P. McDonald, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 96–242, adopted November 29, 1996, and released December 6, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M Street, N.W., Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, Inc., (202) 857–3800, 2100 M Street, N.W., Suite 140, Washington, D.C. 20037.

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 broadcasting.

Federal Communications Commission.

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–31656 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

47 CFR Part 73

[MM Docket No. 96–243; RM–8925]

Radio Broadcasting Services; Chugwater, Wyoming

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a petition filed by Mountain Tower Broadcasting proposing the allotment of Channel 258A at Chugwater, Wyoming, as the community's first local aural transmission service. Channel 258A can be allotted to Chugwater in compliance with the Commission's minimum distance separation requirements at city reference coordinates. The coordinates for Channel 258A at Chugwater are North Latitude 41–45–36 and West Longitude 104–49–30.

DATES: Comments must be filed on or before January 27, 1997, and reply comments on or before February 11, 1997.

ADDRESSES: Federal Communications Commission, Washington, D.C. 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Victor A. Michael, Jr., President, Mountain Tower Broadcasting, c/o Magic City Media, 1912 Capitol Avenue, Suite 300, Cheyenne, Wyoming 82001 (Petitioner).

FOR FURTHER INFORMATION CONTACT: Sharon P. McDonald, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 96–243, adopted November 29, 1996, and released December 6, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M Street, N.W., Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, Inc., (202) 857–3800, 2100 M Street, N.W., Suite 140, Washington, D.C. 20037.

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 broadcasting.

Federal Communications Commission.

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–31655 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 96–240, RM–8946]

Radio Broadcasting Services; Lockport, New York

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a petition filed by Culver Communications Corp. seeking the allotment of Channel 221A to Lockport, NY, as the community's first local FM service. Channel 221A can be allotted to Lockport in compliance with the Commission's minimum distance separation requirements, with request to domestic allotments, without the imposition of a site restriction, at coordinates 43–10–12 North Latitude and 78–41–54 West Longitude. However, Lockport is located within 320 kilometers (200 miles) of the U.S.-Canadian border, and the allotment would result in short-spacings to Station CKPC–FM, Channel 221C1, Brantford, Ontario, Channels 219C1, St. Catherine, Ontario, 220B, Peterboro, Ontario, 222B, Oshawa, Ontario, and 223B, Toronto, Ontario, Canada. Petitioner states that appropriate protection of all of the above channels, with the exception of Station CKPC–FM, can be accomplished with the proposed Lockport station operating nondirectionally with 6 kilowatts of power at 100 meters above average terrain. With regard to the short-spacing to Station CKPC–FM, petitioner states that it will directionalize its signal to avoid any prohibited interference. Therefore, we will request concurrence by the Canadian Government in the allotment of Channel 221A to Lockport as a specially negotiated allotment.

DATES: Comments must be filed on or before January 27, 1997, and reply comments on or before February 11, 1997.

ADDRESSES: Federal Communications Commission, Washington, D.C. 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Richard C. Greene, President, Culver Communications Corporation, P.O. Box 477, Lockport, New York 14095 (Petitioner).

FOR FURTHER INFORMATION CONTACT: Leslie K. Shapiro, Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 96–240, adopted November 29, 1996, and released December 6, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M Street, NW, Washington, D.C. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Services, Inc., (202) 857–3800, 2100 M Street, N.W., Suite 140, Washington, D.C. 20037.

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 broadcasting.

Federal Communications Commission.

John A. Karousos,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–31654 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

RIN AG–38

[Docket No. 96–41, Notice 01]

Federal Motor Vehicle Safety Standards; Lamps, Reflective Devices and Associated Equipment

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Notice of request for comments.

SUMMARY: This document seeks public comment on the value of several signal lamp ideas which have been suggested to the agency, and on whether NHTSA should permit auxiliary signal lamps in addition to those required by Federal Motor Vehicle Safety Standard No. 108. NHTSA also seeks comment on a policy for the disposition of petitions for rulemaking that request the agency to require or permit safety lighting inventions and which are submitted without proof of their effectiveness.

DATES: Comments are due March 13, 1997.

ADDRESSES: Comments should refer to Docket No. 96–41, Notice 1, and be submitted to: Docket Section, room 5109, 400 Seventh Street S. W., Washington, DC 20590 (Docket hours are from 9:30 a.m. to 4 p.m.) It is requested that 10 copies of the comments be provided.

FOR FURTHER INFORMATION CONTACT:

For technical issues: Richard Van Iderstine, Office of Crash Avoidance Standards, NPS–21, telephone (202) 366–5280, FAX (202) 366–4329.

For legal issues: Taylor Vinson, Office of Chief Counsel, NCC- 20, (202) 366–5263, FAX (202) 366–3820.

Both may be reached at the National Highway Traffic Safety Administration, 400 Seventh St., S.W., Washington, D.C., 20590. Comments should not be sent or FAXed to these persons, but should be sent to the Docket Section.

SUPPLEMENTARY INFORMATION

Background

Federal Motor Vehicle Safety Standard No. 108 (''Standard No. 108''), *Lamps, Reflective Devices and Associated Equipment* (49 CFR 571.108) includes requirements for specified types of signal lamps to be installed on new motor vehicles, and regulates their performance in terms of color, brightness, quantity, duty cycle (steady or flashing) and details of activation (e.g., turned on with the headlamps). The purpose of these specifications is to establish the presence of a vehicle in the roadway, and to signal its driver's intentions to other motorists and pedestrians. Communication via these signal lamps is best accomplished with a degree of standardization in order to minimize ambiguity. In drafting the signal lamp requirements, NHTSA has balanced the need for standardization with its desire to allow as much design freedom as possible for the location, shape, styling, and light source design of the lamps. For example, the intensity ranges of taillamps and stop lamps are regulated so that a person can distinguish a red stop lamp from a red taillamp immediately at the initiation of braking, without having to notice the transition. However, the size and shape of stop lamps and taillamps are left to the designer of the device. Likewise, stop lamps are required to be steady-burning to distinguish them from the required flashing of turn signals and hazard warning signal lamps of the same brightness and color. Paragraph S5.1.3 of Standard No. 108 also allows for auxiliary lighting equipment beyond the required equipment, provided that the auxiliary equipment does not ''impair the effectiveness'' of the required lamps and reflectors. (In the case of auxiliary lamps of emergency vehicles and tow trucks, the usual agency policy is to leave the specifications to the discretion of State governments.)

Standard No. 108 is more flexible than the lighting regulations of most

other countries and many of the States. For example, while many countries require lamps to be located within specific dimensions, such as ''not more than 3 inches from the edge of the vehicle'', Standard No. 108 generally allows a manufacturer to locate lamps at such maximum heights and widths as the manufacturer determines are ''practicable.'' Also, many States prohibit auxiliary lamps unless expressly permitted by their lighting codes, even if they are permitted as optional equipment under Standard No. 108 because they do not ''impair the effectiveness'' of the lighting equipment required by the Federal standard.

The agency is publishing this notice to obtain comment on four signal lighting ideas which their proponents believe will improve communication between drivers. The ideas are:

(1) The activation of stop lamps upon sudden release of the accelerator pedal,

(2) The flashing of center high mounted stop lamps (CHMSLs) at one or more rates to indicate heavy braking (or Anti-lock Braking System activation),

(3) The flashing of one or more stop lamps to indicate a stopped vehicle, and

(4) Stop lamps on the front of vehicles.

NHTSA is also seeking comments to aid in developing a general policy that would maximize its consideration of potential safety advances and suggestions by inventors while enabling it to carefully screen new ideas to ensure that the public is not burdened with unjustified cost or annoyance, or subjected to hazards. Despite the relative degree of flexibility of Standard No. 108, inventors who have developed new signal lamps or new ways of using existing lamps nevertheless often find that their devices are in conflict with Standard No. 108 and State regulations. In addition, inventors commonly expect that NHTSA ought to require their inventions to be installed on new motor vehicles. At the same time, these requests are often accompanied by only very limited substantiation of the potential safety benefits. Adoption of some requests would not only increase the cost of new motor vehicles, but also in some cases reduce instead of increase safety.

Idea No. 1: Stop Lamps Activated by Rapid Release of the Accelerator Pedal

In a situation on the road when hard braking is required to avoid an accident, it is an intuitively attractive idea to light the stop lamps sooner than in normal braking. However, this is not permitted by Standard No. 108, which requires that stop lamps be activated only upon application of the service brakes (paragraph S5.5.4).

In 1994, Baran Advanced Technology Ltd. petitioned the agency to permit activation of the stop lamps using its Advanced Brake Warning System (ABWS). This system is designed to activate the stop lamps if the accelerator pedal is lifted at a rate greater than 0.3 meter a second, simulating the response of a driver in panic braking. Baran claimed that this lights the stop lamps 0.25 second sooner and could prevent a significant portion of rear end collisions. In support of its petition, Baran presented a study of the stop lamp activations of a small fleet of vehicles equipped with ABWS, operated over a period of several months by drivers unaware of the ABWS equipment. In about one-fourth of the instances in which the ABWS activated the stop lamps, the driver did not touch the brake pedal, creating a ''false alarm'' lasting one second. However, the study also recorded a large number of instances in which there were brake applications that lasted one second or less. Baran concluded that the false alarms would increase, by only a few percentage points, the total number of short stop lamp indications and would not be noticeable as false alarms to the driving public. It argued that the agency should not, therefore, be concerned that the false alarms would dilute the effectiveness of the stop lamps and cause motorists to begin to discount the significance of stop lamp activation.

NHTSA was concerned that ABWS might decrease the public's responsiveness to the message sent by the stop lamps. Today's stop lamps, which are activated only by the service brake system, send an unambiguous message to following drivers that the driver ahead is using the brakes. The precise purpose of the brake application (panic stop, ordinary stop, deceleration, disengagement of cruise control) requires the following driver to be aware of the traffic environment ahead. NHTSA believes that to the extent that the public would come to associate stop lamp activation with movements of the accelerator pedal rather than movements of the brake pedal, a dilution in the meaning of the present signal will occur. The petitioner showed that ordinary short brake applications would vastly outnumber ABWS false alarms and argued that the public would not be sensitive to false alarms. However, it is also possible that if the public were aware of the operation of the ABWS, it would incorrectly attribute many of the short brake applications to ABWS false alarms, creating an inappropriately high level of skepticism of stop lamp signals. Also, the fact that drivers experienced a large number of short inconsequential brake applications makes it less likely that they would use to advantage an earlier warning of only a fraction of a second, given the fact that so few brake applications actually resulted in a rapid deceleration.

A related concern is the potential abuse of ABWS to create intentional false alarms. An increasing level of aggression and lack of courtesy on the part of drivers is now being reported. The safest way to deal with tailgating drivers on multilane highways is to pull over and allow them to pass. However, some drivers choose to return discourtesy by tapping the brake pedal to startle the tailgater. It is possible that the ease of lighting the stop lamps using the ABWS alone would tempt more drivers to contribute to traffic aggression, and that such behavior would dilute the message of stop lamp signals if a tailgating driver suspected that the vehicle ahead was equipped with ABWS.

There is the possibility of some small benefit of ABWS in the following situation. Assuming that two vehicles are moving one behind the other at the same speed and that the lead driver brakes extremely hard and the trailing driver brakes equally hard at the first glimmer of the lead vehicle's stop light, some collisions could be prevented between vehicles with ordinarily insufficient headway provided that the driver of the trailing vehicle brakes 0.25 second sooner than (s)he would in response to current lighting systems. The benefits reported in Baran's analysis under these assumptions were greatest for braking at 1 g under ideal pavement conditions because the assumed 0.25 second advantage does not result in much speed reduction when the pavement is slippery. It is not clear that these assumptions are realistic.

Baran cited studies reporting that over 20 percent of drivers observed on a Michigan urban interstate highway maintained less than 1 second headway and that 4 to 5 percent maintained a headway of less than half a second, supporting its point about the headway assumed to demonstrate the effectiveness of its ABWS. However, NHTSA questions the assumption that the trailing driver would react instinctively by braking extremely hard at the instant (s)he perceived a stop lamp illuminated by ABWS. If that driver knew the vehicle was equipped with ABWS and that false alarms do occur, (s)he might not react instinctively. At that instant, the lead car has not yet begun to brake, and there

is no speed differential between the two vehicles. Until tire squeal or extreme pitching motion of the lead car occurs, a trailing driver has no reason to slam on his or her brakes. The trailing driver in this analysis is a tailgater. It is possible that a tailgater who believes that ABWS false alarms are a regular occurrence will be even less likely to assume that hard braking is the required response upon suddenly seeing a stop light. In short, it is easy to foresee a situation in which the driver of a car being tailgated activates the stop lamps by ABWS several times without braking and then is confronted with an immediate need to brake fast, and the stop signal is initially ignored by the driver of the tailgating car.

However, the typical rear-end crash does not involve a tailgating pair of vehicles with drivers attentive enough to respond to a minutely advanced stop signal. The agency's report *Assessment of IVHS Countermeasures for Collision Avoidance: Rear-End Crashes,* DOT HS 807 995 May 1993, characterizes a rear-end crash as largely a dry/straight road phenomenon associated with driver inattention. In three-fourths of the rear-end crashes studied, the lead vehicle had been stopped, usually for 2 to 6 seconds before it was struck. There was adequate time to provide the following driver a warning with conventional stop lamps and for the following driver to avoid the crash. Of the other one-fourth of rear-end crashes, two-thirds did not involve following too closely. And most of the crashes attributed to following too closely also involved inattention on the part of the following driver.

The assumption that even an attentive driver receives a 0.25 second sooner warning of panic braking of the car ahead may be optimistic. A report by the Technical University of Darmstadt in Germany, titled *Efficiency of Advanced Brake Light Devices,* FO57 May 1994, found that responses by attentive test subjects improved as a result of ABWS by only 0.10 to 0.15 second rather than by 0.25 second. The experiment simulated a convoy of three closely spaced vehicles. The center vehicle operated with and without ABWS. The time between the activation of the stop lamp of the lead vehicle and the braking response of the driver of the third vehicle was measured. With the vehicles stationary, the third driver responded 0.15 second sooner when the second vehicle used ABWS to active its stop lamps. This was approximately the same time taken by the driver of the second vehicle to move his foot from the accelerator to the brake pedal. When the experiment was replicated with the convoy traveling on public roads, the advantage provided by the ABWS diminished to 0.10 second as a result of the demands of the driving task on even an attentive test driver.

The Darmstadt report also includes a study of the effect of a CHMSL on the lead car of the same convoy. Cars in Germany are not yet equipped with center high mounted stop lamps (CHMSLs). Under the same conditions in which the ABWS produced a response 0.10 second earlier by the third driver, the CHMSL produced a 0.45 second earlier response. The CHMSL enabled the driver of the third car to respond to the lead car before seeing the stop lamps of the second car. A similar effect occurred in night tests without the CHMSL because the third driver was able to see reflections of the lead car's stop lamps in the windshield of the second car.

The most compelling argument for benefits is the implication that, if there are a large number of tailgating rear-end accidents, some of them must contain circumstances in which viewing a stop lamp 0.15 to 0.25 second earlier would make a positive difference. Even if following drivers would not be willing to brake at the sight of a lamp (and many may be too inattentive to notice it immediately), it could be argued that the lamp may at least raise the state of expectancy of some following drivers sooner.

In 1994, the agency denied Baran's petition to allow ABWS (59 FR 39522). In the agency's opinion, the perception among drivers that ABWS allowed systematic and intentional false alarms would dilute the unambiguous message of conventional stop lamps. NHTSA concluded that the potential safety benefits of ABWS were not significant enough to outweigh its potential disadvantages. However, the notice of denial stated that NHTSA would consider the results of a fleet test of effectiveness of ABWS being conducted in Israel at that time. The objective of the Israeli study was to determine whether ABWS, already permitted in Israel, should be made mandatory. Germany also permits ABWS.

In 1995, Baran and its United States partner, Allied Signal, Inc., submitted another petition for an amendment to Standard No. 108 to permit the optional use of ABWS. The petition bases its principal argument on NHTSA's statement in the 1994 denial that ''a manufacturer should not be precluded from offering its product, even if safety benefits cannot be demonstrated, unless there are potential safety disbenefits created by the product.'' The petition maintains that the agency's concern that stop lamp signals would become more ambiguous to the driving public is unfounded. Also, it disagrees that ABWS would be abused to create intentionally false braking or stop signals. It also reported that preliminary results from the ongoing Israeli fleet test showed that vehicles equipped with ABWS had been involved in fewer relevant collisions than ordinary vehicles, but that the numbers of comparative accidents were too few to establish statistical significance. The agency has granted that petition.

The disagreement between the agency and Baran rests to a large degree on differences in assumptions of how ABWS would be used and perceived by drivers in the United States. Thus, the agency is particularly interested in comments from the driver's point of view, whether the individual drives for pleasure or is a professional driver of a commercial vehicle. The agency is interested in the views of researchers as well. If commenters know of relevant research data, they should provide the data.

The questions which NHTSA asks commenters to address are:

(1) How likely is it that an ABWS-type system would be abused to create intentionally false braking signals? What is the likely consequence of a false braking signal in a tailgating situation?

(2) To what extent would the knowledge that stop lamps could be activated by rapid accelerator release change drivers' perceptions of the meaning of the stop lamp message?

(3) If the answer to either question 1) or 2) is yes, would there be any changes in driver behavior, and if so, what would these changes likely be?

(4) Should NHTSA propose to amend Standard No. 108 to permit an advance stop lamp warning system such as ABWS at the manufacturer's option or should the agency retain the present requirement that automobile stop lamps may only be activated by the purposeful application of the brake pedal by the driver? Would drivers buy such a system as an option, and if so, why?

(5) Should NHTSA propose to amend Standard No. 108 to require an advance stop lamp warning system such as ABWS on new vehicles or should the agency retain the present requirement that automobile stop lamps may only be activated by the purposeful application of the brake pedal by the driver?

(6) If an advance stop lamp warning system such as ABWS were configured to activate the CHMSL but not the other required stop lamps, would this reduce its potential for abuse to create intentionally false braking signals? How would this modification affect the intended purpose of a system such as

ABWS? How would this modification affect the intended purpose of the CHMSL?

(7) Should NHTSA propose amending Standard No. 108 to (a) permit or (b) require a system such as ABWS which would activate only CHMSLs and not the other stop lamps?

(8) Are there other bases for concluding that a system such as ABWS, either optional or mandatory, would degrade safety? If so, what are those bases?

Idea No. 2: Flashing CHMSLs To Warn of Hard Braking

Many inventors have urged the agency to require CHMSLs to flash as a signal of hard braking. The agency presumes that the inventors hold design patents on specific devices which trigger and regulate a flashing lamp because the general concept of a flashing stop lamp would seem to be too much an obvious idea to be patentable. In addition, the flashing CHMSL is an idea which has been disclosed in public literature for at least 15 years.

In many instances, inventors who petition NHTSA seem to believe that they can create a market for their patented products if they could have them incorporated into the Federal motor vehicle safety standards. This is an unrealistic expectation. A ''Motor vehicle safety standard'' is defined by 49 U.S.C. 30102(a)(9) as ''a minimum standard for motor vehicle performance.'' Motor vehicle safety standards are required to be ''practicable, meet the need for motor vehicle safety, and be stated in objective terms.'' (49 U.S.C. 30111(a)). This means that Standard No. 108 must and does express its requirements in terms of performance rather than design, leaving the individual manufacturer free to choose the means most appropriate to that manufacturer for achieving the stipulated performance. For example, if Standard No. 108 were to require a flashing CHMSL for hard braking, it would specify the color, brightness, flash rate and trigger condition (deceleration rate, ABS activation or other appropriate condition), but the operating principle of the device would be left to the manufacturer and not expressed in Standard No. 108. Manufacturers would be free to devise ways of satisfying a flashing CHMSL standard without infringing on existing patents. No Federal motor vehicle safety standard requires the use of patented designs. Of course, a manufacturer may decide that buying the rights to use a patented device is the most advantageous way of complying with a Federal motor vehicle safety standard.

The agency, has in fact, studied the possibility of flashing CHMSLs, as was reported in the report *Field Test Evaluation of Rear Lighting Deceleration Signals*, DOT HS–806–125 October 1981. Each of 600 taxis in a test fleet was equipped with one of three types of a CHMSL. The fleet traveled a cumulative 40.7 million miles during the study. The steady-burning CHMSL (the type adopted in Standard No. 108) was compared with two types of flashing CHMSLs. One flashed at a rate of 2.5 Hz whenever the brake pedal was depressed. The other flashed at 1.5 Hz, 2.5 Hz, 4 Hz or 7 Hz to relate higher braking rates to faster CHMSL flash rates. The highest flash rate occurred for all braking at greater than 0.3 g. Some of the rear-end accidents experienced by the test fleet did not involve braking by the struck vehicle. The remaining 129 accidents, in which stop lamp usage could be presumed, were placed into three categories: vehicle stopped in traffic, vehicle stopping slowly, and vehicle stopping quickly. Seventy-eight percent of the rear-end accidents involved vehicles stopped in traffic. The other twenty-two percent were divided about equally between the stopping-slowly and stopping-quickly categories.

A CHMSL that flashes to warn of hard braking would be expected to manifest its potential benefit by reducing accidents in which the struck vehicle was stopping quickly. Of the 48 rear end crashes experienced by the test vehicles equipped with ordinary steady-burning CHMSLs, six occurred while the vehicles were stopping quickly. Of the 54 rear-end crashes experienced by the test vehicles equipped with CHMSLs with a flash rate proportional to the deceleration rate, four occurred while the vehicles were stopping quickly. That fewer vehicles with the hard-braking warning were struck while stopping quickly is suggestive of the expected desirable result, but the difference between six and four rear-end accidents was not great enough to be statistically significant. In other words, the apparent reduction from six to four accidents (given the total number of accidents and test vehicles) was not great enough to outweigh the possibility that the reduction was due to chance rather than to the effectiveness of the warning.

The remaining third of the test vehicles were equipped with CHMSLs which flashed at same rate for all brake applications, regardless of deceleration rate. Of the 55 rear-end crashes experienced by the test vehicles equipped with constant-rate flashing CHMSLs, four occurred while the vehicles were stopping quickly. The accident results were the same for vehicles equipped with flashing CHMSLs with or without a distinct signal for hard braking. This suggests that the flashing action rather than the hard-braking warning (i.e., the increasing flash rate) was the source of whatever benefits the enhanced CHMSLs could provide over the performance of the ordinary steady-burning CHMSL. However, this comparison also lacks statistical significance.

Speculation about these comparisons, which lack statistical significance, leads to an inconsistency when one considers the crashes into vehicles stopping slowly. It is a reasonable theory that flashing signals could counteract to some degree the effect of inattention that is an important cause of rear-end crashes. Under that theory, it is logical that fewer rear-end crashes occurred during quick stopping with either of the two flashing-CHMSL fleets than with the steady-burning CHMSL fleet. It is also logical to assume that inattention is the prevalent causal factor for rear-end crashes into vehicles stopping slowly because even partially attentive drivers have an opportunity to avoid such collisions. However, the fewest crashes into vehicles stopping slowly occurred in the fleet having steady-burning CHMSLs. The differences between fleets in crashes into vehicles stopping slowly were also too small to be statistically significant, and thus it is not surprising that the trends in performance of various types of CHMSLs were inconsistent.

While the study provided no evidence that CHMSLs with flashing deceleration signals would be more effective than steady-burning CHMSLs, it did not rule out the possibility of an effectiveness benefit too small for statistical significance within the scope of the study. However, the study did conclude that any possible effectiveness would be limited to a small proportion of rear-end crashes. It cited studies conducted before 1981 to demonstrate that the large proportion of rear-end crashes into stopped vehicles was not limited to studies of taxi fleets, and the much more recent studies cited above support the general finding that about three-fourths of the struck vehicles are stopped. A flashing warning of hard braking also has the possible disadvantage of an inherent time delay for the driver to see enough cycles to decide that the lamp is indeed flashing, if that driver does not brake on the first sight of red.

At the time of this study of possible CHMSL enhancements, the agency had become convinced of the effectiveness of the steady-burning CHMSL through previous studies with unambiguous

results. NHTSA decided that it would not be in the interest of safety to delay a requirement for the basic steady-burning CHMSL while pursuing variants that were proving insignificant. The resulting requirement for CHMSLs permitted only steady burning CHMSLs despite the contemporary study of flashing CHMSLs. The result is that inventors regard the prohibition of flashing CHMSLs as unfair to their ideas.

Neither the research reports nor the CHMSL rulemaking notices discussed the possibility of optional variants to the steady-burning CHMSL that might enhance its message. A favorable cost effectiveness was established for the steady-burning CHMSL, but no additional benefits have been found for flashing as a warning of hard braking that would justify the additional cost of requiring CHMSLs to flash. It is self evident that simplicity and a minimum of ambiguity are essential elements of signaling. Accordingly, NHTSA did not consider it necessary to seek comment on the option of a flashing CHMSL for hard braking when it proposed the requirement for a steady-burning CHMSL. The preamble to the final rule adopting the CHMSL expressed the possibility of future enhancements of brake signaling but in the context of requirements justified by effectiveness rather than as options (48 FR 4823). The CHMSL enhancement study theorized that the basic CHMSL was effective because it was less likely than ordinary stop lamps to be confused with other rear signals. The coexistence of more than one type of CHMSL signal would seem to undermine the clarity gained by the required CHMSL in comparison with conventional stop lamps.

NHTSA studied CHMSLs that flash to indicate deceleration through hard braking as a potential requirement for a CHMSL but was not able to prove added effectiveness over steady-burning CHMSLs. Further, the agency believes that the lack of ambiguity or complexity of the conventional CHMSL is partly responsible for its effectiveness.

With respect to this issue, NHTSA asks that commenters address the following questions:

(1) Should NHTSA (a) permit, or (b) require CHMSLs to flash to indicate deceleration rate?

(2) If flashing CHMSL deceleration signals were allowed but installed on only a few vehicles, would drivers understand their meaning?

(3) Would the coexistence of flashing and steady-burning CHMSLs on the road create ambiguity? If the answer is yes, would the ambiguity be such as to diminish the effectiveness of the present steady-burning CHMSL?

(4) Are there better cues than flashing to signal deceleration, e.g., an increase in lamp size or intensity?

Idea No. 3: Use of Flashing CHMSLs To Identify a Stopped Vehicle

Two general conclusions of the research reports cited above are that most vehicles struck in rear-end crashes are stationary when they are struck and that inattention on the part of the driver of the striking vehicle is the prevailing cause of the crashes. These conclusions suggest that an attention-getting signal denoting a stopped vehicle has the potential to affect the conditions commonly involved in rear-end crashes. The potential value of a stopped vehicle signal was pointed out in the 1981 report, *Field Test Evaluation of Rear Lighting Deceleration Signals* (DOT HS–806–125), and the more recent NHTSA study of rear end crashes appears to support its reasoning.

At least two inventors have approached the agency with the idea that a flashing CHMSL of one or more compartments could also be used as a stopped-vehicle signal. The flashing lamp is intended to gain the attention of approaching drivers better than a steady-burning lamp and to present a signal distinct from the usual stop signal. One inventor suggested several other embellishments to the CHMSL that flashes to indicate a stopped vehicle. These included having the CHMSL automatically flash whenever the vehicle speed is less than 22 mph, regardless of braking; having the CHMSL automatically flash at a higher intensity if the brakes are applied with the vehicle traveling at less than 22 mph; having the CHMSL automatically flash at a still higher intensity coupled with a faster flash rate to denote hard braking; and having the CHMSL maintain the hard-braking signal for a duration of several minutes after a crash.

Once again, the requirement of Standard No. 108 that stop lamp be steady-burning is an impediment to allowing a flashing CHMSL signal for stopped or slow-moving vehicles. Also, the requirement that the CHMSL be activated only upon application of the service brakes prohibits any type of activation without brake use. In its interpretations of Standard No. 108 (e..g., letter to Ferguson, July 30, 1993), the agency has also said that the Standard prohibits a flashing auxiliary lamp, which was not intended to replace the standard CHMSL, because it could draw attention away from the required lamps and confuse their meaning. The inventors have urged the agency to change Standard No. 108 to allow the optional use of their stopped-vehicle signal devices.

The idea of an attention-getting signal for stopped vehicles is attractive because it is aimed at the large percentage of rear-end accidents involving the combined factors of driver inattention and the striking of a stopped vehicle. But it is far from certain that the idea is practical and would actually prevent accidents. The idea seems practical in light traffic on rural roads. A single vehicle with a flashing CHMSL should attract attention and convey to the vehicles behind that it has stopped, if their drivers understand the meaning of the flashing lamp. But picture the situation if most of the vehicles in a traffic jam on an urban interstate highway were equipped with a CHMSL that automatically flashed when they were stopped or moving slowly. At the very least, it would be extremely annoying to be confronted with the flashing lamps of hundreds of vehicles, and it is likely that a concentrated array of vehicles with flashing CHMSLs would make ordinary brake, turn or hazard warning signals much less noticeable.

It is difficult to determine the effectiveness of a device which may have different consequences if used universally by all vehicles on the road rather than in a small test fleet that is dispersed among the general vehicle population. Even a small test fleet study (which may cost about $750,000) is beyond the means of most inventors, and a major undertaking for the agency as well. In the case of the steady burning CHMSL, there were no potential safety disadvantages to its widespread use, but the level of benefits measured in fleet tests compared with follow up studies of accidents involving production vehicles suggest a novelty effect. Fleet tests of the CHMSL before it was required recorded reductions in rear-end accidents of about 50 percent. A follow-up evaluation by the agency after the CHMSL had been required equipment for a few years reported a 17 percent effectiveness for only those crashes that were police-reported, and a study by the Insurance Institute for Highway Safety reported only a 3 to 7 percent effectiveness.

The lower effectiveness can be attributed in part, to a smaller percentage of crashes being reported to police than are reported to researchers during a fleet study. It may also be that drivers have become accustomed to the CHMSL and no longer respond to it as quickly. NHTSA is now measuring its long-term effectiveness. However, the

CHMSL experience suggests that the results of fleet studies are no indication that the long term universal use of a safety device will achieve the same degree of beneficial results.

The following hypothetical example illustrates issues concerning the stopped-vehicle signal. The inventor and the research are imaginary, as are the hypothetical decisions of the agency.

Assume that an inventor makes a large investment in testing a fleet of vehicles with a flashing CHMSL stopped-vehicle signal and finds a reduction in accidents. He expects the agency to permit or possibly require his device. But the fleet study cannot address the issue of widespread use. The agency believes that the experiment demonstrates the potential of the signal, but does not address the annoyance factor and signal masking in urban stop-and-go traffic. The agency decides not to amend Standard No. 108 to permit the stopped-vehicle signal unless the stop-and- go traffic problems are effectively addressed based on its judgment that stop-and-go traffic problems would exist if the device were in widespread use. However, it does not invest public money in an attempt to show by special tests that the widespread use of the device would cause a problem in stop-and-go traffic. The inventor views the result as unjust because he believes that he has supplied supportive facts at great cost and has been thwarted by what he regards as opinion and conjecture on the part of the agency.

Taking the hypothetical example further, assume that the inventor later devises a way of solving the disadvantages of the stopped-vehicle signal in congested traffic, perhaps using rear-facing radar to turn off the signal after the vehicle behind has stopped. However, the improved device is too expensive relative to its probable benefits to justify its adoption as required equipment for new vehicles. The agency would remain interested in the idea in the hope that future technology or other solutions to its disadvantages in congested traffic will eventually lead to a practical and cost effective mandatory stopped-vehicle signal.

Relative to the stopped-vehicle signal, NHTSA requests that commenters address the following questions:

(1) Should NHTSA disregard the potential irritant and distraction of automatically flashing stopped-vehicle CHMSL signals to permit their optional use (a) on the basis of an intuitive expectation of benefits in some circumstances? (b) on the basis of a fleet test demonstration of benefits as discussed in the hypothetical example?

(2) Should the hypothetical improved, but not cost-effective flashing CHMSL signal be permitted as optional equipment? Will drivers understand the meaning of a CHMSL flashing under these circumstances since it is not standard equipment?

(3) In the hypothetical example, based on its judgement of the public interest, the agency declined to change a safety standard that conflicted with an inventor's desire to sell products. Also, the agency declined to perform costly research for the purpose of attempting to confirm its judgment that the device had undesirable side effects. The question is whether NHTSA should base decisions against the wishes of petitioners on its judgement alone when no test data are available. In short, should the agency spend public money on research solely in an attempt to generate data to test a judgment decision about a seemingly clear problem with a petitioner's invention?

Idea No. 4: Front ''Brake'' Lamp Systems

In its least costly form, a front ''brake'' lamp would use the front turn signal filament as a steady burning light to denote braking (but be overriden to indicate a turn, in the same manner as a combined red rear turn signal and stop lamp can indicate braking until the turn signal is activated). Thus, the front braking signal would be a bright amber lamp. The implementation is less simple than it appears because it would require wiring changes to present vehicles to prevent the deactivation of front side marker lamps wired to operate when the turn signals are activated (well nigh universal though not required by Standard No. 108), and to prevent the activation of amber rear turn signals during use of the front turn signal filaments as a steady braking signal.

In a more costly form, presented by some proponents, front ''brake'' lamps would be an additional pair of lamps, mounted at the front corners of the vehicle, and wired to operate with the red rear stop lamps.

Standard No. 108 does not expressly address front ''brake'' lamps. They would not be prohibited unless they interfered with the effectiveness of required front lighting equipment (paragraph S5.1.3). Unlike the other devices discussed, front ''brake'' lamps could be offered as optional equipment on new vehicles without further rulemaking. While the proponents of the other ideas are currently seeking amendments to permit optional use of their devices, the proponents of front ''brake'' lamps insist that they lamps be mandatory on new vehicles. Such a request in the form of a petition for rulemaking was recently denied (61 FR 10556).

The argument in favor of front ''brake'' lamps is that, by identifying the braking actions of a driver (driver A) to the drivers in front of him, oncoming drivers can better determine when driver A is yielding the right of way to them and the driver immediately ahead and going the same direction as driver A can better determine when driver A is failing to stop when necessary. According to the proponents, in the latter case, a driver stopped in traffic, seeing in the rear view mirror an approaching vehicle without a front braking signal, would be expected to sound the horn and vacate the lane.

The agency does not anticipate any benefit from the front ''brake'' lamp. Until every car in use is equipped with a front braking signal, a stopped driver seeing in the rear view mirror an approaching vehicle without the signal would not know with certainty what its absence meant and whether a collision was imminent. Even after full implementation, the agency does not expect any benefits. NHTSA believes that, while it could be wise in some circumstances for a stopped driver to sound the horn upon seeing a vehicle approaching from the rear without illuminated front ''brake'' lamps, taking evasive action is likely to lead to the higher risk of a side or head-on collision with another driver who has the right-of-way.

The agency also believes that the signal's activation would cause a dangerous disregard for State right-of-way laws at intersections by oncoming drivers who misinterpret the front stop signal on vehicles that have the right-of-way. Proponents of front ''brake'' lamps claim that their use will ''confirm'' the validity of a flashing turn signal, and thus allow drivers to determine at a distance whether a vehicle is surrendering the right-of-way. However, the use of signals does not cause a vehicle with the right-of-way to surrender it. The signaling driver is free to change his or her intentions, or the signal may be accidental. Consider the following scenario. A driver at a stop sign sees an approaching vehicle with the right-of-way displaying a turn signal and a front ''brake'' signal. The driver concludes that the front ''brake'' signal confirms the intent to turn, and pulls into the intersection. The operator of the other car, however, does not turn and a collision results. Perhaps the operator was slowing to check the name of the

street sign, with the intention of turning at a different street, or perhaps the turn signal was accidental and the braking unrelated. The likely result of widespread use of front braking lamps is not an enhancement of safety but an increase in traffic accidents due to a greater number of failures to yield the right of way. The only vehicles with a possible use for braking information about approaching vehicles are emergency vehicles which are allowed the right-of-way over all other vehicles on emergency runs.

NHTSA asks commenters to address the following questions about front ''brake'' lamp systems:

(1) Should NHTSA expressly prohibit front ''brake'' lamp systems?

(2) Should NHTSA take no action on the presumption that the public would not choose to have front ''brake'' lamps, even if they were offered?

NHTSA Policy Considerations About Vehicle Signal Lamps Suggested by the Public

Inventors who ask NHTSA to mandate their signal lamps as new vehicle equipment are often disappointed to learn that their idea is, in fact, not even allowed even as optional equipment because of restrictions in Standard No. 108 that either explicitly or implicitly prohibit them. Many of these ideas appear to be new but have been discussed for years, yet they have not been adopted because they are not permissible under Standard No. 108. The agency is willing to remove unintended impediments to the use of optional signal lamps if these are called to its attention, but it believes that the restrictions are necessary for motor vehicle safety. It is important that the integrity of the required signal lamps be maintained, and that auxiliary signal lamps not detract attention from the messages that the required signal lamps are sending. A vehicle signaling system must be as simple and as unambiguous as possible to others who share the roadway if traffic is to proceed in a safe and orderly fashion. As noted earlier, in many other countries, all auxiliary exterior lamps are expressly forbidden unless there is a specific regulation allowing it.

Reasonable people may differ with NHTSA's views on the importance of a standardized signaling system, and the agency's conclusion that their auxiliary signal lamp design impairs the effectiveness of lighting equipment required by Standard No. 108, not understanding why the effectiveness of the required lamps should be favored over their inventions.

Virtually all ideas suggested to NHTSA as safety improvements in vehicle signaling are based upon the intuition of the inventor, without any field data to support such intuition. NHTSA's prohibitive conclusions may seem intuitive as well, but the agency's decisions are based upon the criticality of maintaining standardization of vehicle signaling systems, and it does not conduct research solely for the purpose of verifying its intuition.

The value of standardization of signals is largely treated as axiomatic in vehicle safety literature. The agency's survey of literature, *Analytic Assessment of Motor Vehicle Rear Signaling Systems* (1969), contains a typical discussion:

> To be maximally distinctive, by definition, the pattern must be unique; if maximum accuracy and speed of interpretation are to be obtained, the pattern must be unambiguously informative. A variety of patterns, even if some or all are more or less distinctive, cannot be as effective as a single *standard* pattern. (p. 78)

Inventors must accept the fact that, when it is a question of the effect on required signals by auxiliary signals, NHTSA, the arbiter of the nation's traffic safety, is the proper party to make this judgment. It must be recognized also that this judgment is difficult to make, and must be made conservatively. The influence of many signaling ideas on driving behavior and crash causation is sufficiently subtle and the role of signaling systems in crash prevention and causation is sufficiently intertwined with that of other vehicle, driver and environmental factors that it is difficult to isolate and assess the effects of those ideas. Even if there were large sums of money available to the agency for conducting demonstration projects, the merits of one system versus another at full implementation would usually be hard to establish. Given the safety need to minimize the ambiguity in communication between drivers and the difficulty in establishing the ultimate net affect of changes in the signaling systems, the agency must be very cautious in permitting any changes.

Another aspect of the agency's exercise of its rulemaking authority is that EO 12866 requires that benefits exceed costs if that is not inconsistent with the statute under which a regulation is issued. As noted above, it is difficult to demonstrate the effectiveness of signaling devices intended to avoid collisions. NHTSA has used large scale fleet tests, at great expense, to demonstrate the effectiveness of such items as the CHMSL and conspicuity treatment which have become requirements of Standard No. 108. However, even fleet tests cannot answer questions about the consequences of the use of a device on all vehicles rather than on just a few. Even an inventor with a large test budget may have to defer to the judgment of NHTSA on an issue which may be unprovable.

Assuming that a suggested safety improvement is deemed cost effective and the agency wished to issue a rule adopting it as a requirement, 49 U.S.C. 30102(a)(9) dictates that the rule be expressed in terms of performance rather than design. Further, as a matter of policy, the agency is careful in its establishment of Federal Motor Vehicle Safety Standards not to adopt requirements for which compliance is dependent upon a patent that is not freely made available to all interested parties. These factors make it very unlikely that a patent holder would benefit if the agency were to issue a rule based generally upon an idea that the holder has suggested to the agency. Inventors who petition NHTSA in the expectation that the agency will issue rules creating a monopolistic market for their patents or devices, should be aware of probable outcome of their petitions before approaching the agency. In short, the rarity of cost-effective practical signal lighting ideas, the formidable task of proving their effectiveness, the existence of issues requiring NHTSA judgment, and the non-design nature of Standard No. 108 make it unlikely that an inventor will ever profit from a signal lamp suggestion.

Other issues are raised by petitions for rulemaking to amend Standard No. 108 to permit specific auxiliary signaling systems at the option of the vehicle manufacturer. One issue, as discussed above, is whether a signal without universal application will be meaningful to the motoring public or simply a source of confusion. NHTSA is also reluctant to allow an optional system to operate through an existing required lamp, (e.g., allowing a CHMSL to flash) because in the future the agency may wish to use the mode of operation of the optional system (e.g., flashing) for a cost-effective mandatory signal and find that public experience and familiarity with the existing use of that mode has the practical effect of precluding the use or at least making it more difficult to use that mode for another purpose. Above all, there is the importance that the agency ascribes to minimizing ambiguity through standardization, and the diminution of standardization that may result from the introduction of optional signaling systems.

The agency notes that it is not necessary for an inventor or manufacturer to seek an amendment of Standard No. 108 in order to perform a fleet test of a new signaling system. If a vehicle manufacturer wishes to produce a test fleet of vehicles incorporating lighting systems that may be prohibited by Standard No. 108, under 49 U.S.C. 30113(b)(3)(B)(ii) it may petition for a temporary exemption from compliance with Standard No. 108 on the basis that ''the exemption would make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to the safety level of the standard.'' Alternatively, if a fleet owner wishes to install the equipment on a fleet of vehicles in service, the owner may accomplish this modification in its own garage without violating Federal law. The prohibition of 49 U.S.C. 30122 against making inoperative safety equipment installed in compliance with a Federal motor vehicle safety standard applies to manufacturers, distributors, dealers, and motor vehicle repair businesses, but not to persons who modify their own vehicles in self-owned repair facilities.

The agency wishes to continue to receive suggestions for safety improvements from any source, even though few are likely to result in the incorporation of new requirements in Standard No. 108. However, petitioners should not have unrealistic expectations. They should understand that a petition for rulemaking does not obligate the agency to perform research on the effectiveness of the idea suggested. The agency's research plans flow from an internal process of defining priorities, formulating research plans, seeking appropriations, allocating available funds among the priorities and awarding research contracts. The effect of NHTSA's receipt of a petition for rulemaking is to cause the agency to begin evaluating the probability of the suggestion becoming a new requirement in a safety standard. This evaluation is based on information provided by the petitioner and other information the agency may have or obtain. Since few petitioners offer little more than speculation or testimonials about the effectiveness of their ideas, their petitions are unlikely to alter the agency's research priorities. Thus, the petitions are usually denied unless they relate to an existing agency research project.

Petitioners should also understand that the agency is statutorily required to publish a notice when it denies a petition. In that notice, the agency must explain the reasons for the denial, which may require a discussion on the possible disadvantages of the system for which rulemaking had been sought.

The agency believes that, in the long run, it would be more productive, both for inventors and the agency, if suggestions were presented to NHTSA's Office of Research and Development as candidates for future agency research. If the suggestions have merit, they can influence agency priorities and be included in research with the possibility of rulemaking at the conclusion of the research project. A petitioner who instead submits a petition is, more likely than not, likely to be frustrated in its dealings with NHTSA. It is the agency's hope that by explaining in this notice the factors that go into its decisions on lighting safety ideas, the public will have a clearer understanding of those factors and be guided thereby.

In summary, a petitioner seeking to persuade the agency to mandate a lighting invention for new vehicles bears the initial burden of establishing its safety value and cost effectiveness. The burden for those inventors seeking to make an invention optional is to convince the agency that the invention will not impair the effectiveness of required lighting equipment through creating ambiguity or negatively affecting standardization of signals.

The questions relating to these topics for which NHTSA seeks answers from the public are:

(1) (a) Should NHTSA permit all auxiliary signals, regardless of their nature, their effect on required signals (other than physical interference), or their effect on signal standardization?

(b) Should the agency permit the required signals only? Should the agency continue to prohibit auxiliary signals which, in its judgment, diminish the value of required, standard signals?

(2) If an auxiliary signal can be demonstrated to have some effectiveness, but not enough to support requiring it, should the agency attempt to balance this limited benefit against the desirability of standardized signals in determining whether to allow the auxiliary signal as optional equipment?

(3) Should NHTSA establish a policy to treat all new signal petitions as suggestions for future agency research if they do not present scientific evidence of effectiveness?

Rulemaking Analyses and Notices

Executive Order 12866 and DOT Regulatory Policies and Procedures

This rulemaking document was not reviewed under E.O. 12866, ''Regulatory Planning and Review.'' NHTSA has analyzed the impact of this rulemaking action and determined that it is not ''significant'' under the Department of Transportation's regulatory policies and procedures. NHTSA does not anticipate that new requirements would be imposed on manufacturers as a result of this request for comments. The main topic of the document is whether the agency should permit four types of signal lamps which, except for front signal lamps, have been suggested as optional rather than mandatory equipment.

Procedures for Filing Comments

Interested persons are invited to submit written comments, and answers to the questions posed above. Please submit comments in 10 copies to reduce duplicating costs to the government .

Comments must not exceed 15 pages in length (49 CFR 553.21). This limitation is intended to encourage commenters to detail their primary arguments in concise fashion. Necessary attachments, however, may be appended to those comments without regard to the 15-page limit.

If a commenter wishes to submit certain information under a claim of confidentiality, three copies of the complete submission including the purportedly confidential business information should be submitted to the Chief Counsel, NHTSA at the street address shown above, and seven copies from which the purportedly confidential information has been expunged should be submitted to the Docket Section. A request for confidentiality should be accompanied by a cover letter setting forth the information specified in 49 CFR 512, the agency's confidential business information regulation.

All comments received on or before the close of business on the comment closing date indicated above for the notice will be considered, and will be available to the public for examination in the docket at the above address both before and after the closing date. To the extent possible, comments received after the closing date will be considered by the agency in its decisions as to the issues raised in this notice. Comments on the notice will be available for public inspection in the docket. NHTSA will continue to file relevant information in the docket after the closing date, and it is recommended that interested persons continue to monitor the docket for new material.

Those persons desiring to be notified upon receipt of their comments in the rules docket should enclose a self-addressed stamped postcard in the envelope with their comments. Upon receiving the comments the docket

supervisor will return the postcard by mail.

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.50 and 501.8.

Issued on: December 10, 1996.

L. Robert Shelton,

Associate Administrator for Safety Performance Standards.

[FR Doc. 96–31747 Filed 12–10–96; 4:34 pm]

BILLING CODE 4910–59–P

Notices

Federal Register
Vol. 61, No. 241
Friday, December 13, 1996

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

Agricultural Research Service

Notice of Intent To Grant a Partially Exclusive Patent License

AGENCY: Agricultural Research Service, USDA.

ACTION: Notice of intent.

SUMMARY: Notice is hereby given that the U.S. Department of Agriculture, Agricultural Research Service, intends to grant an exclusive patent license in certain fields to Genespan Corporation of Redmond, Washington. The invention to be licensed is U.S. Patent 5,532,156, ''Hepatocyte Cell Line derived from the Epiblast of Pig Blastocysts,'' granted on July 1996.

DATES: Comments must be received on or before February 11, 1997.

ADDRESSES: Send comments to: USDA–ARS–Office of Technology Transfer, 10300 Baltimore Boulevard, Building 005, Room 401, BARC-W, Beltsville, Maryland 20705–2350.

FOR FURTHER INFORMATION CONTACT: Willard J. Phelps of the Office of Technology Transfer at the Beltsville address given above; telephone 301–504–6532.

SUPPLEMENTARY INFORMATION: The Federal Government's Patent rights to this invention are assigned to the United States of America, as represented by the Secretary of Agriculture. It is in the public interest to so license this invention as said company has submitted a complete and sufficient application for a license, promising therein to bring the benefits of said invention to the U.S. public. The prospective partially exclusive license will be royalty-bearing, will comply with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7. The prospective partially exclusive license may be granted unless, within sixty calendar days from the date of this published Notice, the Agricultural Research Service receives written evidence and argument which establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR 404.7.

Richard M. Parry, Jr.,
Assistant Administrator.

[FR Doc. 96–31638 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–03–M

Commodity Credit Corporation

Notice of Request for Extension and Revision of a Currently Approved Information Collection

AGENCY: Commodity Credit Corporation, USDA.

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice announces the Commodity Credit Corporation's intention to request an extension for and revision to a currently approved information collection in support of the Market Access Program, formerly the Market Promotion Program.

DATES: Comments on this notice must be received by February 11, 1997.

ADDITIONAL INFORMATION OR COMMENTS: Contact Sharon L. McClure, Director, Marketing Operations Staff, Foreign Agricultural Service, U.S. Department of Agriculture, 14th & Independence Avenue, SW., Washington, DC 20250–1042, (202) 720–4327.

SUPPLEMENTARY INFORMATION:

Title: Market Access Program.

OMB Number: 0551–0027.

Expiration Date of Approval: March 31, 1997.

Type of Request: Extension and revision of a currently approved information collection.

Abstract: The primary objective of the Market Access Program is to encourage the development, maintenance and expansion of commercial export markets for U.S. agricultural products through cost-share assistance to eligible trade organizations that implement a foreign market development program. Financial assistance under this program is made available on a competitive basis. Currently, there are more than 70 organizations participating directly in the program with activities in more than 100 countries. The Market access Program is administered by personnel of the Foreign Agricultural Service (FAS).

Prior to initiating program activities, Participants must submit detailed activity plans to FAS which include country strategies, goals and benchmarks, proposed activities, estimated budgets, and performance measurements. Each Participant is also responsible for submitting: (1) Reimbursement claims for costs incurred as outlines in the activity plans, (2) and end-of-year contribution report, (3) travel reports, and (4) program evaluations. Participants must maintain records on all information submitted to FAS. The information collected is used by FAS to manage, plan, evaluate and account for Government resources. The reports and records are required to ensure the proper and judicious use of public funds.

Estimate of Burden: Public reporting burden for this collection of information is estimated to average 77 hours per response.

Respondents: Non-profit organizations, state groups, cooperatives, and commercial entities.

Estimated Number of Respondents: 70

Estimated Number of Responses per Respondent: 17

Estimated Total Annual Burden on Respondents: 78,460.

Copies of this information collection can be obtained from Valerie Countiss, the Agency Information Collection Coordinator, at (202) 720–6713.

Request for Comments: Send comments regarding the accuracy of the burden estimate, ways to minimize the burden, including through the use of automated collection techniques or other forms of information technology, or any other aspect of this collection of information, to: Sharon L. McClure, Director, Marketing Operations Staff, U.S. Department of Agriculture, 14th & Independence Avenue, SW., STOP 1042, Washington, DC 20250–1042.

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, D.C. on November 18, 1996.

August Schumacher,

Administrator, Foreign Agricultural Service and Vice President, Commodity Credit Corporation.

[FR Doc. 96–31596 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–05–M

Forest Service

Winter Recreation Plan for the Lakes Basin/Sierra Buttes Area, Tahoe National Forest, Sierra County, CA

AGENCY: Forest Service, USDA.

ACTION: Cancellation of notice of intent to prepare an environmental impact statement.

This notice cancels the notice of intent that appeared in the Federal Register on Friday, February 3, 1995, on page numbers 6695 and 6696.

Jean M. Masquelier,

Downieville District Ranger.

[FR Doc. 96–31732 Filed 12–12–96; 8:45 am]

BILLING CODE 3410–11–M

ASSASSINATION RECORDS REVIEW BOARD

Sunshine Act Meeting

FEDERAL REGISTER CITATION OF PREVIOUS ANNOUNCEMENT: Sunshine Act Meeting Notice, 61 Fed. Reg. 64,857 (1996).

PREVIOUSLY ANNOUNCED TIME AND DATE OF THE MEETING: December 17, 1996, 11:00 a.m. ARRB, 600 E Street, NW., Washington, DC.

CHANGES IN THE MEETING: Open meeting rescheduled for January 9, 1997, 1:30 p.m. ARRB, 600 E Street, NW., Washington, DC.

CONTACT PERSON FOR MORE INFORMATION: Eileen Sullivan, Assistant Press and Public Affairs Officer, 600 E Street, NW., Second Floor, Washington, DC 20530. Telephone: (202) 724–0088; Fax: (202) 724–0457.

David G. Marwell,

Executive Director.

[FR Doc. 96–31855 Filed 12–11–96; 2:46 pm]

BILLING CODE 6118–01–M

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List Proposed Additions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Proposed additions to Procurement List.

SUMMARY: The Committee has received proposals to add to the Procurement List commodities and services to be furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

COMMENTS MUST BE RECEIVED ON OR BEFORE: January 13, 1997.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, Crystal Square 3, Suite 403, 1735 Jefferson Davis Highway, Arlington, Virginia 22202–3461.

FOR FURTHER INFORMATION CONTACT: Beverly Milkman, (703) 603–7740.

SUPPLEMENTARY INFORMATION: This notice is published pursuant to 41 U.S.C. 47(a)(2) and 41 CFR 51–2.3. Its purpose is to provide interested persons an opportunity to submit comments on the possible impact of the proposed actions.

If the Committee approves the proposed additions, all entities of the Federal Government (except as otherwise indicated) will be required to procure the commodities and services listed below from nonprofit agencies employing persons who are blind or have other severe disabilities. 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 commodities and services to the Government.

2. The action does not appear to have a severe economic impact on current contractors for the commodities and services.

3. The action will result in authorizing small entities to furnish the commodities and services to the Government.

4. 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 commodities and services proposed for addition to the Procurement List.

Comments on this certification are invited. Commenters should identify the statement(s) underlying the certification on which they are providing additional information.

The following commodities and services have been proposed for addition to Procurement List for production by the nonprofit agencies listed:

Commodities

Bib Overall, Fleece
8415–00–NSH–0332
8415–00–NSH–0333
8415–00–NSH–0345 thru –0356
(Requirements for the U.S. Army Soldier Systems Command, Natick, Massachusetts)
NPA: Peckham Vocational Industries, Inc., Lansing, Michigan

Jacket, Fleece
8415–00–NSH–0334
8415–00–NSH–0357 thru –0361
(Requirements for the U.S. Army Soldier Systems Command, Natick, Massachusetts)
NPA: Peckham Vocational Industries, Inc., Lansing, Michigan.

Shirt, Fleece
8415–00–NSH–0330
8415–00–NSH–0331
8415–00–NSH–0337 thru –0344
(Requirements for the U.S. Army Soldier Systems Command, Natick, Massachusetts)
NPA: Peckham Vocational Industries, Inc., Lansing, Michigan.

Trousers, Fleece
8415–00–NSH–0335
8415–00–NSH–0336
8415–00–NSH–0362 thru –0367
(Requirements for the U.S. Army Soldier Systems Command, Natick, Massachusetts)
NPA: Peckham Vocational Industries, Inc., Lansing, Michigan.

Services

Administrative Services
General Services Administration, PBS, Tucson Field Office, Tucson, Arizona.
NPA: J.P. Industries, Inc., Tuczon, Arizona.

Administrative Services
GSA Field Offices for the following Los Angeles, California locations:
888 S. Fugueroa
300 N. Los Angeles Street
312 N. Spring Street
NPA: Elwyn, Inc., Fountain Valley, California.

Administrative Services
Honolulu Property Management Office, Prince Kuhio Federal Building, 300 Ala Moana Boulevard, Honolulu, Hawaii.
NPA: Goodwill Industries of Honolulu, Inc., Honolulu, Hawaii.

Duplication and Distribution of Computer Output Microfilm
Social Security Administration, Office of Acquisitions and Grants, Baltimore, Maryland.
NPA: Alliance, Inc., Baltimore, Maryland.

G. John Heyer,

General Counsel.

[FR Doc. 96–31733 Filed 12–12–96; 8:45 am]

BILLING CODE 6353–01–P

Procurement List Additions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Additions to the Procurement List.

SUMMARY: This action adds to the Procurement List commodities and services to be furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

EFFECTIVE DATE: January 13, 1997.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, Crystal Square 3, Suite 403, 1735 Jefferson Davis Highway, Arlington, Virginia 22202–3461.

FOR FURTHER INFORMATION CONTACT: Beverly Milkman, (703) 603–7740.

SUPPLEMENTARY INFORMATION: On September 27, October 18 and 25, 1996, the Committee for Purchase From People Who Are Blind or Severely Disabled published notices (61 F.R. 50804, 54417 and 55268) of proposed additions to the Procurement List.

After consideration of the material presented to it concerning capability of qualified nonprofit agencies to provide the commodities and services and impact of the additions on the current or most recent contractors, the Committee has determined that the commodities and services listed below are 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 commodities and services to the Government.

2. The action will not have a severe economic impact on current contractors for the commodities and services.

3. The action will result in authorizing small entities to furnish the commodities and services to the Government.

4. 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 commodities and services proposed for addition to the Procurement List.

Accordingly, the following commodities and services are hereby added to the Procurement List:

Commodities

Tow Pin
3910–01–000–3015
Towel, Paper
7920–00–823–6931

Services

Administrative Services
Defense Reutilization and Marketing Office, Building 4291, Fort Hood, Texas.
Janitorial/Custodial
Buildings 1017, 1018, 1019, 1020, 37506, 37507 and 37508, Kirtland Air Force Base, New Mexico.
Mailroom Operation
Department of Health and Human Services, Gateway Building, Philadelphia, Pennsylvania.
Medical Transcription
Naval Hospital, Corpus Christi, Texas.

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.

G. John Heyer,

General Counsel.

[FR Doc. 96–31734 Filed 12–12–96; 8:45 am]

BILLING CODE 6353–01–P

DEPARTMENT OF COMMERCE

Submission for OMB Review; Comment Request

DOC has submitted to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act of 1995, Pub. L. 104–13.

Agency: International Trade Administration.

Title: Survey of International Air Travelers (In-Flight Survey).

Form Number: Not applicable.

OMB Number: 0605–0007 (new number to be assigned since this survey, previously conducted by the United States Travel and Tourism Administration, will now be conducted ITA.

Type of Review: Renewal-Regular submission.

Burden: 24,840 hours.

Number of Respondents: 165,000.

Avg. Hour Per Response: 15 minutes.

Needs and Uses: The International Trade Administration, Tourism Industries office ''Survey of International Air Travelers'' is the only source for estimating international travel and passenger fare exports and imports for this country. This program also supports the U.S. Department of Commerce, Bureau of Economic Analysis mandate to collect and report this type of information which is used to calculate GDP for the United States. This project also serves as the core data source for Tourism Industries. Numerous reports and analyses are developed to assist businesses in increasing U.S. exports in international travel. An economic impact of international travel on state economies, visitation estimates, traveler profiles, presentations and reports are generated by Tourism Industries to help the federal government agencies and the travel industry better understand the international market. It is also a service that the U.S. Department of Commerce provides to travel industry businesses seeking to increase international travel and passenger fare exports for the country. It provides the only comparable estimates of non-resident visitation to the states and cities within the U.S., as well as U.S. resident travel abroad. Traveler characteristics data are also collected to help travel related businesses better understand the international travelers to and from the U.S. so they can developed targeted marketing and other planning related materials.

Affected Public: International travelers departing the United States 18 years or older which includes U.S. and non-U.S. residents.

Frequency: Monthly.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Victoria Wassmer, (202) 395–7340.

Copies of the above information collection proposal can be obtained by calling or writing Linda Engelmeier, Acting DOC Forms Clearance Officer, (202) 482–3272, Department of Commerce, Room 5327, 14th and Constitution Avenue, NW., Washington, DC 20230.

Written comments and recommendations for the proposed information collection should be sent to Victoria Wassmer, OMB Desk Officer, Room 10202, New Executive Office Building, Washington, DC 20503.

Dated: December 3, 1996.

Linda Engelmeier,

Acting Departmental Forms Clearance Officer, Office of Management and Organization.

[FR Doc. 96–31587 Filed 12–12–96; 8:45 am]

BILLING CODE: 3510–DR–P

Bureau of Export Administration

Materials Technical Advisory Committee; Notice of Partially Closed Meeting

A meeting of the Materials Technical Advisory Committee will be held

January 9, 1997, 10:30 a.m., Herbert C. Hoover Building, Room 1617M–2, 14th Street between Constitution & Pennsylvania Avenues, N.W., Washington, D.C. The Committee advises the Office of the Assistant Secretary for Export Administration with respect to technical questions that affect the level of export controls applicable to materials and related technology.

Agenda:

General Session

1. Opening remarks by the Chairman.
2. Presentation of papers or comments by the public.
3. Discussion on Office of Exporter Services outreach program.
4. Review of Nuclear Proliferation Export Control of materials usable for production of isotope separation centrifuges.
5. Remarks and discussion on Biological Weapons Convention inspection proposals.
6. Briefing on October 7–8 workshop on ''Sampling and Analysis for Compliance Monitoring of the Biological Weapons Convention.''
7. Discussion on definitions of terms used in the Biological Weapons Convention Ad Hoc Group.
8. Election of new Chairperson.
9. Remarks on Bureau of Export Administration initiatives.

Executive Session

10. Discussion of matters properly classified under Executive Order 12958, dealing with U.S. export control programs and strategic criteria related thereto.

The General Session of the meeting will be open to the public and a limited number of seats will be available. To the extent time permits, members of the public may present oral statements to the Committee. Written statements may be submitted at any time before or after the meeting. However, to facilitate distribution of public presentation materials to the Committee members, the materials should be forwarded two weeks prior to the meeting to the address below: Ms. Lee Ann Carpenter, TAC Unit/OAS/EA Room 3886C, Bureau of Export Administration, U.S. Department of Commerce, Washington, D.C. 20230.

The Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on March 13, 1996, pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, that the series of meetings or portions of meetings of the Committee and of any Subcommittee thereof, dealing with the classified materials listed in 5 U.S.C. 552(c)(1) shall be exempt from the provisions relating to public meetings found in section 10(a)(1) and (a)(3) of the Federal Advisory Committee Act. The remaining series of meetings or portions thereof will be open to the public.

A copy of the Notice of Determination to close meetings or portions of meetings of the Committee is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6020, U.S. Department of Commerce, Washington, D.C. For further information or copies of the minutes call (202) 482–2583.

Dated: December 9, 1996.

Lee Ann Carpenter,

Director, Technical Advisory Committee Unit.

[FR Doc. 96–31601 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–DT–M

International Trade Administration

[A-403-801]

Fresh and Chilled Atlantic Salmon From Norway, Final Results of Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

ACTION: Notice of Final Results of Antidumping Duty Administrative Review.

SUMMARY: On September 26, 1995, the Department of Commerce (the Department) published the preliminary results of its administrative review of the antidumping duty order on fresh and chilled Atlantic salmon from Norway. The review covers 24 exporters, and the period April 1, 1993, through March 31, 1994. Based on our analysis of the comments received, we determine the dumping margins for two of the reviewed exporters, Skaarfish A/S (Skaarfish) and Norwegian Salmon A/S (Norwegian Salmon), have changed.

EFFECTIVE DATE: December 13, 1996.

FOR FURTHER INFORMATION CONTACT: Todd Peterson or Thomas Futtner, Office of Antidumping Compliance, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230; telephone (202) 482-4106, or 482-3814, respectively.

SUPPLEMENTARY INFORMATION:

Applicable Statute and Regulations

The Department is conducting this review in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act). Unless otherwise indicated, all citations to the statute and to the Department's regulations are in reference to the provisions as they existed on December 31, 1994.

Background

On September 26, 1995, the Department published the preliminary results (60 FR 49579) of its administrative review of the antidumping duty order on fresh and chilled Atlantic salmon from Norway (April 12, 1991, 56 FR 14920). The Department has now completed this administrative review in accordance with section 751 of the Act.

Scope of the Review

The merchandise covered by this review is fresh and chilled Atlantic salmon (salmon). It encompasses the species of Atlantic salmon (Salmo salar) marketed as specified herein; the subject merchandise excludes all other species of salmon: Danube salmon; Chinook (also called ''king'' or ''quinnat''); Coho (''silver''); Sockeye (''redfish'' or ''blueback''); Humpback (''pink''); and Chum (''dog''). Atlantic salmon is whole or nearly whole fish, typically (but not necessarily) marketed gutted, bled, and cleaned, with the head on. The subject merchandise is typically packed in fresh water ice (chilled). Excluded from the subject merchandise are fillets, steaks, and other cuts of Atlantic salmon. Also excluded are frozen, canned, smoked or otherwise processed Atlantic salmon. Fresh and chilled Atlantic salmon is currently provided for under Harmonized Tariff Schedule (HTS) subheading 0302.12.00.02.09. The HTS item number is provided for convenience and Customs purposes. The written description remains dispositive.

Cost of Production and Foreign Market Value

We calculated the cost of production (COP) of salmon sold by each exporter based on the sum of the following: (1) The simple average of farmers' costs of cultivation (COC) (which included the cost of materials, fabrication, wellboat services, general expenses of the farmer, and any applicable fees); (2) processing expenses; and (3) each exporter's general expenses. The total COP was calculated on a Norwegian kroner per kilogram (NOK/kg) basis.

Based on the comments presented by both respondents and petitioner, and after further consideration and review, we have revised certain costs as detailed in the comments below.

We calculated foreign market value (FMV) based on c.i.f., duty paid prices to unrelated third country purchasers. We deducted, where appropriate, third country inland freight, air freight, inland/marine insurance, Norwegian export taxes, brokerage and handling, inland freight in Norway, and third country import duties. We made circumstance of sale adjustments, where appropriate, for differences in credit, commissions, and warranty expenses.

United States Price

We calculated the United States Price (USP) based on the price from the Norwegian exporter to unaffiliated parties where these sales were made prior to importation into the United States, in accordance with section 772(a) of the Act.

We calculated the USP based on packed, ex-factory prices to unaffiliated purchasers in the United States. We made deductions, where appropriate, for foreign inland freight, brokerage and handling, Norwegian export taxes, U.S. duties, and air freight in accordance with section 772(d)(2) of the Act. No other adjustments were claimed or allowed.

Analysis of Comments Received

We invited interested parties to comment on the preliminary results. We received timely comments from two of the respondents, Skaarfish Group and Norwegian Salmon, and the petitioner, the Coalition for Fair Atlantic Salmon Trade (FAST).

General Comments

Comment 1: Respondents contend that in establishing each respondent's cost of production the Department should use the acquisition prices from the unrelated fish farms rather than the farmer's cost of cultivation. By using the farmer's cost of cultivation, the respondents contend that the Department is departing from its practice of relying on acquisition prices in establishing COP when the supplier is not related to the respondent. Respondents claim that the Department erred in determining that fish farmers are the producers of the subject merchandise. According to respondents, the fish farmers produce live salmon, which respondents consider to be an input of the subject merchandise and outside the scope of the dumping order. Respondents claim that the live salmon input is transformed into merchandise covered by the scope of the order only through processing by the respondents. Respondents cite *Consolidated International Automotive, Inc.* v. *United States*, 809 F. Supp. 125, 128 n. 4 (CIT 1992) to demonstrate that, unless the sale of the input is by a related party, the courts uphold the use of acquisition prices in determining COP for a respondent.

Petitioner argues that the Department properly used the farms' costs of cultivation to establish the subject merchandise's cost of production. Petitioner points out that the Department rejected these same arguments in past administrative reviews and should continue to reject the argument that salmon is an input into the subject merchandise as there are no new facts or legal authority to justify a change in approach.

Department's Position: We consider the live salmon, produced by the fish farmers and sold to exporters such as Skaarfish and Norwegian Salmon, to be the same merchandise as is covered by the antidumping duty order, but at an earlier stage of production. Accordingly, live salmon is not an input but rather identical merchandise before it has been made ready for sale and shipment. Consequently, respondents' reliance on the *Consolidated International Automotive* decision is misplaced.

As was found in the less-than-fair-value (LTFV) investigation and first administrative review, Skaarfish continues to process a portion of its fish farm-sourced live salmon by gutting, cleaning, and packaging it. Norwegian Salmon, and in some cases Skaarfish, purchase and resell salmon that is already gutted and cleaned by the fish farmers. There is no transformation of merchandise outside the scope of the order to merchandise within the scope of the order as suggested by respondents. Instead, respondents are acting primarily as a reseller by merely preparing the merchandise for trans-Atlantic shipment. To determine the cost of producing salmon, Commerce properly reviewed respondents' costs as well as the fish farms' cost of cultivation.

Comment 2: The respondents argue that if the Department continues to use its cost of production methodology, the Department should develop an alternate methodology for selecting salmon farms. They contend that the current methodology is designed to determine the hypothetical costs of growing live salmon in Norway rather than to determine the salmon costs of a specific respondent. Furthermore, they allege that the methodology gives no consideration to the burdens placed on the respondents resulting from the investigation of unrelated live salmon suppliers. They further allege that inconsistent selection practices occurred when the Department chose not to sample the farms of one respondent, but chose to sample the farms of the other respondent. Respondents argue that the Department should adopt a standard selection methodology that does not place a financial burden on the respondents.

Petitioner argues that the Department's sampling methodology is correct. Petitioner points out that the Department's methodology ensured that farms were proportionately represented based on the quantity of salmon supplied to each respondent. Petitioner argues that the statute supports the Department's decision to sample one respondent and not another.

Department's Position: We disagree with respondents. Respondents are incorrect to contend that the current methodology is designed to determine the hypothetical costs of growing live salmon in Norway rather than to determine the salmon costs of a specific respondent. By choosing to sample only those farms that supplied each exporter, the Department is ensuring that the calculated costs of growing live salmon are representative of that specific exporter.

The Department is aware that all administrative reviews place a degree of burden on respondent firms. The Department intends to keep those burdens manageable for both the respondents and itself. Under section 777A of the Act, the Department has the discretion to sample respondents. In deciding whether to sample, the Department determined that it was both administratively necessary and methodologically appropriate to sample among the 50 salmon farmers that supplied Skaarfish A/S, but unnecessary to sample the nine salmon farmers that supplied Norwegian Salmon.

Comment 3: Respondents argue that the Department's use of best information available (BIA) should be revised to realistically reflect the unique circumstances present in the review. Respondents contend that they have no leverage over unrelated suppliers who have no interest in the antidumping administrative review. Thus, the unrelated suppliers have no incentive to supply confidential cost data. Respondents propose that non-responding farms should be disregarded from the sample. Alternatively, they argue that as BIA, the Department should use the average COC of the responding farms rather than the COC of the highest farm. Respondents point to *Allied-Signal Aerospace Co.* v. *United States*, 28 F.3d 1188 (Fed. Cir. 1994) to demonstrate that the Department has the authority to adopt different approaches when applying BIA.

Petitioner contends that the Department correctly applied BIA to the unique circumstances of this review. Petitioner contends that the salmon farmers do have a significant interest at stake in participating in antidumping reviews. The salmon farmers are aware of the effect that failing to respond has on the exporter's ability to sell their salmon to the United States.

Department's Position: For Norwegian Salmon, we applied BIA to six of the

nine farms, because those six did not submit questionnaire responses. For Skaarfish, we applied BIA to four of the 13 farm selections, because those four did not submit questionnaire responses. We chose as BIA the highest calculated COC of the responding farms and applied that COC to each of the nonresponding farms.

Under section 776(c) of the Act, the Department has the authority to use BIA ''whenever a party or any other person refuses or is unable to produce information requested.'' Thus, the Department may resort to BIA not only when a party ''refuses,'' but also when a party is ''unable'' to provide the requested information, for whatever reason. The *Allied Signal* decision to which respondents refer affirmed the Department's application of BIA to a non-recalcitrant party which was unable to provide requested data.

The elimination of non-responding farms from the sample, as respondents advocate, would reward non-responding farms and could encourage non-compliance in future reviews. Moreover, it would impair the integrity of the sample because it would detract from the randomness of the results. Therefore, we continue to apply the same BIA rules applied in the preliminary results.

Comment 4: Respondents argue that the Department should apply the 50-90-10 rule used with highly perishable products rather than the 10-90-10 rule in determining when to disregard below-cost sales from the calculation of FMV. Respondents contend that salmon is a highly perishable product and that the salmon industry cannot respond quickly to changing market conditions and must sell the salmon when the salmon reach maturity. Respondents cite *Certain Fresh Winter Vegetables from Mexico*, 45 FR 20512 (March 28, 1980) (*Vegetables*); *Fall Harvested Round White Potatoes from Canada*, 48 FR 51669 (November 10, 1983) and *Fresh Cut Flowers from Mexico*, 55 FR 12696 (April 5, 1990) to support their position.

Petitioner contends that the Department correctly applied the 10/90/10 test because the subject merchandise is not a highly perishable product as defined by the Department in *Vegetables*. Petitioner points out that, unlike *Vegetables*, the respondents in this case can control the time of sale of the subject merchandise. In addition, the subject merchandise is alive and not deteriorating at the time of the sales transaction.

Department's Position: We agree with petitioner. As we have explained in prior reviews of this order, under the 10/90/10 test, we do not disregard sales if less than 10 percent are below cost and made over an extended period of time; we disregard sales only if between 10 and 90 percent are below cost, and we disregard all sales if more than 90 percent are below cost. In past cases, the Department has used the 50/90/10 test in cases involving highly perishable agricultural products. Under a 50/90/10 test, the Department would not disregard any below-cost sales unless more than 50 percent of sales were below cost.

We believe that fresh and chilled Atlantic salmon is *not* a highly perishable product. As we found in the original LTFV investigation and first administrative review, farmers have the ability to control the time of sale of their output without materially affecting the quality of the merchandise. It is not unusual for farmers to delay sales for an extended period of time until they receive a favorable price offer. Moreover, exporters have the ability to coordinate future salmon purchases with farmers to coincide with demand and processing capabilities. Accordingly, application of the 50-90-10 rule is not relevant in this case.

Comment 5: Norwegian Salmon and petitioner maintain that the Department should correct a computer error in the margin calculations for Norwegian Salmon where an expense, of a proprietary nature, was incorrectly deducted twice from foreign market value.

Department's Position: We agree and have corrected this clerical error by eliminating the double deduction.

Comment 6: Respondent argues that the Department used the incorrect tax methodology to adjust for Norwegian export tax in the preliminary results for Norwegian Salmon.

Petitioner claims that the Department simply did not subtract Norwegian Salmon's export tax from its reported U.S. sales prices.

Department's Position: We agree with petitioner and corrected this error. Section 772 of the Act and section 353.41 of the Department's regulations state that the export tax should be subtracted from U.S. price. See 19 U.S.C. 1677a(d)(2)(B) and 19 C.F.R. 353.41(d)(2)(ii).

Comment 7: Petitioner contends that the Department incorrectly stated in its September 26, 1995, Analysis Memorandum that there were no third country sales below cost and, therefore, there were no disregarded sales. However, according to the computer program, sales were disregarded because Norwegian Salmon made third country sales below the cost of production.

Norwegian Salmon contends that the Department incorrectly compared Norwegian Salmon's third country sales to the cost of production on a month-by-month basis rather than on a POR-model basis. Respondent claims that the Department's computer program treats each month as a model rather than comparing the one model of salmon to the COP for the entire POR.

Department's position: We agree with both petitioner and respondent. The Department incorrectly stated in the Analysis Memorandum that there were no sales below the cost of production and, therefore, there were no disregarded sales. Rather, the cost test results indicated that third country sales made below cost should be disregarded in its calculations for the preliminary results. For the final results, however, we discovered that the calculation of above- and below-cost data, used in the preliminary results, was inaccurate due to an error in the computer program. This error has been corrected for these final results.

Also, the Department did incorrectly treat each month of the POR as a model, as asserted by respondent. The Department has corrected this error. Sales of salmon are now compared to the cost of production on a POR basis.

Norwegian Salmon Farm Specific Issues

Farm B

Comment 8: Petitioner contends that the Department's calculations understated the feed costs for Farm B because they failed to incorporate revised information contained in the verification report.

Norwegian Salmon argues that the Department correctly stated and allocated feed costs for Farm B. Respondent contends that the lower feed costs used by the Department in its preliminary results are correct because we also revised the total harvest weight of the 1992 generation salmon downward.

Department's Position: We agree with petitioner. In its preliminary results, the Department failed to use the revised, higher total feed costs that were based on information gathered at verification. This error has been corrected. The respondent is incorrect that the revised harvest quantities affect the total feed costs Farm B incurred. *See* Farm B, Verification of Cost of Production, December 12, 1994.

Comment 9: Petitioner contends that there were no costs reported for the 1992 generation salmon sold in calendar year 1994. As a result, the net production quantity for Farm B was overstated due to the fact that there

were 1992 generation salmon sales in 1994, but no associated 1994 costs reported for the 1992 generation salmon. Petitioner advocates using only the total quantity of 1992 generation salmon that was produced in 1992 and 1993 in the COC calculation.

Norwegian Salmon contends that the salmon sold in 1994 were produced in 1992 and 1993. According to Norwegian Salmon, the COC figures already include costs for the salmon that were sold in 1994, and therefore no adjustment is needed.

Department's Position: We agree in part with both petitioner and respondent. Petitioner is correct that there are no costs reported for those 1992 generation salmon sold in 1994. However, as respondent pointed out, the costs associated with the 1992 generation were reported for 1992 and 1993. The net production quantities do not need to be modified since the quantities produced in 1992 and 1993 and their respective costs are not in question. Therefore to make the production costs and production quantities correspond to the same period of time, we corrected the total harvest quantity by eliminating the 1992 generation salmon harvested in 1994.

Comment 10: Petitioner contends that an extraordinary expense item found in Farm B's 1993 general ledger should be included in Farm B's 1993 cost calculations just as a similar 1992 extraordinary expense item found in its 1992 general ledger was included in Farm B's 1992 cost calculations.

Norwegian Salmon argues that the Department correctly excluded the extraordinary expense item in the calculation of Farm B's COC. Respondent argues that Farm B, participating in its first administrative review, incurred an extraordinary expense when it could not collect on accounts receivable as a result of the Norske Fiskeoppdretternes Salgslag (FOS) bankruptcy in 1991. Thus, respondent claims that this extraordinary expense, although appearing in 1993's general ledger, does not affect the COC of the 1992 generation salmon under review.

Department's Position: We agree in part with both the petitioner and respondent. The petitioner is correct that since the extraordinary expense appears in Farm B's general ledger as an expense, it should increase Farm B's COC. While respondent classifies this expense as an ''extraordinary''expense, it clearly does not meet the generally accepted definition of an extraordinary expense. According to generally accepted accounting practices, write-down and write-off of receivables and inventory are not extraordinary because they relate to normal business operational activities. Following the practice set in *Fresh and Chilled Atlantic Salmon From Norway: Final Results of Antidumping Administrative Review,* (58 FR 37912), comment 18, these expenses are not considered extraordinary and are included as a component of the cost of cultivation. This expense, however, is clearly not related to the 1992 generation salmon under review since the FOS bankruptcy occurred before the 1992 generation salmon were put in the water. If Farm B was involved in a previous review where this bad debt expense was associated with the generation of salmon under review, the expense would be included in the COC of that POR. Therefore, we excluded this expense from the COC for the products currently under review.

Comment 11: Petitioner contends that several overhead cost items reported by Farm B should be added to, and not excluded from, costs associated with the 1992 generation under review.

Norwegian Salmon contends that the Department correctly allowed certain overhead cost items to be deducted from Farm B's cost of cultivation.

Department's Position: We agree with the respondent. Although the Department did not verify these specific journal entries, we verified the accuracy and integrity of Farm B's audited financial statements, of which these specific entries are a part. Thus, in accepting the whole, we accept the individual entries as presented by the respondent, unless otherwise noted.

Farm C

Comment 12: Petitioner contends that the indemnity reported by Farm C was not correctly reflected in the COC calculations. Petitioner claims that the indemnity should be allocated to both 1991 and 1992 generation salmon rather than to just 1992 generation salmon. Furthermore, if the indemnity is accepted by the Department, the associated loss must also be accounted for in the cost calculations.

Norwegian Salmon argues that the Department correctly deducted and allocated Farm C's indemnity. Respondent states that the indemnity was not allocated to the 1991 generation because 1991 generation salmon were at another location and were not affected by the underwater detonations which caused the salmon loss. Respondent states that all costs associated with the loss of salmon were fully accounted for in Farm C's COC.

Department's Position: We note that Farm C received an indemnity to compensate it for damage caused to its salmon farm by underwater detonations. We agree that the indemnity was correctly allocated only to the 1992 generation as the 1991 generation was kept at a different location and not affected by these underwater detonations. However, we failed to include Farm C's salmon loss, as it appears in its 1993 financial statements, in its COC calculations. We have corrected this oversight by offsetting the indemnity received by the loss claimed in Farm C's 1993 income statement.

Comment 13: Petitioner contends that according to the October 28, 1994, supplemental questionnaire response and Farm C's verification report, the Department used incorrect feed costs and marketing expenses for Farm C.

Department's position: The Department agrees and has used the revised feed costs and marketing expenses found in the October 28, 1994, supplemental questionnaire response and Farm C's verification report in the cost of cultivation calculation.

Skaarfish Farm Specific Issues

Farm A

Comment 14: Petitioner contends that the smolt costs that we used in our calculations for Farm A were understated because the credit costs incurred by the related smolt supplier of Farm A were not included in the analysis.

Skaarfish maintains that Farm A did not understate the costs of financing the smolt purchases from its related supplier. Respondent argues that under the terms of delivery, if Farm A was granted a longer period of time for payment, the financing cost associated with that longer period was reflected in the higher unit price for the smolt.

Department's Position: We agree with respondent. The Department verified the unit price of smolt purchased from Farm A's supplier. In an arm's length transaction, those prices reflect the total costs incurred by Farm A. We, therefore, used the respondent's reported smolt prices in the calculation of Farm A's cost of cultivation.

Comment 15: Petitioner contends that the Department should use the smolt costs contained in the Farm A verification report rather than the smolt costs found in Farm A's general ledger.

Respondent argues that the two smolt amounts differ because the one in the verification report includes the 20 percent value-added tax while the amount found in the general ledger does not.

Department's Position: We agree with respondent. As noted in the verification

report, the correct smolt expense is found in the general ledger, net of the value-added tax.

Farm E

Comment 16: Petitioner contends that the Department should use the smolt costs discovered at verification for Farm E.

Respondent maintains that Farm E correctly accounted for its smolt costs. Respondent maintains that the amount petitioner is arguing in favor of includes the value-added tax which does not belong in the Department's cost calculations.

Department's Position: We agree with respondent. The correct smolt expense is found in the general ledger, net of the value-added tax.

Farm G

Comment 17: Petitioner contends that the Department incorrectly did not include any processing costs for Farm G.

Department's Position: We agree and have included the appropriate processing costs for Farm G. We also discovered that an incorrect processing cost was used for the farms that did not submit processing costs. We replaced the processing cost used in the preliminary results with the adjusted processing cost provided by Skaarfish in its August 11, 1994 submission.

Comment 18: Petitioner contends that the Department should not allow the use of warranty expense data submitted by Skaarfish during verification because it is new and unsolicited information. Furthermore, petitioner claims that the use of this information constitutes a double counting of warranty expenses. To demonstrate the double counting, petitioner points to the August 25, 1994, questionnaire response where Skaarfish stated: ''To the best of our knowledge and belief there were no warranty expenses for sales to France during the POR. In any event, a warranty will normally result in a credit-note/price-reduction to the customer and is therefore covered by the reported unit prices.''

Skaarfish argues that the Department has a long-standing policy to accept corrections of previously submitted information at verification. The error in reporting warranty expense information was a result of a misunderstanding between company officials in France regarding what constituted a warranty expense. Respondent claims that the error did not amount to a comprehensive error or misstatement of fact, nor was the information hidden or misrepresented during verification (*citing Disposable Pocket Lighters From the People's Republic of China,* 60 FR 22359, 22365 (May 5, 1995).) Furthermore, respondent argues that there is no evidence on the record to suggest a similar warranty expense on U.S. sales.

Department's Position: We agree with respondent. At verification Skaarfish discovered that there was a misunderstanding concerning warranty expenses in the compilation of its questionnaire response. To correct the mistake, Skaarfish submitted third country warranty expense data at verification. It is the Department's practice to accept corrections of previously submitted information at verification as long as those errors are not comprehensive or exhibit a systematic misstatement of fact. (*See Sulfur Dyes, Including Sulfur Vat Dyes, From the People's Republic of China,* 58 F.R. 7537 (February 8, 1993).) Furthermore, the Department verified the accuracy of the French warranty data.

Comment 19: Petitioner contends that the Department should correct the methodology Skaarfish used to allocate depreciation costs. Petitioner argues that Skaarfish allocated depreciation expenses to common areas and to non-production activities such as parking lots. Petitioner proposes that the Department re-allocate depreciation costs based on the relative space occupied by Skaarfish's production lines.

Department's Position: We agree, in part with petitioner. Respondents incorrectly allocated depreciation expenses. However, basing the allocation of all depreciation expenses on a square-meter basis, as proposed by petitioner, neglects the level of financial investment required for the various production activities. Therefore, for these final results we allocated costs associated with the depreciation of machinery and equipment on the basis of the relationship of costs of processing salmon to all other products. The costs associated with the depreciation of buildings were allocated on the basis of square meters. This methodology more accurately reflects the amount of depreciation expense to be allocated to subject merchandise and is the methodology used in the first administrative review. (*See Fresh and Chilled Atlantic Salmon From Norway: Final Results of Antidumping Administrative Review,* 58 FR 37912).

Final Results of Review

As a result of comments received and programming errors corrected, we have revised our preliminary results and determine that the following margins exist for the period April 1, 1993, through March 31, 1994:

Manufacturer/Exporter	Margin (percent)
ABA A/S	*31.81
Artic Group	**31.81
Artic Products Norway A/S	*31.81
Brodrene Sirevag A/S	*23.80
Cocoon Ltd A/S	*31.81
Delfa Norge A/S	*31.81
Delimar A/S	***
Deli-Nor A/S	***
Fjord Trading LTD. A/S	*23.80
Fresh Marine Co. Ltd	**31.81
Greig Norwegian Salmon	**31.81
Harald Mowinckel A/S	*23.80
Imperator de Norvegia	*31.81
More Seafood A/S	*31.81
Nils Willksen A/S	*31.81
North Cape Fish A/S	*31.81
Norwegian Salmon A/S	18.65
Norwegian Taste Company A/S	**31.81
Olsen & Kvalheim A/S	*23.80
Sekkingstad A/S	*23.80
Skaarfish-Mowi A/S	2.28
Timar Seafood A/S	*31.81
Victoria Seafood A/S	**31.81
West Fish Ltd. A/S	*23.80

* No shipments during the period; margin from the last administrative review.

** No response; highest margin from the original LTFV investigation.

*** No shipments or sales subject to this review; the firm had no individual rate from any segment of this proceeding.

The Department shall determine, and the Customs Service shall assess, antidumping duties on all appropriate entries. The Department will issue appraisement instructions concerning all respondents directly to the U.S. Customs Service.

Furthermore, the following deposit requirements will be effective for all shipments of the subject merchandise, entered, or withdrawn from warehouse, for consumption on or after the publication date of the final results of this administrative review, as provided for by section 751(a)(1) of the Act: (1) The cash deposit rates for the reviewed firms will be the rates indicated above; (2) for previously reviewed or investigated companies not listed above, the cash deposit rate will continue to be the company-specific rate published for the most recent period; (3) if the exporter is not a firm covered in this review, a prior review or the original LTFV investigation, but the manufacturer is, the cash deposit rate will be the rate established for the most recent period for the manufacturer of the merchandise; and (4) if neither the exporter nor the manufacturer is a firm covered in this or any previous review conducted by the Department or the LTFV investigation, the cash deposit

rate will be 23.80 percent, the all others rate from the LFTV investigation.

These deposit requirements shall remain in effect until publication of the final results of the next administrative review.

This notice serves as a final reminder to importers of their responsibility under 19 CFR 353.26 to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 353.34(d). Timely written notification or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of the APO is a sanctionable violation.

This administrative review and notice are in accordance with section 751(a)(1) of the Act (19 U.S.C. 1675(a)(1)) and 19 CFR 353.22.

Dated: December 4, 1996.

Robert S. LaRussa,

Acting Assistant Secretary for Import Administration.

[FR Doc. 96–31590 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–DS–P

[A–570–601]

Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, From the People's Republic of China; Final Results of Antidumping Duty Administrative Reviews

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

ACTION: Notice of final results of antidumping duty administrative reviews of tapered roller bearings and parts thereof, finished and unfinished, from the People's Republic of China.

SUMMARY: On August 25, 1995, the Department of Commerce (the Department) published the preliminary results of its administrative reviews of the antidumping duty order on tapered roller bearings (TRBs) and parts thereof, finished and unfinished, from the People's Republic of China (PRC). The periods of review (PORs) are June 1, 1990, through May 31, 1991; June 1, 1991, through May 31, 1992; and June 1, 1992, through May 31, 1993.

Based on our analysis of comments received, we have made changes to the margin calculations, including corrections of certain clerical errors. Therefore, the final results differ from the preliminary results. The final weighted-average dumping margins are listed below in the section entitled ''Final Results of Review.''

We have determined that sales have been made below foreign market value (FMV) during each of the above periods. Accordingly, we will instruct the U.S. Customs Service to assess antidumping duties equal to the difference between United States price (USP) and FMV.Q

EFFECTIVE DATE: December 13, 1996.

FOR FURTHER INFORMATION CONTACT: Charles Riggle, Hermes Pinilla, Andrea Chu, Donald Little, or Kris Campbell, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230; telephone (202) 482–4733.

APPLICABLE STATUTE AND REGULATIONS: Unless otherwise indicated, all citations to the statute and to the Department's regulations are references to the provisions as they existed on December 31, 1994.

SUPPLEMENTARY INFORMATION:

Background

On August 25, 1995, the Department published in the Federal Register the preliminary results of its administrative reviews of the antidumping duty order on TRBs from the PRC. *See Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, From the People's Republic of China; Preliminary Results of Antidumping Duty Administrative Reviews,* 60 FR 44302 (August 25, 1995) (Preliminary Results). We gave interested parties an opportunity to comment on our preliminary results and held a public hearing on October 19, 1995. The following parties submitted comments: The Timken Company (petitioner); Shanghai General Bearing Company, Limited (Shanghai); Guizhou Machinery Import and Export Corporation (Guizhou Machinery), Henan Machinery and Equipment Import and Export Corporation (Henan), Jilin Province Machinery Import and Export Corporation (Jilin), Liaoning MEC Group Company Limited (Liaoning), Luoyang Bearing Factory (Luoyang), Premier Bearing and Equipment Limited (Premier), and Wafangdian Bearing Industry Corporation (Wafangdian) (collectively referred to as Guizhou Machinery *et al.*); Chin Jun Industrial Limited (Chin Jun); Transcom, Incorporated (Transcom); and L&S Bearing Company/LSB Industries (L&S).

We have conducted these administrative reviews in accordance with section 751(a)(1) of the Tariff Act of 1930, as amended (the Act), and 19 CFR 353.22.

Scope of Reviews

Imports covered by these reviews are shipments of TRBs and parts thereof, finished and unfinished, from the PRC. This merchandise is classifiable under the *Harmonized Tariff Schedule* (HTS) item numbers 8482.20.00, 8482.91.00.60, 8482.99.30, 8483.20.40, 8483.20.80, 8483.30.80, 8483.90.20, 8483.90.30 and 8483.90.80. Although the HTS item numbers are provided for convenience and customs purposes, our written description of the scope of these proceedings is dispositive.

Best Information Available

In accordance with section 776(c) of the Act, we have determined that the use of the best information available (BIA) is appropriate for a number of firms. For certain firms, total BIA was necessary, while for other firms only partial BIA was applied. Our application of BIA is further discussed in the *Analysis of Comments Received* section of this notice.

Analysis of Comments Received

Comment 1: Petitioner argues that the Department's preliminary finding that there are nine independent Chinese TRB producers entitled to separate antidumping margins and duty rates is inconsistent with the preliminary determination that the TRB industry is not sufficiently market-oriented to allow for the use of home market prices. Petitioner states that, where the government retains significant control over an entire industry, there is sufficient direct or indirect control to warrant treating all of the producers as ''related'' for purposes of section 773(e)(4)(F) of the Act and, therefore, to calculate only a single margin for these companies. Petitioner contends that, if separate rates are calculated, there is a strong incentive to channel U.S. exports through exporters with the lowest margins, and that the record establishes that various TRB producers not only market their own bearings but also perform sales and marketing functions with respect to TRB models produced by other companies.

Petitioner further contends that the Department's *de jure* and *de facto* separate rates analysis places an impossible burden of proof on domestic

interested parties due to the fact that a state-controlled economy can amend its laws and regulations without in fact relinquishing control, and domestic parties, as well as the Department, lack access to information that would indicate whether such control continues after the *de jure* amendments.

Respondents Guizhou Machinery *et al.* respond that the Department properly employed its standard separate rates methodology, as enunciated in *Silicon Carbide from the People's Republic of China,* 59 FR 22585 (May 2, 1994).

Department's Position: We disagree with petitioner. A determination that a company is entitled to a separate rate differs from a market-oriented industry determination with respect to both the analysis performed by the Department and the impact of the decision. A separate rates determination does not presume to speak to more than an individual company's independence in its export activities. The analysis is narrowly focused and the result, if independence is found, is resultingly narrow—the Department analyzes that single company's U.S. sales separately and calculates a company-specific antidumping rate. Thus, for purposes of calculating margins, we analyze whether specific exporters are free of government control over their export activities, using the criteria set forth in *Silicon Carbide.* Those exporters who establish their independence from government control are entitled to a separate margin calculation.

A finding that a company is entitled to a separate rate does not constitute a finding that its home market or third country prices are sufficiently market-driven so that such prices may be used to establish FMV (which would be the result of a market-oriented industry determination). Rather, it indicates that the company has sufficient control over its export activities so as to prevent the manipulation of such activities by a government seeking to channel exports through companies with relatively low dumping rates. *See Disposable Pocket Lighters from the People's Republic of China; Final Determination of Sales at Less Than Fair Value,* 60 FR 22359, 22363 (May 5, 1995).

Petitioner's argument that there is sufficient direct or indirect government control to treat all exporters as ''related'' is unsupported by the record. The PRC companies that responded to our questionnaire submitted information indicating a lack of both *de jure* and *de facto* control over their export activities. Contrary to petitioner's claim that the necessary information concerning the *de facto* portion of the analysis is inaccessible to both petitioner and to the Department, such information was in fact subject to verification and was discussed in the relevant verification reports. Based on our analysis of the *Silicon Carbide* factors, the verified information on the record supports our determination that these nine respondents are, both in law and in fact, free of government control over their export activities. Thus, it would be inappropriate to treat these firms as a single enterprise and give them a single margin. Therefore, we have continued to calculate separate margins for these companies.

Comment 2: Petitioner argues that the Department should base the values of all factors of production (FOP) on the annual report of SKF India (SKF). In the preliminary results, the Department used the SKF report to value three factors (overhead; selling, general, and administrative expenses (SG&A); profit), and the Department derived values for the direct labor and raw material factors from two other, unrelated sources (International Labor Office (ILO) statistics and Indian import statistics, respectively). Petitioner argues that the annual report of SKF is the only record source that yields values for all five factors and that, as such, the SKF report is a single, coherent source that includes segregable information on each of the principal factors of production and other costs necessary to construct FMV. Petitioner further claims that using other sources to value labor and raw materials, while using SKF's labor and raw materials information to derive overhead, SG&A and profit, is inherently distortive. (The Department included SKF's material and labor expenses in the denominator of the calculation of percentages for factory overhead, SG&A and profit.)

Petitioner states that the use of the SKF report for all FOP values is consistent with the importance the courts attach to use of a single source when possible (citing *Timken Co.* v. *United States,* 12 CIT 955, 962, 963, 699 F. Supp. 300, 306, 307 (1988), *affirmed* 894 F.2d 385 (Fed. Cir. 1990) (collectively *Timken*)), and suggests that the SKF report most nearly approximates a verified, surrogate questionnaire response of the type the Department formerly sought from producers in potential surrogate countries.

Petitioner further contends that, whereas SKF's costs and expenses represent those of a producer of the class or kind of merchandise subject to review, the surrogate data for direct labor and raw materials the Department used cover a broad range of industries and products. Petitioner claims that the direct labor classification the Department used covers, in addition to bearings producers, hundreds of industry sectors under broad headings unrelated to bearings production, and argues that there is no rational basis for using such a non-specific source as a surrogate when the actual cost data of an Indian bearings producer is available.

Petitioner notes that record evidence shows the costs of raw materials and labor incurred by actual bearings producers in India to be consistently higher than the trade statistics values used by the Department in the preliminary results, either because the industries or product categories covered by the labor and raw materials sources are overly broad or because domestic prices are different from those of imports. Finally, petitioner adds that the information in the SKF report could be adjusted by the Department using its normal price-index approach for use in all three review periods.

Petitioner argues in the alternative that, in the event that the Department does not use the SKF report to value all FOP, the overhead and SG&A rates must be adjusted to reflect the use of lower materials and labor values from the separate sources. Petitioner claims it would be distortive to include SKF's full materials and labor costs in the cost of manufacture (COM) denominator of the overhead and SG&A calculations unless they are also the basis for valuing the raw materials and direct labor factors in the constructed value (CV) calculation. Petitioner proposes that the Department multiply the total weight of materials for SKF by the average value of steel that will be used in the final results and the total number of hours worked at SKF by the ILO labor value used for the material and labor figures the Department included in the overhead and SG&A calculations.

Petitioner states that the most obvious adjustment needed to the materials element of the overhead and SG&A calculations is due to the Department's use of Indian values free of duties; specifically, because the Indian import data applied in the preliminary results are based on pre-duty import values, it is inappropriate to use an SKF materials value that includes duties in the overhead and SG&A calculations. Petitioner suggests that, if the Department does not apply the adjustment proposed above, *i.e.,* total SKF material weight times the Indian value used, the amount of duties paid by SKF on imported materials, as indicated in the SKF annual report, should be deducted from the materials total in the overhead and SG&A

calculations in order to derive apples-to-apples ratios.

Guizhou Machinery *et al.* respond by arguing that it is irrelevant whether the SKF report represents a single, coherent source for valuing all FOP components and note that the Department consistently uses multiple sources of information for surrogate data in NME cases (citing *Final Determination of Sales at Less Than Fair Value: Sebacic Acid from the People's Republic of China,* 59 FR 28053 (May 31, 1994) (*Sebacic Acid*), and *Final Determination of Sales at Less Than Fair Value: Certain Cased Pencils from the People's Republic of China,* 59 FR 55625 (November 8, 1994) (*Certain Cased Pencils*)). Guizhou Machinery *et al.* add that petitioner's citation to *Timken* is misplaced and state that, in that case, the Department was not criticized for the use of different sources but for the disparity between the ratios resulting from the Department's calculation and other ratios on the record.

Guizhou Machinery *et al.* further state that the fact that the SKF report contains costs and expenses incurred by a producer of the class or kind of merchandise subject to review does not make the report a better source of surrogate data. On the contrary, Guizhou Machinery *et al.* state, whereas there is no evidence to indicate that SKF used the same type of steel as respondents, the Indian import statistics enable the Department to pinpoint a particular type of steel.

In response to petitioner's argument that it is inherently distortive to use the SKF report for overhead, SG&A and profit, but not for materials and labor, Guizhou Machinery *et al.* and Chin Jun argue that it would be more distortive to use the SKF report for the materials component due to a lack of detail regarding the types of steel SKF used. Chin Jun notes that the SKF steel prices do not provide separate prices for bar, rod or steel sheet, but instead provide a single figure for all steel used in the factory, including steel used in the production of non-subject merchandise. Chin Jun submits that the petitioner, the Department, and respondents do not have any idea what types of steel were included in SKF's material cost calculation. Guizhou Machinery *et al.* add that petitioner has provided no information demonstrating that the SKF report covers the specific steel inputs relevant to subject merchandise.

Guizhou Machinery *et al.* and Chin Jun also dismiss petitioner's claim that the SKF report most nearly approximates a verified surrogate questionnaire response. Respondents state that an annual report, though perhaps audited, is not verified and note that the Department has a preference for verifiable, public information (citing *Sebacic Acid* and *Final Determination of Sales at Less Than Fair Value: Manganese Sulphate from the People's Republic of China,* 60 FR 52155 (October 5, 1995) (*Manganese Sulphate*); *Final Determination of Sales at Less Than Fair Value: Certain Carbon Steel Butt-Weld Pipe Fittings from the People's Republic of China,* 58 FR 21058 (May′ 18, 1992)).

Guizhou Machinery *et al.* respond to petitioner's contention that the cost of direct materials of actual bearings producers in India is shown to be consistently higher than the trade-statistics values used in the preliminary results by stating that such a fact does not render the trade statistics incorrect and that, furthermore, there is nothing in the law requiring the Department to use the highest value in choosing surrogate values.

Shanghai states that, in the event that the Department rejects the use of SKF materials, labor, and other costs except overhead, profit and SG&A, the Department should not further adjust overhead and SG&A as suggested by petitioner's argument in the alternative. Shanghai notes that the SKF report indicates that, in addition to TRB production, SKF has other lines of business, including the manufacture of textile machine components and other types of bearings. Shanghai contends that the report does not allow for the allocation of labor or materials to TRB production for SKF's overhead and SG&A, and there is insufficient information on which to base adjustments to overhead and SG&A based on different valuations of materials and labor used for TRB production. Finally, Shanghai notes that, since the report contains no information concerning the proportion of material represented by TRB steel costs, what portion of SKF's steel was imported, or how much was paid in duties, if the Department continues to use the SKF report for overhead and SG&A it should make no further adjustment to the rate used for the preliminary results.

Department's Position: We agree with respondents. Section 773(c)(1) of the Act states that, for purposes of determining FMV in a non-market economy, ''the valuation of the factors of production shall be based on the best available information regarding the values of such factors. * * *'' Our preference is to value factors using public information (PI) that is most closely concurrent to the specific POR. *See Final Determination of Sales at Less Than Fair Value: Drawer Slides from the PRC,* 60 FR 54472, 54476 (October 24, 1995) (*Drawer Slides*). Based on the record evidence for each of these three reviews we have determined that surrogate country import statistics (Indonesian for valuing steel used to produce cups and cones, and Indian for steel used to produce rollers and cages), exclusive of import duties, comprise the best available information for valuing raw material costs. Our reasons for preferring Indonesia, rather than our primary surrogate, India, for valuing steel used to produce cups and cones are set forth in our response to Comment 4.

We prefer published import data to the SKF data in valuing the material FOP for the following reasons. First, we are able to obtain data specific to each POR, which more closely reflect the costs to producers during the POR. Second, the raw materials costs from the SKF report do not specify the types of steel purchased by SKF. Although we agree with petitioner's point that SKF is a producer of subject merchandise, the report identifies other products it manufactures. From the information contained in the SKF report, we are unable to allocate direct labor and raw materials expenses to the production of subject merchandise. Therefore, contrary to petitioner's assertion, we find that the use of the SKF data in valuing material and labor costs would lead to distortive results.

We also disagree with petitioner's contention that the overhead and SG&A rates should be adjusted if we continue to use the SKF report to value these rates while valuing the material and labor FOP using other sources.

In deriving these rates, we used the SKF India data both with respect to the numerators (total overhead and SG&A expenses, respectively) and denominator (total cost of manufacturing (COM)), because this most accurately reflects the ratios of overhead to COM and of SG&A to COM in the surrogate country. These ratios, when multiplied by the product-specific material and labor factors of production of each respondent in these reviews, thereby constitute the best available information concerning the overhead and SG&A expenses that would be incurred by those bearings producers given their particular factors of production for those products. Petitioner's recommended adjustment would affect (reduce) the denominator by introducing elements unrelated to SKF's experience, but would leave the overhead and SG&A expenses in the numerator unchanged. We find that this adjustment would itself distort the

overhead and SG&A experience of the surrogate, rather than curing any distortion in our calculations.

We also disagree with petitioner's argument that an adjustment should be made for duties paid on material imports included in the denominator of the overhead and SG&A expense ratios. We multiplied the overhead and SG&A rates by the material and labor values we used in our factors calculation. Such values do not include import duties because they are an estimate of a PRC producer's domestically sourced material and labor production expenses. Although we would not include duties paid on the importation of merchandise by SKF, we have no evidence as to the amount of duties, if any, included in SKF's raw materials costs. Therefore, we did not subtract any amount for import duties in our calculation of overhead and SG&A percentages.

Comment 3: Petitioner argues that, in order to conform with the Department's standard practice of using surrogate values from a time period contemporaneous with the POR, the Department should use data relating as closely as possible to each POR (citing *Heavy Forged Hand Tools, Finished or Unfinished, With or Without Handles, from the People's Republic of China; Final Results of Administrative Review,* 60 FR 49251, 49253 (September 22, 1995) (*Hand Tools*)). Petitioner states that, although the April–December 1991 surrogate value data assigned for raw material inputs in the preliminary results could rationally be used for the 1991–92 POR, Indian import data from the relevant periods should be used for the 1990–91 and the 1992–93 PORs. Alternatively, citing *Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, from the People's Republic of China; Preliminary Results of Antidumping Duty Administrative Review,* 60 FR 49572 (September 26, 1995), petitioner suggests that data for the 1993–94 review might be used for the 1992–93 POR.

Guizhou Machinery *et al*, note that petitioner's preferred source from which the Department would value raw material inputs is the annual report from SKF, which covers the period April 1, 1990, through March 31, 1991, and argue that the data the Department used in the preliminary results is more contemporaneous than the SKF report in that it overlaps—at least in part—two of the three PORs in question. In addition, Guizhou Machinery *et al.* claim that data used for the 1993–94 review (the September 26, 1995, preliminary results) should not be considered because these statistics are not included in the administrative records for the reviews at issue, nor are they relevant to the time periods of these reviews.

Department's Position: We agree with petitioner that, consistent with *Hand Tools*, it is preferable, for the sake of accuracy, to apply surrogate values coincident with the POR whenever possible. For these final results, we have applied surrogate steel values coincident to each POR. The Indian import statistics and the Indonesian import statistics that we used are compiled on a monthly basis. Accordingly, we calculated POR weighted-average values using the months June through May for each POR.

Comment 4: Petitioner and respondents Shanghai, Guizhou Machinery *et al.*, and Chin Jun all submitted comments regarding the appropriate Indian import classification number(s) to be used in valuing the steel that comprises the raw materials factor of production. Petitioner argues that, in the event that the Department does not use the SKF report to derive this factor, the eight-digit Indian import classification number 7228.30.19 should be used to value steel bar and rod that was used to manufacture cups and cones. Petitioner notes that, whereas the Department used eight-digit categories to value steel sheet that was used for cages and steel rod that was used for rollers, the Department used a broader six-digit category (7228.30) for steel bar used to manufacture cups and cones. Petitioner argues that category 7228.30 includes sub-categories of steel that are not appropriate to the manufacture of TRBs. Specifically, categories 7228.30.01 and 7228.30.09 include ''bright bars of alloy tool steel'' and ''bright bars of other steel,'' respectively. Petitioner states that these are bars with bright, high-finish surfaces, which are not used in the manufacture of TRBs, as the high finish would be useless given the cutting, grinding and honing involved in TRB production.

Petitioner further claims that categories 7228.30.12, ''bars and rods of spring steel,'' and 7228.30.14, ''bars and rods of tool and die steel,'' contain steel used for specific applications apart from TRB manufacture. Thus, petitioner argues, the Department should use the ''others'' category (7228.30.19), which it claims is a residual category containing the steel used in the manufacture of TRBs.

Shanghai submits that category 7228.30.01, ''bright bars of alloy tool steel,'' is the only category of Indian imports that could possibly contain the type of steel used in the production of cups and cones. Shanghai claims that this category shares with U.S. HTS category 7228.30.20 the particular characteristics of hot-rolled, hot-drawn or extruded steel used for cups and cones.

Shanghai notes that the Department's past use of import statistics as a surrogate source of data has been affirmed if the import categories accurately reflect the material used to produce the product in question (citing *Sigma Corp.* v. *United States*, Slip Op. 93–230 (CIT Dec. 8, 1993); *Tehnoimportexport* v. *United States*, 766 F. Supp. 1169 (CIT 1991); and *Tehnoimportexport* v. *United States*, 783 F. Supp. 1401 (CIT 1992)). Shanghai states it follows that use of an inappropriate import category would not be affirmed and argues that the inclusion of steel categories other than 7228.30.01 to value cups and cones renders the Department's surrogate steel costs for cups and cones inaccurate. Shanghai notes that the ''others'' category put forward by petitioner, 7228.30.19, includes all types of steel within the 7228.30 basket other than those specifically covered by separate eight-digit categories. Shanghai contends that such ''others'' categories are not intended to duplicate what is contained in the separate individual categories, and it is unreasonable, therefore, to conclude that the ''others'' category includes merchandise that falls within 7228.30.01.

Shanghai additionally argues that category 7228.30.01 should be further adjusted to exclude exports from Poland and Italy. Shanghai argues that Indian imports from Poland should be excluded on the basis that the Department considered Poland to be an NME country during the period covered by the Indian import statistics, and that Indian imports from Italy should be deleted because the Italian prices are aberrational compared with other imports in the category. Shanghai contends that it is reasonable to assume that this import was of a type of steel different from that used in the production of cups and cones and, as such, should be excluded as unrepresentative of the type of steel used by PRC producers (citing *Final Determination of Sales at Less Than Fair Value: Circular Welded Non-Alloy Steel Pipe From Romania*, 57 FR 42957 (September 7, 1992) (*Steel Pipe*)).

Petitioner contends that Shanghai's claim regarding category 7228.30.01 (bright bar) as the only category of Indian steel imports that could possibly contain the type of steel used in the production of cups and cones is contrary to fact because, to the best of its knowledge, no one has ever before suggested in the course of this or any

other bearing proceeding that bright bars are used to manufacture bearings. Petitioner states that, by similarly excluding other specific eight- digit categories which, like 7228.30.01, are known not to include bearing steel, category 7228.30.19 remains the only category in subchapter 7228 that would contain bearing steel.

With respect to Shanghai's argument that Indian imports from Italy be excluded from 7228.30.01 as unrepresentative of the steel type used to manufacture bearings, petitioner reasserts its argument that the entire category, 7228.30.01, is unrepresentative of bearing steel and that Shanghai's argument is therefore irrelevant. Notwithstanding this point, petitioner takes issue with Shanghai's citing to *Steel Pipe* as an example in which the Department excluded certain higher priced imports as unrepresentative of the type of steel used to manufacture the product in question. Petitioner claims, first, that bearing quality steel is inherently higher quality steel than the non-alloy product at issue in *Steel Pipe*. Petitioner further argues that a higher value in a basket category might represent the only bearing quality import in the category.

With respect to Shanghai's argument concerning the exclusion of steel imports from Poland, petitioner asserts that Poland is properly regarded as a market-economy country for purposes of these reviews and, thus, Indian steel imports from Poland should not be excluded. Petitioner notes that the Department determined that Poland had completed the transition to a market economy by 1992, citing *Final Determination of Sales at Less Than Fair Value: Certain Cut-to-Length Carbon Steel Plate From Poland*, 58 FR 37205 (July 9, 1993) (*Steel Plate*). Petitioner contends that, while the finding was limited to 1992 because the period of investigation at issue was 1992, it is reasonable to consider Poland to have been a market-economy country for these PORs because such a transformation could not be instantaneous.

Guizhou Machinery *et al.* dispute petitioner's argument regarding the use of steel category 7228.30.19, contending that petitioner suggests replacing one basket category, 7228.30, with another basket category, 7228.30.19. Guizhou Machinery *et al.* insist that petitioner's reasons for opposing the use of category 7228.30 apply as well to category 7228.30.19 and, therefore, do not provide compelling reasons for the Department to change categories.

In its rebuttal comments, Shanghai concurs with Guizhou Machinery *et al.* that the Department should reject petitioner's suggestion that the eight digit ''others'' category (7228.30.19) is the best category for valuing steel used to produce cups and cones. Although Shanghai agrees with petitioner that there is no eight-digit category in the Indian import statistics isolating bearing quality steel (noting that 7228.30.12 and 7228.30.14 are clearly inapplicable), Shanghai contends that the ''others'' category recommended by petitioner is too general and anonymous, containing steel imports of unknown types and quantities. Shanghai suggests in its rebuttal that the Department could use category 7227.90.11 (coil steel), speculating that the type of ball bearing steel used by Chinese producers might enter India under this category number.

Chin Jun argues that use of the basket category 7228.30 is unreliable, in that it contains a wide variety of steel products with a corresponding wide variety of prices. With regard to petitioner's argument that the Department use category 7228.30.19, Chin Jun asserts that use of this category would be incorrect unless aberrational data are excluded. Chin Jun states that the range of prices within this category is staggering and notes that as a residual category it contains many different types of steel. Although acknowledging that it is unclear whether category 7228.30.19 is directly comparable to U.S. HTS category 7228.30.80—the residual category under HTS 7228.30—Chin Jun states that the Indian data are aberrational by comparison to U.S. data from HTS 7228.30.80. Chin Jun argues that the Department should, as it has in the past, adjust the basket category in order to obtain a ''more reasonable indication of the market-based price for the type of steel used'' (citing *Steel Pipe*). Chin Jun suggests that the Department could accomplish such an adjustment by excluding all steel priced more than $1,000 per metric ton.

Chin Jun also contends that category 7227.90.11 is the correct category for steel used in the manufacture of rollers and that the Department erred in using category 7228.50.09, which is comprised of cold-rolled steel.

With respect to this last contention, petitioner notes that Chin Jun placed on the record its supplier's statement that the supplier ''uses cold-rolled alloy steel rod to manufacture rollers.'' *Public Version of Questionnaire Response of Chin Jun Supplier*, August 31, 1994, at 6. In addition, petitioner notes, other companies responded the same way.

Department's Position: We agree with petitioner that none of the eight-digit tariff categories within the 7228.30 steel group correspond specifically to bearing quality steel used to manufacture cups and cones, but do not agree that the best recourse is to the eight-digit ''others'' category (7228.30.19) within this group. We have determined that the use of Indian import data is not appropriate to value cups and cones in this case because, as noted in the arguments above and as shown below, we are unable to isolate bearing quality steel and, as discussed below, the value of the Indian import data is not reliable. *See Drawer Slides* at 54475–76.

We have examined each of the eight-digit categories within the Indian 7228.30 group and have found that, although bearing quality steel used to manufacture cups and cones is most likely contained within this basket category, there is no eight-digit sub-category that is reasonably specific to this type of steel. We eliminated the specific categories of alloy steel, commonly identified by petitioner and respondents, that are clearly not bearing quality steel, as follows. Under the Indian tariff system, bearing quality steel used to manufacture cups and cones is contained within the broad category 7228.30 (Other Bars & Rods, Hot-Rolled, Hot-Drawn & Extruded). However, none of the named sub-categories of this grouping (7228.30.01—bright bars of alloy tool steel; 7228.30.09—bright bars of other steel; 7228.30.12—bars and rods of spring steel; and 7228.30.14—bars and rods of tool and die steel) contains steel used in the production of subject merchandise. This leaves an ''others'' category of steel, 7228.30.19. However, we have no information concerning what this category contains, and none of the parties in this proceeding has suggested that this category specifically isolates bearing quality steel. Further, the value of steel in this eight digit residual category is greater than the value of the general six-digit basket category (7228.30), which in turn is valued too high to be considered a reliable indicator of the price of bearing quality steel, as shown below.

Where questions have been raised about PI with respect to particular material inputs in a chosen surrogate country, it is the Department's responsibility to examine that PI. *See Drawer Slides* at 54475–76; *Certain Cased Pencils*, 59 FR 55633, 55629 (1994). Because all parties raised questions about the validity of the Indian import data used to value cups and cones in the preliminary results, we compared the value of Indian imports in category 7228.30 with the only record source that specifically isolates bearing quality steel used to manufacture cups and cones: import data regarding U.S.

tariff category 7228.20.30 (''bearing quality steel''). We found that, for the time period covered by the PORs, the value of the Indian basket category 7228.30 was approximately 50 percent higher than the bearing quality steel imported into the United States. The Indian eight-digit ''others'' category recommended by petitioner, valued approximately 75 percent higher than the U.S. import data, was even more unreliable in comparison with the value of bearing-quality steel.

In light of these findings, we have determined that the Indian import data that we used to value cups and cones in the preliminary results is not reliable. For these final results, we are using import data from a secondary surrogate, Indonesia, a producer of merchandise comparable to TRBs, to value steel used to produce these components. As with India, we were unable to isolate the value of bearing-quality steel or identify an eight-digit category containing such steel imported into Indonesia; however, unlike the Indian data, the Indonesian six-digit category 7228.30 closely approximates the value of U.S. imports of bearing-quality steel, as well as the comparable six-digit category in the United States. Thus, we have determined that Indonesian category 7228.30, which is the narrowest category we can determine would contain bearing-quality steel, is the best available information for valuing steel used to produce cups and cones. Although Indonesia is not the first-choice surrogate country in these reviews, in past cases the Department has used values from other surrogate countries for inputs where the value for the first-choice surrogate country was determined to be unreliable. *See Drawer Slides* at 54475–76; *Cased Pencils* at 55629; *Certain Helical Spring Lock Washers,* 58 FR 48833, 48835 (Sept. 20, 1993). Because we are valuing the steel used to produce cups and cones using Indonesian import data, we are valuing the scrap offset to this steel value using the same source.

We also disagree with Shanghai regarding the appropriateness of Indian category 7227.90.11 as the steel type for cups and cones. Respondents reported that they use hot-rolled steel bar to manufacture cups and cones. Category 7227.90.11 is coil steel and is necessarily produced by a different mill than bar steel. No respondent reported using coil steel to manufacture cups and cones. In addition, during factory tours of various PRC-based bearings producers we found no evidence that any producer uses coil steel to manufacture cups and cones. Finally, we note that in its case brief (at 7) Shanghai claimed that ''the only category of Indian steel imports which could possibly contain the type of steel used in the production of cups and cones is AC 72283001, Bright Bars of Alloy Tool Steel.''

With respect to the valuation of steel used in the production of rollers and cages, we have applied the Indian import statistics used in the preliminary results. We note that the interested party comments regarding the validity of Indian import category 7228.30, as discussed above, pertain only to the valuation of steel used in the production of cups and cones. We also note that we disagree with Chin Jun concerning the appropriate category for steel used in the manufacture of rollers. We selected category 7228.50.09 based on respondents' statements that they used cold-rolled steel rod to manufacture rollers. In addition to the response from Chin Jun's own supplier, record evidence indicates that other manufacturers used the same type of steel. *See, e.g.,* public versions of Questionnaire Response for 1991–92 and 1992–93 Reviews of Luoyang, June 13, 1994, at 13, and Questionnaire Response for 1990–91 Review of Henan, December 19, 1991, at 8.

Concerning Shanghai's request that imports from Poland be excluded from the valuation of the steel input used to manufacture cups and cones, we note that we revoked Poland's NME status effective January 1, 1992. *See Steel Plate* at 37207. Therefore, for these final results, we have, to the extent possible, excluded imports from Poland prior to the 1992–93 POR because such steel was imported from an NME country.

Comment 5: Petitioner contends that market-currency acquisitions of raw materials should be disregarded in favor of Indian surrogate values with respect to Luoyang and Henan for several reasons. Petitioner first argues that the Department should disregard purchases of raw materials in which the purchase contract provided for delivery after the PORs because the steel received under such contracts could not have been used to produce bearings sold during those PORs.

In addition, petitioner claims that steel import contracts do not reflect market-economy transactions. Petitioner notes that Luoyang did not purchase steel directly and that contracts examined by the Department at verification indicated that the sale consisted of a transaction between a German trading company as the seller and China Foreign Trade Development Companies, Inc. as the buyer. Citing Memorandum to Division Director, Office of Antidumping Compliance from Case Analyst, Office of Antidumping Compliance: *Verification Report for Luoyang Bearing Factory in the Fifth and Sixth Reviews of the Antidumping Duty Order of Tapered Roller Bearings and Parts Thereof From the People's Republic of China* (August 3, 1995), petitioner observes that Luoyang has explained that steel is a controlled commodity and, as such, must be imported through a trading company.

Petitioner insists that, given this fact pattern involving contracts concerning a controlled commodity, the purchase of which must be carried out through the mandatory intervention of a state trading company, any such purchase cannot rationally be considered an arm's-length transaction reflecting uncontrolled market prices. Petitioner claims that the Department departs from using surrogate values only when the actual imports from a market economy reflect market-economy practices and prices (citing *Oscillating Fans and Ceiling Fans from the PRC,* 56 FR 55271 (October 25, 1991) (*Ceiling Fans*)). Petitioner contends that, under the circumstances of this case, the state-controlled trading company is by law given a leading role in negotiating the terms of sale and such trading companies, acting as coordinators of steel purchases for the entire Chinese economy, would enjoy such market power as to enable them to obtain better prices than any individual bearings producer. Petitioner suggests, in addition, that steel supplied to Luoyang from the PRC trading company was part of, or related to, broader deals between Luoyang and the trading company, which could affect the prices paid by Luoyang for reasons unrelated to the factors that would govern normal commercial transactions between market-oriented companies.

Finally, petitioner claims that there are no scrap values attributable to Luoyang's steel acquisition costs. Petitioner notes that the net cost of raw materials inputs is based on the steel cost minus a value for scrap credit and argues that applying a value to the steel from one source and scrap credit from a different source is inherently distortive. Petitioner adds that the courts have ruled this practice to be unsupported, citing *Timken,* and states that the Department addressed the issue on remand in *Timken* by using a single source, telexes from the U.S. Consulate in Bombay. Petitioner further notes that, in its remand calculations, the Department derived a scrap value for one material input, steel sheet, using a ratio as stated in the telex (which provided that scrap was equal to 20 percent of the value of the steel sheet),

instead of the absolute value of scrap provided in the telex, where this absolute value of scrap was an unreasonable percentage of the absolute value of steel sheet. Petitioner recommends that if the Department maintains its position taken in the preliminary results to use steel prices paid by Luoyang and Henan to value certain steel inputs while using Indian import statistics to value scrap, it should use ratios, rather than absolute amounts, to derive the per-unit value of scrap.

Guizhou Machinery *et al.* respond that, consistent with section 773(c) of the Act and with 19 C.F.R. 353.52, the Department has established a practice of using actual import prices if they are from market-economy countries. Guizhou Machinery et al. contend that the ''Department practice allows for the valuation of inputs in NME cases based on market prices paid by the manufacturer for goods obtained from a market-economy source because these prices reflect commercial reality'' (citing *Final Determination of Sales at Less Than Fair Value: Coumarin From the People's Republic of China,* 59 FR 66895 (December 28, 1994) (*Coumarin*)). Guizhou Machinery *et al.* state that petitioner's assertion that the contracts do not reflect market-economy transactions because steel is a ''controlled commodity'' and because the contracts involved ''state trading companies'' is irrelevant because such arguments do not negate the fact that the sellers, who establish the sales prices, are market-economy companies (citing *Hand Tools* and *Final Determination of Sales at Less Than Fair Value: Saccharin from the People's Republic of China,* 59 FR 58818 (November 15, 1994) (*Saccharin*)). In addition, Guizhou Machinery *et al.* contend that petitioner's statement that steel supplied to Luoyang from the PRC trading company might have been part of related or broader deals is nothing more than speculation, with no support on the administrative record.

Guizhou Machinery *et al.* argue that, because the contracts in question were all effective and legally binding during the PORs, the Department should use the market prices contained in the contracts as the basis for valuing the steel.

Finally, Guizhou Machinery *et al.* contend that, in *Timken,* which petitioner cited in support of its argument that the Department cannot use one source to value steel inputs and a different source to value steel scrap, the Court of International Trade (CIT) and the Court of Appeals for the Federal Circuit (CAFC) did not rule that the Department cannot use different sources to obtain surrogate values for the various constructed value components but, rather, that the Department cannot use surrogate value data which yield distortive results and which are inconsistent with other record evidence. Guizhou Machinery *et al.* argue that petitioner has not shown that the use of market-oriented import prices for steel together with Indian import statistics for scrap credit yields distortive results or that it is inconsistent with other information on the administrative record for these reviews. Guizhou Machinery *et al.* contest petitioner's claim that the use of two different sources to value steel and scrap is ''inherently distortive,'' and point out that in many cases the Department has used different sources to value input materials and scrap.

Department's Position: We agree with petitioner that purchases of steel from PRC trading companies should not be used in these reviews. Our established policy allows for the valuation of inputs in NME cases based on market prices paid by the manufacturer for inputs purchased from a market-economy source because those prices reflect commercial reality. *See Saccharin* at 58822–23. However, in these reviews the transactions were conducted by trading companies instead of the manufacturers. Therefore, the manufacturer obtained the input from the trading company—a PRC source—and paid for the input in PRC currency. Therefore, we determine that the prices paid by the trading companies do not reflect the producers' prices and the prices paid by the producers for these inputs do not reflect market prices. We note here that Guizhou Machinery *et al.* misread *Coumarin*. In that case, as in this case, we did not use purchases from market-economy suppliers but instead applied surrogate values because producers obtained the input from a PRC trading company. *See Coumarin* at 66900.

Because we agree with petitioner that it is not appropriate to use the value of steel purchased by Luoyang and Henan in our calculations, and since we used information from the same source to value both the steel input and the scrap offset, we do not reach petitioner's argument that we should value scrap using a ratio, rather than an absolute scrap value, in the event that raw material input values and scrap values are taken from discrete sources. As noted in our response to Comment 4, we used Indonesian import data to value the steel input and scrap offset for cups and cones, and used Indian data to value the steel input and scrap offset for rollers and cages.

Comment 6: Petitioner argues that the Department should not have accepted Luoyang and Henan's request that the ''scrap input'' they used to produce certain cups and cones be valued as scrap. Petitioner argues that new material remains new product throughout the production process and the value of the raw material input piece is the same whether the companies produce one or two finished pieces from the input piece. Petitioner states that there is no reason for the Department to depart from its position in the 1989–90 review, in which the Department stated that the scrap steel input should not be valued at the cost of scrap. Petitioner argues that the respondents have failed to present rational alternatives in these PORs for taking account of their production of two pieces from one bar.

Luoyang and Henan argue that the Department was correct in valuing the ''scrap input'' as scrap. Luoyang states that it accumulates scrap pieces and stores them and, from time to time, uses large scrap pieces to manufacture smaller size bearings. Luoyang argues that petitioner's argument that new steel costs be used to value scrap input ignores the fact that different inputs are used in Luoyang's manufacturing process. Luoyang further contends that steel bar is a high quality material and can be used ''as is'' and requires no further processing or labor other than the production itself, while scrap consists of ''leftover'' steel pieces which have already been ''stressed'' once. Luoyang contends that petitioner's argument would artificially inflate Luoyang's materials costs.

Department's Position: We agree with petitioner. The ''scrap input'' used by Luoyang to produce certain TRBs was not purchased as scrap. Luoyang paid the full purchase price for this input. Sales of bearings produced from scrap are indistinguishable from those produced from new steel in Luoyang's U.S. sales listing. Valuation of the input as scrap instead of as new steel would result in an undervaluation of Luoyang's factors of production. Accordingly, we have valued the ''scrap'' steel input as new steel for the final results.

Comment 7: Petitioner claims that the ILO report used by the Department to derive surrogate labor rates indicates a 46.2-hour work week in India. Thus, petitioner argues, the Department should calculate the hourly wage rate in rupees using a 46.2-hour week instead of the 48-hour week it used in the preliminary results.

Petitioner further states that the Department incorrectly used the labor

value associated with International Standard Industrial Classification (ISIC) major group 381, which covers the ''manufacture of metal products, except machinery and equipment,'' rather than that relevant to bearing production, 382, which covers the ''manufacture of machinery, except electrical.'' (citing ILO 1993 *Yearbook of Labor Statistics* at 1163). Petitioner suggests that the use of category 382 would be consistent with past practice.

Guizhou Machinery *et al.* respond that the machinery industry rates suggested by petitioner are inflated rates that should not be used in these reviews because the manufacture of machinery products involves sophisticated manufacturing processes and highly skilled labor. Respondents also contend that petitioner's argument that a 46.2-hour work week rather than a 48-hour work week should be used is not adequately supported by petitioner's brief.

Department's Position: We agree with petitioner with respect to the use of ISIC major group 382. Upon further inquiry, we found that labor associated with bearing production is included in this category and that the labor categories that comprise ISIC major group 381 are not relevant to bearing production. Therefore, the Department has used major group 382 for the final results of these reviews. *See* (ISIC) series M, No. 4, Rev. 3 at pg. 153.

We also agree with petitioner that we should use a 46.2-hour work week instead of a 48-hour work week. The ILO data that we used to value direct labor indicates that the average number of hours worked for ISIC major group 382 was 46.2 hours per week. Because we are basing the direct labor value on ILO data as stated above (which provide information on the basis of average daily wages), it is appropriate to use the average labor hours per week from the same source to derive an hourly labor rate from this annual wage data. Although a 48-hour work week was established as standard under Indian law, we note that other sources that we have examined (*e.g.*, the Economist Intelligence Unit) indicate that, in practice, the average number of hours worked is 45–47 hours per week.

Comment 8: Petitioner claims that indirect labor is not reflected in the SG&A and overhead rates, contrary to the Department's statement in the preliminary results that ''indirect labor is reflected in the selling, general and administrative and overhead rates.'' Petitioner notes that no portion of the amount shown as ''payments to and provisions for employees'' in SKF's annual report is included in either the overhead or the SG&A calculation. Petitioner states that, consistent with the 1989–90 administrative review, indirect labor must be added to the constructed value.

Petitioner further contends that the indirect labor amounts supplied by respondents are inadequate since the submitted indirect labor data, reported as a percentage of direct labor costs, are generally unsupported by explanation, calculations or documentation. Petitioner suggests that the Department should use as BIA the highest indirect labor rate on the record in these reviews.

Chin Jun claims that its supplier provided indirect labor data and was subject to verification, and that the Department should therefore reject petitioner's argument.

Guizhou Machinery *et al.* note that the Department used the SKF annual report to calculate the SG&A rate and that, since that calculated rate was below the statutory minimum, the Department applied the statutory minimum of 10 percent in the calculation. Guizhou Machinery *et al.* contend that there is no basis for asserting that the Department must add an amount to the statutory minimum for indirect SG&A labor since this is not the Department's practice.

With respect to overhead, Guizhou Machinery *et al.* contend that the Department can reasonably conclude that the activities listed as overhead in the SKF annual report are inclusive of the labor costs associated with such activities.

Department's Position: We agree with petitioner that indirect labor, which is attributable to overhead, and labor attributable to SG&A were not included in our constructed value calculations in the preliminary results. For these final results, we calculated overhead and SG&A expenses using the line items pertaining to these expenses from the SKF annual report. We did not use the statutory minimum since our calculations from the SKF report resulted in an SG&A rate that exceeded the minimum. We did not include any item from the SKF report specifically representing indirect labor costs in calculating the overhead and SG&A expenses, nor did we include the item ''payments to and provisions for employees'', since this item does not segregate direct from indirect labor. Further, contrary to Guizhou Machinery *et al.'s* suggestion, there is no evidence in the SKF report to indicate that the line items (*e.g.*, power and fuel) that we used to calculate these expenses included the indirect labor costs, if any, associated with each line item.

However, we disagree with petitioner that the indirect labor amounts supplied by respondents are inadequate. The record evidence in this case, based on our initial and supplemental questionnaires as well as verification, does not indicate any misreporting of the indirect labor ratios supplied by respondents. For these final results, we have calculated the expenses for indirect and SG&A labor using the ratios of indirect and SG&A labor to direct labor, as reported in the responses.

Comment 9: Petitioner states that the Department did not include interest expenses incurred by SKF in the constructed value calculation. Petitioner contends that interest expenses and other financing charges are ordinarily incurred in market economies and should be included in the constructed value calculation as instructed by the Department's *Antidumping Manual*, Ch. 8 at 55 (7/93 ed.). Petitioner notes that Jilin and Henan identified ''loan interest'' in their itemized list of expenses and that, in the 1989–90 review, the Department included interest expense in SG&A for its constructed value calculations.

Guizhou Machinery *et al.* argue that petitioner provides no basis for its assertion that SKF's interest expenses are in fact representative of producers in appropriate market-economy surrogate countries. Guizhou Machinery *et al.* state further that petitioner only cites legal authority for the proposition that the SG&A should include an amount for interest expenses but does not specify which charges from SKF's annual report should be included in the calculations.

Department's Position: We agree with petitioner that, consistent with our practice, financing charges should be treated as ordinary business expenses. Therefore, we have included interest expenses, as listed in SKF's 1991–92 financial statements, in the SG&A calculation in the final results. As noted in our response to Comment 8, we calculated the SG&A expenses by adding each line item from the SKF report that pertained to such expenses. The line items used in the preliminary results did not include interest expense, which was included in a separate category in the SKF report.

Concerning Guizhou Machinery *et al.*'s comment that petitioner has not sufficiently demonstrated the representativeness of SKF's interest expense, we note that this source constitutes the best available information and that Guizhou Machinery *et al.* have provided no alternative source for the valuation of this expense.

Comment 10: Petitioner argues that section 772(e)(2) of the Act requires the Department to deduct direct and indirect selling expenses incurred by respondents' U.S. subsidiaries from exporter's sales price (ESP). Petitioner states that the Department lacks the discretion to create an exception for selling expenses incurred by U.S. companies in NME countries, arguing that section 772 has never been amended to distinguish USPs with respect to NME-produced imports; rather, the adjustments required to calculate dumping margins with respect to NME cases have been codified in section 773.

Petitioner recognizes that the Department declined to make ESP adjustments in *Ceiling Fans* on the grounds that ''there is a lack of information on the record to make adjustment to both sides of the equation. * * *'' (citing *Ceiling Fans* at 55276). Petitioner claims that these reviews are distinct from *Ceiling Fans* because the U.S. importers of TRBs function at a different level of trade than that derived by the Department's constructed value of home market sales. Petitioner explains that the U.S. importers are resellers that function as distributors while, conversely, the Department's constructed value does not include SG&A expenses that represent expenses associated with reselling. Petitioner adds that in the preliminary results the Department relied on the statutory minimum, which represents the minimum activities of the manufacturer, to determine SG&A expenses to include in constructed value.

Petitioner further distinguishes the current reviews from *Ceiling Fans* by arguing that the SKF Annual Report provides sufficient evidence to calculate an adjustment to FMV as provided in 19 C.F.R. 353.56(b)(2) (ESP offset), which would not necessarily equal the U.S. selling expenses, if the Department chooses to make such an adjustment.

With respect to deductions of selling expenses from FMV, petitioner contends that, by using the SG&A expenses of SKF in the final results, the Department would exclude those expenses analogous to resale activities. Therefore, petitioner contends, there is no basis to conclude that constructed value requires any deduction similar to the statutory deduction from ESP. Petitioner also asserts that the home market or third-country selling expenses of the foreign producer/U.S. importer are not relevant to the derivation of constructed value and that these expenses cannot therefore be deducted from the surrogate or statutory minimum SG&A expenses used in constructed value. Finally, petitioner asserts that, if the Department does choose to grant an ESP offset, there is no basis on which to assume that an ESP offset would be equal to U.S. selling expenses; rather, the Department should subtract only that portion of SG&A attributable to indirect selling expenses (referencing schedule 6(d), ''Other Expenses,'' of the SKF Annual Report).

Shanghai supports the Department's preliminary decision not to deduct direct and indirect selling expenses from ESP, stating that there is insufficient information to make a corresponding adjustment to FMV which would thereby permit the fair and accurate comparison between USP and FMV required by the antidumping statute. Shanghai points out that the SKF Annual Report does not present the breakdown of selling expenses necessary to make the required adjustments. Shanghai further states that the Department recognized in *Ceiling Fans* that section 772(e) of the statute does not require the unfair adjustment of USP in ESP transactions without the corresponding adjustments to FMV. Shanghai asserts that the antidumping statute requires the Department to make fair comparisons between USP and FMV, pursuant to *The Budd Company* v. *United States*, 746 F. Supp. 1093, 1098. Shanghai concludes that a fair comparison cannot be made if the information available does not permit the FMV adjustment.

Guizhou Machinery *et al.* state that an adjustment to ESP without the companion ESP offset to FMV would lead to distorted results. Guizhou Machinery *et al.* argue that, while deductions for U.S. selling expenses and the ESP offset can be made in market-economy cases without difficulty, it is problematic to do so in NME cases because there is no market-based value for indirect selling expenses on the FMV side of the dumping equation.

Guizhou Machinery *et al.* cite *Ceiling Fans* as the Department's best explanation of the calculation problem and of the Department's reasons for traditionally declining to adjust both USP and FMV for U.S. selling expenses in an NME case, and they suggest that *Ceiling Fans* is a direct precedent for the Department's treatment of selling expenses in this case. Guizhou Machinery *et al.* state that the U.S. importers in *Ceiling Fans*, as in virtually every ESP case, were resellers and that the current reviews cannot therefore be distinguished from *Ceiling Fans* on this basis. Guizhou Machinery *et al.* also state that petitioner's argument does not deal with the fact that the statutory minimum SG&A the Department used as a surrogate value includes all selling expenses necessary to sell TRBs, including an amount for indirect selling expenses that would normally be deducted from FMV as an ESP offset.

With respect to petitioner's argument that, if necessary, there is record evidence that will allow for an ESP offset to FMV, Guizhou Machinery *et al.* further contend that petitioner's reference to schedule 6(d) in the SKF Annual Report as an appropriate source of indirect selling expenses is unsupported by any evidence.

Department's Position: We agree with petitioner with respect to the deduction of U.S. selling expenses from USP. We have reevaluated our practice concerning the deduction of expenses incurred by U.S. affiliates of respondent companies in NME cases and have concluded that such deductions are explicitly required by section 772(e)(2) of the statute, which states that ESP shall be reduced by the amount of ''expenses generally incurred by or for the account of the exporter in the United States in selling identical or substantially identical merchandise.'' *See Notice of Final Determination of Sales at Less Than Fair Value: Bicycles from the PRC*, 61 FR 19026, 19031 (April 30, 1996) (*Bicycles*) [1]. The statute provides no exceptions for cases involving NME countries. We have subtracted, therefore, direct and indirect selling expenses incurred by such U.S. affiliates from the starting price in deriving the USP.

We have made an ESP offset to FMV which, in conformance with section 353.56 of our regulations, is in an amount not to exceed indirect selling expenses incurred in the United States. We based this offset on the ''other expenses'' item from the SKF report, and subtracted from this item the amount for debentures as indicated in a footnote to ''other expenses'' in the SKF report. The SKF report notes that the general category of expenses containing the ''other expenses'' item includes ''selling expenses.'' However, none of the named items (*e.g.*, ''power and fuel'') pertain to selling expenses. We have concluded that, as suggested by petitioner, the ''other expenses'' item, minus debentures, represents these ''selling expenses.''

Comment 11: Petitioner claims that verification of Jilin and Liaoning revealed that these companies function in some circumstances as sales agents

[1] Although the statutory citation in this case is to the law as it existed on December 31, 1994, whereas the relevant citation in *Bicycles* is to the law as it exists subsequent to that date, both versions explicitly require the deduction of expenses generally incurred by or for the account of the exporter (or a U.S. affiliate) in the United States.

and states that the Department's calculation of USP does not distinguish between sales for which Jilin and Liaoning acted as agents and sales for which they purchased the bearings for their own accounts and then resold them for export to the United States. Petitioner argues that, in a market economy, the functions of an agent involve additional selling activities for which the agent would be compensated by commissions. Petitioner states that commissions, as selling expenses, should be reflected in constructed value. If commissions are not taken into account in constructed value, petitioner contends, these sales are not at the same level of trade as the Indian sales by SKF that are the basis for assigning values to the factors of production. Petitioner suggests that the Department use the commission rate reported by Premier and Henan as a proxy.

Guizhou Machinery *et al.* state that petitioner misunderstood the verification reports. Guizhou Machinery *et al.* state that in this situation Jilin and Liaoning do not act as commission agents, but simply provide assistance with transaction details after the factory has found a buyer. According to Guizhou Machinery *et al.*, the factory and the customer negotiate a sales price, which includes a fixed profit amount for Jilin or Liaoning, adding that the only difference between the two types of transactions is the nature of the profit. Guizhou Machinery *et al.* further state that if the Department does classify this fee as a commission it would be inappropriate to impute a commission in the manner suggested by petitioner because (1) all of the factories' selling expenses have been included in the statutory minimum SG&A, and (2) it would be improper to use one respondent's proprietary data to calculate a margin for another respondent.

Department's Position: We disagree with petitioner. With respect to petitioner's suggestion that we make an adjustment to FMV for commission expenses, we first note that all transactions by Jilin and Liaoning under review were purchase price transactions. We do not make circumstance-of-sale (COS) adjustments for selling expenses incurred on purchase price sales in NME cases because the surrogate data on the record do not allow us to quantify the direct surrogate home market selling expenses necessary for such an adjustment. *See Final Determination of Sales at Less Than Fair Value: Certain Helical Spring Lock Washers From the People's Republic of China*, 58 FR 48833, 48839 (Sept. 20, 1993) (*Lock Washers*). (Pursuant to our COS methodology, we first subtract home market direct selling expenses from FMV, then add U.S. direct selling expenses.) As noted in our response to Comment 10, we have adjusted for home market *indirect* selling expenses in ESP situations by deducting the ''other expenses'' item as listed in the SKF report. However, there is insufficient data to allow for a *direct* home market selling expense adjustment because we are unable to isolate direct selling expenses in the SKF report.

Second, even if we were to make COS adjustments for purchase price sales, we would make this adjustment using the U.S. selling expenses incurred by Jilin and Liaoning on these transactions. The commission expenses at issue are not incurred by Jilin and Liaoning; rather, they are paid by the PRC suppliers. We reviewed export transactions between the PRC exporter and the unrelated U.S. customer. We did not examine internal PRC transactions between the suppliers and the exporters.

Comment 12: Petitioner and Shanghai both submitted comments concerning the appropriate basis for valuing the ocean freight expense. Petitioner asserts that the freight rate for shipments from Japan to the United States used as the surrogate value by the Department to calculate ocean freight is inappropriate because the distance between Japan and the United States is shorter than that between China and the United States. Petitioner further states that, since Japan is considered one of the world's most advanced countries, it is not appropriate to use the port and maritime transportation system of Japan to calculate ocean freight expenses for the PRC, which is a developing country. Petitioner suggests that, in the absence of market-economy freight rates from China to the United States, the Department use ocean freight from India instead of Japan, since India is the surrogate country selected by the Department. Petitioner suggests that an Indian rate can be established by adding 30 percent to the Japanese rate based on a comparison of the CIF/FOB ratios for the two countries published by the International Monetary Fund (IMF) (1.09 for Japan and 1.117 for India, *i.e.*, 11.7 percent is approximately 30 percent greater than 9 percent).

Shanghai contends that the Department should have used the publicly available rate for shipments from the PRC to the United States, using data from the Federal Maritime Commission (FMC). Shanghai claims that publicly available information on file with the FMC indicates that the Asia North America Eastbound Rate Agreement (ANERA) maintained rates for shipments from the PRC to the United States by several market-country carriers throughout the periods of review.

Shanghai further argues that the port costs in Japan are among the highest in the world and are several times as high as those in other Asian ports and that, therefore, if the Department rejects the use of publicly available ocean freight rates from the PRC to the United States, it should not continue to use the inflated Japanese ocean freight rates but should instead use publicly available rates to the United States from other Asian ports (*e.g.*, Hong Kong/Macau and Taiwan). Shanghai states, in addition, that the Department erroneously applied a USD 3.00 surcharge to the ocean freight value. Shanghai contends that such a surcharge was applicable only on cargo from Japan during the period prior to September 30, 1993 and that there is no evidence of a fuel surcharge on ocean freight from the PRC to the United States. Finally, Shanghai responds to petitioner's suggested approach by stating that Indian rates are totally unrepresentative when compared with the market-based rates from the PRC to the United States.

Guizhou Machinery *et al.* respond to petitioner's suggested approach by arguing that the Department's ocean freight calculation is reasonable because it is based on market-economy rates and relates to the transportation between the United States and an Asian country within reasonable proximity to the PRC. Guizhou Machinery *et al.* further state that a comparison of the CIF/FOB ratios for Japan and India does not reflect the difference in ocean freight expenses charged by ocean freight providers in those counties or the actual freight rates charged in India. Guizhou Machinery *et al.* note that the valuation methodology used by the Department, which relies on the actual rates provided by the FMC, specifically accounts for the transportation of bearing products. Finally, Guizhou Machinery *et al.* suggest that the use of Japanese shipping rates is consistent with Department practice in many other NME cases.

Department's Position: We agree with Guizhou Machinery *et al.* and have used Japanese shipping rates for the final results. We are not using FMC data involving shipments from the PRC to the United States because we were not able to obtain ocean freight information for shipments of subject merchandise from the PRC to the United States during the periods of review. Although we found a shipment of bearings from Hong Kong to the United States during

the periods of review, it was provided on a per-container basis and we were unable to allocate these charges on a per-unit basis. The Indian rate suggested by petitioner is inappropriate due to the significantly greater distance involved in shipments from India to the United States compared with shipments from the PRC to the United States. Although the distance from Japan to the United States is shorter than the distance from the PRC to the United States, the Japan-to-United States distance more closely approximates the PRC-to-United States distance than does the distance from India to the United States. Thus, the Japan rate is the best available information by which to value this expense.

Comment 13: Petitioner contends that the Department has understated the marine insurance expense by applying an insurance rate based on weight applicable to sulfur dyes from India rather than on value. Petitioner argues that the value of one ton of sulfur dye may be significantly less than the value of one ton of TRBs, in which case the payment for loss of one ton of sulfur dye would be less than the payment for the loss of bearings. Petitioner recommends that the Department calculate a marine insurance factor based on the ratio of the insurance charge per ton of sulfur dye divided by the value of sulfur dye per ton (based on U.S. Customs value) and apply this factor to the price of TRBs sold in the United States.

Guizhou Machinery *et al.* respond to petitioner by stating that value is not the only basis for insurance rates and that it is not reasonable to assume that the difference in Indian marine insurance rates applicable to sulfur dye and TRBs can be accurately measured simply by comparing the difference in product values. Guizhou Machinery *et al.* note that petitioner's argument about the customs values of sulfur dye is new information and has not been previously submitted on the record for these reviews. Guizhou Machinery *et al.* further state that the Department's approach of using the marine insurance rates from the Sulfur Dyes investigation is consistent with its calculations in NME cases. Finally, Guizhou Machinery *et al.* argue that the Department did not understate but rather overstated the marine insurance expenses due to ministerial errors in calculating several respondents' marine insurance expenses. Guizhou Machinery *et al.* urge the Department to therefore reject petitioner's request to make an upward adjustment to the marine insurance calculations.

Department's Position: We disagree with petitioner. We have relied on the publicly available information on marine insurance for sulfur dyes that we used for the preliminary results. These data are the only publicly available information that are available to us; further, we have used the same rate repeatedly for other PRC analyses. *See, e.g., Final Results of Administrative Review: Certain Helical Spring Lock Washers from the PRC,* 61 FR 41994 (August 13, 1996).

Comment 14: Petitioner argues that, where the Department discovered significant errors or omissions during verification of the information pertaining to one of the current review periods (1990–91, 91–92 or 92–93), such findings should also be applied to the other periods. Petitioner states that it requested verifications for all three outstanding review periods, but that the Department elected to verify only one or two of the periods. Petitioner states that, with respect to several of the exporters or producers, the Department subsequently rejected responses for one POR because of verification findings and applied BIA either in whole or in part with respect to that period, but accepted unverified responses for an earlier or later POR.

Citing section 751(a)(2) of the Act, petitioner argues that the Department is directed to consider all relevant information in its possession at the time the Department determines antidumping duties. Petitioner states that in *Floral Trade Council of Davis, California* v. *United States,* 709 F. Supp. 229, 230 (CIT 1989) (*Floral Trade Council*), the court held that documents in the Department's possession which had become sufficiently intertwined with the relevant inquiry are part of the record, no matter how or when they arrive at the Department. Petitioner asserts that, because the three reviews at issue have become intertwined, errors or omissions discovered during verification of one review period cannot be ignored for purposes of another review period. Petitioner argues that, since the results of verification were known to the Department before publication of the preliminary results for any of the three pending reviews, relevant information obtained with respect to a company in the course of one review is also before the Department for purposes of the other intertwined reviews. Noting the fact that there was a single briefing schedule, one hearing and one disclosure conference, petitioner argues that the Department is treating these reviews virtually as a unified proceeding.

Petitioner further argues that the Department routinely applies BIA from past reviews and cites as an example a review of a countervailing duty order on fabricated auto glass from Mexico, in which the Department relied upon information contained in a verification report from a past review of litharge, red lead and lead stabilizers from Mexico (citing *PPG, Inc.* v. *United States,* 708 F. Supp. 1327 (CIT 1989) (*PPG*)). Petitioner distinguishes *Cabot Corp. v. United States,* 664 F. Supp. 525, 527 (CIT 1987) (*Cabot*), in which the CIT held that a verification report for a subsequent review of the same order was not before the Department for consideration in the previous review, by noting that in *Cabot* the Department issued the final results of the previous review prior to issuance of the verification report in question. Petitioner argues that, in the pending review, because verification reports for subsequent reviews have been issued prior to the issuance of final results of the previous reviews, those reports are before the Department for consideration in the previous reviews.

Petitioner further contends that the failure to consider information from the verification reports in the other intertwined reviews shifts an impossible burden to petitioner. Petitioner asserts that such was the case in *Final Results of Antidumping Duty Administrative Review; Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, From Japan, and Tapered Roller Bearings, Four Inches or Less in Outside Diameter and Components Thereof, From Japan,* 58 FR 64720, 64723 (December 9, 1993) (*TRBs from Japan*), in which the Department refused to consider knowledge gained from a verification for the 1991–92 review to correct errors likely to have been made in the 1990–91 review in order to avoid holding respondent in that case responsible for the Department's delay in conducting the earlier review. Petitioner claims that, because domestic interested parties necessarily depend upon information from a variety of sources, including verification reports from other review periods, in order to rebut arguments made by respondents, denying petitioner the ability to consult such reports and show inaccuracies in reported information interferes with fundamental rights of participation.

Finally, petitioner argues that, even if the Department refuses to consider verification results in the context of an earlier review, to the extent that the Department applied partial or complete BIA for the 1991–92 POR based on verification, the same BIA should be applied with respect to the 1992–93 POR.

Guizhou Machinery *et al.* respond that the Department should reject petitioner's request to combine the

administrative records of the three reviews in question. Citing *Win-Tex Products, Inc.* v. *United States*, 797 F. Supp. 1025 (CIT 1992) (*Win-Tex*), Guizhou Machinery *et al.* argue that the results of each proceeding must be based upon substantial evidence of the administrative record for that proceeding. Guizhou Machinery *et al.* argue that each administrative review is considered a separate administrative proceeding and, absent affirmative incorporation, documents contained in the administrative record of one review are not part of the administrative record of another review.

Guizhou Machinery *et al.* further claim that petitioner's argument, based on its citation of *Floral Trade Council*, in which the CIT granted plaintiff's motion to supplement the administrative record of a scope proceeding with information from the underlying investigations by the Department and the International Trade Commission (ITC), is flawed. Guizhou Machinery *et al.* note that the CIT's decision was based on the fact that the Department itself stated in its scope decision that it had examined both original investigations. Thus, respondents argue, the CIT did not hold that the Department had to examine documents from earlier parts of the proceeding, but allowed the documents to be incorporated, not because plaintiff deemed them relevant, but, rather, because the Department itself had incorporated the documents in its determination.

Department's Position: We disagree with petitioner. Section 516A(b)(2)(A) of the Act states that the record for review includes ''a copy of all information presented to or obtained by the [Department] during the course of the administrative proceeding, including all government memoranda pertaining to the case and the record of ex parte meetings required to be kept by section 777(a)(3)'' as well as ''a copy of the determination, all transcripts or records of conferences or hearings, and all notices published in the Federal Register.'' As elaborated in our regulations, ''[f]or purposes of section 516A(b)(2) of the Act, the record is the official record of each judicially reviewable segment of the proceeding.'' 19 C.F.R. 353.3(a) (1994). The CIT has consistently held that antidumping investigations and administrative reviews are wholly independent segments of a proceeding. *See, e.g., Outokumpu Copper Rolled Products AB* v. *United States*, 829 F. Supp. 318, 322 (CIT 1992) (''Each of Commerce's subsequent determinations must be supported by the record obtained during the course of [the] respective administrative proceeding.'').

We agree with respondents with respect to *Floral Trade Council.* There, the Court reviewed a scope decision in which the Department stated ''without qualification that it has examined 'the original investigations by the ITC and the Department.* * *' '' *Floral Trade Council* at 230. Thus, the Court allowed the plaintiff to supplement the record with certain documents from the investigation that had become ''sufficiently intertwined'' with the Department's scope inquiry. Here, in contrast, the Department is conducting a review pursuant to section 751 to determine whether, and to what extent, the respondents have sold subject merchandise at less than foreign market value during three separate periods of review. To make these determinations, we have relied on information pertaining to each separate period; we have not relied on administrative records for other segments of the proceeding in reaching any of these determinations.

With respect to *PPG*, in which we relied on a verification report from another case in making our determination, the report from the unrelated case was placed on the record of the case in question because it contained public information regarding Mexican interest rates. *See PPG* at 1328. Thus, the Department relied on the verification report in a similar manner as our current use of publicly available information from the *Sulfur Dyes* petition in valuing marine insurance. *See* Comment 13.

Although the preliminary results for these three reviews were published in the same notice and we conducted them concurrently, including a single briefing schedule, one hearing and one disclosure conference, as noted by petitioner, we did so for the convenience of all parties involved in these reviews. However, each review is a separate segment of the proceeding as defined in our regulations. *See* 19 C.F.R. 353.3(q). Despite the fact that reviews sometimes proceed concurrently or overlap, we generally do not apply the results of verification of one review period to other review periods. *See TRBs from Japan* at 64723. In this instance, we found no discrepancies during verifications of one POR that would also apply to other PORs based on record evidence.

Comment 15: Petitioner argues that the Department erred in its choice of the BIA rate to apply to certain transactions by Jilin, Liaoning, Chin Jun, Guizhou, and Henan. Petitioner states that the appropriate BIA rate for U.S. sales involving models for which insufficient data was supplied to allow the calculation of FMVs should be the highest rate found for any individual U.S. transaction, instead of the greater of the highest company-specific rate from a prior review or the highest rate calculated in the current review. Petitioner asserts that to do otherwise is to encourage respondents to selectively withhold relevant data whenever by doing so the Department would select a BIA rate lower than the actual margin of dumping.

Respondents Jilin, Liaoning, and Guizhou respond that they cooperated in these reviews and that petitioner has provided no reason to deviate from the Department's established practice concerning cooperative firms, nor has petitioner shown that the Department's results are aberrational as a result of the use of its policy.

Chin Jun responds that the highest single transaction recommended by petitioner is punitive and must be rejected because the Department expressly found in its preliminary results that Chin Jun was cooperative in the reviews at issue. Chin Jun further notes that it was unable to supply the missing information because such information was under the control of unrelated third parties.

Department's Position: We disagree with petitioner. The BIA that we have selected, as detailed in our response to Comment 29, is in accordance with the BIA policy for antidumping administrative reviews. *See Antifriction Bearings (Other Than Tapered Roller Bearings) and Parts Thereof from France, et al.; Final Results of Antidumping Administrative Reviews*, 58 FR 39729, 39739 (July 26, 1993). All of the companies in question, except Chin Jun during the 1990–91 review, substantially cooperated with our requests for information for the periods in question but failed to provide complete or accurate information with respect to certain transactions. For these specific transactions, we find that our BIA approach accomplishes the statutory goal of encouraging compliance with our requests for information as well as allowing us to determine current margins as accurately as possible. *See Rhone Poulenc, Inc.* v. *United States*, 899 F.2d 1185, 1190 (Fed. Cir. 1990). Petitioner's suggested BIA (*i.e.*, the highest rate found for any individual U.S. transaction) is unwarranted given the level of cooperation and the nature of the reporting deficiencies.

Comment 16: Petitioner states that Shanghai's bearing weights and scrap weights were unverifiable and that the

Department should therefore resort to partial BIA by adjusting the reported amounts to reflect the highest actual materials or lowest actual scrap costs.

Shanghai argues that the Department weighed actual bearings and scrap samples at verification and determined that any discrepancies found at verification were insignificant. Shanghai states that the Department has previously found no cause to resort to BIA on the basis of insignificant discrepancies (citing *Silicon Carbide* at 19749).

Department's Position: We disagree with petitioner. Although at verification we did find discrepancies from the reported weights, we determined these discrepancies to be insignificant. Therefore, they did not undermine the validity of Shanghai's responses. In addition, we found some discrepancies to be above reported weights and others to be below; we found no pattern of under-reporting.

Comment 17: Petitioner argues that the Department reported that it was unable to verify the number of Shanghai's employees assigned to the production of TRBs, citing the verification report for the 5th and 6th PORs. Petitioner claims that, as a result, the Department could not verify reported indirect labor nor was it able to determine the extent to which labor costs were understated by the omission of trained employee hours from the direct labor costs reported. Petitioner further argues that, given that overhead costs, SG&A and profit are all derived on the basis of materials and labor costs, the inability to verify labor hours is fatal to Shanghai's entire questionnaire response. Petitioner argues that, if the Department uses the partial information submitted by Shanghai, labor hours should be adjusted to account for trained employees. Petitioner refers to the verification report, which notes that, although Shanghai reported only skilled workers, the Department determined at verification that production teams consisted of both skilled and trained workers. Thus, petitioner asserts, the Department should, as BIA, reject the response entirely, or, alternatively, calculate the ratio of all workers to skilled workers and apply that ratio to Shanghai's reported labor hours.

Shanghai claims that petitioner has misinterpreted the verification report. Rather than stating that the number of employees assigned to TRB production was unverifiable, Shanghai says the report noted that it was not verifiable from personnel department worksheets, which do not contain such information. Shanghai says that it did report the number of employees assigned to TRB production and that such information was verifiable through a variety of means. Shanghai further claims that its reported labor hours accounted for trained workers. Shanghai counters petitioner's argument for use of BIA on the basis that it did not refuse information and it was able to produce, in a timely manner, any information requested by the Department.

Department's Position: We agree with Shanghai's contention that petitioner misinterpreted our verification report. In the report, we noted that there was nothing to which we could trace the numbers from a worksheet prepared for these administrative reviews in order to verify the number of employees assigned to the production of subject merchandise. However, based on company records examined at verification, we determined that Shanghai accurately reported the number of employees assigned to the production of TRBs.

We were able to verify the direct labor hours from Shanghai's internal record-keeping derived from work tickets. We found at verification that by reporting direct labor from the work tickets Shanghai did not account for trained workers. To calculate direct labor for the preliminary results, we adjusted Shanghai's reported labor hours in order to account for trained workers by adding the direct labor hours for trained workers to the direct labor hours for skilled workers. We have applied this same methodology for these final results. Because we were able to verify Shanghai's direct labor and there was no evidence indicating that indirect labor was misreported, we have used the indirect labor as reported.

Comment 18: Petitioner notes that the Department's analysis memoranda for Jilin and Liaoning for the fifth and sixth reviews do not indicate whether it corrected the databases for clerical errors discovered during verification.

Department's Position: For these final results, we have corrected Jilin and Liaoning's sales databases for the clerical errors we discovered during verification.

Comment 19: Petitioner states that, whether or not verified, the Department should make an adjustment for commissions incurred on U.S. sales (valued in a market economy) in the Department's analysis of Guizhou Machinery based on the commission rates reported by Premier and Henan, both of which disclosed sales through commission agents and the commission rates.

Guizhou Machinery states that the failure to report certain commission payments amounted to an insignificant ''clerical error.'' Guizhou Machinery further argues that it would be unfair to make wholesale adjustments to Guizhou's calculations which would affect all sales, including those sales which are unaffected by the error, and that it would be inappropriate to base an adjustment on the average commission rate reported by Premier and Henan because it would violate the administrative protective order (APO) rules applicable to that information.

Department's Position: We disagree with petitioner. Guizhou Machinery had only purchase price sales. Therefore, any adjustments for commissions would be circumstance-of-sale adjustments, which we do not make in NME cases. See our response to Comment 11.

Comment 20: Petitioner argues that, with respect to Guizhou Machinery and the 1992–93 review, the Department should reclassify as U.S. sales those transactions with purchase orders placed by a U.S. firm that were listed as third-country sales.

Guizhou Machinery argues that the administrative record indicates that the merchandise was shipped to a third country, not the United States, and that, although purchase orders were placed by a U.S. company, Guizhou Machinery did not know the ultimate destination of the TRBs because the merchandise was shipped to a third country. Guizhou Machinery argues that it would therefore be inappropriate to reclassify these third country sales as U.S. sales.

Department's Position: We disagree with petitioner. Section 773(f)(2) of the Act requires that the producer of the merchandise know, at the time of sale to the reseller, the country to which the reseller intends to export the merchandise in order for the Department to treat sales to a reseller as sales to the United States. Although there were certain purchase orders placed by a U.S. company, there is insufficient evidence that the respondent had knowledge of whether the subject merchandise was destined for the United States. During verification of Guizhou Machinery, the Department confirmed that these sales were shipped and sold to a Hong Kong-based company. Accordingly, we have classified these transactions as third country sales for the final results.

Comment 21: Petitioner asserts that the factory that supplies Guizhou Machinery with TRBs failed to report ''helpers'' (*i.e.,* workers assisting the basic production workers) in its reporting of direct labor. Petitioner requests that the Department increase the labor hours to account for unreported workers.

Guizhou Machinery responds that the Department's verification report clearly states that ''helpers'' are ''auxiliary workers,'' which are different than the ''basic production workers.'' Guizhou Machinery further argues that the auxiliary workers typically perform maintenance work and move containers and that ''auxiliary workers'' labor is indirect labor and is not part of direct labor.

Department's Position: We agree with petitioner. The Department verified that the function of ''helpers'' is to support the basic workers in the production of TRBs. Although ''helpers'' have a supporting role in the production process, they do perform a function in the production of TRBs. Therefore, the Department has adjusted its calculations for direct labor to account for unreported workers.

Comment 22: Petitioner notes that the Department stated that reported duties and charges incurred by Central Bearing, Luoyang's wholly owned subsidiary in the United States, on ESP sales were deducted from the unit price. Petitioner argues that, because printouts associated with Luoyang's ESP sales do not reflect such calculations, such expenses should be deducted in the calculation of USP for the final results.

Luoyang notes that, although the printout for ESP sales appears to be incomplete, the calculation of net USP does include relevant information regarding these expenses, and a review of the calculation formula indicates that the Department deducted duties and other charges. Thus, Luoyang argues, no revision is necessary for the final results.

Department's Position: We agree with Luoyang. A review of the formula we used to calculate net USP, which was provided to petitioner, indicates that net USP was the price after making deductions for duties and charges incurred by Central Bearing. Therefore, for these final results, we have made no further adjustment with respect to these expenses.

Comment 23: Petitioner contends that the Department should reject the factors data submitted by one of the suppliers involved in these reviews because it under reported its material consumption by using theoretical instead of actual yields in the denominator of the gross weight factor. Petitioner argues in the alternative that, if these data are not disregarded, the Department should adjust the data to account for this error.

Guizhou Machinery *et al.* respond that petitioner has not established that the error was so substantial as to justify the rejection of the supplier's response in its entirety.

Department's Position: We disagree with petitioner concerning its claim that the supplier response in question should be disregarded in its entirety. However, we agree that an adjustment should be made to the data submitted to correct for the difference between theoretical and actual yields. We have made this correction for the final results.

Comment 24: Shanghai argues that the SKF overhead rate that the Department used in the preliminary results should not be used for the final results because it is excessive and unrepresentative of Chinese producers for the following reasons. First, Shanghai argues that the Department's analysis improperly allocates the full amount of the depreciation expense to overhead, and it does not consider that certain depreciation expenses are allocable to SG&A. Shanghai notes that, for the final results of the 1989–90 review, the Department allocated a portion of depreciation to SG&A. Shanghai states that, according to the SKF annual report, 7.3 percent of total depreciation pertains to SG&A.

Second, Shanghai notes that the SKF annual report does not identify the nature of rent and lease expenses. Shanghai claims that office space and housing for executives should be charged to SG&A and that these lease and rent payments should therefore be allocated to SG&A, not to overhead.

Third, Shanghai argues that it is not reasonable to allocate ''Rates and Taxes'' to overhead since they are not characterized as such in the SKF annual report. Shanghai states that this treatment is inconsistent with the 1989–90 administrative review, in which the Department allocated the rates and taxes to SG&A. Shanghai requests that the Department accordingly reduce the SKF overhead by this amount in the event that it continues to rely on the SKF overhead rate.

Shanghai suggests that, since there is inadequate information to determine SG&A in the SKF Report, the Department should use the Tata Iron and Steel Company (TISCO) overhead figure of 19.24 percent of materials and direct labor as indicated in the July 16, 1991, cable from the Indian Embassy or use the data compiled by the Reserve Bank of India (RBI) for the overhead calculation.

Chin Jun also claims that attributing the entire amount of SKF's depreciation to overhead is improper because some depreciation, *e.g.*, depreciation on buildings, computer and furniture, should be included in SG&A. Chin Jun requests, therefore, that at least one quarter of depreciation should be allocated to SG&A. Chin Jun also recommends an alternative method for calculation of SG&A, resulting in an overhead rate of 11.76 percent.

Department's Response: We disagree with Shanghai that we should either use TISCO's SG&A rate or the RBI information for the calculation of SG&A and overhead rates instead of using SKF's annual report. TISCO, Tata Iron and Steel Company, as the name implies, is an iron and steel company, not a bearing company such as SKF. The information published by RBI represents over 600 companies in India from various industries. It is the Department's practice to utilize industry-specific PI when possible. See *Notice of Final Determination of Sales at Less Than Fair Value; Disposable Pocket Lighters From the People's Republic of China,* 60 FR 22359, 22364 (May 5, 1995). Accordingly, for the final results, we have continued to calculate SG&A and overhead rates based on the information stated in SKF's annual report.

However, we agree that it is appropriate to adjust the SKF overhead rate as follows. We agree with Shanghai and Chin Jun that it is improper to include all of SKF's depreciation in overhead because depreciation associated with office buildings and office equipment should be included in SG&A. Therefore, for the final results we allocated depreciation costs to overhead and SG&A according to the function and value of the assets; that is, we included in overhead only the depreciation expenses allocated to manufacturing. The information pertaining to the function and value of SKF's assets was obtained from the SKF annual report.

We also agree with Shanghai that rates and taxes should be allocated to SG&A and not to overhead. This allocation methodology is consistent with our practice in the 1989–90 administrative review of this proceeding and with other recent PRC cases. See memorandum from analyst to file *Factor Values Used for the Preliminary Results of the First Administrative Review of Certain Helical Spring Lock Washers from the People's Republic of China, for the Period October 15, 1993, through September 30, 1994* dated August 3, 1995.

With respect to lease rental expenses, we agree with Shanghai that the SKF annual report does not identify the nature of those expenses. However, we do not agree that all of the lease rental expenses are for SG&A, since a portion of those expenses could be attributed to overhead as well. Accordingly, we allocated lease rental expenses equally to SG&A and overhead, *i.e.*, 50 percent for SG&A and 50 percent for overhead.

Comment 25: Shanghai states that the Department should correct apparent calculation errors that, Shanghai contends, resulted in a higher reported steel cost for cups and cones. Shanghai notes a discrepancy between the steel cost for cups and cones reported in the analysis memorandum and that provided in surrogate data source memorandum.

Department's Position: For the final results, we have changed the surrogate source with which we valued the steel used to manufacture cups and cones, necessitating a recalculation. This change renders Shanghai's argument moot.

Comment 26: Shanghai argues that the actual prices at which it purchased steel from PRC steel producers are sufficiently market-driven to be used instead of surrogate values. In support of its contention that the use of market-driven NME prices is appropriate, Shanghai cites *Ceiling Fans,* wherein the Department has stated that the presumption that no domestic factor of production is valued on market principles ''can be overcome for individual factors by individual respondents with a showing that a particular NME value is market driven'' (citing *Ceiling Fans* at 55273). Shanghai argues that, where this standard is met, the Department should apply its normal (non-NME) methodology (citing S. Rep. No. 71, 100th Cong., 1st Sess., 108 (1987)).

Shanghai states that the domestic steel producers from which it purchased steel compete against steel producers from market-economy countries. Shanghai also notes that there are no import restrictions limiting its ability to purchase either domestic or imported steel and that, under PRC joint venture law, it has the legal right to purchase steel from any supplier in the world. Shanghai states that the prices at which it purchased steel from domestic suppliers during these PORs were consistent with world steel prices for comparable types of steel.

Shanghai argues in the alternative that, if the Department determines Shanghai's steel purchases were not sufficiently market-driven, it should use the verified market costs of PRC steel imports otherwise on the record as the basis for valuing steel inputs. Shanghai claims that, in view of the Department's policy stated in *Ceiling Fans* of accepting market-based costs incurred during the POR, the Department should apply such costs to all respondents as the best evidence of the market cost of steel available to PRC producers during the PORs.

Finally, Shanghai proposes that the Department should consider using Shanghai's verified steel imports placed on the record of the 1993–94 review. Shanghai claims that, when adjusted for inflation, these costs would also represent a reliable alternative as to the market cost of steel available during these PORs. Shanghai argues that the Department has previously determined that, if an NME producer reports prices that are market-based, it is appropriate to use those prices as opposed to surrogate values. Shanghai claims that ''market-based costs incurred by the respondents in producing the subject merchandise . . . are the most accurate and appropriate values for . . . the purposes of calculating FMV'' (quoting *Ceiling Fans* at 55275).

Petitioner counters that there is no basis for adopting Shanghai's claim that its actual domestic steel purchases were market-driven, claiming that steel purchased in the PRC is not free of the effects of state controls on labor, energy, input and infrastructure prices. Petitioner adds that the participation of a market-economy investor will not purge the PRC inputs of the effects of state control.

In response to Shanghai's argument that the Department should value steel inputs based on import costs incurred by other respondents during the PORs, petitioner responds that Shanghai has not shown that it had any connection with any other companies' market-economy acquisitions during these PORs. Petitioners adds that the fact that Shanghai made market purchases of these inputs in subsequent years is irrelevant to these reviews.

Department's Position: We agree with petitioner. In order to use the prices paid by Shanghai for domestically produced steel inputs in our analysis, we must find that the PRC steel industry as a whole is governed by market-driven prices. The absence of explicit government involvement in the transactions involving Shanghai's steel purchases is not sufficient to warrant the conclusion that the prices for these inputs are market-driven. *See Amendment to Final Determination of Sales at Less Than Fair Value and Amendment to Antidumping Duty Order: Chrome Plated Lug Nuts from the People's Republic of China,* 57 FR 15052, 15053 (April 24, 1992). Shanghai has provided no evidence that would indicate that either the steel industry or the bearings industry in the PRC is a market-oriented industry.

As stated in *Ceiling Fans,* we will use, outside the context of a market-oriented industry, actual prices paid for inputs by NME-based producers to market-economy suppliers in a convertible or market currency. *See Ceiling Fans,* 56 FR at 55275. However, because Shanghai provided no evidence of having paid such prices for its steel inputs we have, for the final results, valued Shanghai's steel inputs using surrogate values. Regarding Shanghai's claim that we should value its steel inputs based on import costs incurred by other respondents, we note that we have not valued any respondent's steel inputs in these reviews based on the company's steel purchases. *See Comment* 5.

Comment 27: Chin Jun argues that the Department should use the verified import price incurred by other respondents as the steel value for all PRC producers on the basis that the Indian import data used by the Department far exceeds the value of steel used to produce TRBs, as evidenced by copies of invoices submitted by Chin Jun showing the acquisition price of steel by companies in market-economy countries. Chin Jun claims that the Department has previously determined that it must compare the surrogate price it selects with world prices to determine whether the proposed surrogate values are aberrational (citing *Hand Tools*).

Petitioner responds that the steel values used in the preliminary results are very low when compared with actual steel prices paid by Indian bearing producers, including prices on the record for the less-than-fair-value investigation (LTFV) remand results.

Department's Position: We disagree with Chin Jun. As noted in our response to Comments 5 and 26, we have not used the value of any respondent's imported steel in calculating factor values in these reviews because no respondent purchased such steel directly from market-economy suppliers. We have also not considered prices indicated on the invoices provided by Chin Jun because such a small number of invoices as was provided by Chin Jun cannot be deemed indicative, absent additional supportive data, of the values of steel used to produce TRBs. Finally, the invoices submitted by Chin Jun contain business proprietary information, and, as noted in our response to Comment 2, we prefer to base surrogate values on PI where possible.

However, we note that we have determined that the Indian import data on steel used to produce cups and cones is not reliable in comparison with U.S. import data regarding bearing quality steel. Therefore, we have used Indonesian import data to value such steel. *See* Comment 4.

Comment 28: Shanghai claims that the Department arbitrarily inflated Shanghai's dumping margin for the 1990–91 POR by rounding its calculations of per unit dumping duties and of total value to four decimal places. Shanghai argues that, had the Department rounded the numbers to two decimal places, the result would have been a *de minimis* margin of 0.47 percent instead of the 0.51 percent rate published in the preliminary results. Shanghai states that, although the Department's calculations display the numbers in the AD column rounded to two decimal places, the Department advised it that the calculations actually extended the figures to four decimal places. Shanghai asserts that the only apparent reason for using the four-digit method is to inflate the margin. Shanghai adds that the Department should not exercise its judgment in a manner that denies a respondent a *de minimis* margin.

Department's Position: We disagree with Shanghai. Although the computer printout of the Department's preliminary margin calculations shows numbers that appear to be rounded to four decimal places, the actual margin calculation was based on unrounded numbers, consistent with our standard practice for antidumping analysis. We calculate margins using unrounded numbers to obtain more accurate results. The numbers are displayed to only four decimal places for ease of printing. Furthermore, changes to Shanghai's margin calculation for these final results have yielded a *de minimis* margin.

Comment 29: Premier contends that the Department inappropriately based its dumping margin entirely on a so-called cooperative BIA rate for all three review periods at issue. Premier notes that, for each period, the cooperative rate assigned is identical to the uncooperative rate and states that such rates are punitive as applied to Premier, since the company cooperated to the best of its ability, including participating in a three-day verification. Premier states that it was unable to provide certain factors of production information to the Department because such information resides with unrelated suppliers that often compete with Premier and that the Department's application of BIA under such circumstances constitutes an abuse of discretion since it amounts to penalizing a company for failing to provide information it does not have. Premier cites *Usinor Sacilor* v. *United States*, 872 F. Supp. 1000 (CIT 1994), in support of its contention that the Department cannot select a severely adverse BIA rate when the deficiencies in the data are outside the respondent's control.

Premier further states that this data is not necessary in order to calculate a dumping margin for Premier, since it is a Hong Kong company for which the Department can use acquisition costs in lieu of factors of production data. Premier notes that in the 1989–90 review the Department did not disregard the entire response, which lacked factors data, and instead applied cooperative BIA only to those U.S. sales for which there was no identical foreign market match.

Finally, Premier notes that the Department has modified its standard two-tiered approach in the past where strict application of this methodology would result in aberrational margins (citing *Certain Steel Products from Mexico*, 58 FR 37352 (July 9, 1993), and *Professional Electric Cutting Tools and Professional Electric Sanding Grinding Tools from Japan*, 58 FR 30144 (May 26, 1993)). Premier suggests that the Department could reasonably use other alternatives other than the two-tiered methodology in the pending reviews, including (1) the highest rate calculated for Premier in any prior segment of the proceeding (0.97 percent); (2) the second highest calculated rate in each of the three reviews; or (3) the highest calculated rate from the prior (1989–90) review (8.83 percent).

Similarly, Chin Jun contends that the cooperative BIA rate that the Department applied to transactions for which it was unable to provide factors of production data is unnecessarily punitive and that, if the Department applies BIA to such transactions in the final results, it should use the actual dumping margins found for Chin Jun's transactions for which factors data was provided. Alternatively, Chin Jun states that, for those models for which Chin Jun was unable to provide factors data, the Department should have used factors data from any PRC-based producer which provided such data.

Petitioner responds that the BIA rate applied to Premier was not punitive but was in fact a cooperative rate under the Department's two-tiered methodology. Petitioner also contends that the deficiencies in Premier's response extend beyond a lack of supplier data and include significant errors in Premier's U.S. sales database. Petitioner requests that the Department apply a non-cooperative BIA rate to Premier and to each of its non-cooperative suppliers.

Petitioner further states that Chin Jun's suggestion that its actual calculated dumping margins should be used with respect to U.S. sales for which it could not provide factors data is inappropriate and requests that the Department adhere to the BIA guidelines provided in petitioner's case brief.

Department's Position: We do not accept Premier's contention that it is being penalized for factors that are outside of its control. We are using a cooperative BIA rate due to several failures on the part of Premier to supply information, including the failure to provide, at verification, certain information which was within Premier's control. The company's responses had several deficiencies. In addition to its failure to provide factors information on a transaction-specific basis, Premier was unable to accurately identify its suppliers or provide the quantities of merchandise supplied to the company during the PORs. *See Memorandum from Analysts to File: Verification Report for Premier Bearing and Equipment, Ltd.* (August 3, 1995) at 2. Therefore, we applied, to all U.S. sales, as cooperative BIA, the higher of the highest rate ever applicable to Premier or the highest calculated rate in the review period for each of the three reviews. Since these cooperative BIA rates are lower than the highest rate found for the 1989–90 review, we do not reach Premier's suggestion that we use the highest rate from 1989–90 review of this order. Further, our policy of requiring factor-of-production information for NME cases was adopted subsequent to that review.

Chin Jun substantially cooperated with our requests for information in the 1991–92 and 1992–93 reviews, but failed to provide FOP information with respect to sales of certain models. Under section 776(c) of the Act we have the authority to use BIA ''whenever a party or any other person refuses or is unable to produce information requested.'' Therefore, we can use BIA not only when a party ''refuses,'' but also when a party is ''unable'' to provide information.

Accordingly, we applied, as partial BIA for those specific transactions where Chin Jun was unable to provide us with the requested cost information, the highest rate ever applicable to Chin Jun in any previous review. *See Fresh and Chilled Atlantic Salmon From Norway; Final Results of Antidumping Duty Administrative Review*, 58 FR 37912 (July 14, 1993); *see* also our response to Comment 15.

Furthermore, we do not accept Chin Jun's argument that, for those models for which Chin Jun was unable to provide factors data, we should use factors data from any PRC-based producer because such data constitutes business proprietary information.

Finally, we disagree with petitioner's claim that an uncooperative BIA rate is appropriate under these circumstances. As stated in the preliminary results, we apply uncooperative BIA only in those circumstances where a party refuses to provide the information requested in the form required or otherwise significantly impedes the Department's review. Although both Premier and Chin Jun failed to provide certain information, they otherwise cooperated with our requests for information. Therefore, we decline to apply uncooperative BIA for these companies.

Comment 30: Henan claims that the Department made several clerical errors in its preliminary calculations with respect to several models in the 1991–92 and 1992–93 administrative reviews. Henan states that the errors are in the columns entitled ''Net Cost of Materials'' and ''Total Net Cost of Materials.'' Henan states that these errors created further distortions when the Department added SG&A and profit as a percentage of the inflated cost of production. As a result, Henan contends, the constructed value for these models exceeded the USP, creating the dumping margins found in the preliminary results. Henan requests that the Department reconstruct the calculations by using the correct figures for the total net cost of materials. Petitioner also asserts that there were clerical errors made in the calculations for Henan's 1991–92 and 1992–93 administrative reviews.

Department's Position: The Department agrees with both Henan and petitioner and has corrected the errors for the final results.

Comment 31: Luoyang claims that the Department erroneously assigned a value of zero for saleable scrap in calculating the margin for the 1992–93 POR. Luoyang argues that the Department should have allowed a credit as in the 1991–92 POR and as stated in the analysis memorandum for both PORs.

Petitioner states that an adjustment is not warranted for one POR simply on the basis that such an adjustment was made in the previous review. Petitioner further notes that it has long argued that a scrap adjustment is warranted only if the sale of scrap is documented in the particular POR in question, and, on that basis, Luoyang is not entitled to a scrap adjustment for the 1992–93 POR. Petitioner adds that the Department should explain why it stated in the analysis memo that it made a scrap adjustment yet in its calculations it denied the scrap adjustment for the 1992–93 POR.

Department's Position: We agree with Luoyang. We verified Luoyang's sale of scrap for the 1992–93 POR and intended to adjust for saleable scrap as we did in the previous PORs. *See Verification Report for Luoyang Bearing Factory in the Fifth and Sixth Reviews of the Antidumping Duty Order of Tapered Roller Bearings and Parts Thereof From the People's Republic of China* (August 3, 1995) at 6. For these final results, we have deducted scrap credit from Luoyang's gross cost of manufacture.

Comment 32: Chin Jun argues that the Department should use steel data on the record related to European Union (EU) and Japanese steel exports to India. Chin Jun states that, in addition to being reliable, the data is contemporaneous with the PORs. Chin Jun further submits that invoices showing prices paid by a U.S. producer of bearings to market-economy steel producers constitutes an acceptable alternative source of steel values, in that such information establishes a world price for bearing-quality steel which shows the Indian import statistics used for the preliminary results to be aberrational.

Petitioner counters that two of the three invoices supplied by Chin Jun in support of its argument that prices paid by a U.S. bearings producer are a valid source of steel values are dated outside the PORs. Petitioner also says that Chin Jun fails to explain how these selective data are more reliable than the data used by the Department.

Department's Position: We agree with Chin Jun that certain of the Indian import statistics should not be used to value bearing-quality steel. We compared the Indian import data with other sources and found it to be unreliable. See our response to Comment 4. However, we have not used EU and Japanese export data submitted by Chin Jun because we prefer import statistics to export statistics, as import statistics more accurately reflect the costs incurred by the bearings producer to procure the raw material inputs. Accordingly, we have, for these final results, used the Indonesian import statistics to value steel used to manufacture cups and cones.

Comment 33: Chin Jun asserts that the Department incorrectly inflated steel prices, noting that, from 1990 to 1992, average import prices under U.S. HTS 7228.30.80—a basket category which contains the type of steel used to produce cups and cones—dropped in the United States. Chin Jun says it is logical that steel prices in India also dropped during the PORs.

Petitioner responds that U.S. steel prices are irrelevant in these reviews. In addition, petitioner argues, according to Chin Jun's reasoning there would be uniform prices everywhere and no need to argue as to which surrogates to use.

Department's Position: For these final results we have applied surrogate steel values coincident with each POR. Therefore, we have not used price inflators for these final results, rendering Chin Jun's argument moot.

Comment 34: Transcom and L&S, domestic importers of subject merchandise, argue that the Department's decision to apply what they consider to be punitive BIA appraisement and deposit rates to companies that were never part of any of the reviews is unlawful. Transcom and L&S state that, for each of the three reviews in question, there were various companies from which they purchased subject merchandise, none of which received a questionnaire, nor were any named in the notice of initiation of review. Transcom states that entries from each of the unnamed companies were subject to estimated antidumping duty deposits at the ''all others'' rate in effect at the time of entry and argues that the Department is precluded as a matter of law from either assessing final antidumping duties on the unreviewed companies at any rate other than that at which estimated antidumping duty deposits were made or imposing the new BIA-based deposit rate on shipments from unreviewed companies.

Transcom and L&S, citing section 751(a) of the Act, state that the Department is directed to determine the amount of antidumping duties to be imposed pursuant to periodic reviews. They add that, in accordance with 19 C.F.R. 353.22(e), unreviewed companies are subject to automatic assessment of antidumping duties and a deposit of estimated duties at the rate previously established.

Transcom and L&S note that the CIT has concluded that in situations where a company's entries are not reviewed, the prior cash deposit rate from the LTFV investigation becomes the assessment rate, ''which must in turn become the new cash deposit rate for that company'' (citing *Federal Mogul Corp.* v. *United States,* 822 F. Supp. 782, 787–88 (CIT 19 3) (*Federal Mogul II*)). Transcom and L&S claim that the CIT has affirmed this rationale in other more recent decisions as well, concluding that the Department's use of a new ''all other'' rate calculated during a particular administrative review as the new cash deposit rate for unreviewed companies which have previously received the ''all other'' rating is not in accordance with law (citing *Federal Mogul Corp.* v. *United States,* 862 F. Supp. 384 (CIT 1994), and also citing

UCF America, Inc. v. *United States,* 870 F. Supp. 1120, 1127–28 (CIT 1994) (*UCF America)).*

Based on the cited CIT decisions, Transcom says that an exporter that is not under review would have no reason to anticipate that antidumping duties assessed on its merchandise would vary from the amount deposited. Transcom notes that *Federal Mogul II* (at 788) states that parties rely on the cash deposit rates in making their decision whether to request an administrative review of certain merchandise. In view of the Department's regulations, Transcom claims that the absence of any notice from the Department that unnamed companies faced the possibility of increased antidumping duty liability is fundamentally prejudicial to the unnamed companies. Transcom states that previous attempts by the Department to impose the BIA rate on an exporter neither named in the review request nor in the notice of initiation have been overturned, citing *Sigma Corp.* v. *United States,* 841 F. Supp. 1255 (CIT 1993) (*Sigma Corp. I*). In that case, Transcom contends, the CIT held that the Department was required to provide the company in question adequate notice to defend its interests, and, because it failed to do so, ordered that the merchandise exported by that company was to be liquidated at the entered deposit rate.

Transcom also explains that it purchased subject merchandise from certain provincial branches of China National Machinery Import & Export Corporation (CMC) and from China National Machinery & Equipment Import & Export Company (CMEC), both of which were named in the notice of initiation. Certain other provincial branches of both CMC and CMEC, from which Transcom did not purchase subject merchandise, were also named in the notice of initiation and received questionnaires. Rather than establishing that the branches from which Transcom purchased subject merchandise were subject to review, Transcom argues, the initiation notice implies that the unnamed branches were not subject to review. As a result, Transcom argues, the unnamed companies were not afforded an opportunity to defend their interests by demonstrating that they were independent from the umbrella company and, therefore, the Department should assign company-specific margins to these unnamed exporters.

Transcom contends that, in accordance with section 776 of the Act, the Department must have requested, and been unable to obtain, information before applying punitive BIA. Transcom claims that the Department may not resort to BIA ''because of an alleged failure to provide further explanation when that additional explanation was never requested'' (quoting *Olympic Adhesives, Inc.* v. *United States,* 889 F. 2d 1565 (Fed. Cir. 1990), and citing *Mitsui & Co., Ltd.* v. *United States,* Slip Op. 94–44 (CIT March 11, 1994), and *Usinor Sacilor* v. *United States,* 872 F. Supp. 1000 (CIT 1994)).

Petitioner claims that at the outset of this order CMEC was identified by the PRC authorities as the only PRC exporter of subject merchandise to the United States, *i.e.,* CMEC was the umbrella organization through which all companies in the PRC exported TRBs to the United States (*see Final Results of Antidumping Duty Administrative Review: Tapered Roller Bearings and Parts Thereof From the People's Republic of China,* 56 FR 67590, 67596 (December 31, 1991)). Petitioner adds that, during the 1989–90 review, PRC authorities stated, for the first time, that there were other producers/exporters of the subject merchandise and that the Department stated that the review initiated for CMEC was ''meant to include all exports of TRBs from the PRC.'' *Id.* Petitioner also contends that there is no reason to believe that there is any meaningful difference between CMEC and CMC. Furthermore, petitioner notes, CMEC was specifically named in the notices of initiation for all three reviews in question. Finally, petitioner argues that all branches and subsidiaries, or provincial companies, of a company covered by a review are themselves included in that review, and the fact that certain individual entities within the organization were found to be entitled to separate rates does not exempt other entities within the organization from the review.

Department's Position: We disagree with Transcom and L&S. It is our policy to treat all exporters of subject merchandise in NME countries as a single government-controlled enterprise and assign them a single rate, except for those exporters which demonstrate an absence of government control, both in law and in fact, with respect to exports. Our guidelines concerning the *de jure! and de facto* separate rates analyses, as well as the company-specific separate rates determinations, are discussed in the Preliminary Results at 44303–44304. We have determined that companies in the government-controlled enterprise failed to respond to our requests for information and, accordingly, have established the rate applicable to such companies (the PRC rate) using uncooperative BIA. As discussed below, the Act mandates application of BIA for such companies because they were properly included in the review and did not respond to the Department's requests for information.

Pursuant to our NME policy, all PRC exporters or producers that have not demonstrated that they are separate from PRC government control are presumed to belong to a single, state-controlled entity (the ''NME entity''), for which we must calculate a single rate (the ''PRC rate''). Previously the CIT has upheld our presumption of a single, state-controlled entity in NME cases. *See UCF America, Inc.* v. *United States,* 870 F. Supp. 1120, 1126 (CIT 1994); *Sigma Corp.* v. *United States,* 841 F. Supp. 1255, 1266–67 (CIT 1993); *Tianjin Machinery Import & Export Corp.* v. *United States,* 806 F. Supp. 1008, 1013–15 (CIT 1992). Section 353.22(a) of our regulations allows interested parties to request an administrative review of an antidumping duty order once a year during the anniversary month. This regulation specifically states that interested parties must list the ''specified individual producers'' to be covered by the review. 19 CFR 353.22(a) (1994). In the context of NME cases, we interpret this regulation to mean that, if at least one named producer or exporter does not qualify for a separate rate, all exporters that are part of the NME entity are part of the review. On the other hand, if all named producers or exporters are entitled to separate rates, the NME entity is not represented in the review and, therefore, the NME rate remains unchanged. *Accord Federal-Mogul Corp.* v. *United States,* 822 F. Supp. 782, 788 (CIT 1993) (''In a situation where a company's entries are unreviewed, the prior cash deposit rate from the LTFV investigation becomes the assessment rate, which must in turn become the new cash deposit rate for that company.'').

In these reviews, numerous companies named in the notices of initiation did not respond to our questionnaires. On March 15, 1994, we sent a letter to the PRC embassy in Washington and to the Ministry of Foreign Trade and Economic Cooperation (MOFTEC), requesting the identification of TRB producers and manufacturers, as well as information on the production of TRBs and the sale of TRBs to the United States. We sent a second request to MOFTEC on July 26, 1994. MOFTEC informed us that the China Chamber of Commerce for Machinery and Electronics Products Import & Export (CCCME) was responsible for coordinating the TRBs case. MOFTEC also said it forwarded our letter and questionnaire to the CCCME. We sent a copy of our letter and the questionnaire directly to the

CCCME, asking that the questionnaire be transmitted to all companies in the PRC that produced TRBs for export to the United States and to all companies that exported TRBs to the United States during the PORs.

Since we did not receive information concerning many of the companies named in the notices of initiation, we have presumed that these companies are under government control. In accordance with our NME policy, therefore, the government-controlled enterprise, which is comprised of all exporters of subject merchandise that have not demonstrated they are separate from PRC control, is part of this review and we must calculate a ''PRC'' rate for that enterprise. Since we did not receive responses from these exporters, we have based the PRC rate on BIA, pursuant to section 776(c) of the Act. This rate will form the basis of assessment for these reviews as well as the cash deposit rate for future entries.

We acknowledge a recent CIT decision, *UCF America Inc.* v. *United States,* Slip Op. 96–42 (CIT Feb. 27, 1996), in which the Court affirmed the Department's remand results for reinstatement of the relevant cash deposit rate but expressed disagreement with the PRC rate methodology, which formed the underlying rationale for reinstatement. The Court raised various concerns with the Department's application of a PRC rate.

The Court suggested that the Department lacks authority for applying a PRC rate in lieu of an ''all others'' rate. However, despite the concerns expressed by the Court, it is the Department's view that it has the authority to use the PRC rate in lieu of an ''all others'' rate. *See Heavy Forged Hand Tools, Finished or Unfinished, With or Without Handles, from the People's Republic of China; Preliminary Results of Antidumping Duty Administrative Review,* 61 FR 15218, 15221 (April 5, 1996).

The PRC rate is consistent with the statute and regulations. As discussed above, in NME cases we presume that all producers and exporters comprise a single entity. Thus, we assign the PRC rate to the NME entity just as we assign an individual rate to a single exporter or producer, or group of related exporters or producers, operating in a market economy. Because the PRC rate is the equivalent of a company-specific rate, it changes only when we review the NME entity. As noted above, all exporters or producers will either qualify for a separate company-specific rate or will be part of the NME enterprise and receive the PRC rate. Consequently, whenever the NME enterprise has been investigated or reviewed, calculation of an ''all others'' rate is unnecessary, since there can be no exporters or producers that are not reviewed. Thus, contrary to the argument by Transcom and L&S, the Department's automatic assessment regulation (19 CFR 353.22(e)) does not apply to these reviews except in the case of companies that demonstrate that they are separate from PRC government control and are not part of this review, as discussed below.

We also disagree with Transcom and L&S's assertion that companies not named in the initiation notices did not have an opportunity to defend their interests by demonstrating their independence from the PRC entity. Any company that believes it is entitled to a separate rate may place evidence on the record supporting its claim, as two companies (Hubei and Guizhou Automotive) did in the 1991–92 and 1992–93 reviews. The companies referenced by Transcom and L&S made no such showing, despite our efforts to transmit the questionnaire to all PRC companies that produce TRBs for export to the United States.

Comment 35: Transcom argues that, in the event that the Department assigns a punitive BIA margin to the unnamed PRC exporters, it should not assign the ''all others'' rate to exports made by companies outside of the PRC. As with respondents Premier and Chin Jun, Transcom insists that a separate rate analysis is unnecessary for privately owned trading companies located in Hong Kong or Japan from which Transcom purchased subject merchandise. Transcom argues that, because such companies are independent from government control and because a timely request for review of their entries was not made, these reviews should not effect those companies.

Department's Position: We disagree with Transcom and L&S. We have not assigned an all others rate to non-PRC exporters of subject merchandise that we have not reviewed. Instead, in accordance with our standard policy regarding such exporters, the cash deposit rate is the rate applicable to the PRC supplier of that exporter. *See Heavy Forged Hand Tools, Finished and Unfinished, With or Without Handles, from the People's Republic of China; Final Results of Antidumping Duty Administrative Review,* 61 FR 15028, 15033 (April 4, 1996).

Final Results of Reviews

As a result of our analysis of the comments we received, we determine the following weighted-average margins to exist:

Manufacturer/exporter	Margin (percent)		
	6/1/90 to 5/31/91	6/1/91 to 5/31/92	6/1/92 to 5/31/93
Premier Bearing and Equipment, Limited	[2] 4.24	[2] 5.25	5.25 [2].
Guizhou Machinery Import and Export Corporation	2.48	[2] 3.70	0.00.
Henan Machinery and Equipment Import and Export Corporation	0.00	0.14	0.00.
Luoyang Bearing Factory	1.14	0.00	0.00.
Shanghai General Bearing Company, Ltd	0.00	0.00	0.24.
Jilin Machinery Import and Export Corporation	4.24	5.05	0.00.
Chin Jun Industrial Ltd	[1] 8.83	0.61	1.54.
Wafangdian Bearing Factory	[1] 8.83	5.25	No sales.
Liaoning Co., Ltd	[1] 8.83	1.75	0.66.
PRC rate	8.83	8.83	8.83.

[1] This party did not respond to the questionnaire or did not respond to the supplemental questionnaire; therefore, as uncooperative BIA, we assigned the highest rate calculated in the investigation or in this or any other review of sales of subject merchandise from the PRC. This does not constitute a separate rate finding for this firm.

[2] As cooperative BIA, we assigned in each review the higher of 1) the highest rate ever applicable to that company in the investigation or any previous review; or 2) the highest calculated margin for any respondent in the same review.

The Department shall determine, and the Customs Service shall assess, antidumping duties on all appropriate entries. Individual differences between USP and FMV may vary from the percentages stated above. The Department will issue appraisement instructions directly to the Customs Service.

Furthermore, the following cash deposit requirements will be effective upon publication of these final results for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date, as provided for by section 751(a)(1) of the Act: (1) for the companies named above that have separate rates and were reviewed (Premier, Guizhou, Henan, Jilin, Luoyang, Shanghai, Liaoning, Chin Jun, and Wafangdian), the cash deposit rates will be the rates for these firms established in the final results of the 1992–93 administrative review, except that when margins are *de minimis, i.e.,* less than 0.5 percent, no cash deposit will be required; (2) for Hubei and Guizhou Automotive, both of which we determine to be entitled to separate rates, the rates will continue be those that currently apply to these companies (8.83 percent for both); (3) for all remaining PRC exporters, all of which were found not to be entitled to separate rates, the cash deposit will be 8.83 percent; and (4) for other non-PRC exporters of subject merchandise from the PRC, the cash deposit rate will be the rate applicable to the PRC supplier of that exporter. These deposit requirements shall remain in effect until publication of the final results of the next administrative review.

This notice serves as a reminder to importers of their responsibility under 19 C.F.R. 353.26 to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

This notice also serves as a reminder to parties subject to APOs of their responsibility concerning disposition of proprietary information disclosed under APO in accordance with 19 C.F.R. 353.34(d). Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

These administrative reviews and notice are in accordance with section 751(a)(1) of the Act (19 U.S.C. 1675(a)(1)) and 19 C.F.R 353.22.

Dated: December 5, 1996.

Jeffrey P. Bialos,

Acting Assistant Secretary for Import Administration.

[FR Doc. 96–31589 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–DS–P

[C–791–001]

Ferrochrome From South Africa: Preliminary Results of the 1992 Countervailing Duty Administrative Review

AGENCY: International Trade Administration/Import Administration Department of Commerce.

ACTION: Notice of preliminary results of 1992 Countervailing Duty Administrative Review.

SUMMARY: The Department of Commerce (the Department) is conducting the 1992 administrative review of the countervailing duty order on ferrochrome from South Africa. We preliminarily determine the net subsidy to be 0.27 percent ad valorem, which is de minimis, for all companies for the period January 1, 1992 through December 31, 1992. If the final results remain the same as these preliminary results of administrative review, we will instruct the U.S. Customs Service to liquidate entries without regard to countervailing duties. We invite interested parties to comment on these preliminary results. Parties who submit an argument in this proceeding are requested to submit with the argument (1) a statement of the issue, and (2) a brief summary of the argument.

EFFECTIVE DATE: December 13, 1996.

FOR FURTHER INFORMATION CONTACT: Cynthia Thirumalai, Office 1, Group I, Import Administration, International Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230; telephone: (202) 482–4087.

SUPPLEMENTARY INFORMATION:

Background

On April 9, 1981, the Department published in the Federal Register (55 FR 11417) the countervailing duty order on Ferrochrome from South Africa. On March 12, 1993, the Department published a notice of ''Opportunity to Request Administrative Review'' (58 FR 13583) of this countervailing duty order. We received timely requests for review from Chromecorp Technology (Pty) Ltd. (Chromecorp), Consolidated Metallurgical Industries Ltd. (CMI), Ferralloys Limited (Ferralloys), and Samancor Ltd. (Samancor), all South African producers/exporters of ferrochrome.

We initiated the review, covering the period January 1, 1992 through December 31, 1992, on May 6, 1993 (58 FR 26960). This review covers three producers/exporters of the subject merchandise (CMI, Ferralloys, and Samancor), which account for all exports of the subject merchandise to the United States from South Africa, and the following eight programs:

(1) Export Incentive Program
(2) Regional Industrial Development Incentives
(3) Preferential Rail Rates
(4) Government Loan Guarantees
(5) Beneficiation Allowances—Electric Power Cost Aid Scheme
(6) General Export Incentive Scheme
(7) Industrial Development Corporation Loans
(8) Rail Transport Rebate on Outgoing Goods (subprogram of the Regional Industrial Development Incentives)

One company, Chromecorp, reported having no exports to the United States during the review period, although Chromecorp received benefits pursuant to export subsidy programs for which there was no program-wide measurable change. In cases where a company does not ship to the United States but benefits from export subsidies for which there are not measurable program-wide changes, we do not include the company in the review (see, *e.g., Certain Electrical Conductor Aluminum Redraw Rod From Venezuela; Final Results of Countervailing Duty Administrative Review,* 57 FR 41918, September 14, 1992). Therefore, we have not included Chromecorp in this 1992 review.

Applicable Statute

The Department is conducting this administrative review in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act). Unless otherwise indicated, all citations to the statute and to the Department's regulations are references to the provisions as they existed on December 31, 1994. However, references to the Department's *Countervailing Duties; Notice of Proposed Rulemaking and Request for Public Comments,* (May 31, 1989) (*Proposed Regulations*), are provided solely for further explanation of the Department's countervailing duty practice. Although the Department has withdrawn the particular rulemaking proceeding pursuant to which the *Proposed Regulations* were issued, the subject matter of these regulations is

being considered in connection with an ongoing rulemaking proceeding which, among other things, is intended to conform the Department's regulations to the Uruguay Round Agreements Act. (See 60 FR 80, January 3, 1995.)

Scope of Review

The imported product covered by this review is ferrochrome from South Africa which is currently classifiable under items 7202.41.00, 7202.49.10 and 7202.49.50 of the *Harmonized Tariff Schedule of the United States* (HTSUS). The HTSUS item numbers are provided for convenience and Customs purposes, but our written description of the scope of this proceeding remains dispositive.

Analysis of Programs

I. Export Incentive Program

The Export Incentive Program (EIP) provides assistance to exporters through a number of different subprograms. Because the availability of this program is limited to exporters, the Department previously determined that the benefits available under this program constitute bounties or grants within the meaning of the Act. See, *Ferrochrome From South Africa; Preliminary Results of Countervailing Duty Administrative Review* (58 FR 59988, November 12, 1993) (1991 Ferrochrome Preliminary Results); *Ferrochrome from South Africa; Final Results of Countervailing Duty Administrative Review* (60 FR 7043, February 6, 1995) (1991 Ferrochrome Final Results). In this review, neither the Government of South Africa nor the respondents provided new information which would warrant reconsideration of this determination.

Category A of the EIP

Category A of the EIP allowed exporters to claim a rebate of 50 percent of the import duties applicable to inputs used in the production of goods for export. Exporters could claim this rebate regardless of whether the inputs were actually imported or obtained domestically. Additionally, Category A benefits were independent of normal duty drawback which operated under section 4703 of the Customs and Excise program.

Although the Category A program was terminated on March 30, 1990, two companies received residual benefits under Category A during the review period. These benefits resulted from the Department of Trade and Industry's practice of using promissory notes to pay claims. The companies had received promissory notes pursuant to claims filed in an earlier period, but the notes either matured or were discounted by the company during the review period. Therefore, consistent with the Department's practice of recognizing the occurrence of the benefit at the time that the benefit has a cash-flow effect on the recipient (see section 355.48(a) of the *Proposed Regulations*), we determine that promissory notes which either matured or were discounted during the review period constitute a bounty or grant within the meaning of the Act.

Two companies reported receiving benefits under Category A of the EIP; both claimed that the benefits were tied to exports to countries other than the United States. In each case, the company calculated its full, potential Category A claim applicable to all exports, and then multiplied this amount by the percentage of exports to countries other than the United States.

The Electrical Power Cost Aid Scheme (EPCAS), a program providing rebates of electricity costs looked at in previous reviews, is similar to the Category A program in that benefits are not directly linked to sales to particular markets but, instead, are allocated. However, claims for rebates under the EPCAS program are required by the GOSA to be externally audited. There is no comparable auditing procedure for Category A. Since Category A benefits must be allocated in some fashion, we find that, in the absence of government oversight, we cannot be assured that the benefits claimed are tied, in fact, to markets other than the United States. Therefore, we find that benefits received pursuant to Category A benefit all export sales.

To calculate the benefit, we divided the total amount of the value at maturity, or the discounted price of the promissory notes, by the recipient companies' total exports of all products to all markets during the review period. We then weight-averaged the resulting rate by each company's share of exports of subject merchandise to the United States during the review period. On this basis, we preliminarily determine the benefits from Category A promissory notes to be 0.27 percent ad valorem for all companies.

Category D of the EIP

Category D of the EIP provided exporters an additional tax deduction for marketing expenses related to export sales. Based on export performance, an exporter could deduct from taxable income an additional 75 or 100 percent of export marketing expenses, in addition to the deductions normally allowed.

Section 355.44 (i)(1) of the *Proposed Regulations* states that the countervailable benefit conferred by a tax program is the amount of additional taxes a company would have paid absent the use of the program. All of the responding companies either did not file a tax return during the review period or experienced operating losses and were not, therefore, in a taxable position before taking into account the Category D deductions. Since the tax liability of each company during the review period was unchanged by the Category D deductions, we preliminary find that no company received benefits pursuant to Category D of the EIP (see *Certain Iron-Metal Castings From India: Final Results of Countervailing Duty Administrative Review*, (60 FR 44843, 44847 August 29, 1995) and *Extruded Rubber Thread From Malaysia; Preliminary Results of Countervailing Duty Administrative Review*, 61 FR 29534, 29536, June 11, 1996).

II. Regional Industrial Development Incentives

The Government of South Africa offered several incentives to companies located in geographically remote areas designated as Industrial Development Points. These incentives were: the Labor Incentive, the Interest Concession and the Subsidy on Housing for Key Personnel.

We determined in our previous review of this order that, as regional subsidies, these incentives constitute bounties or grants within the meaning of the Act. (See *1991 Ferrochrome Preliminary Results; 1991 Ferrochrome Final Results.*) In this review, neither the Government of South Africa nor the respondents have provided new information which would warrant reconsideration of this determination.

Labor Incentive and Interest Concession

No ferrochrome exporter under review claimed to have received benefits pursuant to the Labor Incentive or the Interest Concession during the review period. (See *Programs Not Used* section below.)

Subsidy on Housing for Key Personnel

The Regional Industrial Development Authorities subsidize housing for key personnel at regional development points for a maximum of 20 years on new mortgage loans and the outstanding principal of existing loans. Companies pay an interest rate that is a fixed amount (*e.g.*, 4.25% per annum) less than the Official Building Society rate, subject to a floor of 6.00% per annum. The Regional Industrial Development Authorities pay the difference between the interest paid by the companies and

the Official Building Society rate monthly.

As stated above, one company reported having loans under this program. Because the loans received under this program were long-term variable rate loans, we calculated the interest differential in accordance with section 355.49(d)(1) of the Department's *Proposed Regulations*. Consistent with our methodology in *Ferrochrome From South Africa; Preliminary Results of Countervailing Duty Administrative Review* (61 FR 19259, May 1, 1996) (1994 Ferrochrome Preliminary Results), and in accordance with section 355.44(b)(5) of the *Proposed Regulations*, we used as our benchmark rate the Official Building Society Rate, as reported in the questionnaire response. To calculate the benefit, we compared the amount of interest which was actually paid during the review period to the interest which would have been paid at the benchmark rate. To the extent that the interest actually paid was less than that calculated using the benchmark rate, we took this amount and divided it by the company's total sales of all merchandise during the review period. We then weight-averaged the resulting rate by the company's share of exports of subject merchandise to the United States during the review period. Based on the above, we preliminarily determine the ad valorem subsidy rate for benefits received pursuant to this program to be 0.003 percent ad valorem for all companies.

III. Programs Not Used

We also examined the following seven programs and preliminarily determine that producers/exporters of ferrochrome to the United States did not use them during the review period:

(1) Industrial Development Corporation Loans
(2) Export Incentive Program
  (a) Category B
  (b) Category C
(3) Regional Industrial Development Incentives
  (a) Labor Incentive
  (b) Interest Concession
(4) Preferential Rail Rates
(5) Government Loan Guarantees
(6) Beneficiation Allowances—Electric Power Cost Aid Scheme
(7) General Export Incentive Scheme
(8) Rail Transport Rebate on Outgoing Goods (subprogram of the Regional Industrial Development Incentives)

Preliminary Results of Review

As a result of our review, we preliminarily determine the net subsidy to be 0.27 percent ad valorem, which is de minimis, for all companies for the period January 1, 1992 through December 31, 1992. If the final results of this review remain the same as these preliminary results, we intend to instruct the U.S. Customs Service to liquidate, without regard to countervailing duties, all shipments of subject merchandise exported on or after January 1, 1992 and entered on or before December 31, 1992. Because the countervailing duty order was revoked effective January 1, 1995 (see Revocation of Countervailing Duty Orders (60 FR 40568, August 9, 1995)) pursuant to section 753 of the Act, as amended by the Uruguay Round Agreements Act, no other instructions will be sent to the U.S. Customs Service.

Parties to this proceeding may request disclosure of the calculation methodology and interested parties may request a hearing not later than 10 days after the date of publication of this notice. Interested parties may submit written arguments in case briefs on these preliminary results within 30 days of the date of publication of this notice. Rebuttal briefs, limited to arguments raised in case briefs, may be submitted seven days after the time limit for filing the case briefs. Any hearing, if requested, will be held seven days after the scheduled date for submission of rebuttal briefs. Copies of case briefs and rebuttal briefs must be served on interested parties in accordance with 19 CFR 355.38(e).

Representatives of parties to the proceeding may request disclosure of proprietary information under administrative protective order no later than 10 days after the representative's client or employer becomes a party to the proceeding, but in no event later than the date the case briefs are due under 19 CFR 355.38(c).

The Department will publish the final results of this administrative review including the results of its analysis of issues raised in any case or rebuttal brief or at a hearing.

This administrative review and notice are in accordance with section 751(a)(1) of the Act (19 U.S.C. 1675(a)(1)).

Dated: November 25, 1996.

Robert S. LaRussa,

Acting Assistant Secretary for Import Administration.

[FR Doc. 96–31727 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–DS–P

COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS

Consolidation and Amendment of Export Visa Requirements to Include the Electronic Visa Information System for Certain Cotton, Wool and Man-Made Fiber Textile Products Produced or Manufactured in Singapore

December 9, 1996.

AGENCY: Committee for the Implementation of Textile Agreements (CITA).

ACTION: Issuing a directive to the Commissioner of Customs consolidating and amending visa requirements.

EFFECTIVE DATE: January 1, 1997.

FOR FURTHER INFORMATION CONTACT: Janet Heinzen, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 482–4212.

SUPPLEMENTARY INFORMATION:

Authority: Executive Order 11651 of March 3, 1972, as amended; section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854); Uruguay Round Agreements Act.

In an exchange of notes dated November 8, 1996 and November 26, 1996, the Governments of the United States and Singapore agreed to amend the existing visa arrangement for textile products, produced or manufactured in Singapore and exported on and after January 1, 1997. The amended arrangement consolidates existing and new provisions of the export visa arrangement, including provisions for the Electronic Visa Information System (ELVIS). In addition to the ELVIS requirements, shipments will continue to be accompanied by an original visa stamped on the front of the original commercial invoice issued by the Government of the Republic of Singapore.

In the letter published below, the Chairman of CITA directs the Commissioner of Customs to amend the existing visa requirements for textile products produced or manufactured in Singapore and exported on and after January 1, 1997.

A description of the textile and apparel categories in terms of HTS numbers is available in the CORRELATION: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States (see Federal Register notice 60 FR 65299, published on December 19, 1995). Also see 47 FR 6683, published on February 16, 1982; and 60 FR 56576, published on November 9, 1995. Information

regarding the 1997 CORRELATION will be published in the Federal Register at a later date.

Interested persons are advised to take all necessary steps to ensure that textile products that are entered into the United States for consumption, or withdrawn from warehouse for consumption, will meet the visa requirements set forth in the letter published below to the Commissioner of Customs.

D. Michael Hutchinson,

Acting Chairman, Committee for the Implementation of Textile Agreements.

Committee for the Implementation of Textile Agreements

December 9, 1996.

Commissioner of Customs,

Department of the Treasury, Washington, DC 20229.

Dear Commissioner: This directive amends, but does not cancel, the directive issued to you on February 10, 1982, as amended, by the Chairman, Committee for the Implementation of Textile Agreements, that directed you to prohibit entry of certain cotton, wool and man-made fiber textile products, produced or manufactured in Singapore for which the Government of the Republic of Singapore has not issued an appropriate export visa.

Under the terms of section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854); pursuant to the Export Visa Arrangement, effected by exchange of notes dated November 8 and November 26, 1996 between the Governments of the United States and the Republic of Singapore; and in accordance with the provisions of Executive Order 11651 of March 3, 1972, as amended, you are directed to prohibit, effective on January 1, 1997, entry into the Customs territory of the United States (i.e., the 50 states, the District of Columbia and the Commonwealth of Puerto Rico) for consumption and withdrawal from warehouse for consumption of cotton, wool and man-made fiber textile products in Categories 200–239, 300–369, 400–469 and 600–670, including part categories, produced or manufactured in Singapore and exported on and after January 1, 1997 for which the Government of the Republic of Singapore has not issued an appropriate export visa and ELVIS (Electronic Visa Information System) transmission fully described below. Should additional categories or part categories become subject to import quota the entire category(s) or part category(s) shall be included in the coverage of this arrangement.

A visa must accompany each commercial shipment of the aforementioned textile products. A circular stamped marking in blue ink will appear on the front of the original commercial invoice. The original visa shall not be stamped on duplicate copies of the invoice. The original invoice with the original visa stamp will be required to enter the shipment into the United States. Duplicates of the invoice and/or visa may not be used for this purpose.

Each visa stamp shall include the following information:

1. The visa number. The visa number shall be in the standard nine digit letter format, beginning with one numerical digit for the last digit of the year of export, followed by the two character alpha country code specified by the International Organization for Standardization (ISO) (the code for Singapore is ''SG''), and a six digit numerical serial number identifying the shipment; e.g., 7SG123456.

2. The date of issuance. The date of issuance shall be the day, month and year on which the visa was issued.

3. The original signature of the issuing official of the Government of the Republic of Singapore.

4. The correct category(s), part category(s), quantity(s) and unit(s) of quantity in the shipment as set forth in the U.S. Department of Commerce Correlation and in the Harmonized Tariff Schedule of the United States, annotated or successor documents shall be reported in the spaces provided within the visa stamp (e.g., ''Cat. 340–510 DOZ'').

Quantities must be stated in whole numbers. Decimals or fractions will not be accepted.

U.S. Customs shall not permit entry if the shipment does not have a visa, or if the visa number, date of issuance, signature, category, quantity or units of quantity are missing, incorrect or illegible, or have been crossed out or altered in any way. If the quantity indicated on the visa is less than that of the shipment, entry shall not be permitted. If the quantity indicated on the visa is more than that of the shipment, entry shall be permitted and only the amount entered shall be charged to any applicable quota.

If the visa is not acceptable then a new correct visa or a visa waiver must be presented to the U.S. Customs Service before any portion of the shipment will be released. A visa waiver may be issued by the U.S. Department of Commerce at the request of the Embassy in Washington for the Government of the Republic of Singapore. The waiver, if used, only waives the requirement to present a visa with the shipment. It does not waive the quota requirements. Visa waivers will only be issued for classification purposes or for one time special purpose shipments that are not part of an ongoing commercial enterprise.

If the visaed invoice is deficient, the U.S. Customs Service will not return the original document after entry, but will provide a certified copy of that visaed invoice for use in obtaining a new correct original visaed invoice, or a visa waiver.

ELVIS Requirements:

A. Each ELVIS message will include the following information:

i. The visa number. The visa number shall be in the standard nine digit letter format, beginning with one numerical digit for the last digit of the year of export, followed by the two character alpha country code specified by the International Organization for Standardization (ISO) (the code for Singapore is ''SG''), and a six digit numerical serial number identifying the shipment; e.g., 7SG123456.

ii. The date of issuance. The date of issuance shall be the day, month and year on which the visa was issued.

iii. The correct category(s), part category(s), quantity(s) and unit(s) of quantity in the shipment as set forth in the U.S. Department of Commerce Correlation and in the Harmonized Tariff Schedule of the United States, annotated or successor documents.

iv. The manufacturer ID number (MID). The MID shall begin with 'SG,' followed by the first three characters from each of the first two words of the name of the manufacturer, followed by the largest number on the address line up to the first four digits, followed by three letters from the city name.

B. Entry of a shipment shall not be permitted:

i. if an ELVIS transmission has not been received for the shipment from Singapore;

ii. if the ELVIS transmission for that shipment is missing any of the following:

a. visa number
b. category or part category
c. quantity
d. unit of measure
e. date of issuance
f. manufacturer ID number

iii. if the ELVIS transmission for the shipment does not match the information supplied by the importer with regard to any of the following:

a. visa number
b. category or part category
c. unit of measure

iv. if the quantity being entered is greater than the quantity transmitted.

v. if the visa number has previously been used, except in the case of a split shipment, or canceled, except when an entry has already been made using the visa number.

C. A new, correct ELVIS transmission from Singapore is required before a shipment that has been denied entry for one of the circumstances mentioned in paragraph 3.B.i-v will be released.

D. Visa waivers will only be considered for paragraph 3.B.i., if the shipment qualifies as a one-time special purpose shipment that is not part of an ongoing commercial enterprise.

E. Shipments will not be released for forty-eight hours or 2 calendar days in the event of a system failure. If system failure exceeds forty-eight hours or 2 calendar days, for the remaining period of the system failure the U.S. Customs Service will release shipments on the basis of the paper visaed document.

F. If import quotas are in force, U.S. Customs Service shall charge only the actual quantity in the shipment to the correct category limit. If a shipment from Singapore has been allowed entry into the commerce of the United States with either an incorrect visa, no visa, an incorrect ELVIS transmission, or no ELVIS transmission, and redelivery is requested but cannot be made, and after the Government of the Republic of Singapore does not issue a visa or ELVIS transmission or request a visa waiver (if applicable), the shipment will be charged to the correct category limit whether or not a replacement visa or waiver is provided or a new ELVIS message is transmitted.

Other Provisions.

Merchandise imported for the personal use of the importer and not for resale, regardless of value, and properly marked commercial sample shipments valued at U.S.$250 or less, do not require an export visa or ELVIS

transmission for entry and shall not be charged to agreement levels, if applicable.

The visa stamp remains unchanged.

The actions taken concerning the Government of the Republic of Singapore with respect to imports of textiles and textile products in the foregoing categories have been determined by the Committee for the Implementation of Textile Agreements to involve foreign affairs functions of the United States. Therefore, these directions to the Commissioner of Customs, which are necessary for the implementation of such actions, fall within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553(a)(1). This letter will be published in the Federal Register.

Sincerely,

D. Michael Hutchinson,

Acting Chairman, Committee for the Implementation of Textile Agreements.

[FR Doc. 96–31701 Filed 12–12–96; 8:45 am]

BILLING CODE 3510–DR–F

COMMODITY FUTURES TRADING COMMISSION

Chicago Mercantile Exchange: Proposed Amendments to the Frozen Pork Bellies Futures and Options Contracts Converting the Futures Contract to a Cash Settled Contract From a Physical Delivery Contract, and Conforming Amendments to the Options Contract

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice of availability of the terms and conditions of proposed and amended commodity futures contracts.

SUMMARY: The Chicago Mercantile Exchange (CME or Exchange) has submitted amendments to its frozen pork bellies futures contract that would replace the contract's existing physical delivery provisions with a cash settlement system based on cash prices for fresh pork bellies. The proposed amendments also would revise the futures contract's trading months, speculative position limits, maximum daily price fluctuation limits and last trading day.

In accordance with Section 5a(a)(12) of the Commodity Exchange Act and acting pursuant to the authority delegated by Commission Regulation 140.96, the Acting Director of the Division of Economic Analysis (''Division'') of the Commodity Futures Trading Commission (''Commission'') has determined, on behalf of the Commission, that the proposed amendments are of major economic significance. On behalf of the Commission, the Division is requesting public comment on the proposal.

DATES: Comments must be received on or before January 13, 1997.

ADDRESSES: Interested persons should submit their views and comments to Jean A. Webb, Secretary, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st St. NW, Washington, DC 20581. In addition, comments may be sent by facsimile transmission to (202) 418–5521, or by electronic mail to secretary@cftc.gov. Reference should be made to the CME frozen pork bellies futures contract.

FOR FURTHER INFORMATION CONTACT: Please contact Fred Linse of the Division of Economic Analysis, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st St., NW, Washington, DC 20581, telephone 202–418–5273, or electronic mail: flinse@cftc.gov.

SUPPLEMENTARY INFORMATION: The existing terms of the frozen pork bellies futures contract provide for physical delivery of 40,000 pounds of frozen pork bellies meeting specified quality, packaging and weight requirements. Delivery is at CME-approved public cold storage warehouses. The contract also currently specifies a maximum daily price fluctuation limit of $.030 per pound, which is applicable through the last trading day of each expiring contract month. In addition, the contract's existing terms specify that trading ends on the business day immediately preceding the last three business days of the contract month. Trading is currently conducted in the contract months of February, March, May, July and August.

The contract's current terms also provide for net long or short speculative position limits of 1,000 contracts in all contract months combined and 800 contracts in any individual non-spot contract month. The contract's existing spot-month speculative position limits are 150 contracts in any expiring contract month (except May) as of the close of business on the last trading day preceding the first business day of the contract month and 100 contracts in any expiring contract month (except May) as of the close of business on the sixth business day following the first Friday of the contract month.[1]

The proposed amendments would delete all physical delivery provisions of the futures contract. These provisions would be replaced by terms specifying mandatory cash settlement of all open positions at the expiration of trading in a contract month. The proposed cash settlement price would be the weighted average price for all negotiated transactions for 12–14 pound, 14–16 pound, and 16–18 pound, skin-on, fresh pork bellies, as reported by the U.S. Department of Agriculture Federal-State Market News Service in the National Carlot Meat Report during the last five trading days of each expiring contract month.

Under the proposed amendments, trading in the futures contract would terminate on the second-to-last Friday of the contract month.[2] The proposed amendments would provide for trading in the contract months of January, March, May, July, August, September, and November. In addition, the proposed amendments would specify that no maximum daily price fluctuation limit would apply to trading in an expiring contract month during the last five days of trading.

The proposed amendments will delete the contract's existing speculative limit for all contract months combined. Under the proposed amendments, the contract's spot-month speculative position limits for each listed month would be set at 400 contracts as of the close of business (COB) on the last trading day prior to the first business day of the contract month, 200 contracts as of COB on the business day immediately preceding the last ten trading days of the contract, and 40 contracts in the expiring month as of COB on the business day immediately preceding the last five trading days of the contract. The speculative position limit for any individual non-spot contract month would continue to be 800 contracts.

The proposed amendments also will modify the rules of the option contract to conform to the proposed changes to the futures contract and will change the last trading day for the option contract from the first Friday of the delivery month to the business day immediately preceding the last five trading days for the underlying futures contract.

In addition, the proposed amendments would rename the contracts as the ''*fresh* pork bellies'' futures and options contracts.

In support of the proposed amendments, the CME indicates that the proposal to eliminate physical delivery of frozen pork bellies and provide for mandatory cash settlement based on

[1] For the May contract month, the contract's existing speculative limits are 200 contracts as of the close of business on the last trading day prior to the first business day of the contract month and 150 contracts as of the close of business on the sixth business day following the first Friday of the contract month.

[2] If a holiday falls on the second-to-last Friday or on any of the four weekdays prior to that Friday, trading would end on the first prior Friday that was not a holiday or so preceded by a holiday

cash prices for fresh pork bellies is intended to reflect changes in cash market practices. The CME indicates, specifically, that the quantity of frozen pork bellies being placed into cold storage is declining because more pork bellies are being utilized as fresh pork bellies. The CME notes that, as a result of this trend, the demand for pork bellies is becoming less seasonal and is tending to follow more closely the production of that commodity. The CME submits that, therefore, the industry has less need for a contract to hedge a seasonal, stored commodity, and a growing need to hedge forward contracts for fresh pork bellies on a year round basis.

With respect to the proposed cash settlement provisions, the CME indicates that physical delivery of fresh pork bellies would be very difficult due to the fact that such bellies are highly perishable and thus are not merchantable for much more than 72 hours. The CME believes that cash settlement is the only feasible method of settling futures positions, since there could be many problems and/or delivery failures with a physically delivered fresh pork bellies futures contract. The CME also indicates its belief that the proposed cash settlement price would not be susceptible to manipulation or distortion.

The CME proposes to make the amendments effective with respect to newly listed contract months only, following Commission approval.

On behalf of the Commission, the Division is requesting comment on the CME's proposals. In particular, the Division is seeking comments regarding the extent to which the proposed cash settlement prices will reflect the underlying cash market and the susceptibility of the proposed cash settlement price to manipulation or distortion.

Copies of the terms and conditions will be available for inspection at the Office of the Secretariat, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st St., N.W., Washington, D.C. 20581. Copies of the terms and conditions can be obtained through the Office of the Secretariat by mail at the above address or by phone at (202) 418–5097.

Other materials submitted by the Exchange may be available upon request pursuant to the Freedom of Information Act (5 U.S.C. 552) and the Commission's regulations thereunder (17 C.F.R. Part 145 (1987)), except to the extent they are entitled to confidential treatment as set forth in 17 CFR 145.5 and 145.9. Requests for copies of such materials should be made to the FOI, Privacy and Sunshine Act Compliance Staff of the Office of the Secretariat at the Commission's headquarters in accordance with 17 CFR 145.7 and 145.8.

Any person interested in submitting written data, views, or arguments on the proposed terms and conditions, or with respect to other materials submitted by the CME, should send such comments to Jean A. Webb, Secretary, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st St., N.W., 20581 by the specified date.

Issued in Washington, DC, on December 10, 1996.

Blake Imel,

Acting Director.

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DEPARTMENT OF ENERGY

Record of Decision: Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada

AGENCY: Department of Energy.

ACTION: Record of Decision.

SUMMARY: The Department of Energy (DOE) is issuing this Record of Decision on the management and operation of the Nevada Test Site and other DOE sites in the State of Nevada. This Record of Decision is based on the information and analysis contained in the Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada, DOE/EIS–0243, and other factors, including the mission responsibilities of the Department, and comments received on the draft and Final Environmental Impact Statement. DOE has decided to implement a combination of three alternatives analyzed: Expanded Use; No Action (i.e., status quo); and Alternate Use of Withdrawn Lands. Most activities will be pursued at levels described by the Expanded Use Alternative. However, low-level and mixed low-level waste management activities will be conducted at levels described by the No Action Alternative, pending decisions by DOE under the Waste Management Programmatic Environmental Impact Statement, DOE/EIS–0200, now in preparation. Also, DOE will initiate certain public education activities analyzed under the Alternate Use of Withdrawn Lands Alternative. This decision will result in the continuation of the multipurpose, multi-program use of the Nevada Test Site, under which DOE will pursue a further diversification of interagency, private industry, and public-education uses while meeting its Defense Program, Waste Management, and Environmental Restoration mission requirements at the Nevada Test Site and other Nevada sites, including the Tonopah Test Range, the Project Shoal Site, the Central Nevada Test Area, and on the Nellis Air Force Range Complex.

FOR FURTHER INFORMATION CONTACT: For further information on the Final Environmental Impact Statement or to receive a copy of the Environmental Impact Statement or other information related to this Record of Decision, contact: Bob G. Golden, National Environmental Policy Act Compliance Officer, U.S. Department of Energy, Nevada Operations Office, P.O. Box 98518, Las Vegas, NV 89193, (702) 295–2353.

For information on the DOE National Environmental Policy Act process, contact: Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586–4600, or leave a message at (800) 472–2756.

SUPPLEMENTARY INFORMATION:

Background

DOE prepared this Record of Decision pursuant to the regulations of the Council on Environmental Quality for implementing the National Environmental Policy Act (40 CFR Parts 1500–1508) and DOE's National Environmental Policy Act Implementing Procedures (10 CFR Part 1021). This Record of Decision is based on DOE's Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada (DOE/EIS–0243). The Nevada Test Site occupies approximately 3,496 square kilometers (1,350 square miles) in southern Nevada and is located approximately 105 kilometers (65 miles) northwest of Las Vegas. The DOE also manages several other sites in Nevada, including the Tonopah Test Range, Central Nevada Test Area, and Project Shoal Area located southeast of Fallon, Nevada.

Historically, the primary mission of the Nevada Test Site was to conduct nuclear weapons tests. Since the moratorium on testing began in October 1992, this mission has changed to maintaining a readiness to conduct tests if so directed by the President (under the ''supreme national interest'' withdrawal provision in the Comprehensive Test Ban Treaty) and participating in the Department's science-based stockpile stewardship program by serving as a site for various

activities including subcritical experiments (i.e., explosively driven experiments with special nuclear material in which there is no self-sustaining nuclear reaction). In addition to stockpile stewardship, the Nevada Test Site continues to host a number of national defense-related programs. Other changing mission priorities include an increase in environmental restoration efforts at the Nevada Test Site, Tonopah Test Range, Project Shoal Site, Central Nevada Test Area, and Nellis Air Force Range Complex and a concurrent need for waste management activities.

The DOE is currently engaged in several other National Environmental Policy Act processes that include the Nevada Test Site as an alternate location for the action under consideration. These other National Environmental Policy Act reviews include programmatic environmental impact statements for Waste Management, Stockpile Stewardship and Management, Storage and Disposition of Weapons-Usable Fissile Materials, and the Continued Operation of the Pantex Plant. Inasmuch as these other Environmental Impact Statements identify potential new activities for the Nevada Test Site, the impacts of these activities are analyzed under the Expanded Use Alternative in the Final Environmental Impact Statement for the Nevada Test Site. However, the nature of the decisions in this Record of Decision with regard to these programmatic proposals is simply to reserve land and infrastructure at the Nevada Test Site pending completion of these programmatic reviews and their corresponding decision documents.

Alternatives Considered

DOE analyzed four use alternatives for the Nevada Test Site. A land use map containing site and zone categories was developed for each alternative. As part of each alternative, DOE activities at off-site locations were also addressed. The four use alternatives are as follows:

Alternative 1—Continue Current Operations (No Action)

Under this alternative, DOE activities and operations in five mission programs—Defense, Waste Management, Environmental Restoration, Nondefense Research and Development, and Work for Others— would continue in the same manner and degree as they have during the past 3 to 5 years. Under the Defense Program, two scenarios were examined. The first was limited to maintaining a readiness to resume underground nuclear testing, in accordance with Presidential direction, and emphasized the execution of science-based stockpile stewardship experiments and operations such as subcritical experiments. The second scenario also included one or more underground nuclear tests on Pahute Mesa or Yucca Flat as a result of an end to the moratorium on weapons testing, or an invocation of the ''supreme national interest'' provision of the Comprehensive Test Ban Treaty. Although no new initiatives or projects would be pursued or added under Alternative 1, present Waste Management programs and activities would continue at the Nevada Test Site. Environmental Restoration Program activities at the Nevada Test Site and off-site locations would continue in the form of characterization and remediation of contaminated areas or facilities. The DOE would continue to support ongoing Nondefense Research and Development Program operations but no new program initiatives would be pursued. Under the Work for Others Program, DOE would continue to host the projects and activities of other federal agencies at activity levels not exceeding those of the past 3 to 5 years.

Alternative 2—Discontinue Operations

This alternative is defined as the discontinuation of the DOE Nevada Operations Office and interagency programs and operations at the Nevada Test Site and at off-site locations. Site support activities would be limited to environmental monitoring and security functions necessary for human health and security. All facilities would be placed in cold standby after operations have ceased. DOE would not maintain a state of readiness for nuclear weapons testing and there would be an overall discontinuation of other defense-related activities at the Nevada Test Site. Only minimum low-level and mixed waste disposal capability would be maintained under the Waste Management Program until Nevada Test Site waste-generating activities were completely shut down, at which time the waste disposal facilities would be closed. Currently inventoried Environmental Restoration Program sites would be discontinued and abandoned as is. All Nondefense Research and Development Program initiatives would be discontinued at the Nevada Test Site, including siting of the Solar Enterprise Zone. The Work for Others Program would cease and DOE would no longer host the projects and activities of other federal agencies.

Alternative 3—Expanded Use

The Expanded Use Alternative incorporates all the activities and operations under the Continue Current Operations Alternative, and increases some of those ongoing programs. This level of operation includes potential activities related to the programmatic decisions that may be made as a result of other DOE Environmental Impact Statements currently in progress. This alternative was developed in coordination with these other Programmatic Environmental Impact Statements. The analysis for this alternative bounds the maximum potential impact that could occur at the Nevada Test Site as a result of decisions made on the other DOE Environmental Impact Statements. The Defense Program activities at both the Nevada Test Site and the Tonopah Test Range would expand, primarily in the areas of stockpile stewardship and management, materials disposition, and nuclear emergency response. Waste Management activities would increase for low-level waste and mixed waste for wastes generated by DOE research and environmental cleanup and restoration programs within the State of Nevada and waste from other DOE and Department of Defense sites. The Environmental Restoration Program would continue, albeit potentially at an accelerated rate, at the Nevada Test Site and all off-site locations. The Nondefense Research and Development Program would continue to support ongoing program operations and pursue new initiatives, such as constructing and operating a solar power production facility and an Alternative Fuels Demonstration Project at the Nevada Test Site. Under the Work for Others Program, military use of airspace over the Nevada Test Site and the Tonopah Test Range would increase; use of certain lands on the test site by the military for training, research, and development would also increase.

Alternative 4—Alternate Use of Withdrawn Lands

All defense-related activities and most activities under the Work for Others Program would cease at the Nevada Test Site, with the exception that military use of air space over the Nevada Test Site could increase. Under the Waste Management Program, only radioactive wastes from DOE sites in Nevada would be accepted at the Nevada Test Site. The Environmental Restoration Program would continue at current levels or accelerate at the Nevada Test Site and all off-site locations. Parts of the Nevada Test Site could be returned to public domain, and other parts of the test site would be available for public education and recreation. Similar to the Expanded Use Alternative, an expanded Solar

Enterprise Zone would be pursued that would include at least one of three sites in southern Nevada in addition to the two sites at the Nevada Test Site. Defense Program activities at the Tonopah Test Range associated with stewardship of the Nation's stockpile of nuclear weapons would continue.

Preferred Alternative

The DOE Preferred Alternative identified in the Final Environmental Impact Statement was Alternative 3, Expanded Use, plus the public education activities from Alternative 4. The Expanded Use Alternative represents a continuation of the multipurpose, multi-program use of the site and further represents a continuation and diversification of the DOE Nevada Operations Office and interagency programs and operations at the Nevada Test Site. The Expanded Use Alternative includes support for ongoing DOE Nevada Operations Office program categories defined in the Continue Current Operations Alternative, and also provides for increased use of the Nevada Test Site and its related resources and capabilities. This alternative would also make the Nevada Test Site more available to both public and private institutions for purposes of demonstrating new technologies. Public education activities from Alternative 4 include establishing educational tour routes on the Nevada Test Site and promoting the concept of creating a nuclear era museum that would highlight the Nevada Test Site testing activities. Tours would allow the public to see firsthand some of the history and impacts of past nuclear testing. These activities would be an important contribution to public understanding of the Nation's nuclear testing and Cold War Era history.

Environmentally Preferable Alternative

The Council on Environmental Quality, in its response to comments on 40 CFR 1505.2, defined the ''environmentally preferable alternative'' as the alternative that best promotes the national environmental policy. The Final Environmental Impact Statement analysis shows that potential environmental impacts on the Nevada Test Site and off-site locations in Nevada from each of the use alternatives considered would be small.

After considering impacts to each resource area by program, the DOE has identified Alternative 1, under the ''maintaining readiness'' scenario, as the environmentally preferable alternative. Alternative 2 was identified as having the fewest direct impacts to the physical environment and to worker and public health and safety because all operations would cease. However, the indirect impacts of not restoring contaminated areas could be significant over the long term. In addition, Alternative 2 results in the most significant impacts to the regional economy from the loss of jobs and income and also removes the Nevada Test Site from national programs requiring a remote testing facility. Alternative 1 was identified as having fewer adverse impacts than Alternatives 3 and 4, both of which include development of new projects such as a solar power generation facility. Alternatives 2 and 4 would also result in longer-term impacts from the environmental burden and risks associated with untreated, stored, and buried wastes. Although DOE is adopting a portion of Alternative 1 as an interim measure (see Decisions section below), DOE is not selecting Alternative 1 in total as a long range approach for management of the Nevada Test Site because that Alternative does not allow for expansion of the multipurpose, multi-program uses of the site.

Environmental Impacts of Alternatives

DOE weighed environmental impacts as one factor in its decision making. DOE analyzed the potential impacts that might occur to land resources, air quality, noise, water resources, soils, biological resources, cultural resources, socioeconomics, and human health for the four alternatives. DOE considered the impacts that might occur from use of special nuclear materials, facility accidents, and the transportation of radioactive materials. DOE considered the impacts of projects and activities associated with the five program categories for each alternative, the irreversible or irretrievable commitments of resources, and the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity.

Alternatives 1 and 3 both include a scenario under which one or more underground nuclear tests would be conducted if directed by the President. Impacts from conducting underground tests remain the largest unavoidable adverse effects of management of the Nevada Test Site. Existing drill holes would be used for potential underground nuclear tests. The construction of new facilities would have a minor, localized impact to the physical environment of the site and would not lead to significant off-site impacts. Geologic media contaminated by past underground nuclear testing would remain contaminated and unavailable for use at any site where underground nuclear testing has been conducted. Contaminated groundwater that could not be remediated would be unavailable for use.

The impacts of conducting subcritical experiments would be much less than those for underground nuclear testing since no self-sustaining nuclear reactions occur and much less radioactivity is deposited to the geologic environment. Subcritical experiments in support of stockpile stewardship programs would have the unavoidable adverse impacts of introducing additional radioactivity in the subsurface environment.

The incremental environmental impacts over baseline conditions from waste management activities under Alternatives 1 and 3 would be negligible. Under Alternative 3, some new facilities would create a slight increase beyond the impacts under Alternative 1. Under Alternatives 2 and 4, little change in impact would be seen over present conditions because most of the required land clearing, waste transportation, and geologic disturbance has already occurred.

Low-level waste at the Area 3 Radioactive Waste Management Site is disposed of in subsidence craters formed from past underground nuclear tests. The craters that are and would continue to be used at the Area 3 Radioactive Waste Management Site represent the unavoidable adverse impact that resulted from past underground nuclear tests. Use of the craters for waste disposal is a beneficial use of lands that have been significantly and unavoidably impacted by past actions. Expansion of waste management activities under Alternative 3 would occur in an area that has been previously disturbed and designated for radioactive waste management. Recent hydrological data support the current conceptual hydrogeologic model that no groundwater pathway exists beneath the Area 3 disposal craters.

Waste Management Program operations in Area 5 are more diverse and include facilities for hazardous and mixed waste management in addition to low-level waste management facilities. After 30 years of waste disposal operations, the DOE has not detected any contamination in groundwater monitoring wells near the Area 5 Radioactive Waste Management Site. No impact to groundwater from waste management operations in Area 5 would be expected to occur. Expansion of waste management activities under Alternative 3 would occur in an area that has been previously disturbed and

designated for radioactive waste management.

The long-term effects of waste disposal operations have been evaluated as a part of the performance assessment process. Preliminary results of the Area 5 Radioactive Waste Management Site Performance Assessment indicate that the risk of potential exposure to the public from waste disposal activities through surface water is not significant. Based on results of field studies, the groundwater pathway and air pathways are not considered credible transport mechanisms.

Impacts from vehicle transportation of materials to and from the Nevada Test Site have been analyzed, including Defense Program nuclear material and waste management activities related to radioactive wastes and hazardous materials. The majority of the postulated injuries and fatalities in this analysis would be a result of traffic accidents and not a result of exposure to the transported material or waste. The results of the transportation risk analysis show that the human health risks from the transportation of material or waste are low under any alternative, and are not significant contributors to the total risk from all operations under these alternatives.

Approximately 7,500 acres of land would be disturbed during the environmental restoration activities under Alternatives 1, 3, and 4. Under Alternative 2, environmental restoration activities would cease. This would result in a condition of noncompliance with environmental requirements and limit the future use of the land. At the Nevada Test Site, surface disturbance associated with any remediation, construction, and new testing programs would cause unavoidable impacts on habitat. At the Nellis Air Force Range Complex, surface disturbance associated with any remediation programs would cause unavoidable impacts on habitat.

The most significant impact from the Nondefense Research and Development Program would occur under Alternatives 3 and 4 and would result from the siting and construction of the Solar Enterprise Zone facilities. The Solar Power Production Facility could result in up to 2,400 acres of new land disturbance.

In general, human health risks under each of the alternatives are expected to be dominated by occupational injuries to workers engaged in activities such as construction, maintenance, and excavation. Historically, actual injury and fatality rates at the Nevada Test Site have been lower than the average U.S. industrial rates used in the analysis. Occupational injury and fatality risks are reduced by strict adherence to DOE and Occupational Safety and Health Administration safety standards, practices, and procedures.

Under Alternatives 1 and 3, the maximum reasonably foreseeable radiological accident involves a non-nuclear explosion in an Area 27 nuclear weapons storage magazine. The accident has a probability of 1×10^{-7} per year and could result in injuries or deaths to nearby workers due to the physical impacts of the explosion or delayed radiation health effects. Radiation exposure from the accident could result in 13 latent cancer fatalities in the worker population at the next nearest facility, and from 3 to 55 latent cancer fatalities in the off-site population within 50 miles.

The maximum reasonably foreseeable chemical accident involves an airplane crash into the Spill Test Facility. The accident has a probability of 1×10^{-7} per year and could result in injuries or deaths to nearby workers due to the physical impacts of the crash or toxic effects of chemicals. Workers at the next nearest facility could experience non-life threatening health effects from exposure to airborne chemicals. The off-site population within 50 miles could experience up to 3 latent cancers if this accident were to occur.

The Consolidated Group of Tribes and Organizations has identified impacts to American Indian groups with traditional ties to the Nevada Test Site and surrounding areas. Impacts include continued reduced access to culturally significant areas, the potential for unauthorized artifact collection, and the potential for culturally inappropriate environmental restoration techniques. Because of the expansion of activities under Alternative 3, potential impacts would be greater than those listed under Alternative 1.

Comments on the Final Environmental Impact Statement

The DOE distributed approximately 1500 copies of the Final Environmental Impact Statement to Congressional members and committees, the State of Nevada, various American Indian tribes and organizations, local governments, other federal agencies, and the general public. Comments from the Environmental Protection Agency and the State of Nevada were received during the 30-day period following the filing of the Final Environmental Impact Statement with the Environmental Protection Agency.

The Environmental Protection Agency found that the Final Environmental Impact Statement was generally responsive to its prior comments. However, the Environmental Protection Agency recommended five areas be addressed in the Record of Decision:

Subsequent National Environmental Policy Act Documentation: The Environmental Protection Agency recommended that future tiered National Environmental Policy Act documents (including Environmental Assessments) be circulated for review and comment to all affected or interested parties and agencies, including federal, state, and local governments, tribal governments, and citizens to afford these agencies and individuals a full opportunity to participate in subsequent National Environmental Policy Act reviews.

The DOE will ensure that future tiered National Environmental Policy Act documents (including Environmental Assessments) are circulated for review and comment to all affected and interested parties in order to afford a full opportunity for them to participate in subsequent National Environmental Policy Act processes. Moreover, DOE will continue to implement DOE orders, guidance, and regulations regarding the National Environmental Policy Act in conjunction with internal public participation plans.

Use of Undisturbed Habitat for Future Tiered Projects: The Environmental Protection Agency also recommended future developments be sited in already-disturbed areas unless other overriding factors require placing such facilities in undisturbed areas.

DOE will develop and implement a Resource Management Plan for the Nevada Test Site that incorporates the goal that when possible; new facilities will be sited in, or as close as possible to, previously disturbed lands in order to preserve and protect undisturbed land.

Pollution Prevention: The Environmental Protection Agency comments also recommended that future proposals and projects at the Nevada Test Site and off-site locations in Nevada be designed, constructed, and operated with pollution prevention opportunities being a prime consideration.

Implementation of DOE orders, guidance, and regulations regarding pollution prevention have been and will continue to be a prime consideration in the evaluation of future proposals and projects at the Nevada Test Site and off-site locations in Nevada.

Polychlorinated Biphenyls: The Environmental Protection Agency requested that clarification of the status of polychlorinated biphenyls in capacitors located in Area 27 be included in the Record of Decision,

along with a commitment to notify the Environmental Protection Agency of the status.

These capacitors are in service and included in the active inventory and are managed in accordance with 40 CFR Part 761. In the event that a decision is made that changes the status of the capacitors, the Environmental Protection Agency will be notified as required under applicable regulations.

Native American Concerns: The Environmental Protection Agency commended the DOE for specifically reflecting Native American concerns and considerations, and recommended the DOE continue to seek active Native American participation in future projects and proposals at the Nevada Test Site and off-site locations in Nevada.

DOE will continue to incorporate the Department's American Indian policy into its ongoing and long-term planning and management processes. Development and operation of programs that expand the use of the Nevada Test Site will be conducted within DOE's government-to-government relationship with tribal governments. DOE will consult with tribal governments concerning activities under these programs that may affect natural, cultural, traditional, and/or religious resources important to American Indians.

The State of Nevada comments identified five issues and made the following specific recommendations:

Assessment of the Nevada Test Site Land Withdrawal and its Relationship to the Environmental Impact Statement No Action Alternative: The State of Nevada expressed the view that disposal of radioactive waste at the Nevada Test Site from off-site generators cannot be considered a continuation of current or past activities, and thus cannot be characterized as part of the No Action Alternative. Further, the State of Nevada asserted that DOE does not have the authority under existing land withdrawals that comprise the Nevada Test Site to support continuation of the radioactive waste disposal program at the Nevada Test Site.

DOE believes that the characterization of No Action as the continuation of past and current activities is proper and is consistent with guidance provided by the Council on Environmental Quality. In the case of ongoing activities, ''. . . the 'no action' alternative may be thought of in terms of continuing with the present course of action until that action is changed.'' (''Forty Most Asked Questions,'' 46 CFR 18026, 18027, March 23, 1981.) For comparison purposes, Alternative 2 of the Environmental Impact Statement evaluated cessation of waste management activities.

As recognized by the State of Nevada in its comments, the radioactive waste disposal program began at the Nevada Test Site in the early 1960s as an activity related to testing of nuclear weapons, which is directly related to the land use designated in Public Land Order 805, dated February 12, 1952, reserving lands for the use of the U.S. Atomic Energy Commission. Since that time, DOE has disposed of radioactive waste in pits, trenches, landfills, and boreholes. The Nevada Test Site presently serves as a disposal site for low-level waste generated by DOE approved generators. In 1983, the Bureau of Land Management reviewed the land withdrawals for the Nevada Test Site pursuant to the requirements of the Federal Land Policy and Management Act of 1976 (Public Law 94–579). The Bureau of Land Management concluded that the lands were still being used for the purposes for which they were withdrawn. The withdrawal review also acknowledged the pursuit of other activities as described in the 1977 Nevada Test Site Environmental Impact Statement and did not find that they were inconsistent with the withdrawals. Although this formal determination by the Bureau of Land Management remains in effect, the Department is reviewing this issue in light of comments made during the preparation of the Environmental Impact Statement. To date, DOE's review confirms that its use of the Nevada Test Site continues to be consistent with the existing land withdrawals. However, in view of the comments submitted by the State and Department of Interior, and in view of the combination of activities selected, DOE commits to continue to consult with the Department of Interior's Bureau of Land Management as to whether the four major land withdrawals that comprise the Nevada Test Site need to be updated. As DOE has selected the No Action Alternative for management of low-level and mixed low-level wastes pending programmatic decisions regarding where the Department should manage these wastes, there will be no immediate changes in DOE's ongoing use of the lands for disposal of radioactive wastes.

DOE Compliance with Programmatic Decisions Concerning the Disposal of Off-Site Generated Low-Level and Mixed Low-Level Radioactive Waste at the Nevada Test Site as Provided for Under the National Environmental Policy Act Regulations: The State of Nevada expressed the view that DOE must complete its ongoing programmatic review for siting low-level and mixed low-level waste treatment and disposal facilities before making specific decisions that affect the Nevada Test Site, and that DOE must also recognize certain conditions for consideration of a Resource Conservation and Recovery Act Part B permit for new mixed waste disposal units for off-site generated waste at the Nevada Test Site.

As discussed in the Decisions section below, DOE will continue low-level and mixed low-level waste operations as described by the No Action Alternative until the programmatic review is completed. Once that review is completed, DOE will reexamine the low-level and mixed low-level waste activities at the Nevada Test Site to determine whether the status quo needs to be modified as a result of programmatic decisions. A new Record of Decision will be issued if appropriate. Any decisions to increase low-level and mixed low-level waste activities beyond the status quo would be implemented in full compliance with applicable laws and regulations.

Compliance with DOE Disposal Site(s) Performance Assessment Process as per DOE Order 5820.2A: Citing DOE Order 5820.2A, the State of Nevada expressed the view that receipt of radioactive waste and mixed radioactive wastes for disposal at the Nevada Test Site should be suspended until the performance assessment process is completed for all past, present, and future waste types.

DOE Order 5820.2A does not require that existing waste disposal operations cease until a performance assessment is prepared. DOE has prepared and continues to maintain a performance assessment for the Area 5 low-level Radioactive Waste Management Site at the Nevada Test Site. A performance assessment for the Area 3 Radioactive Waste Management Site is in process in conjunction with composite analyses for both the Area 5 Radioactive Waste Management Site and the Area 3 Radioactive Waste Management Site. A composite analysis is a planning tool used to reach interim decisions, pending implementation of a comprehensive approach through 10 CFR Part 834, regarding whether current low-level waste disposal activities will result in the need for future corrective or remedial actions to ensure protection of the public and the environment. However, as documented in the Environmental Impact Statement, DOE believes that sufficient information exists to demonstrate that waste can be disposed of at both sites in a safe manner.

Implementation of the Nevada Test Site Resource Management Plan and Clean-up Standards at Off-site Locations: The State of Nevada recommended that the Record of Decision contain a stipulation that the Resource Management Plan process will be completed in a specified time period, and commit to establishing a stakeholder advisory group to address Nevada Test Site development conflicts anticipated to arise in the future.

In the Decisions section below, the DOE commits to Resource Management and Comprehensive Land-Use Planning and development of a Resource Management Plan for the Nevada Test Site over the next two years. The Resource Management Plan will establish a process for managing resources to ensure long-term diversity and productivity of affected ecosystems and sustainable use of land and facilities on the Nevada Test Site. Interested parties will have opportunities to provide input into the selection of goals developed to guide management of resource issues on the Nevada Test Site and to assist in the development of management actions needed to achieve those goals. Methods of ensuring interested party input such as establishment of a stakeholder advisory group will be evaluated and selected as the plan evolves.

Special Case Waste, Waste Classified as Greater-Than-Class-C, and/or Waste requiring Greater Confinement Disposal: The State of Nevada comments on the Final Nevada Test Site Environmental Impact Statement recommended that the Record of Decision stipulate that DOE will comply with the National Environmental Policy Act for disposal of radioactive waste that is not suitable for shallow land burial.

DOE will prepare appropriate further documentation to comply with the National Environmental Policy Act before making decisions regarding Special Case Waste, Greater-than-Class-C, or wastes requiring Greater Confinement Disposal. In any case, DOE will ensure that all wastes disposed of at the Nevada Test Site meet waste acceptance criteria that will protect human health and the environment.

Other Decision Factors

As a result of changing mission priorities, the DOE has a need to focus on new national security, energy, and environmental issues challenging the Nation and to define the role of the Nevada Test Site to help meet these new challenges. The policy considerations outlined below are factors in the decision process for continued and future management of the Nevada Test Site.

It is DOE policy to manage all of its lands and facilities as valuable national resources. DOE stewardship will be based on the principles of ecosystem management and sustainable development. This policy requires each site to integrate mission, economic, ecologic, social, and cultural factors into a comprehensive plan that guides land- and facility-use decisions with stakeholder involvement. This will result in land and facility uses that support the Department's critical missions, stimulate the economy, and protect the environment.

On September 24, 1996, President Clinton signed a Comprehensive Test Ban Treaty. It is the intention of the President to seek ratification of this Treaty as soon as possible. President Clinton has also established specific safeguards that define the conditions under which the United States has entered into the Comprehensive Test Ban Treaty. These safeguards are as follows:

- The conduct of a science-based stockpile stewardship program to ensure a high level of confidence in the safety and reliability of nuclear weapons in the active stockpile, including the conduct of a broad range of effective and continuing experimental programs.
- The maintenance of modern nuclear laboratory facilities and programs in theoretical and exploratory nuclear technology that would attract, retain, and ensure the continued application of our human scientific resources to those programs upon which continued progress in nuclear technology depends.
- The maintenance of the basic capability to resume nuclear test activities prohibited by the Comprehensive Test Ban Treaty should the United States cease to be bound to adhere to such a treaty.
- The continuation of a comprehensive research and development program to improve treaty-monitoring capabilities and operations.
- The continuing development of a broad range of intelligence gathering and analytical capabilities and operations to ensure accurate and comprehensive information on worldwide nuclear arsenals, nuclear weapons development programs, and related nuclear programs.
- The understanding that if the President of the United States is informed by the Secretary of Defense and the Secretary of Energy, advised by the Nuclear Weapons Council, the Directors of DOE's nuclear weapons laboratories, and the Commander of the U.S. Strategic Command, that a high level of confidence in the safety and reliability of a nuclear weapon type that the two Secretaries consider to be critical to our nuclear deterrent could no longer be certified, the President, in consultation with Congress, would be prepared to withdraw from the Comprehensive Test Ban Treaty under the ''supreme national interest'' clause in order to conduct whatever testing might be required.

The Nevada Test Site has both a demonstrated and a potential role in implementing several of these safeguard elements. For example, the Nevada Test Site's role in the implementation of the first of these safeguards is to participate in full partnership, for a common purpose, with the scientific and academic communities, business and industry, and stakeholders to advance the Nevada Test Site as a valued national resource. The Nevada Test Site provides the modern nuclear laboratory platform for theoretical and exploratory nuclear technology that can attract and retain the human scientific resources required for continued progress in nuclear technology development. With the end of nuclear testing, the DOE is enhancing its capability to perform science-based stockpile stewardship activities consistent with the Comprehensive Test Ban Treaty. Uncertainty in the behavior of aging stockpiled weapons will continue to increase with time and in the absence of testing. To ensure continued confidence in the safety and reliability of the United States' nuclear weapons stockpile, the DOE must enhance its capability to perform activities consistent with the Comprehensive Test Ban Treaty such as dynamic experiments (including subcritical experiments) and other hydrodynamic experiments to assess the condition and behavior of nuclear weapons in the enduring stockpile. As an additional contingency, the DOE must maintain the basic capability to conduct underground nuclear testing activities should the need arise, in accordance with Presidential direction. The experimental program at the Nevada Test Site includes aspects that support both the Department's stockpile stewardship mission and its nuclear test readiness mission. Defense Program activities have been declining steadily in recent years resulting in the need to diversify user support at the Nevada Test Site. Diversification of users will offset infrastructure maintenance costs for Defense Programs necessary to allow the best use of limited stockpile stewardship resources and support the

successful execution of the stewardship mission at the Nevada Test Site.

The Nevada Test Site, through its Work for Others Program, has supported improved treaty-monitoring capabilities. Chemical explosions at the Nevada Test Site have been used to develop and calibrate seismic and hydrodynamic detection and analysis techniques. Sensitive isotope analysis techniques, derived from nuclear chemistry applications to tests, are being developed for treaty monitoring and intelligence analysis. Development is being advanced by analysis of underground test residue and environmental studies at the Nevada Test Site.

Environmental restoration and waste management have been part of Nevada Test Site operations since the beginning of the Nation's nuclear testing program. Low-level waste has been generated through the weapons development, testing, and production activities at DOE facilities as well as the environmental cleanup and restoration programs. As DOE missions have changed, there is an increasing volume of waste generated through the environmental restoration activities. This waste must be disposed of in accordance with applicable regulations and DOE orders. Thus, the DOE has a need to continue providing practical, cost-effective, and environmentally sound means of low-level waste disposal. The potential expansion of the waste disposal mission at the Nevada Test Site is dependent on the pending decisions from the Waste Management Programmatic Environmental Impact Statement (e.g., centralized or regionalized waste management alternatives).

Through September 23, 1992, there were 928 nuclear tests conducted on the Nevada Test Site; no nuclear weapons tests explosions have been conducted since that date. Defense research and weapons-test verification activities were also conducted at the Project Shoal Area and the Central Nevada Test Area. From 1957 to 1963, several safety tests were conducted at sites at the Nevada Test Site, the Nellis Air Force Range Complex, and the Tonopah Test Range to test the safety of nuclear weapons in accident situations. Because these tests were not contained and used special nuclear materials and chemical explosives, they resulted in the release of radioactive materials and surface contamination. It is DOE policy to develop site remediation goals and cleanup levels for the Nevada Test Site and off-site test areas based on future land use and management goals for the protection of environmental resources. The DOE is working in cooperation with other agencies to define remediation and cleanup levels to ensure that the disposition of withdrawn lands is consistent with the controlling agencies' existing land-use or resource management plans.

In the National Defense Authorization Act for Fiscal Year 1993, Congress included a section that encouraged DOE to minimize the social economic impacts on workers and communities affected by the downsizing of defense-related facilities. This requirement, Section 3161 of the Act, provided for various activities to mitigate the downsizing impact both for individual workers and communities near DOE sites. One of the methods DOE has used to implement this Congressional direction is to establish local Community Reuse Organizations to assist economic development efforts. The purpose for this is to provide employment opportunities for former workers and therefore minimize the economic impact on local communities. Section 3161 of the Act authorized DOE to pursue a workforce restructuring plan and initiate private sector economic development at DOE facilities in this effort.

Decisions

The Final Environmental Impact Statement identified Alternative 3, Expanded Use, plus the public education activities of Alternative 4, Alternative Use of Withdrawn Lands, as DOE's Preferred Alternative. Today DOE is deciding to implement a variation of this Preferred Alternative. As discussed below, DOE is deciding as an interim measure, to continue to conduct low-level and mixed low-level waste management activities in the same manner as it has in the past as represented by the No Action Alternative pending programmatic decisions. DOE is deciding to conduct all other activities consistent with the Preferred Alternative. The following discussion describes the major actions to be taken. This discussion is not intended to be exhaustive. Additional actions necessary to implement the major actions described may also be taken in support of the missions of the Nevada Test Site.

Resource Management and Comprehensive Land-Use Planning

As part of this comprehensive planning responsibility, DOE will develop a Resource Management Plan for the Nevada Test Site over the next two years. The Resource Management Plan will identify the site resources that will be considered when making land-use decisions. It will define the goals for each of those resources, and establish the criteria for evaluating activities against those goals. The goals will be used to identify actions needed for wise resource use and sound ecosystem management. DOE will follow the framework published as Volume 2 of the Final Environmental Impact Statement for development of the Resource Management Plan.

The DOE Nevada Operations Office will use the Resource Management Plan as a part of the comprehensive land-use planning process, along with the National Environmental Policy Act process to evaluate and select the best alternative sites for future proposed activities at the Nevada Test Site. The Resource Management Plan will also document a process for monitoring the impacts of activities. Results of such monitoring will be used to review and update the Resource Management Plan.

As has been its practice in the past, DOE remains committed to ensuring that its implementation of all the decisions made in this ROD complies with federal law and land withdrawal policies. In this regard, DOE commits to continuing its informal consultation with BLM as to whether the four major land withdrawals that comprise the NTS need to be updated.

Defense Program

Defense Program activities at the Nevada Test Site will emphasize stockpile stewardship experiments and operations to maintain confidence in the safety and reliability of the stockpile without underground nuclear testing. These stockpile stewardship activities will include exercises, operations, experiments (including subcritical experiments involving special nuclear material), and other hydrodynamic tests. Appropriate transparency measures will be used to ensure that activities conducted at the Nevada Test Site are clearly consistent with the Comprehensive Test Ban Treaty. The DOE will continue to maintain nuclear test readiness at the Nevada Test Site but would conduct an underground nuclear test only if so directed by the President under the ''supreme national interest'' provision of the Comprehensive Test Ban Treaty. Any such underground tests would only be conducted within the designated Nuclear Test Zone on the Nevada Test Site.

Over the next ten years, the DOE plans to conduct a wide variety of experiments within the appropriately zoned areas of the Nevada Test Site. This includes dynamic experiments with very small to very large quantities of high explosives, subcritical

experiments, dynamic experiments to generate electrical pulses, and other experiment types. An upper limit estimate of the number of these activities has been made in order to assess their maximum reasonable potential environmental impact. While near-term planning indicates that only about four high explosive driven subcritical experiments will likely be conducted per year in the U1a complex, an upper-limit estimate total for all the defense related experiments that may be conducted at the Nevada Test Site is over 100 per year. The U1a complex (formerly known as the Lyner complex) and the Big Explosives Experiment Facility will be the principal sites for many of these experiments and tests. Dynamic experiments involving special nuclear material will be conducted only where containment is assured. The experiments planned at the Big Explosives Experiment Facility will include large high-explosive charges and potentially hazardous materials, such as beryllium, depleted uranium, deuterium, and tritium. Explosive charges of up to 32,000 kg (70,000 lb) in conjunction with some of the materials previously mentioned are contemplated as part of this activity. Existing facilities including the Device Assembly Facility and Area 27 will be used to prepare the explosives, special nuclear material, and other material required for these experiments.

The DOE will also reserve land and infrastructure on the Nevada Test Site to support the current test readiness and national security missions and to support future defense program activities. In addition to the Nuclear Test and Nuclear and High Explosive Test Zones which are available for compatible defense and nondefense activities, the DOE will also establish a Defense Industrial Zone around critical assembly areas. This zone will be dedicated solely to defense related activities and is an area in which various future stockpile stewardship and management facilities could be sited.

In addition to the stockpile stewardship mission at the Nevada Test Site, the DOE Nevada Operations Office will also continue to maintain the capability to locate, retrieve, and destroy damaged nuclear weapons.

The primary mission of DOE Defense Program activities at the Tonopah Test Range is to ensure that the Nation's nuclear weapons systems meet the highest standards of safety and reliability. The DOE will continue to conduct stockpile stewardship activities and assess the surety conditions of existing systems at the Tonopah Test Range.

In support of the ongoing programmatic analyses for Stockpile Stewardship and Management, Storage and Disposition, and Continued Operations of the Pantex Plant, the DOE will reserve land and infrastructure on the Nevada Test Site for the National Ignition Facility, nuclear weapons assembly/disassembly operations, and for long-term storage and disposition of weapons-usable fissile materials pending these programmatic decisions.

DOE will continue to conduct training and drills on the Nevada Test Site to exercise the technical disciplines of the Nation's Nuclear Emergency Search Team. This includes the construction of simulated nuclear assemblies (similar in construction to those used for nuclear explosive devices), and the conduct of high explosive experiments to investigate and baseline potential deployment scenarios. Additional training and drills will also be conducted on the Nevada Test Site for the Federal Radiological Monitoring and Assessment Center.

The DOE will continue to use the Nevada Test Site for the development of remote sensing, analytical, and display technology for detection of nuclear radiation in support of the Aerial Measuring System mission. The DOE Nevada Operations Office will continue to provide field response resources in support of nuclear weapons accidents, exercises, and training in support of Accident Response and the Radiological Assistance Programs.

Work for Others Program

The DOE Nevada Operations Office Work for Others Program will continue to be an important aspect of Nevada Test Site related activities. These ongoing activities primarily involve the Department of Defense, the Defense Special Weapons Agency, and other federal agencies. The primary focus of these activities are centered around treaty verification, nonproliferation, counterproliferation, demilitarization, and defense related research and development.

The Nevada Test Site and the Tonopah Test Range have been and will continue to be impacted by the implementation of current and future arms control treaties. DOE will continue to conduct those activities at the Nevada Test Site necessary for treaty verification and to develop verification technologies.

The DOE will continue to conduct research and development activities at the Nevada Test Site and the Tonopah Test Range to support the United States' nonproliferation goals and objectives. The HAZMAT Spill Center provides unique capability in the development of chemical effluent remote sensors and will continue to be used periodically for this type of research and development.

Counterproliferation refers to the Department of Defense efforts to combat the international proliferation of weapons of mass destruction. Facilities for developing, producing, and storing weapons of mass destruction are likely to be located underground. Counterproliferation research and development is directed toward the detection, monitoring, and neutralization of buried targets.

The various tunnels and bunkers at the Nevada Test Site provide an ideal testing environment for counterproliferation research and development experiments. Experiments that use a variety of remote imagery and sensory applications in conjunction with Nevada Test Site bunkers and tunnels will be conducted to develop techniques and methods to detect, characterize, and monitor buried objects. Such experiments involve both land-based and airborne operations. Experiments designed to develop techniques for destroying or neutralizing weapons of mass destruction and buried objects, such as bunkers and tunnels, will also be performed. These experiments involve the surface and below ground detonation of conventional explosives in the immediate vicinity of the Nevada Test Site and Tonopah Test Range bunkers and tunnels.

The demilitarization activity proposed for the Nevada Test Site is a demonstration of potential technologies used to destroy obsolete conventional munitions, pyrotechnics, and solid rocket motors. The DOE will demonstrate technologies which can be used to assist with the demilitarization efforts of other federal agencies at the Nevada Test Site. These technologies will be tested in designated Research, Test, and Experiment Zones around the existing underground tunnels and facilities of Area 25 and would include destruction, recovery, reuse, and recycling technologies. This offers a unique opportunity to demonstrate environmentally sound methods involving conventional weapons destruction. These systems provide for the containment and treatment of residual debris.

Large-scale demilitarization activities at the Nevada Test Site designed to reduce significant portions of an obsolete munition would be subject to additional National Environmental

Policy Act review and applicable federal, state, and local regulations.

Other defense related research and development activities include tests and training exercises employing weaponry, such as small arms, artillery, guns, aircraft, armored vehicles, demolitions, rockets, bazookas, and air-dropped armaments, as well as a variety of electronic imagery and sensory technologies, including, but not limited to, infrared lasers and radar. It is expected that these types of experiments and tests would take place in appropriately zoned areas of the Nevada Test Site and would be compatible with surrounding land use. Defense related activities are generally conducted in the Reserved Zones as well as in the Research, Test, and Experiment Zones.

Waste Management Program

The draft Waste Management Programmatic Environmental Impact Statement, DOE/EIS–0200, was issued for public comment in August 1995, and the Department anticipates that the final statement will be issued in the near future. That programmatic environmental impact statement analyzes alternative strategies to maximize efficiency for the Department's national Waste Management Program, and it will support the Department's complex-wide waste management decisions. Those decisions may require changes to the Waste Management Program at the Nevada Test Site in the future. Therefore, DOE is deciding today, that in the interim, pending those programmatic decisions, DOE will maintain the current level of low-level and mixed low-level waste management activity as described in the No Action Alternative in the Nevada Test Site Environmental Impact Statement. The activities include the planning, coordination, waste transportation, storage, characterization, and disposal and waste minimization and pollution prevention programs. Waste management activities other than for low level and mixed low-level waste do not involve issues that would be affected by decisions based on the Waste Management Programmatic Environmental Impact Statement. Therefore, DOE is deciding to implement Expanded Use for those other activities.

Low-Level Waste: Disposal of low-level waste will continue for waste streams from current on-site and off-site waste generators. This represents the No Action Alternative of disposal capability for currently approved waste generators. Approval of other waste generators for disposal is pending future programmatic decisions. The DOE will continue to expand and create new disposal cells as necessary within the designated Radioactive Waste Management Zones.

The Area 3 Radioactive Waste Management Site will continue to be developed for the disposal of low-level waste. The Area 3 Radioactive Waste Management Site support facilities will be maintained to serve operations and radiation safety personnel needs, as necessary.

The Nevada Test Site will continue to manage a variety of low-level wastes from approved generators that include classified waste, waste inappropriate for shallow land disposal, and waste which is considered by some sites as special case waste. All such wastes disposed of at the Nevada Test Site will comply with the site's waste acceptance criteria.

Mixed Waste: The DOE will continue to manage mixed waste which is currently on site or which may be generated by DOE at the Nevada Test Site. Storage of mixed waste will continue under a Mutual Consent Agreement with the State of Nevada.

Currently, the DOE is storing all Nevada Test Site low-level mixed waste in the Area 5 Radioactive Waste Management Site. Included in this waste type is Cotter Concentrate, a sludge-like residue resulting from uranium ore processing constituting approximately 88 percent of all low-level mixed waste stored at the Nevada Test Site. The treatment and disposal options for the current low-level mixed waste inventory are identified in the Nevada Test Site Site Treatment Plan and Federal Facility Compliance Act Consent Order effective March 27, 1996. However, the preferred treatment option for the Cotter Concentrate waste stream, treatment or reclamation at an off-site facility, differs from the solidification option currently presented in the Nevada Test Site Site Treatment Plan and Federal Facility Compliance Act Consent Order, which will be updated to reflect the preferred treatment option. DOE will construct a treatment facility for the solidification of Cotter Concentrate in accordance with the Nevada Test Site Site Treatment Plan and Federal Facility Compliance Act Consent Order if the preferred treatment option cannot be implemented.

Transuranic Waste: The DOE will continue storing onsite transuranic and transuranic mixed waste pending the development of DOE disposal facilities. In addition, the DOE will construct and operate at the Nevada Test Site a waste examination facility for characterization and certification of transuranic and transuranic mixed waste for off-site disposal, presumably at the Waste Isolation Pilot Plant near Carlsbad, New Mexico. The construction of characterization and certification facilities at the Nevada Test Site is required for compliance with the Site Treatment Plan developed under the Federal Facility Compliance Act and Consent Order negotiated with the State of Nevada and is included in this decision. The DOE will continue to store classified and other transuranic waste that does not meet the Waste Isolation Pilot Plant's waste acceptance criteria, until a disposal option is determined.

Hazardous and Toxic Substances Control Act Waste: The DOE will continue to store polychlorinated biphenyl waste pending off-site disposal and will expand the storage capacity for hazardous waste pending off-site disposal. Treatment of explosive waste at the Explosive Ordnance Disposal Unit will continue to occur at the Nevada Test Site per the conditions of the Resource Conservation and Recovery Act Part B permit. The DOE will seek to increase the capacity of the hazardous waste storage unit to address the additional needs of DOE Nevada Operations Office Programs, if necessary. The Resource Conservation and Recovery Act Part B permit application would be modified to address the additional storage capacity.

Solid Waste: The DOE will continue to provide disposal capability for solid waste generated on-site. Providing disposal capabilities for adjacent rural counties will be evaluated.

Closure: The DOE will continue to pursue the development and implementation of approved closure plans and designs for the waste units that are inactive, already full, and those that become full in the future. Waste management closure activities will be conducted at both the Area 3 and the Area 5 Radioactive Waste Management Sites, as necessary.

Site Improvements: The DOE will construct certain site improvements as part of its continuing Waste Management Program. DOE will construct an equipment maintenance building and flood protection dike and channel at the Area 5 Radioactive Waste Management Site to support current operations. In order to provide improved access to the Area 5 Radioactive Waste Management Site, DOE proposed in the Nevada Test Site Environmental Impact Statement to either upgrade the 5–01 Road or the 5–07 Road. At this time, DOE has identified a third option that would consist of extending the Cane Springs Road eastward from the Mercury highway to intersect with the 5–01 Road

just south of the Area 5 Radioactive Waste Management Site. Inasmuch as this alternative was not included in the analysis performed for the Nevada Test Site Environmental Impact Statement, DOE will conduct an appropriate National Environmental Policy Act analysis before making any decision concerning implementation of the Cane Springs Road Extension or any of the other road improvement options.

Transportation of Materials and Waste

DOE will comply with U.S. Department of Transportation regulations regarding the transportation of radioactive materials. Radioactive materials shipped on the Nation's highways and roads are subject to the regulations administered and enforced by the U.S. Department of Transportation. These regulations set standards for packaging and transporting materials and requirements for labeling, documenting, loading and unloading, and handling. Compliance with the standards ensures that package handlers, transporters, and the public do not receive dose rates in excess of recognized safe limits. The regulations also specify that drivers receive training to ensure they are qualified to transport radioactive materials and that motor carriers follow routes which are selected to minimize radiological risk.

The DOE will use Environmental Protection Agency protective action guides and actions that are designed to limit doses and impacts in the event of a transportation accident involving radioactive material. The DOE use of these guides and actions will minimize the impacts of transportation accidents involving radioactive material.

Environmental Restoration Program

DOE will continue its Environmental Restoration Program activities of characterization and selected remediation of contaminated areas or facilities identified in the Federal Facility Agreement and Consent Order. Environmental Restoration is not considered a land use, but an activity necessary for environmental protection, reuse, or disposition of land and facilities.

Clean-up priorities and clean-up levels are subject to negotiation with regulators and involved stakeholders. The assessment and remediation of the Nevada Test Site and off-site locations in Nevada have been divided into several subproject categories:

- Off-Site Corrective Action Units (including Project Shoal Area and Central Nevada Test Area)
- Soils Media Corrective Action Units (including sites on the Tonopah Test Range and Nellis Air Force Range Complex)
- Underground Test Areas Corrective Action Units
- Industrial Sites Corrective Action Units (includes Defense Nuclear Agency sites and Decontamination and Decommissioning projects)

DOE's priority for approaching environmental restoration work will be to characterize and remediate the surface and shallow subsurface at the Project Shoal and Central Nevada Test Area sites. The deep subsurface at these sites will be characterized and modeled. Next in priority will be to characterize and remediate the contaminated sites on the Tonopah Test Range and the Nellis Air Force Range Complex.

The DOE will characterize sites on the Nevada Test Site beginning at the south end and progressing northward. Areas with minimum contamination will be the first priority for characterization and remediation. These areas can be readily remediated and released for other uses. The next priority will be to characterize and remediate selected sites within Areas 23 and 25 which will facilitate reuse in the future. Lowest in priority are those contaminated sites which are in areas designated for potential future weapons testing.

Site-Specific Remedial Actions

Off-Site Corrective Action Units

For the Shoal Project Site and Central Nevada Test Area, DOE will remediate the surface facilities locations. The remedial strategy for the subsurface will be to characterize groundwater flow and zones of contamination, to model the potential for contaminant migration from the source cavities, and to assess health risks. Tritium migration will be the major focus, since tritium is the most mobile of the radioactive contaminants. Other radionuclides will be evaluated, provided tritium migration indicates the need for their inclusion in the source evaluation. Subsurface contaminants in and around the nuclear test cavities will not be remediated since cost-effective groundwater strategies have not yet been demonstrated for effectively removing or stabilizing radioactive contaminants. Institutional control of the deep subsurface will be maintained and long-term subsurface monitoring and surveillance of the sites is planned for at least 50 years.

Soils Media Corrective Action Unit

The first soil sites that DOE will characterize and remediate are those that are located off the Nevada Test Site proper and those which straddle the boundary of the Nevada Test Site. Soils activities will aim toward remedial actions, including interim actions, designed to clean up the Clean Slates 1, 2, and 3 sites on Tonopah Test Range; the Small Boy Site east of Frenchman Flat; Schooner and Area 13 sites on Nellis Air Force Range Complex; and to obtain closure of the Double Tracks site on Nellis Air Force Range Complex which was the object of a voluntary interim Corrective Action in early 1996. These remedial actions will be conducted in accordance with the Federal Facility Agreement and Consent Order.

Cleanup standards will be negotiated. Characterization and remediation will utilize the Kiwi system, which is a sensor system mounted on a four-wheeler and able to provide fine resolution. ''Hot spot'' materials located in limited selected areas will be removed. More extensive areas of surface contamination will require the use of mechanical excavation. Size separators or other physical processes may be used to obtain volume reduction of mechanically removed materials. Subsurface remedies will range from excavation to containment in place. For the long term, it is assumed that some areas of the Nevada Test Site will remain under institutional control.

Remedial actions will be based on several factors including applicable regulatory standards and negotiated cleanup levels. Negotiated cleanup levels will be based on applicable regulatory standards, assessment of the risk posed by the contamination, current and anticipated land uses, resource management considerations, costs, feasibility, and other factors.

Underground Test Areas Corrective Action Unit

DOE's activities in the Underground Test Areas will continue to focus on investigation of the effects of underground nuclear testing on groundwater and the surrounding media. Because cost-effective subsurface remediation technologies have not yet been demonstrated, subsurface contaminants in and around nuclear shot cavities will not be remediated. DOE would reevaluate possible corrective actions in the event that such technologies are developed in the future.

Fate and transport modeling will continue to determine the extent of contamination and potential for health risk to the public. DOE will monitor existing wells and new wells will be drilled, if necessary, to support computer modeling to assess contaminant migration potential,

particularly beyond Nevada Test Site boundaries. Monitoring and surveillance will be conducted for at least 50 years.

Industrial Sites Corrective Action Units

DOE will prioritize remediation of the industrial sites according to the highest potential for future use. Areas of the Nevada Test Site slated for potential future testing activities will be characterized, but not remediated, except in areas identified where potential for health risk exists as a result of direct exposure, inhalation, and/or resuspension of contaminants. For decontamination and decommissioning activities, facilities will be prioritized based on potential re-use. The Area 25 Engine Maintenance and Disassembly Facility will be decontaminated for potential re-use.

The sites scheduled for assessment include:

- Nevada Test Site, Area 2; U–2bu Subsidence Crater
- Nevada Test Site, Area 23; Building 650 Leach Field
- Nevada Test Site, Area 23; Pesticide Storage
- Tonopah Test Range, Septic Waste Systems 2 and 6

The sites scheduled for remediation include:

- Nevada Test Site, Area 2; Bitcutter Shop
- Nevada Test Site, Area 2; Photograph Development System
- Nevada Test Site, Areas 4, 7, & 12; Housekeeping Sites
- Nevada Test Site, Area 6; Steam Cleaning Effluent Ponds
- Nevada Test Site, Area 6; Decon Pond Facility
- Nevada Test Site, Area 12; Steam Cleaning Effluent
- Tonopah Test Range, Closed Ordnance Disposal Pits; Bomblet Pit and Five Points Landfill
- Tonopah Test Range, Buried DU Artillery Round #1
- Tonopah Test Range, Roller Coaster Lagoons and Trench
- Tonopah Test Range, Underground Storage Tank Sites, Second Gas Station
- Tonopah Test Range, Cactus Spring Waste Trenches

Nondefense Research and Development Program

The DOE will continue to support ongoing program operations and pursue diversification of use to include nondefense and private use. In defining land use zones on the Nevada Test Site, the DOE will allow for compatible nondefense research and development activities to be conducted in all land use zones on the Nevada Test Site with the exception of the Defense Industrial Zone. These new initiatives will include the construction and operation of a solar power production facility and siting an Alternative Fuels Demonstration Project at the Nevada Test Site. Private uses, for example, could include activities such as the Kistler Aerospace Corporation proposal identified during the public comment period on the Draft Environmental Impact Statement. Kistler's comments expressed interest in developing a commercial satellite delivery system as a future activity in this program area. To the extent that future National Environmental Policy Act review is required in connection with the satellite delivery aspects of this project, such review would occur in conjunction with the Federal Aviation Administration licensing process.

In this program area the DOE will continue to support the Solar Enterprise Zone concept for Southern Nevada which includes locating up to 1000 megawatts of solar power generation among the evaluated sites. In addition to two locations at the Nevada Test Site, three other sites in southern Nevada are being considered by the Corporation for Solar Technology and Renewable Resources: Eldorado Valley, Dry Lake Valley, and Coyote Spring Valley. As part of this support, initially the DOE will cooperate in the construction and operation of a 100 megawatt or less solar power production facility in Area 22. This facility, when operational, will enhance the Nevada Test Site power infrastructure in support of the primary science-based stockpile stewardship mission. Additionally, the DOE will reserve land and infrastructure in Area 25 for potential future solar power development.

The DOE is planning an Alternative Fuels Demonstration Project which will test and evaluate various blends of fuels for both fixed base and transportation vehicles applications. The DOE currently has 16 vehicles at the Nevada Test Site converted to operate on either natural gas or gasoline. The DOE will pursue additional funding for the Alternative Fuels Demonstration Project to construct a refueling facility and to further convert a portion of the remaining vehicle fleet.

The DOE will expand the capability of the existing Spill Test Facility into a multi-use facility that will be known as the HAZMAT Spill Center. The following five crucial research and development needs of government and industry have been identified in this proposed expansion of capability at the HAZMAT Spill Center:

Remote Sensing: The HAZMAT Spill Center will be used as a chemical release test bed for remote sensor development and testing for effluent analysis and for stand-off hazardous materials identification.

Source Term Definition/Dispersion Modeling: Data sets will be generated during tests at the HAZMAT Spill Center that will allow for validation of computer model source term assumptions and dispersion estimates. These data sets will also be utilized to enhance, improve, and develop new computer models utilized in emergency response to HAZMAT incidents.

Mitigation Techniques: Material releases will be used at the HAZMAT Spill Center to allow research and demonstration of mitigation technologies. The data collected during these tests will also be used to develop computer-based mitigation models.

HAZMAT Training: Training of emergency response team members using hazardous materials will be conducted. This allows the participants to gain confidence in emergency response equipment and procedures for incident response.

HAZMAT Testing: Personal protective equipment will be field tested, under a variety of conditions, using mannequins and test chemicals. This testing capability will also be utilized in the development and field testing of industrial hygiene sensors.

The DOE will continue to conduct research and technology development and demonstration activities at the Nevada Test Site focused on overcoming major obstacles to progress in cleaning up contaminated DOE sites. The major remediation and waste management areas include plume control and remediation, soil separation, tank remediation, landfill stabilization and mixed waste characterization, treatment, and disposal. Demonstrations include nonintrusive particle imaging and laser-induced fluorescence systems for decontamination and decommissioning applications.

As part of the Environmental Research Park program, the DOE will continue under a cooperative agreement with the University of Nevada and the University of Nevada, Las Vegas, to provide financial assistance for scientific research projects. Areas of research include, but are not limited to, habitat reclamation, hydrogeologic systems, radionuclide transport, ecological change, waste management, monitoring processes, remediation, and characterization, as necessary.

Alternate Uses

The DOE will promote public use of the historic resources of the site. Public education activities include establishing

educational tour routes on the Nevada Test Site and promoting the creation of a museum that highlights previous Nevada Test Site testing activities and current and future Nevada Test Site uses. Tours will allow the public to see firsthand some of the history and impacts of past nuclear testing, and will stimulate public involvement in potential reuse of DOE weapons-complex sites. These activities will be an important contribution to public understanding of the Nation's nuclear testing history and how those historic activities have changed.

Site Support Activities

Defense Program activities at the Nevada Test Site have been declining steadily in recent years, resulting in the need to diversify user support. Diversification of users will offset required infrastructure maintenance for Defense Programs, allow the best use of limited stockpile stewardship resources, and support the successful execution of the stewardship mission. The activities identified in the Preferred Alternative require infrastructure construction and maintenance and support facilities. These include the utilities, communications, and transportation systems, as well as the existing support facilities, both on- and off-site. Under the Preferred Alternative, the Department will undertake landlord-related construction and maintenance projects as circumstances dictate.

Mitigation

Volume 1, Chapter 7, of the Final Environmental Impact Statement presents the measures under the four alternatives analyzed that would be implemented to reduce potentially adverse impacts to the environment. Operations integral with the agency Preferred Alternative, Alternative 3 (Expanded Use), plus the public education activities from Alternative 4 (Alternate Use of Withdrawn Land), are strictly controlled through Nevada Test Site management activities that incorporate routine mitigation measures. The DOE has orders, guidance, regulations, and Nevada Test Site Standing Operating Procedures for the conduct of operations. As these orders, regulations, and standing operating procedures have been developed, they incorporated environmental impact mitigation actions required for most program operations. Further, DOE's compliance programs require self-assessments, external oversight, and audits to ensure adherence to regulations. Individually and collectively, these measures avoid, reduce, or eliminate potentially adverse environmental impacts from activities at the Nevada Test Site.

Throughout the environmental impact analysis process, in conjunction with consultations with affected American Indian tribes and federal and state agencies and using input received from the public, DOE identified actions within the five mission programs that require measures that, under existing operational requirements, would be routinely implemented to protect soils, water, wildlife, vegetation, cultural resources, and public and occupational health and safety. In addition, selected actions within a program area were identified that require additional mitigation measures to address either impacts from the action itself or stakeholder concerns. Routine measures identified through the Environmental Impact Statement analyses identified in Volume 1, Chapter 7, represent all practicable means to avoid or minimize adverse impacts of DOE programs in Nevada on sensitive environmental resources and other areas of concern which may result from the Preferred Alternative. Those additional mitigation measures beyond day-to-day routine physical and administrative controls needed for implementation of the Preferred Alternative are described in the following sections. Implementation of specific mitigation measures will be addressed in detail in a Mitigation Action Plan. DOE will prepare a Mitigation Action Plan to describe how mitigation impacts from the transportation of materials from the Waste Management Program will be implemented. The Mitigation Action Plan will provide a general approach for addressing groundwater impacts, and specific details for mitigation of groundwater will be provided before the initiation of individual major projects.

Transportation

Transportation of materials in support of the Waste Management Program results in potential impacts and concerns that will be addressed or mitigated through the following DOE actions:

- Conduct a comprehensive study of the potential social and cultural effects on affected Native American tribes from the transport of low-level radioactive waste and low-level mixed waste to the Nevada Test Site.
- Allow shipments of low-level radioactive waste and low-level mixed waste that arrive at the Nevada Test Site during off-hours to park in a secure area inside the gate.
- Provide information to stakeholders concerning waste shipments.
- Meet with the Transportation Protocol Working Group regularly to discuss low-level waste and low-level mixed waste transportation issues. Respond to transportation concerns between meetings by phone calls, faxes, or personal meetings.
- In coordination with local emergency-response agencies, determine needs concerning emergency-response actions involving transportation of low-level waste and low-level mixed waste and assist in the fulfillment of those needs as far as practicable.
- Distribute surplus federal equipment to local agencies to the extent possible under current regulations concerning federal surplus disposition.
- Prepare an annual report that includes, at a minimum, identification of carriers, sources and destination of each shipment, the number and volume of shipments, highway and rail routes used, incidents/accidents data, and an evaluation of each shipping campaign.

Groundwater Hydrology

In order to avoid adverse impacts to groundwater availability from development and operations associated with the five mission programs, DOE would, as necessary, implement appropriate well-field design and placement, move points of diversion farther away from potentially affected areas, import water from adjacent areas, adjust the production of water from well fields, drill new water supply wells, and carefully manage recharge and discharge areas.

Conclusion

DOE has attempted to balance environmental impacts, stakeholder concerns, and national policy in its decisions regarding the management and use of the Nevada Test Site and off-site locations in the State of Nevada. The analysis contained in the Environmental Impact Statement is both programmatic and site specific in detail. It is programmatic from the broad multi-use facility management perspective, and site specific in the detailed project and program activity analysis. The impacts identified in the Environmental Impact Statement were based on conservative estimates and assumptions. In this regard, the DOE has attempted to bound the impacts of the alternatives defined in the Environmental Impact Statement. The Expanded Use Alternative was defined to include potential activities related to the programmatic decisions that may be made as a result of other DOE Environmental Impact Statements

currently in progress. Consequently, the analysis for this alternative bounds the maximum potential impacts that could occur at the Nevada Test Site as a result of decisions made from the other DOE Environmental Impact Statements. This Environmental Impact Statement and the analyses it contains can be used to support these future programmatic decisions.

The decisions made in this Record of Decision are defined consistent with the conservative descriptions contained in the Environmental Impact Statement. In the application of these decisions it should be noted that some of the proposals will continue to evolve over time. In this regard, proposed new activities such as constructing and operating a 1000-megawatt Solar Power Production Facility at the Nevada Test Site were analyzed in the Environmental Impact Statement; however, the current proposal for a solar power production facility at the Nevada Test Site is less than this original power estimate and would initially serve only the Nevada Test Site. The true impact of this proposal with respect to ground clearing and water use impacts would likewise be less than those identified. DOE also estimated conservatively the number of science-based stockpile stewardship tests and experiments to be conducted over a ten year period at the Nevada Test Site. Actual schedules and data needs will dictate the number of stockpile stewardship experiments and tests conducted in a given year. This number could be less than that identified, and consequently the actual impacts would also be less. DOE also analyzed the potential impacts of a generic large heavy industrial facility under the Expanded Use Alternative in order to identify maximum potential impact at the site under the concept of expanded use. DOE may at some future time consider siting a defense, nondefense, or private industrial facility at Nevada Test Site. Once such a proposal becomes more defined, additional National Environmental Policy Act analysis, as appropriate, would tier from this programmatic heavy industrial facility analysis.

In accordance with the provisions of the National Environmental Policy Act, its implementing procedures and regulations, and DOE's National Environmental Policy Act regulations, I have considered the information contained within the Final Environmental Impact Statement, including the classified Appendix and public comments received in response to the Draft and Final Environmental Impact Statement. Being fully apprised of the environmental consequences of the alternatives and other decision factors described above, I have decided to continue and expand the use of the Nevada Test Site and its resources as described. This will enhance the DOE's ability to meet its primary national security mission responsibility in Nevada and create an environment that fosters technological innovation in both the public and private sectors.

Issued at Washington, DC, December 9, 1996.

Hazel R. O'Leary,

Secretary.

[FR Doc. 96–31652 Filed 12–12–96; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components

AGENCY: Department of Energy.

ACTION: Notice of availability.

SUMMARY: The Department of Energy (DOE) announces the availability of the Final Environmental Impact Statement (EIS) for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components (DOE/EIS–0225). The Department's preferred alternative is to continue nuclear weapons operations at the Pantex Plant, located near Amarillo, Texas; to implement projects and facility upgrades consistent with conducting these operations; and to increase the interim storage level for plutonium components (pits) from 12,000 to 20,000 pits. The Final EIS also evaluates a No Action Alternative and a Relocation of Interim Pit Storage Alternative.

ADDRESSES: Written requests for copies of the Final EIS should be directed to: Ms. Nanette Founds, U.S. Department of Energy, Albuquerque Operations Office, P.O. Box 5400, Albuquerque, New Mexico, 87185–5400. Written requests can also be submitted via fax at (505) 845–6392, with facsimiles marked: Pantex Plant EIS. Requests for this EIS may also be submitted by calling (505) 845–4351.

FOR FURTHER INFORMATION CONTACT: For information on this EIS, please contact: Ms. Nanette Founds at the above address or by calling (505) 845–4212. For information on DOE's NEPA process, please contact: Ms. Carol 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 1–800–472–2756.

SUPPLEMENTARY INFORMATION: The Pantex Plant, near Amarillo, Texas, is the Nation's nuclear weapons assembly and disassembly site. Its missions also include the fabrication of high explosive components and the maintenance, modification and evaluation of existing nuclear weapons. However, its current workload is centered on the dismantlement of nuclear weapons that are retired from the military stockpile. There are currently no plans for producing new weapons. The preferred alternative identified in the Final EIS is to maintain the Pantex Plant's assigned missions as well as increase the plant's onsite interim storage level from 12,000 to 20,000 pits. The Final EIS also evaluates a No Action Alternative, which would continue current activities with no new projects or facility upgrades and continue to limit onsite interim storage to 12,000 pits; and a Relocation of Pit Storage Alternative, in which some or all of Pantex interim storage activities would be relocated to one or more of four alternate sites: the Savannah River Site near Aiken, South Carolina; the Nevada Test Site near Las Vegas, Nevada; the Hanford Site near Richland, Washington; and the Manzano Weapons Storage Area at Kirtland Air Force Base in Albuquerque, New Mexico.

This Final EIS incorporates comments received during the public comment period from April 5, 1996, through July 12, 1996 (61 FR 15232, April 5, 1996; 61 FR 18726, April 29, 1996). Copies of all comments and associated EIS documentation prepared by DOE are available for inspection at the following locations:

U.S. Department of Energy Freedom of Information Reading Room, Room 1E–190, Forrestal Building, 1000 Independence Avenue, SW, Washington, DC 20585, 202–586–6020

U.S. Department of Energy Nevada Operations Office Public Reading Room, 2753 S. Highland Avenue, Las Vegas, Nevada 89109, 702–295–1274

U.S. Department of Energy Technical Vocational Institute, Public Document Collection, 525 Buena Vista, SE, Albuquerque, New Mexico 87106, 505–224–3281/3292

Los Alamos National Laboratory Community Reading Room, Museum Parke Office Complex, 1450 Central Avenue, Suite 101 Los Alamos, New Mexico 87544, 505–665–2127 or 1–800–543–2342

U.S. Department of Energy Public Document Room, 2nd Floor, University Library, University of South Carolina, Aiken Campus, 171 University Parkway, Aiken, South Carolina 29801, 803–648–6851

Oak Ridge Public Reading Room, 55 Jefferson Avenue, Oak Ridge, Tennessee 37830, 615–576–0887

U.S. Department of Energy Public Reading Room, Reference Department, Lyn Library and Learning Center, Amarillo College, 2201 South Washington, 4th Floor Amarillo, Texas 79109, 806–371–5400

Pantex EIS Public Information Center, c/o Tetra Tech, Inc., 6900 I–40 West, Suite 260, Amarillo, Texas, 806–355–9480

U.S. Department of Energy Public Reading Room, Carson County Public Library, 401 Main Street, P.O. Box 339, Panhandle, Texas 79068, 806–537–3742

U.S. Department of Energy Public Reading Room, Washington State University, 100 Sprout Road, Richland, Washington, 99352, 509–376–8583

DOE intends to issue a Record of Decision at least 30 days after the date of the Environmental Protection Agency Notice of Availability and will publish it in the Federal Register.

Issued in Washington, DC, on December 9, 1996.

Gary T. Palmer,

Environmental Specialist, Office of Environmental and Technical Support, Defense Programs.

[FR Doc. 96–31653 Filed 12–12–96; 8:45 am]

BILLING CODE 6450–01–P

Federal Energy Regulatory Commission

[Docket No. CP97–136–000]

Colorado Interstate Gas Company; Notice of Request Under Blanket Authorization

December 9, 1996.

Take notice that on December 2, 1996, Colorado Interstate Gas Company (CIG), Post Office Box 1087, Colorado Springs, Colorado 80944, filed in Docket No. CP96–136–000 a request pursuant to Sections 157.205, 157.211 and 157.216 of the Commission's Regulations under the Natural Gas Act (18 CFR 157.205, 157.211 and 157.216) for authorization to abandon 2 meters, change the direction of flow of a lateral line, and to install a new meter, all in Adams County, Colorado, under CIG's blanket certificate issued in Docket No. CP83–21–000 pursuant to Section 7 of the Natural Gas Act, all as more fully set forth in the request that is on file with the Commission and open to public inspection.

CIG proposes to replace the existing Doherty Meter Station by abandoning 2 4-inch diameter meters and installing a new facility with a 2-inch diameter meter and to reverse the flow of the 4-inch diameter Third Street Lateral loop line. It is stated that these changes are required because Vessels Hydrocarbons, Inc. (Vessels) is consolidating its processing activities by closing its Third Street processing Plant and constructing a new line to move gas from its Third Street plant to its Wattenberg Plant. CIG proposes to deliver up to 250 dt equivalent of natural gas per day to Vessels at the new meter. It is asserted that CIG will transport the gas for Vessels under its Rate Schedule TF–1. It is further asserted that CIG has notified producers who use the Third Street Plant for processing and has received no objections to the proposal. It is estimated that installation of the new meter will cost $15,000, for which CIG will be reimbursed by Vessels.

Any person or the Commission's staff may, within 45 days after issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to Section 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefor, the proposed activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for authorization pursuant to Section 7 of the Natural Gas Act.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31625 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. ER96–2964–000]

Enserco Energy, Inc.; Notice of Issuance of Order

December 9, 1996.

Enserco Energy, Inc. (Enserco), an affiliate of Black Hills Power & Light Company, filed an application for authorization to sell power at market-based rates, and for certain waivers and authorizations. In particular, Enserco requested that the Commission grant blanket approval under 18 CFR Part 34 of all future issuances of securities and assumptions of liabilities by Enserco. On December 2, 1996, the Commission issued an Order Accepting For Filing Proposed Market-Based Rates (Order), in the above-docketed proceeding.

The Commission's December 2, 1996 Order granted the request for blanket approval under Part 34, subject to the conditions found in Ordering Paragraphs (C), (D), and (F):

(C) Within 30 days of the date of this order, any person desiring to be heard or to protest the Commission's blanket approval of issuances of securities or assumptions of liabilities by Enserco should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure, 18 CFR 385.211 and 385.214.

(D) Absent a request to be heard within the period set forth in Ordering Paragraph (C) above, Enserco is hereby authorized, pursuant to Section 204 of the FPA, to issue securities and assume obligations and liabilities as guarantor, endorser, surety or otherwise in respect of any security of another person; provided that such issue or assumption is for some lawful object within the corporate purposes of Enserco, compatible with the public interest, and reasonably necessary or appropriate for such purposes.

(F) The Commission reserves the right to modify this order to require a further showing that neither public nor private interests will be adversely affected by continued Commission approval of Enserco's issuances of securities or assumptions of liabilities * * *.

Notice is hereby given that the deadline for filing motions to intervene or protests, as set forth above, is January 2, 1997.

Copies of the full text of the Order are available from the Commission's Public Reference Branch, 888 First Street, N.E., Washington, D.C. 20426.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31624 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. CP97–134–000]

MarkWest Hydrocarbon Partners, Ltd.; Notice of Petition for Declaratory Order

December 9, 1996.

Take notice that, on November 27, 1996, in Docket No. CP97–134–000, MarkWest Hydrocarbon Partners, Ltd. (MarkWest), 5613 DTC Parkway, Suite 400, Englewood, Colorado 80111, filed a petition with the Commission, pursuant to Rule 207 of the Commission's Rules of Practice and Procedure (18 CFR 385.307), for a declaratory order disclaiming jurisdiction over the Cobb Extraction Plant in Kanawha County, West Virginia, and the Boldman Extraction Plant in Pike County, West Virginia, all as more fully set forth in

the application, which is on file with the Commission and open to public inspection.

Columbia Gas Transmission Corporation (Columbia) filed an application pursuant to section 7(b) of the Natural Gas Act in a related proceeding in Docket No. CP97–116–000, for permission and approval to abandon the Cobb and Boldman Plants. MarkWest states that it built the Boldman Plant and leased it to Columbia. According to MarkWest, Columbia is now selling the Cobb Plant (to MarkWest) and canceling its Boldman Plant lease with MarkWest.

Previously, in similar proceedings that are still pending before the Commission, Columbia filed an application in Docket No. CP96–118–000, for permission and approval to abandon (by sale to MarkWest) its Kenova Gas Processing Plant, in Wayne County, West Virginia, and MarkWest filed a companion petition in Docket No. CP96–121–000, for a declaratory order disclaiming jurisdiction over the new gas processing plant that MarkWest was building at the old Kenova Plant site. MarkWest incorporates (by reference) in Docket No. CP97–134–000, its reasoning and support for the disclaimer of jurisdiction that it sought in Docket No. CP96–121–000.

MarkWest states that the natural gas liquids (NGL) extracted from the Cobb and Boldman Plants have been part of the same sales contract covering NGL extraction from the Kenova Plant. MarkWest states that Columbia filed a comprehensive settlement on November 22, 1996, in Docket No. RP95–408–000, *et al.* MarkWest further states that, as part of Columbia's comprehensive settlement of its pending rate case, in Docket No. RP95–408–000, under section 4 of the Natural Gas Act, and in other proceedings, Columbia is completing the unbundling of gathering and products extraction, spinning-off all of its products extraction services to MarkWest.

MarkWest states that all consenting parties to Stipulation II of Columbia's November 22, 1996 settlement proposal either support or do not oppose Columbia's proposed abandonment of the Cobb and Boldman Plants, as set forth in Columbia's application in Docket No. CP97–116–000. MarkWest states that the consenting parties also support or do not oppose the Kenova transfer in Dockets CP96–118–000 and CP96–121–000. MarkWest further states that Commission authorization of the spin-off transfer of the Kenova, Cobb, and Boldman Plants to MarkWest, as specified in the aforementioned dockets, is a condition precedent to the Commission's final approval of the overall settlement.

Accordingly, MarkWest requests the Commission to issue an order finding that the Cobb and Boldman Extraction Plants are outside the Commission's certificate jurisdiction under section 7 of the Natural Gas Act.

Any person desiring to be heard, or to make any protest with reference to said application should, on or before December 30, 1996, file with the Federal Energy Regulatory Commission, Washington, D.C., 20426, a motion to intervene or protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken, but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to the proceeding, or to participate as a party in any hearing therein, must file a motion to intervene in accordance with the Commission's Rules.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31626 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket Nos. RP96–260–000, RP96–260–001, and RP96–260–002]

Panhandle Eastern Pipe Line Company; Notice Rescinding Prior Notice and Rescheduling Technical Conference

December 6, 1996.

The informal technical conference that was scheduled by the Commission's Notice of Technical Conference issued November 21, 1996 is hereby cancelled. An informal technical conference will be convened to discuss issues raised by certain parties as directed by the Commission in its November 4, 1996 order in these proceedings. Panhandle Eastern Pipe Line Company (Panhandle) should be prepared at the technical conference to address such issues and provide further support. With respect to discussion or examination of certain materials for which Panhandle requests confidential treatment, attendance at the technical conference is limited to parties who execute a protective agreement with Panhandle.

The conference to address the issues has been rescheduled for Tuesday, January 7, 1997 at 1:30 P.M. in a room to be designated at the offices of the Federal Energy Regulatory Commission, 888 First Street, N.E. Washington, D.C. 20426.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31622 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket Nos. CP96–248–000, CP96–248–003, CP96–249–000, and CP96–249–003]

Portland Natural Gas Transmission System, Notice of Site Visit

December 6, 1996.

On December 11, 12, and 13, 1996, the Office of Pipeline Regulation (OPR) staff will inspect the Portland Natural Gas Transmission System's (PNGTS) proposed route from the Canadian border near Pittsburg, New Hampshire, to Shelburne, New Hampshire via Beecher Falls, Vermont.

On December 11, 1996, the OPR staff will conduct an overflight of the PNGTS' route in New Hampshire with PNGTS personnel.

Those planning to attend the site inspections must provide their own transportation.

For further information on procedural matters, call Mark Jensen at (202) 208–0828.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31632 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. RP97–182–000]

South Georgia Natural Gas Company; Notice of Proposed Changes to FERC Gas Tariff

December 9, 1996.

Take notice that on December 4, 1996, South Georgia Natural Gas Company (South Georgia) tendered for filing as part of its FERC Gas Tariff, Second Revised Volume No. 1, the pro forma Tariff sheets set forth on Appendix A to the filing in compliance with the Commission's Order No. 587 to become effective June 1, 1997.

On July 17, 1996, the Commission issued Order No. 587 which revised its regulations governing interstate natural gas pipelines to require such pipelines to follow standardized business practices issued by the Gas Industry Standards Board (GISB) and adopted by the Commission. 18 CFR 284.10(b). The standards govern certain aspects of the following practices of natural gas pipelines: nominations, allocations, balancing, measurement, invoicing, and capacity release. The order required South Georgia to submit its compliance filing by December 1, 1996, for

implementation of the approved standards by June 1, 1997.

Any person desiring to be heard or to protest this filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedures (18 CFR 385.211 and 385.214). All such motions and protests must be filed on or before December 26, 1996. 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. Copies of this filing are on file with the Commission and are available for public inspection in the Public Reference Room.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31620 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. CP97–126–000]

Southern Natural Gas Company; Notice of Application

December 9, 1996.

Take notice that on November 26, 1996, Southern Natural Gas Company (Southern), P.O. Box 2563, Birmingham, Alabama 35202–2563, filed an application with the Commission in Docket No. CP97–126–000 pursuant to Section 7(b) of the Natural Gas Act (NGA) for permission and approval to abandon its undivided interest in certain compression and dehydration facilities located on leased space on a production platform owned by Shell Offshore Inc. (SOI) in the Mississippi Canyon Block 311 field (MC Block 311), offshore Louisiana, all as more fully set forth in the application which is open to the public for inspection.

Southern proposes to abandon its 44 percent undivided interest in a 4,000 horsepower compressor and appurtenant dehydration facilities located immediately upstream of the inlet flange of its receiving station facilities on the SOI Mississippi Canyon 311 platform. Southern and Florida Gas Transmission Company (FGT) received authorization to construct and operate the facilities in Docket No. CP80–257–000.[1] Southern states that SOI would acquire its interest in the MC Block 311 compression and dehydration facilities by relieving Southern of its lease payment obligations under the platform space leases and by assuming responsibility, until decommissioning, for operation, maintenance, and repair expenses associated with the continued use of the said MC Block 311 facilities.

Any person desiring to be heard or to make any protest with reference to said application should on or before December 30, 1996, filed with the Federal Energy Regulatory Commission, Washington, D.C. 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commission's Rules.

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by Sections 7 and 15 of the NGA and the Commission's Rules of Practice and Procedure, a hearing will be held without further notice before the Commission or its designee on this application if no motion to intervene is filed within the time required herein, if the Commission on its own review of the matter finds that permission and approval for the proposed abandonment are required by the public convenience and necessity. If a motion for leave to intervene is timely filed, or if the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Southern to appear or be represented at the hearing.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31627 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket Nos. RP95–197–021 and RP96–211–006]

Transcontinental Gas Pipe Line Corporation; Notice of Compliance Filing

December 9, 1996.

Take notice that on December 4, 1996, Transcontinental Gas Pipe Line Corporation (Transco) tendered for filing as part of its FERC Gas Tariff, Third Revised Volume No. 1, the tariff sheets listed in Appendix A to that filing, to become effective January 3, 1997.

Transco asserts that the purpose of this filing is to comply with Ordering Paragraph (B) the Commission's ''Order on Rehearing,'' issued on November 19, 1996, in the captioned dockets, which directed Transco to file revised tariff sheets within 15 days from the date of the order to reflect exemptions from pro rata capacity allocation for shippers in emergency curtailment situations, as discussed in the order.

Transco states that copies of the filing have been served upon its affected customers and interested State Commissions.

Any person desiring to protest this filing should file a protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Section 385.211 of the Commission's rules and regulations. All such protests must be filed as provided in 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 proceeding. Copies of this filing are on file with the Commission and are available for public inspection in the Public Reference Room.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31623 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. RP96–387–000]

Williams Natural Gas Company; Notice of Rescheduling of Technical Conference

December 9, 1996.

Pursuant to the Commission's notice, issued on November 25, 1996, the technical conference scheduled for Thursday, December 12, 1996 has been rescheduled.

Take notice that the conference has been reschedule for Wednesday, January 8, 1997 at 10:00 a.m. in a room to be designated at the offices of the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC. 20426.

All interested persons and Staff are permitted to attend.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31621 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–M

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[1] 11 FERC ¶ 61,346 (1980).

[Docket No. ER96–3113–000, et al.]

Commonwealth Edison Co. et al.; Electric Rate and Corporate Regulation Filings

December 6, 1996.

Take notice that the following filings have been made with the Commission.

1. Commonwealth Edison Company

[Docket No. ER96–3113–000]

Take notice that on November 21, 1996, Commonwealth Edison Company tendered for filing an amendment in the above-referenced docket.

Comment date: December 19, 1996, in accordance with Standard Paragraph E at the end of this notice.

2. Eastern Power Distribution, Inc., Texican Energy Ventures, Inc., J. Anthony & Associates Ltd., Citizens Lehman Power Sales, U.S. Power & Light, Inc. Thicksten Grimm Bergum, Inc., and Tosco Power, Inc.

[Docket Nos. ER94–964–011, ER94–1362–006, ER95–784–005, ER95–892–008, ER96–105–004, ER96–2241–001, and ER96–2635–001 (not consolidated)]

Take notice that the following informational filings have been made with the Commission and are on file and available for inspection and copying in the Commission's Public Reference Room:

On November 6, 1996, Eastern Power Distribution, Inc. filed certain information as required by the Commission's April 5, 1994, order in Docket No. ER94–964–000.

On September 30, 1996, Texican Energy Ventures, Inc. filed certain information as required by the Commission's July 25, 1994, order in Docket No. ER94–1362–000.

On October 22, 1996, J. Anthony & Associates Ltd. filed certain information as required by the Commission's May 31, 1995, order in Docket No. ER95–784–000.

On October 31, 1996, Citizens Lehman Power Sales filed certain information as required by the Commission's June 8, 1995, order in Docket No. ER95–892–000.

On November 25, 1996, U.S. Power & Light, Inc. filed certain information as required by the Commission's December 6, 1995, order in Docket No. ER95–105–000.

On November 22, 1996, Thicksten Grimm Bergum, Inc. filed certain information as required by the Commission's September 16, 1996, order in Docket No. ER96–2241–000.

On November 13, 1996, Tosco Power, Inc. filed certain information as required by the Commission's September 12, 1996, order in Docket No. ER96–2635–000.

3. Puget Sound Power & Light Company

[Docket No. ER97–39–000]

Take notice that on November 21, 1996, Puget Sound Power & Light Company tendered for filing an amendment in the above-referenced docket.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

4. Maine Public Service Company

[Docket No. ER97–151–000]

Take notice that on November 19, 1996, Maine Public Service Company tendered for filing an amendment in the above-referenced docket.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

5. PECO Energy Company

[Docket No. ER97–494–000]

Take notice that on November 18, 1996, PECO Energy Company (PECO) filed a Service Agreement dated November 12, 1996 with The Power Company (Power Company) under PECO's FERC Electric Tariff Original Volume No. 5 (Tariff). The Service agreement adds Power Company as a customer under the Tariff.

PECO requests an effective date of November 12, 1996, for the Service Agreement.

PECO states that copies of this filing have been supplied to Power Company and to the Pennsylvania Public Utility Commission.

Comment date: December 19, 1996, in accordance with Standard Paragraph E at the end of this notice.

6. Great Bay Power Corporation

[Docket No. ER97–499–000]

Take notice that on November 18, 1996, Great Bay Power Corporation (Great Bay) tendered for filing a service agreement between Taunton Municipal Lighting Plant and Great Bay for service under Great Bay's revised Tariff for Short Term Sales. This Tariff was accepted for filing by the Commission on May 17, 1996, in Docket No. ER96–726–000. The service agreement is proposed to be effective November 1, 1996.

Comment date: December 19, 1996, in accordance with Standard Paragraph E at the end of this notice.

7. Louisville Gas and Electric Company

[Docket No. ER97–582–000]

Take notice that on November 25, 1996, Louisville Gas and Electric Company (LG&E), tendered for filing a Non-Firm Point-to-Point Transmission Service Agreement between LG&E and Coral Power, L.L.C. under LG&E's Open Access Transmission Tariff.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

8. Northern Indiana Public Service Company

[Docket No. ER97–583–000]

Take notice that on November 25, 1996, Northern Indiana Public Service Company, tendered for filing an executed Standard Transmission Service Agreement between Northern Indiana Public Service Company and Equitable Power Service Company.

Under the Transmission Service Agreement, Northern Indiana Public Service Company will provide Point-to-Point Transmission Service to Equitable Power Services Company pursuant to the Transmission Service Tariff filed by Northern Indiana Public Service Company in Docket No. ER96–1426–000 and allowed to become effective by the Commission. *Northern Indiana Public Service Company*, 75 FERC ¶ 61,213. Northern Indiana Public Service Company has requested that the Service Agreement be allowed to become effective as of December 1, 1996.

Copies of this filing have been sent to the Indiana Utility Regulatory Commission and the Indiana Office of Utility Consumer Counselor.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

9. Northern Indiana Public Service Company

[Docket No. ER97–584–000]

Take notice that on November 25, 1996, Northern Indiana Public Service Company, tendered for filing an executed Standard Transmission Service Agreement between Northern Indiana Public Service Company and NIPSCO Energy Services, Inc.

Under the Transmission Service Agreement, Northern Indiana Public Service Company will provide Point-to-Point Transmission Service to NIPSCO Energy Services, Inc. pursuant to the Transmission Service Tariff filed by Northern Indiana Public Service Company in Docket No. ER96–1326–000 and allowed to become effective by the Commission. *Northern Indiana Public Service Company*, 75 FERC ¶ 61,213 (1996). Northern Indiana Public Service company has requested that the Service Agreement be allowed to become effective as of December 1, 1996.

Copies of this filing have been sent to the Indiana Utility Regulatory

Commission and the Indiana Office of Utility Consumer Counselor.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

10. PacifiCorp

[Docket No. ER97–585–000]

Take notice that on November 25, 1996, PacifiCorp, tendered for filing in accordance with 18 CFR Part 35 of the Commission's Rules and Regulations, Service Agreements with Engelhard Power Marketing, Inc. and Williams Energy Services Co. under, PacifiCorp's FERC Electric Tariff, Original Volume No. 11.

Copies of this filing were supplied to the Washington Utilities and Transportation Commission and the Public Utility Commission of Oregon.

A copy of this filing may be obtained from PacifiCorp's Regulatory Administration Department's Bulletin Board System through a personal computer by calling (503) 464–6122 (9600 baud, 8 bits, no parity, 1 stop bit).

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

11. Non-Replacement Energy Agreement between PJM Companies and Duke/Louis Dreyfus L.L.C.

[Docket No. ER97–586–000]

Take notice that on November 25, 1996, the Pennsylvania-New Jersey-Maryland (PJM) Interconnection Association filed, on behalf of the signatories to the PJM Agreement, a Non-Replacement Energy Agreement between Duke/Louis Dreyfus L.L.C. and Public Service Electric and Gas Company, PECO Energy Company, Pennsylvania Power & Light Company, Baltimore Gas and Electric Company, Pennsylvania Electric Company, Metropolitan Edison Company, Jersey Central Power and Light Company, Potomac Electric Power Company, Atlantic City Electric Company, and Delmarva Power & Light Company. The PJM companies request an effective date of December 14, 1996.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

12. Northern States Power Company (Minnesota Company)

[Docket No. ER97–587–000]

Take notice that on November 25, 1996, Northern States Power Company (Minnesota)(NSP), tendered for filing the following two related amendments and an agreement:

- Supplement No. 3 to the Operation and Maintenance Agreement for Substations between Southern Minnesota Municipal Power Agency (SMMPA) and NSP;
- Amendment #1 to the Interconnection and Interchange Agreement between SMMPA and NSP; and
- Interconnection Agreement between City of Lake City (City) and NSP.

SMMPA sold their interest in certain equipment in the Lake City Substation to City effective October 1, 1996. The above-mentioned amendments and agreement are a result of this sale.

NSP requests that the Commission accept the agreement effective November 26, 1996, and requests waiver of the Commission's notice requirements in order for the revisions to be accepted for filing on the date requested.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

13. UtiliCorp United Inc.

[Docket No. ER97–588–000]

Take notice that on November 25, 1996, UtiliCorp United Inc., tendered for filing on behalf of its operating division, WestPlains Energy-Colorado, a Service Agreement under its Power Sales Tariff, FERC Electric Tariff Original Volume No. 11, with *The Power Company of America, L.P.* The Service Agreement provides for the sale of capacity and energy by WestPlains Energy-Colorado to *The Power Company of America, L.P.* to WestPlains Energy-Colorado pursuant to *The Power Company of America, L.P.'s* Rate Schedule No. 1.

UtiliCorp also has tendered for filing a Certificate of Concurrence by *The Power Company of America, L.P.*

UtiliCorp requests waiver of the Commission's Regulations to permit the Service Agreement to become effective in accordance with its terms.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

14. UtiliCorp United Inc.

[Docket No. ER97–589–000]

Take notice that on November 25, 1996, UtiliCorp United Inc., tendered for filing on behalf of its operating division, WestPlains Energy-Kansas, a Service Agreement under its Power Sales Tariff, FERC Electric Tariff Original Volume No. 12, with *The Power Company of America, L.P.* The Service Agreement provides for the sale of capacity and energy by WestPlains Energy-Kansas to *The Power Company of America, L.P.* to WestPlains Energy-Kansas pursuant to *The Power Company of America, L.P.'s* Rate Schedule No. 1.

UtiliCorp also has tendered for filing a Certificate of Concurrence by *The Power Company of America, L.P.*

UtiliCorp requests waiver of the Commission's Regulations to permit the Service Agreement to become effective in accordance with its terms.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

15. UtiliCorp United Inc.

[Docket No. ER97–590–000]

Take notice that on November 25, 1996, UtiliCorp United Inc., tendered for filing on behalf of its operating division, Missouri Public Service, a Service Agreement under its Power Sales Tariff, FERC Electric Tariff Original Volume No. 10, with *The Power Company of America, L.P.* The Service Agreement provides for the sale of capacity and energy by Missouri Public Service to *The Power Company of America, L.P.* pursuant to the tariff, and for the sale of capacity and energy by *The Power Company of America, L.P's* Rate Schedule No. 1.

UtiliCorp also has tendered for filing a Certificate of Concurrence by *The Power Company of America, L.P.*

UtiliCorp requests waiver of the Commission's Regulations to permit the Service Agreement to become effective in accordance with its terms.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

16. Newco US, L.P. et al.

[Docket Nos. ER97–654–000 and EC97–8–000]

Take notice that on November 27, 1996, Newco US, L.P. (Newco L.P.), a limited partnership, filed a petition, designated as Docket No. ER97–654–000, for waivers, blanket approvals, and an order approving an initial rate schedule designated as Newco US L.P., Rate Schedule FERC No. 1, to be effective as of January 1, 1997, pursuant to Rules 205 and 207 of the Commission's Rules of Practice and Procedure, 18 CFR 385.205 and .207. Take notice as well that on November 27, 1996, Westcoast Power Marketing, Inc. (WPMI), Coastal Electric Services Company (CESC) and Newco L.P. filed a separate application for approval to transfer wholesale power agreements from WPMI and CESC to Newco L.P. This application has been designated as Docket No. EC97–8–000.

Newco L.P. states that it is a limited partnership in which Westcoast Power Marketing, Inc. (WPMI) and Coastal Gas Services Company (CGSC) each own

indirectly a 49.5% limited partnership interest, and Newco US, Inc., owned equally by WPMI and CGSC, owns a 1% general partnership interest. According to its application in Docket No. ER97–654–000, Newco L.P. intends to engage in electric power transactions as a marketer and a broker.

Comment date: December 20, 1996, in accordance with Standard Paragraph E at the end of this notice.

17. Cinergy Services, Inc.

[Docket No. OA97–54–000]

Take notice that Cinergy Services, Inc. (Cinergy) on November 26, 1996, tendered for filing on behalf of its operating companies, The Cincinnati Gas & Electric Company (CG&E) and PSI Energy, Inc. (PSI), modifications to the Interchange Agreement between Cinergy and UtiliCorp.

The modifications are being made to comply with the unbundling requirement for coordination contracts contained in the Commission's Order No. 888 by the December 31, 1996 deadline.

Cinergy has requested an effective date of January 1, 1997.

Copies of the filing were served on UtiliCorp, the Kentucky Public Service Commission, the Public Utilities Commission of Ohio and the Indiana Utility Regulatory Commission.

Comment date: December 26, 1996, in accordance with Standard Paragraph E at the end of this notice.

18. Cinergy Services, Inc.

[Docket No. OA97–55–000]

Take notice that Cinergy Services, Inc. (Cinergy) on November 26, 1996, tendered for filing on behalf of its operating companies, The Cincinnati Gas & Electric Company (CG&E) and PSI Energy, Inc. (PSI), modifications to the Interchange Agreement between Cinergy and Engelhard Power Marketing, Inc.

The modifications are being made to comply with the unbundling requirement for coordination contracts contained in the Commission's Order No. 888 by the December 31, 1996 deadline.

Cinergy has requested an effective date of January 1, 1997.

Copies of the filing were served on Engelhard Power Marketing, Inc., the Kentucky Public Service Commission, the Public Utilities Commission of Ohio and the Indiana Utility Regulatory Commission.

Comment date: December 26, 1996, in accordance with Standard Paragraph E at the end of this notice.

19. Cinergy Services, Inc.

[Docket No. OA97–56–000]

Take notice that Cinergy Services, Inc. (Cinergy) on November 26, 1996, tendered for filing on behalf of its operating companies, The Cincinnati Gas & Electric Company (CG&E) and PSI Energy, Inc. (PSI), modifications to the Interchange Agreement between Cinergy and Rainbow Electric Marketing Corporation.

The modifications are being made to comply with the unbundling requirement for coordination contracts contained in the Commission's Order No. 888 by the December 31, 1996 deadline.

Cinergy has requested an effective date of January 1, 1997.

Copies of the filing were served on Rainbow Electric Marketing Corporation, the Kentucky Public Service Commission, the Public Utilities Commission of Ohio and the Indiana Utility Regulatory Commission.

Comment date: December 26, 1996, in accordance with Standard Paragraph E at the end of this notice.

20. Cinergy Services, Inc.

[Docket No. OA97–57–000]

Take notice that Cinergy Services, Inc. (Cinergy) on November 26, 1996, tendered for filing on behalf of its operating companies, The Cincinnati Gas & Electric Company (CG&E) and PSI Energy, Inc. (PSI), modifications to the Interchange Agreement between Cinergy and InterCoast Power Marketing Company.

The modifications are being made to comply with the unbundling requirement for coordination contracts contained in the Commission's Order No. 888 by the December 31, 1996 deadline.

Cinergy has requested an effective date of January 1, 1997.

Copies of the filing were served on InterCoast Power Marketing Company, the Kentucky Public Service Commission, the Public Utilities Commission of Ohio and the Indiana Utility Regulatory Commission.

Comment date: December 26, 1996, in accordance with Standard Paragraph E at the end of this notice.

21. Cinergy Services, Inc.

[Docket No. OA97–58–000]

Take notice that Cinergy Services, Inc. (Cinergy) on November 26, 1996, tendered for filing on behalf of its operating companies, The Cincinnati Gas & Electric Company (CG&E) and PSI Energy, Inc. (PSI), modifications to the Interchange Agreement between Cinergy and Valero Power Services Company.

The modifications are being made to comply with the unbundling requirement for coordination contracts contained in the Commission's Order No. 888 by the December 31, 1996 deadline.

Cinergy has requested an effective date of January 1, 1997.

Copies of the filing were served on Valero Power Services Company, the Kentucky Public Service Commission, the Public Utilities Commission of Ohio and the Indiana Utility Regulatory Commission.

Comment date: December 26, 1996, in accordance with Standard Paragraph E at the end of this notice.

22. Cinergy Services, Inc.

[Docket No. OA97–59–000]

Take notice that Cinergy Services, Inc. (Cinergy) on November 26, 1996, tendered for filing on behalf of its operating companies, The Cincinnati Gas & Electric Company (CG&E) and PSI Energy, Inc. (PSI), modifications to the Interchange Agreement between Cinergy and Jacksonville Electric Authority.

The modifications are being made to comply with the unbundling requirement for coordination contracts contained in the Commission's Order No. 888 by the December 31, 1996 deadline.

Cinergy has requested an effective date of January 1, 1997.

Copies of the filing were served on Jacksonville Electric Authority, the Kentucky Public Service Commission, the Public Utilities Commission of Ohio and the Indiana Utility Regulatory Commission.

Comment date: December 26, 1996, in accordance with Standard Paragraph E at the end of this notice.

Standard Paragraph

E. Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 18 CFR 385.214). All such motions or protests should be filed on or before the comment date. 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. Copies of this filing are on file with the

Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31628 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–P

[Docket No. ER97–595–000, et al.]

Louisville Gas & Electric Company, et al.; Electric Rate and Corporate Regulation Filings

December 9, 1996.

Take notice that the following filings have been made with the Commission:

1. Louisville Gas and Electric Company

[Docket No. ER97–595–000]

Take notice that on November 25, 1996, Louisville Gas and Electric Company (LG&E), tendered for filing a Service Agreement between LG&E and Associated Electric Cooperative, Inc. under LG&E's Rate Schedule GSS.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

2. Maine Yankee Atomic Power Company

[Docket No. ER97–596–000]

Take notice that on November 25, 1996, Maine Yankee Atomic Power Company, tendered for filing proposed changes in its FERC Electric Service Tariff No. 1. The proposed changes would increase revenues from jurisdictional sales and service annually by $351,470 in 1997. This is a 0.2 percent increase over 1996 rates.

Maine Yankee is making a limited Section 205 filing solely for amounts to fund post-retirement benefits other than pensions (PBOPs) pursuant to the requirement of SFAS 106.

Copies of the limited Section 205 filing were served upon Maine Yankee's jurisdictional customers, secondary customers, and Massachusetts Department of Public Utilities, Vermont Public Service Board, Connecticut Public Utilities Control Authority, Maine Public Utilities Commission, New Hampshire Public Utilities Commission, Office of the Public Advocate, State of Maine and Rhode Island Division of Public Utilities and Carriers.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

3. Pacific Gas and Electric Company

[Docket No. ER97–597–000]

Take notice that on November 25, 1996, Pacific Gas and Electric Company (PG&E), tendered for filing the Second Amendment to the September 22, 1993, Power and Transmission Services Agreement between PG&E and Lassen Municipal Utility District (Lassen) and a Revised Appendix A to that Agreement. These submittals propose to increase Lassen's allocation of Federal Central Valley Power and adjust energy, power and transmission rates for services PG&E provides Lassen to be effective May 1, 1996 and July 1, 1996, respectively.

Copies of this filing have been served upon Lassen and the California Public Utilities Commission.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

4. Boston Edison Company

[Docket No. ER97–598–000]

Take notice that on November 25, 1996, Boston Edison Company (Boston Edison) of Boston, Massachusetts, in connection with Financial Accounting Standards No. 106 recognition of Postretirement Benefits Other than Pensions (PBOPs) on an actual basis, tendered for filing a 1996 actuarial report and revised rate schedule supplements to its following contracts for the sale of power from the Pilgrim nuclear power plant.

Utility	Rate Schedule No.	Entitlement %
Commonwealth Electric Co.	68	11.00000
Montaup Electric Co.	69	11.00000
Boylston	77	.07463
Holyoke	79	.89552
Westfield	81	.22388
Hudson	83	.37313
Littleton	85	.14925
Marblehead	87	.14925
North Attleboro	89	.14925
Peabody	91	.22388
Shrewsbury	93	.37313
Templeton	95	.04478
Wakefield	97	.14925
West Boylston	99	.07463
Middleborough	102	.10448
Reading	113	.74627

The supplements ask the Commission for permission to use the 1996 actuarial study for actual 1996 billings and for estimated 1997 billings. Boston Edison states that it has served the filing on each affected customer and on the Massachusetts Department of Public Utilities.

Boston Edison requests waiver of the sixty-day notice period to allow the filing to be effective January 1, 1996.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

5. Central Illinois Public Service Company

[Docket No. ER97–599–000]

Take notice that on November 25, 1996, Central Illinois Public Service Company (CIPS) submitted two service agreements, dated November 1, 1996 and November 18, 1996, establishing respectively, Northern Indiana Public Service Company (NIPSCo) and WPS Energy Services, Inc. (WPS) as customers under the terms of CIPS' Open Access Transmission Tariff.

CIPS requests an effective date of November 1, 1996 for the service agreement with NIPSCO and a date of November 18, 1996 for the service agreement with WPS. Accordingly, CIPS requests waiver of the Commission's notice requirements. Copies of this filing were served upon NIPSCo, WPS and the Illinois Commerce Commission.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

6. Public Service Company of New Hampshire

[Docket No. ER97–601–000]

Take notice that on November 25, 1996, Public Service Company of New Hampshire (PSNH), filed materials to add delivery and metering points to the Partial Requirements Resale Service Agreement and the Interruptible Power Supply Service Agreement, both between PSNH and the New Hampshire Electric Cooperative (NHEC). PSNH requests that NHEC be permitted to receive power at those delivery points as of November 30, 1996, or as soon as possible thereafter.

A copy of this filing was served upon the NHEC. In addition, a copy of this filing and supporting materials has also been sent to the New Hampshire Public Utilities Commission.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

7. Southern Company Services, Inc.

[Docket No. ER97–602–000]

Take notice that on November 22, 1996, Southern Company Services, Inc., acting on behalf of Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company, and Savannah Electric and Power Company (collectively referred to as ''Operating Companies''), tendered for Commission review information concerning the accrual of post-retirement benefits other than

pensions as set forth in Statement of Financial Accounting Standard No. 106 by the Financial Accounting Standards Board in agreements and tariffs of the Operating Companies (jointly and individually).

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

8. Southern Company Services, Inc.

[Docket No. ER97–603–000]

Take notice that on November 26, 1996, Southern Company Services, Inc. (SCS), acting on behalf of Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company, and Savannah Electric and Power Company (collectively referred to as Southern Companies) filed one (1) service agreement between SCS, as agent of Southern Companies, and Virginia Electric and Power Company for non-firm point-to-point transmission service under Part II of the Open Access Transmission Tariff of Southern Companies.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

9. Rochester Gas and Electric Corporation

[Docket No. ER97–605–000]

Take notice that on November 25, 1996, Rochester Gas and Electric Corporation, tendered for filing eight executed Service Agreements for acceptance by the Federal Energy Regulatory Commission. These Service Agreements were executed between RG&E and the following companies: (1) Noram Energy Services Inc.; (2) Vastar Power Marketing; (3) Federal Energy Sales, Inc.; (4) PECO Energy Company; (5) CNG Power Services Corp.; (6) Sonat Power Marketing; (7) Western Power Services, Inc.; and (8)Power Company of America. The terms and conditions of service under these Service Agreements are made pursuant to RG&E's FERC Electric Rate Schedule, Original Volume 1 (Power Sales Tariff) accepted by the Commission in Docket No. ER94–1279.

RG&E has requested waiver of the 60 day notice provision pursuant to 18 CFR 35.11. RG&E has also requested the Commission to defer acceptance of these agreements until it has accepted modifications to RG&E's Power Sales Tariff required to comply with Order No. 888.

A copy of this filing has been served on the Public Service Commission of the State of New York.

Comment date: December 23, 1996, in accordance with Standard Paragraph E at the end of this notice.

Standard Paragraph

E. Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 18 CFR 385.214). All such motions or protests should be filed on or before the comment date. 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. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 96–31629 Filed 12–12–96; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–5475–8]

Environmental Impact Statements and Regulations; Availability of EPA Comments

Availability of EPA comments prepared November 18, 1996 Through November 22, 1996 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 05, 1996 (65 FR 15251).

Draft EISs

ERP No. D–FHW–G40142–TX, Rating LO, Loop 49 Southern Section Construction, TX–155 to TX–110, Funding, Tyler, Smith County, TX.

Summary: EPA had no objections to the selection of the preferred plan of action and no further comment on the draft EIS.

ERP No. DS–AFS–J65130–CO, Rating LO, Stevens Gulch Road Extension and Related Timber Sales, Implementation, New Information and Changed Circumstances Related to the Proposed Action, Grand Mesa, Uncompahgre and Gunnison National Forests, Delta County, CO.

Summary: EPA had no objections to the action as proposed.

ERP No. DS–FHW–J40212–CO Rating LO, CO–82 Highway Transportation Project, Improvements, to ''Entrance to Aspen'', Updated and Additional Information on Additional Alternatives, Funding and COE Section 404 Permit, City of Aspen, Pitkin County, CO.

Summary: EPA had no objections to the action as proposed.

Final EISs

ERP No. F–COE–K81024–CA, US Food and Drug Administration Laboratory, Land Acquisition, Construction and Operation on the North Campus Area at the University of California, Irvine, Orange County, CA.

Summary: Review of the final EIS has been completed and the project found to be satisfactory.

ERP No. F–FHW–B40130–RI, I–195 Transportation Improvements, between the west end of the Washington Bridge and Interstate Route I–95 through Providence, Funding, COE Section 404 and US Coast Guard Bridge Permits, Providence County, RI.

Summary: EPA continued to express concerns regarding water quality and hazardous materials impacts. EPA requested that these issues be resolved before the issuance of the Record of Decision.

ERP No. F–FHW–J40139–CO, Parker Road (CO–83)/I–225 Interchange Project (FCU–CX–083–1 (49)), Improvement between Peoria Street to Hampden Avenue, Funding, NPDES Permit and COE Section 404 Permit, City Aurora, Arapahoe County, CO.

Summary: The final EIS responds to concerns and recommendations expressed by the EPA in our comments on the draft EIS. The EPA agrees that the Preferred Alternative, Alternative 3, can be implemented without significant impacts to the environment.

ERP No. F–NOA–G39030–TX, Texas Combined Coastal Management Program, Implementation, Federal Approval, Gulf of Mexico, TX.

Summary: Review of the final EIS was not deemed necessary. No formal comment letter was sent to the preparing agency.

ERP No. F–NPS–G65065–NM, Carlsbad Caverns National Park General Management Plan, Implementation, Eddy County, NM.

Summary: Review of the Final EIS was not deemed necessary. No formal comment letter was sent to the preparing agency.

ERP No. F–UAF–K11071–AZ, Luke Air Force Base, Construction and Operation of 18-Hole Golf Course, In a Detention Basin to Prevent Flood

Damage, Dysart Drain Improvement Project, Maricopa County, AZ.

Summary: EPA had no objections to the action as proposed.

Regulations

ERP No. R–NPS–A99212–00, 36 CFR Part 61—Procedures for State, Tribal and Local Governments Historic Preservation Programs; Proposed Rule.

Summary: Review of the proposed rule has been completed. The action was found not to significantly impact the natural or human environment. No formal comment letter was sent to the preparing agency.

Dated: December 10, 1996.

William D. Dickerson,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 96–31738 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–U

[ER–FRL–5475–7]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564–7167 OR (202) 564–7153.

Weekly receipt of Environmental Impact Statements Filed December 02, 1996 Through December 06, 1996 Pursuant to 40 CFR 1506.9.

EIS No. 960555, Draft Supplement EIS, NPS, CA, Yosemite National Park General Management Plan, Yosemite Housing Project, Updated Information on Yosemite Valley Housing Plan, New and Replacement Housing, Mariposa, Modera and Tuolumne Counties, CA, *Due:* January 27, 1997, *Contact:* Mike Morelli (303) 969–2241.

EIS No. 960556, Draft EIS, STA, NM, TX, Programmatic EIS—International Bridge Crossing Project, Construction and Operation, Along the United States—Mexico Border from EL Paso to Brownsville, TX, Presidential Permit, NM and TX, *Due:* January 31, 1997, *Contact:* Eric Verwers (817) 978–2370.

EIS No. 960557, Final EIS, AFS, CO, Rio Grande National Forest Land and Resource Management Plan, Implementation, Archuleta, Rio Grande, Custer, Hinsdale, Alamosa, San Juan, Conejos, Mineral and Saquache Counties, CO, *Due:* January 13, 1997, *Contact:* Ron Pugh (719) 852–5941.

EIS No. 960558, Final EIS, FHW, AL, Eastern Pleasure Island Hurricane Evacuation Route Construction, AL–182 in Orange Beach to CR–95 near CR–20 (on the mainland) and CR–95 near CR–20 to I–10, Funding and US Coast Guard Bridge and COE Section 404 Permits Issuance, Baldwin County, AL, *Due:* January 13, 1997, *Contact:* Joe D. Wilkerson (334) 223–7370.

EIS No. 960559, Draft EIS, DOE, ID, Nez Perce Tribal Hatchery Program, Implementation, Restore Chenook Salmon to the Clearwater River Subbasin, Snake River, ID, *Due:* January 27, 1997, *Contact:* Leslie Kelleher (503) 230–7692.

EIS No. 960560, Final EIS, GSA, NY, US Brooklyn Court Project, Demolition of the Emanuel Celler Federal Building, Construction of a New Courthouse and Renovation/Adaptive Reuse of the General Post Office at Cadman Plaza East, Kings County, NY, *Due:* January 13, 1997, *Contact:* Peter A. Sneed (212) 264–3581 (GSA). The US General Services Administration (GSA) and the US Postal Service (USPS) are Joint Lead Agencies for the above FEIS. Mr. Leon Levine, 215–931–5489 is the contact point for the USPS.

EIS No. 960561, Draft EIS, COE, LA, Westwego to Harvey Canal Hurricane Protection Project, Implementation, Hurricane Surge Protection, Lake Cataouatche Area, Jefferson Parish, LA, *Due:* January 27, 1997, *Contact:* Brett Herr (504) 862–2495.

EIS No. 960562, Final Supplement, FHW, MN, I–35 W/Washington Avenue South in Minneapolis to I–35E in Burnsville, Improvements, Construction and Reconstruction, Updated Information on ''Lane Conversion'' Interstate 35W 42nd Street South to Interstate 494 in Richfield, Hennepin County, MN, *Due:* January 13, 1997, *Contact:* Cheryl Martin (612) 291–6120.

EIS No. 960563, Draft EIS, AFS, CA, Jaybird Multi-Resource Project, Implementation, Downieville Ranger District, Yuba County, CA, *Due:* January 27, 1997, *Contact:* Gary Fildes (916) 288–3231.

EIS No. 960564, Final EIS, DOE, TX, Pantex Plant Continued Operation and Associated Storage of Nuclear Weapon Components, Implementation, Approvals and Permits Issuance, Carson County, TX, *Due:* January 13, 1997, *Contact:* Nanette D. Founds (505) 845–4351.

EIS No. 960565, Final EIS, DOE, Programmatic EIS—Storage and Disposition of Weapon-Usable Fissile Materials, Implementation, Storage of all Plutonium and Highly Enriched Uranium and the Disposition of Surplus Plutonium, Sites Considered: Hanford Site, Idaho National Engineering Lab., Nevada Test Site, Oak Ridge Reservation, Pantex Plant and Savannah River Site, *Due:* January 13, 1997, *Contact:* J. David Nulton (202) 586–4513.

Amended Notices

EIS No. 960459, Draft EIS, FAA, MO, Lambert-St. Louis International Airport (Lambert) Improvements, Construction and Operation, Airport Layout Plan Approval, City of St. Louis, St. Louis County, MO, *Due:* January 17, 1997, *Contact:* Ms. Moira Keane (816) 426–4731. Published FR 09–27–96—Review Period Extended.

Dated: December 10, 1996.

William D. Dickerson,

Director, NEPA Compliance Division, Office of Federal Activities .

[FR Doc. 96–31739 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–U

[FRL–5665–7]

Science Advisory Board; Notification of Public Advisory Committee Teleconference

Pursuant to the Federal Advisory Committee Act, Public Law 92–463, notice is hereby given that the Drinking Water Committee (DWC) of the Science Advisory Board (SAB) will hold a public teleconference on Monday, December 30, 1996, from 10:00 a.m. to 12:00 p.m. (Eastern Standard Time). The teleconference will be hosted in Room 2103 of the Mall, U.S. Environmental Protection Agency Headquarters Building at 401 M Street SW, Washington, DC 20460. For easy access, members of the public should use the EPA entrance next to the Safeway. Copies of the document being reviewed will be available for the public at the time of the meeting in the Conference Room. During this teleconference, the Committee will review a draft of its report entitled *Review of the Disinfection and Disinfectant Byproduct Research Plan.*

A limited number of telephone lines will be available for use by members of the public. Information regarding how to access the teleconference is available by contacting Ms. Mary Winston at the address below.

For Further Information—Members of the public desiring additional information concerning the teleconference or who wish to submit comments should contact Mr. Thomas O. Miller, Designated Federal Officer for the Drinking Water Committee, Science Advisory Board (1400), U.S. EPA, 401 M Street, SW, Washington, DC 20460; by telephone at (202) 260–5886; by fax at (202) 260–7118 or via the INTERNET at:

miller.tom@epamail.epa.gov. After December 16, 1996, copies of the draft meeting agenda and draft report will be available from Ms. Mary Winston at (202) 260–8414, by fax at (202) 260–7118, and by INTERNET at: winston.mary@epamail.epa.gov.

Members of the public who wish to make a brief oral presentation to the Committee must contact Mr. Miller in writing by letter, by fax, or by INTERNET (at INTERNET address above) no later than 12 noon (Eastern Standard Time) Tuesday, December 23, 1996, in order to be included on the Agenda. The request should identify the name of the individual who will make the presentation and an outline of the issues to be addressed. Oral comments will be limited to five minutes per speaker and no more than twenty minutes total. Comments should focus on matters of the clarity of the report and the completeness of responding to the charge, which is included in the report.

Dated: December 9, 1996.

Donald G. Barnes,

Staff Director, Science Advisory Board.

[FR Doc. 96–31698 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–P

[OPP–00455; FRL–5573–1]

Statement of Interpretation Regarding Toxicologically Significant Levels of Pesticide Active Ingredients; Notice of Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: In the Federal Register of January 24, 1996, EPA announced its proposed interpretation of ''toxicologically significant'' as it applies to contaminants in pesticide products that are also active ingredients. A 60–day comment period was provided. This document announces the final Pesticide Regulation (PR) Notice entitled ''Toxicologically Significant Levels of Pesticide Active Ingredients.''

ADDRESSES: The PR Notice and the January 24, 1996 policy document are available from Jim Jones: By mail: Registration Support Branch, Registration Division (7505W), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Office location, telephone number, and e-mail address: 6th Floor, CS-1, 2800 Crystal Drive North, Arlington, VA, (703) 308–8358, e-mail: jones.jim@epamail.epa.gov.

SUPPLEMENTARY INFORMATION: EPA is announcing its interpretation in a PR Notice entitled ''Toxicologically Significant Levels of Pesticide Active Ingredients.'' This interpretation will modify EPA's previous interpretation which stated that any level of an impurity that is also an active ingredient in another pesticide is considered ''toxicologically significant'' and must be reported to EPA. The PR Notice changes the Agency's interpretation of ''toxicologically significant'' levels of active ingredients to adopt a risk-based standard. This Federal Register notice announces the availability of the PR notice and instructs registrants how to comply with this change in interpretation.

List of Subjects

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests.

Dated: November 25, 1996.

Daniel M. Barolo,

Director, Office of Pesticide Programs.

[FR Doc. 96–31710 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–F

[FRL–5665–5]

Allied Brands Chemical Company Site; Notice of Proposed Purchaser Agreement

AGENCY: Environmental Protection Agency.

ACTION: Notice of Proposed Purchaser Agreement.

SUMMARY: Under § 122(g) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the United States Environmental Protection Agency (EPA) through this agreement the Settling Respondent agrees to pay to EPA the sum of $12,500.00 to provide specified rights of access to certain parties performing response actions in connection with the Site, and to ensure that certain deed restrictions are placed on the property. EPA will consider public comments on the proposed settlement for thirty (30) days. EPA may withdraw from or modify the proposed settlement should such comments disclose facts or considerations which indicate the proposed settlement is inappropriate, improper or inadequate. Copies of the proposed settlement are available from: Ms. Paula V. Batchelor, Waste Management Division, U.S. EPA, Region IV, 100 Alabma Street, SW., Atlanta, Georgia 30303, 404/562–8887.

Written comments may be submitted to Ms. Batchelor within 30 calendar days of the date of publication.

Date: November 13, 1996.

Franklin E. Hill,

Chief, Program Services Branch, Waste Management Division.

[FR Doc. 96–31708 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–M

[FRL–5665–2]

Proposed De Minimis Settlement Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as Amended by the Superfund Amendments and Reauthorization Act—Hansen Container Site, Grand Junction, Colorado

AGENCY: Environmental Protection Agency.

ACTION: Notice and request for public comment.

SUMMARY: In accordance with the requirements of section 122 (i) (1) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA), notice is hereby given of a proposed de minimis settlement under section 122 (g), concerning the Hansen Container site in Grand Junction, Colorado (Site). The proposed Administrative Order on Consent (AOC) requires ten (10) Potentially Responsible Parties to Pay an aggregate total of $85,984.12 to address their liability to the United States Environmental Protection Agency (EPA) related to response actions taken or to be taken at the Site.

OPPORTUNITY FOR COMMENT: Comments must be submitted by January 13, 1996.

ADDRESSES: The Proposed settlement is available for public inspection at the EPA Superfund Record Center, 999 18th Street, 5th Floor, North Tower, Denver, Colorado. Comments should be addressed to Maureen O'Reilly, Enforcement Specialist, (8ENF–T), U.S. Environmental Protection Agency, 999 18th Street, Suite 500, Denver, Colorado, 80202–2405, and should reference the Hansen Container de minimis settlement (96–18).

FOR FURTHER INFORMATION CONTACT: Maureen O'Reilly, Enforcement Specialist, at (303) 312–6402.

SUPPLEMENTARY INFORMATION: Notice of section 122 (g) de minimis settlement: In accordance with section 122(i)(1) of CERCLA, notice is hereby given that the terms of an Administrative Order on Consent (AOC) have been agreed to by the following ten (10) parties, for the following amounts (in alphabetical order):

AT&T/Western Electric	$19,582.05
B–D Chemical	886.63
John Cain	320.11
Cobe Laboratories	534.92
Dyce Chemical	26,674.60
Great Western Chemical	429.62
Kryptonics	19,181.45
Page & Page/Peerless	2,305.96
Deryl Thompson	2,135.48
Texas Dept. Transportation	13,933.30
Total	85,984.12

By the terms of the proposed AOC, these parties will together pay $85,984.12 to the Hazardous Substance Superfund. This payment represents approximately .014% of the total anticipated costs for the Site upon which this settlement is based.

In exchange for payment, EPA will provide the settling parties with a limited covenant not to sue for liability under sections 106 and 107(a) of CERCLA, including liability for EPA's past costs, the cost of the remedy, and future EPA oversight costs, and under section 7003 of the Solid Waste Disposal Act, as amended (also known as the Resource Conservation and Recovery Act).

The amount that each individual PRP will pay, as shown above, reflects the number of drums that each PRP sent to the Site that had hazardous materials in them. The cost per drum is $3.24. The total amount of settlement dollars owed by each party to the settlement was arrived at by multiplying the price per drum by the number of drums a party sent to the Site (Base Amount) plus a premium payment of 30% of the Base Amount.

For a period of thirty (30) days from the date of this publication, the public may submit comments to EPA relating to this proposed de minimis settlement.

A copy of the proposed AOC may be obtained from Maureen O'Reilly (8ENF–T), U.S. Environmental Protection Agency, Region VIII, 999 18th Street, Suite 500, Denver, Colorado 80202–2405, (303) 312–6402. Additional background information relating to the de minimis settlement is available for review at the Superfund Records Center at the above address.

It is so agreed:

Dated: September 26, 1996.

Patrica D. Hill,

Acting Regional Administrator U.S. Environmental Protection Agency Region VIII.

[FR Doc. 96–31707 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–M

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collections being Reviewed by the Federal Communications Commission

December 9, 1996.

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, 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: Persons wishing to comment on this information collection should submit comments February 11, 1997.

ADDRESSES: Direct all comments to Dorothy Conway, Federal Communications Commission, Room 234, 1919 M St., N.W., Washington, DC 20554 or via internet to dconway@fcc.gov.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collections contact Dorothy Conway at 202–418–0217 or via internet at dconway@fcc.gov.

SUPPLEMENTARY INFORMATION:

OMB Approval Number: 3060–0049.

Title: Application for Restricted Radiotelephone Operator Permit.

Form No.: FCC 753.

Type of Review: Revision of a currently approved collection.

Respondents: Individuals.

Number of Respondents: 12,000.

Estimated Time Per Response: 20 minutes.

Total Annual Burden: 3,960 hours.

Needs and Uses: In accordance with the Communications Act, applicants must possess certain qualifications in order to qualify for a radio operator license. The data submitted on FCC Form 753 aids the Commission in determining whether the applicant possesses these qualifications. The form is required by FCC Rules 47 CFR Parts 13 and 1.83. The data will be used to identify the individuals to whom the license is issued and to confirm that the individual possesses the required qualifications for the license.

The form will be revised to include a space for the applicant to provide an Internet address, as well as a Social Security Number. The Commission is required to collect a Social Security Number to comply with the Debt Collection Improvement Act of 1996.

The Commission eliminated the need to hold a Restricted Radiotelephone Operator Permit for Broadcast use, therefore, the number of filings has been significantly reduced.

Federal Communications Commission.

William F. Caton,

Acting Secretary.

[FR Doc. 96–31651 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

Public Information Collections Approved by Office of Management and Budget

December 6, 1996.

The Federal Communications Commission (FCC) has received Office of Management and Budget (OMB) approval for the following public information collections pursuant to the Paperwork Reduction Act of 1995, Public Law 104–13. 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 control number. For further information contact Shoko B. Hair, Federal Communications Commission, (202) 418–1379.

Federal Communications Commission

OMB Control No.: 3060–0742.

Expiration Date: 12/31/99.

Title: Telephone Number Portability, First Report and Order and Further Notice of Proposed Rulemaking.

Form No.: N/A.

Estimated Annual Burden: 735 total annual hours; 6.89 hours per respondent (avg.); 107 respondents.

Estimated Annual Reporting and Recordkeeping Cost Burden: $0.

Description: In Telephone Number Portability, CC Docket No. 95–116, First Report and Order and Further Notice of Proposed Rulemaking (released June 27, 1996), the Commission promulgates rules and regulations implementing the

statutory requirement that local exchange carriers (LECs) provide number portability as set forth in Section 251 of the Telecommunications Act of 1996 (1996 Act). Pursuant to Section 251, the First Report and Order establishes performance criteria for acceptable long-term number portability methods and requires all LECs to begin deploying number portability in the 100 largest Metropolitan Statistical Areas (MSAs) no later than October 1, 1997, and to complete deployment in those MSAs by December 31, 1998, in accordance with a phased schedule.

OMB Control No.: 3060–0729.

Expiration Date: 12/31/99.

Title: Bell Operating Company Provision of Out-of-Region, Interstate, Interexchange Services (Affiliated Company Recordkeeping Requirement—CC Docket No. 96–21).

Form No.: N/A.

Estimated Annual Burden: 42,394 total annual hours; 6056 hours per respondent (avg.); 7 respondents.

Description: In the Report and Order issued in CC Docket No. 96–21, the Commission removed dominant regulation for BOCs that provide out-of-region, interstate, interexchange services through an affiliated that complies with certain safeguards, in order to facilitate the efficient and rapid provisions of out-of-region, domestic, interstate, interexchange services by the BOCs, as contemplated by the 1996 Act, while still protecting ratepayers and competition in the interexchange market. These safeguards require that the affiliate: (1) Maintain separate books of account from the LEC; (2) not jointly own transmission or switching facilities with the LEC; and (3) take any tariffed services from the affiliated LEC pursuant to the terms and conditions of the LEC's generally applicable tariff. The recordkeeping requirement will not impose any significant burden on BOC interexchange affiliates because we do not require that the interexchange affiliate maintain separate books of accounts that comply with our Part 32 rules. Instead, these affiliates must maintain separate books as would any separate corporation, as a matter of course.

Federal Communications Commission.

William F. Caton,

Acting Secretary.

[FR Doc. 96–31650 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–P

[Report No. 2169]

Petition for Reconsideration of Action in Rulemaking Proceedings

December 5, 1996.

A Petition for reconsideration has been filed in the Commission's rulemaking proceedings listed in this Public Notice and published pursuant to 47 CFR Section 1.429(e). The full text of this document is available for viewing and copying in Room 239, 1919 M Street, N.W., Washington, D.C. or may be purchased from the Commission's copy contractor. ITS, Inc. (202) 857–3800. Oppositions to this petition must be filed on or before December 30, 1996. See Section 1.4(b)(1) of the Commission's rules (47 CFR 1.4(b)(1)). Replies to an opposition must be filed within 10 days after the time for filing oppositions has expired.

Subject: Amendment of Section 73.202(b), Table of Allotments, FM Broadcast Stations. (Ukiah, CA) (MM Docket No. 96–9, RM–8736).

Number of Petition Filed: 1.

Federal Communications Commission

William F. Caton,

Acting Secretary.

[FR Doc. 96–31749 Filed 12–12–96; 8:45 am]

BILLING CODE 6712–01–M

FEDERAL EMERGENCY MANAGEMENT AGENCY

[FEMA–3120–EM]

California; Amendment to Notice of an Emergency Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of an emergency for the State of California, (FEMA–3120–EM), dated October 23, 1996, and related determinations.

EFFECTIVE DATE: November 18, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of an emergency for the State of California, is hereby amended to include the following area among those areas determined to have been adversely affected by the catastrophe declared an emergency by the President in his declaration of October 23, 1996:

Ventura County for emergency assistance as defined in the declaration letter of October 23, 1996.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

Dennis H. Kwiatkowski,

Deputy Associate Director, Response and Recovery Directorate.

[FR Doc. 96–31672 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–3122–EM]

Hawaii; Emergency and Related Determinations

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of an emergency for the State of Hawaii (FEMA–3122–EM), dated November 18, 1996, and related determinations.

EFFECTIVE DATE: November 18, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated November 18, 1996, the President declared an emergency under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 *et seq.*), as follows:

I have determined that the damage in certain areas of the State of Hawaii resulting from severe storms and flooding beginning on November 5, 1996, and continuing, is of sufficient severity and magnitude to warrant an emergency declaration under subsection 501(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act). I, therefore, declare that such an emergency exists in the State of Hawaii.

You are authorized to coordinate all disaster relief efforts which have the purpose of alleviating the hardship and suffering caused by the emergency on the local population, and to provide appropriate assistance for required emergency measures, authorized under Title V of the Stafford Act, to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe in the designated areas. Specifically, you are authorized to provide assistance for the alleviation of public health and safety concerns resulting from the existence of contaminated standing water, under emergency protective measures as authorized under subsection 502(a)(4).

In order to provide Federal assistance, you are hereby authorized to coordinate and direct other Federal agencies and fund activities not authorized under other Federal statutes and allocate from funds available for these purposes, such amounts as you find necessary for Federal emergency assistance and administrative expenses.

Pursuant to this emergency declaration, you are authorized to provide emergency

assistance as you deem appropriate under Title V of the Stafford Act at 75 percent Federal funding.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, 42 U.S.C. 5153, shall be for a period not to exceed six months after the date of this declaration.

Notice is hereby given that pursuant to the authority vested in the Director of the Federal Emergency Management Agency under Executive Order 12148, I hereby appoint David P. Grier of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared emergency.

I do hereby determine the following areas of the State of Hawaii to have been affected adversely by this declared emergency:

The City of Honolulu and the County of Honolulu for appropriate assistance for required emergency protective measures as authorized under Title V of the Stafford Act, subsection 502(a)(4), to alleviate the impacts to the public health and safety as a result of the existence of contaminated standing water.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

James L. Witt,

Director.

[FR Doc. 96–31673 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–1143–DR]

Maine; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of Maine, (FEMA–1143–DR), dated October 28, 1996, and related determinations.

EFFECTIVE DATE: November 14, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of Maine, is hereby amended to include the following area among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of October 28, 1996:

Oxford County for Public Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

Catherine H. Light,

Deputy Associate Director, Response and Recovery Directorate.

[FR Doc. 96–31669 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–1144–DR]

New Hampshire; Amendment to Notice of a Major Disaster Declaration

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This notice amends the notice of a major disaster for the State of New Hampshire, (FEMA–1144–DR), dated October 29, 1996, and related determinations.

EFFECTIVE DATE: November 14, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: The notice of a major disaster for the State of New Hampshire, 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 October 29, 1996:

Merrimack and Sullivan Counties for Individual Assistance (already designated for Public Assistance and Hazard Mitigation Assistance).

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

Catherine H. Light,

Deputy Associate Director, Response and Recovery Directorate.

[FR Doc. 96–31671 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–1145–DR]

New Jersey; Major Disaster and Related Determinations

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of a major disaster for the State of New Jersey (FEMA–1145–DR), dated November 19, 1996, and related determinations.

EFFECTIVE DATE: November 19, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated November 19, 1996, 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 *et seq.*), as follows:

I have determined that the damage in certain areas of the State of New Jersey, resulting from a severe storm and flooding on October 18–23, 1996, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (''the Stafford Act''). I, therefore, declare that such a major disaster exists in the State of New Jersey.

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 Individual Assistance and Hazard Mitigation Assistance in the designated areas. Public Assistance may be added at a later date, if requested and warranted. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance or Hazard Mitigation will be limited to 75 percent of the total eligible costs.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, 42 U.S.C. 5153, shall be for a period not to exceed six months after the date of this declaration.

Notice is hereby given that pursuant to the authority vested in the Director of the Federal Emergency Management Agency under Executive Order 12148, I hereby appoint Joseph F. Picciano of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared disaster.

I do hereby determine the following areas of the State of New Jersey to have been affected adversely by this declared major disaster:

The counties of Hudson, Middlesex, Morris, Somerset and Union for Individual Assistance and Hazard Mitigation Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

James L. Witt,

Director.

[FR Doc. 96–31668 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–1146–DR]

New York; Major Disaster and Related Determinations

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of a major disaster for the State of New York (FEMA–1146–DR), dated November 19, 1996, and related determinations.

EFFECTIVE DATE: November 19, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated November 19, 1996, 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 *et seq.*), as follows:

I have determined that the damage in certain areas of the State of New York, resulting from severe storms and flooding on October 19–20, 1996, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (''the Stafford Act''). I, therefore, declare that such a major disaster exists in the State of New York.

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 Individual Assistance and Hazard Mitigation in the designated areas. Public Assistance may be added at a later date, if warranted. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance or Hazard Mitigation will be limited to 75 percent of the total eligible costs.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, 42 U.S.C. 5153, shall be for a period not to exceed six months after the date of this declaration.

Notice is hereby given that pursuant to the authority vested in the Director of the Federal Emergency Management Agency under Executive Order 12148, I hereby appoint Barbara T. Russell of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared disaster.

I do hereby determine the following areas of the State of New York to have been affected adversely by this declared major disaster:

New York City and Nassau and Suffolk Counties for Individual Assistance and Hazard Mitigation Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

James L. Witt,

Director.

[FR Doc. 96–31667 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–3124–EM]

Puerto Rico; Emergency and Related Determinations

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of an emergency for the Commonwealth of Puerto Rico (FEMA–3124–EM), dated November 21, 1996, and related determinations.

EFFECTIVE DATE: November 21, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated November 21, 1996, the President declared an emergency under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 *et seq.*), as follows:

I have determined that the damage in certain areas of the Commonwealth of Puerto Rico, resulting from a gas leak explosion on November 21, 1996, is of sufficient severity and magnitude to warrant an emergency declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (''the Stafford Act''). I, therefore, declare that such an emergency exists in the Commonwealth of Puerto Rico.

Specifically, you are authorized to activate and deploy search and rescue teams to respond to this event as authorized under subsection 502(a) of the Stafford Act.

In addition, you are authorized to provide such other forms of emergency assistance as you may deem necessary.

Emergency assistance which you provide pursuant to this declaration will be at 75 percent Federal funding.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, 42 U.S.C. 5153, shall be for a period not to exceed six months after the date of this declaration.

Notice is hereby given that pursuant to the authority vested in the Director of the Federal Emergency Management Agency under Executive Order 12148, I hereby appoint Jose Bravo of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared emergency.

I do hereby determine the following areas of the Commonwealth of Puerto Rico to have been affected adversely by this declared emergency:

For activation and deployment of search and rescue teams to respond to the gas leak explosion in San Juan, Puerto Rico, as authorized under Title V, of the Stafford Act, subsection 502(a).

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

James L. Witt,

Director.

[FR Doc. 96–31675 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

[FEMA–3123–EM]

Rhode Island; Emergency and Related Determinations

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Notice.

SUMMARY: This is a notice of the Presidential declaration of an emergency for the State of Rhode Island (FEMA–3123–EM), dated November 19, 1996 and related determinations.

EFFECTIVE DATE: November 19, 1996.

FOR FURTHER INFORMATION CONTACT: Pauline C. Campbell, Response and Recovery Directorate, Federal Emergency Management Agency, Washington, DC 20472, (202) 646–3606.

SUPPLEMENTARY INFORMATION: Notice is hereby given that, in a letter dated November 19, 1996, the President declared an emergency under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 *et seq.*), as follows:

I have determined that the damage in certain areas of the State of Rhode Island resulting from a major water main break on November 18, 1996, and continuing, is of sufficient severity and magnitude to warrant an emergency declaration under subsection 501(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act). I, therefore, declare that such an emergency exists in the State of Rhode Island.

You are authorized to coordinate all disaster relief efforts which have the purpose of alleviating the hardship and suffering caused by the emergency on the local population, and to provide appropriate assistance for emergency assistance, authorized under Title V of the Stafford Act, to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe in the designated areas. Specifically, you are authorized to provide for and/or restore water service, under emergency assistance as authorized under subsection 502(a).

In order to provide Federal assistance, you are hereby authorized to coordinate and direct other Federal agencies and fund activities not authorized under other Federal statutes and allocate from funds available for these purposes, such amounts as you find necessary for Federal emergency assistance and administrative expenses.

Pursuant to this emergency declaration, you are authorized to provide emergency assistance as you deem appropriate under Title V of the Stafford Act at 75 percent Federal funding.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, 42 U.S.C. 5153, shall be for a period not to exceed six months after the date of this declaration.

Notice is hereby given that pursuant to the authority vested in the Director of the Federal Emergency Management Agency under Executive Order 12148, I hereby appoint Kevin M. Merli of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared disaster.

I do hereby determine the following areas of the State of Rhode Island to have been affected adversely by this declared emergency:

The counties of Kent and Providence.

FEMA has been authorized to provide for the emergency provision and/or restoration of water service as authorized under Title V of the Stafford Act, subsection 502(a), to alleviate the impacts to the public health and safety as a result of the water main break.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

James L. Witt,

Director.

[FR Doc. 96–31674 Filed 12–12–96; 8:45 am]

BILLING CODE 6718–02–P

FEDERAL MARITIME COMMISSION

Notice of Agreement(s) Filed

The Commission hereby gives notice of the filing of the following agreement(s) under the Shipping Act of 1984.

Interested parties can review or obtain copies of agreements at the Washington, DC offices of the Commission, 800 North Capitol Street, N.W., Room 962. Interested parties may submit comments on an agreement to the Secretary, Federal Maritime Commission, Washington, DC 20573, within 10 days of the date this notice appears in the Federal Register.

Agreement No.: 224–201009

Title: Port of Houston/Mediterranean Shipping Co., S.A. Terminal Agreement

Parties:

Port of Houston Authority (''Port'')

Mediterranean Shipping Co., S.A. (''MSC'')

Synopsis: The proposed Agreement authorizes the Port to allocate space to MSC at its Barbours Cut Terminal and to provide services, on an incentive basis, in connection with MSC's movement of cargo containers. The Agreement will continue through November 30, 1998.

Dated: December 9, 1996.

By Order of the Federal Maritime Commission.

Joseph C. Polking,

Secretary.

[FR Doc. 96–31594 Filed 12–12–96; 8:45 am]

BILLING CODE 6730–01–M

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisitions of Shares of Banks or Bank Holding Companies

The notificants listed below have applied under the Change in Bank Control Act (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire a bank or bank holding company. The factors that are considered in acting on the notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. Once the notices have been accepted for processing, they will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the offices of the Board of Governors. Comments must be received not later than December 27, 1996.

A. Federal Reserve Bank of Kansas City (John E. Yorke, Senior Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

1. William R. Hagman, Jr., Pittsburg, Kansas; to retain a total of 54.2 percent, and Subtrust E of the William R. Hagman Trust, Pittsburg, Kansas, to retain a total of 32.9 percent, of the voting shares of First State Bancorp, Inc., Pittsburg, Kansas, and thereby indirectly retain First State Bank and Trust Company,Pittsburg, Kansas.

2. Gertrude Myers, Alva, Oklahoma; to acquire an additional .93 percent, for a total of 25.90 percent of the voting shares of Hopeton BancShares, Inc., Hopeton, Oklahoma, and thereby indirectly acquire Hopeton State Bank, Hopeton, Oklahoma.

B. Federal Reserve Bank of Dallas (Genie D. Short, Vice President) 2200 North Pearl Street, Dallas, Texas 75201-2272:

1. Joe H. Bruns, Trustee for the Hilmar D. Blumberg Trust, the Edward A. Blumberg Trust, and the Carla A. Blumberg Trust, all of Seguin, Texas; to each acquire an additional 20.4 percent, for a total of 33.3 percent, of the voting shares of Blumberg BancUnits, L.P., Seguin, Texas, and thereby indirectly acquire State Bank & Trust of Seguin, Seguin, Texas.

In connection with this application, Joe H. Bruns, Trustee, for the Edward A. Blumberg Trust, the Hilmar D. Blumberg Trust, and the Carla A. Blumberg Trust, all of Seguin, Texas, have applied to each acquire an additional 10.5 percent, for a total of 18.8 percent; Edward A. Blumberg and Irma Blumberg, Trustees, for the Vanessa N. Blumberg Trust, all of Seguin, Texas, to each acquire an additional 3.5 percent, for a total of 6.3 percent; Edward A. Blumberg and Irma Blumberg, Trustees, for the Joseph D. Blumberg Trust, all of Seguin, Texas, to each acquire an additional 3.4 percent, for a total of 6.2 percent; Hilmar D. Blumberg, Seguin, Texas, to acquire an additional 2.4 percent, for a total of 4.2 percent; Hilmar D. & Kaaren Blumberg, Trustees, for the Roland B. Blumberg Trust, and the Jordan T. Blumberg Trust, all of Seguin, Texas, to each acquire an additional 4.1 percent, for a total of 7.3 percent; and Edward A. Blumberg, Seguin, Texas, to acquire an additional 3.5 percent, for a total of 6.3 percent, of the voting shares of Blumberg Family Partnership, L.P., Seguin, Texas, and thereby indirectly acquire State Bank & Trust of Seguin, Seguin, Texas.

Board of Governors of the Federal Reserve System, December 9, 1996.

Jennifer J. Johnson,

Deputy Secretary of the Board.

[FR Doc. 96–31642 Filed 12–12–96; 8:45 am]

BILLING CODE 6210–01–F

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. Once the application has been accepted for processing, it will also 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, including whether the acquisition of the nonbanking company can ''reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices'' (12 U.S.C. 1843). Any request for a hearing must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal. Unless otherwise noted, nonbanking activities will be conducted throughout the United States.

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 January 7, 1997.

A. Federal Reserve Bank of Dallas (Genie D. Short, Vice President) 2200 North Pearl Street, Dallas, Texas 75201-2272:

1. First Live Oak Bancshares, Inc., Three Rivers, Texas, and First Live Oak Delaware Bancshares, Inc., Dover, Delaware; to become bank holding companies by acquiring 100 percent of the voting shares of First State Bank, Three Rivers, Texas.

Board of Governors of the Federal Reserve System, December 9, 1996.

Jennifer J. Johnson,

Deputy Secretary of the Board.

[FR Doc. 96–31643 Filed 12–12–96; 8:45 am]

BILLING CODE 6210–01–F

Sunshine Meeting Notice

AGENCY HOLDING THE MEETING: Board of Governors of the Federal Reserve System.

TIME AND DATE: 10:00 a.m., Wednesday, December 18, 1996.

PLACE: Marriner S. Eccles Federal Reserve Board Building, C Street entrance between 20th and 21st Streets, N.W., Washington, D.C. 20551.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Personnel actions (appointments, promotions, assignments, reassignments, and salary actions) involving individual Federal Reserve System employees.
2. Any items carried forward from a previously announced meeting.

CONTACT PERSON FOR MORE INFORMATION: Mr. Joseph R. Coyne, Assistant to the Board; (202) 452–3204. You may call (202) 452–3207, beginning at approximately 5 p.m. two business days before this meeting, for a recorded announcement of bank and bank holding company applications scheduled for the meeting.

Dated: December 11, 1996.

Jennifer J. Johnson,

Deputy Secretary of the Board.

[FR Doc. 96–31800 Filed 12–11–96; 10:02 am]

BILLING CODE 6210–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Proposed Information Collection Activity; Comment Request

Proposed Projects

Title: Collection of Child Welfare Data Under the Voluntary Cooperative Information System (VCIS).

OMB No.: 0970–0129.

Description: The objective of VCIS is to provide current data on the characteristics of children in, and the flow of children through, State foster care and adoption systems. These data also are utilized to identify State and national trends for the types of children in care, the settings in which children receive care, and the outcomes of substitute care episodes.

The VCIS data are used to respond to requests for current data on children in foster care as well as those awaiting adoption and recently adopted. These data are also used for preparing Congressional testimony and reports, proposing policy and legislative changes, determining foster care and adoption trends and projections, and making budget forecasts. In addition, the VCIS data are made available to researchers and evaluators as well as the media. These data also appeared in the 1996 Green Book, which contains background material and data on programs within the jurisdiction of the Congressional Committee on Ways and Means.

Respondents: State Governments, Guam, Virgin Islands, Puerto Rico and District of Columbia.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
VCIS survey	54	1	3.0	162

Estimated Total Annual Burden Hours: 162

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 Information Services, Division of Information Resource Management Services, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. 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 of 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: December 9, 1996.

Douglas J. Godesky.

Reports Clearance Officer.

[FR Doc. 96–31702 Filed 12–12–96; 8:45 am]

BILLING CODE 4184–01–M

Food and Drug Administration

[Docket No. 96M–0461]

Allergan Optical; Premarket Approval of Refresh® CL Lubricating and Rewetting Drops

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing its approval of the application by Allergan Optical, Irvine, CA, for premarket approval, under the Federal Food, Drug, and Cosmetic Act (the act), of Refresh® CL Lubricating and Rewetting Drops. FDA's Center for Devices and Radiological Health (CDRH) notified the applicant, by letter of September 25, 1996, of the approval of the application.

DATES: Petitions for administrative review by January 13, 1997.

ADDRESSES: Written requests for copies of the summary of safety and effectiveness data and petitions for administrative review to the Dockets Management Branch (HFA–305), Food and Drug Administration, 12420 Parklawn Dr., rm. 1–23, Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: James F. Saviola, Center for Devices and Radiological Health (HFZ–460), Food and Drug Administration,9200 Corporate Blvd., Rockville, MD 20850, 301–594–1744.

SUPPLEMENTARY INFORMATION: On May 6, 1996, Allergan Optical, Irvine, CA 92713–9534, submitted to CDRH an application for premarket approval of Refresh® CL Lubricating and Rewetting Drops. The device is a solution indicated for the lubrication and rewetting of soft contact lenses. The device helps to relieve dryness, discomfort, and irritation that may be associated with lens wear.

In accordance with the provisions of section 515(c)(2) of the act (21 U.S.C. 360e(c)(2)) as amended by the Safe Medical Devices Act of 1990, this premarket approval application (PMA) was not referred to the Ophthalmic Devices Panel of the Medical Devices Advisory Committee, an FDA advisory committee, for review and recommendation because the information in the PMA substantially duplicates information previously reviewed by this panel.

On September 25, 1996, CDRH approved the application by a letter to the applicant from the Director of the Office of Device Evaluation, CDRH.

A summary of the safety and effectiveness data on which CDRH based its approval is on file in the Dockets Management Branch (address above) and is available from that office upon written request. Requests should be identified with the name of the device and the docket number found in brackets in the heading of this document.

Opportunity for Administrative Review

Section 515(d)(3) of the act authorizes any interested person to petition, under section 515(g) of the act (21 U.S.C. 360(g), for administrative review of CDRH's decision to approve this application. A petitioner may request either a formal hearing under 21 CFR part 12 of FDA's administrative practices and procedures regulations or a review of the application and CDRH's action by an independent advisory committee of experts. A petition is to be in the form of a petition for reconsideration under 21 CFR 10.33(b). A petitioner shall identify the form of review requested (hearing or independent advisory committee) and shall submit with the petition supporting data and information showing that there is a genuine and substantial issue of material fact for resolution through administrative review. After reviewing the petition, FDA will decide whether to grant or deny the petition and will publish a notice of its decision in the Federal Register. If FDA grants the petition, the notice will state the issue to be reviewed, the form of the review to be used, the persons who may participate in the review, the time and place where the review will occur, and other details.

Petitioners may, at any time on or before January 13, 1997, file with the Dockets Management Branch (address above) two copies of each petition and supporting data and information, identified with the name of the device and the docket number found in brackets in the heading of this document. Received petitions may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (secs. 515(d), 520(h) (21 U.S.C. 360e(d), 360j(h))) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Director, Center for Devices and Radiological Health (21 CFR 5.53).

Dated: October 24, 1996.

Joseph A. Levitt,

Deputy Director for Regulations Policy, Center for Devices and Radiological Health.

[FR Doc. 96–31744 Filed 12–12–96; 8:45 am]

BILLING CODE 4160–01–F

Investigational Biological Product Trials; Procedure to Monitor Clinical Hold Process; Meeting of Review Committee and Request for Submissions

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing a meeting of its clinical hold review committee, which reviews the clinical hold orders that the Center for Biologics Evaluation and Research (CBER) has placed on certain investigational biological product trials. FDA is inviting any interested biological product company to use this confidential mechanism to submit to the committee for its review the name and number of any investigational biological product trial placed on clinical hold during the past 12 months that the company wants the committee to review.

DATES: The meeting will be held on February 11, 1997. Biological product companies may submit review requests for the February meeting by January 9, 1997.

ADDRESSES: Submit clinical hold review requests to Amanda Bryce Norton, FDA Chief Mediator and Ombudsman, Office of the Commissioner (HF–7), Food and Drug Administration, 5600 Fishers Lane, rm. 14–105, Rockville, MD 20857, 301–827–3390.

FOR FURTHER INFORMATION CONTACT: Joy A. Cavagnaro, Center for Biologics Evaluation and Research (HFM–2), Food and Drug Administration, 1401 Rockville Pike, Rockville, MD 20852–1448, 301–827–0379.

SUPPLEMENTARY INFORMATION: FDA regulations in part 312 (21 CFR part 312) provide procedures that govern the use of investigational new drugs and biologics in human subjects. If FDA

determines that a proposed or ongoing study may pose significant risks for human subjects or is otherwise seriously deficient, as discussed in the investigational new drug regulations, it may order a clinical hold on the study. The clinical hold is one of FDA's primary mechanisms for protecting subjects who are involved in investigational new drug or biologic trials. Section 312.42 describes the grounds for ordering a clinical hold.

A clinical hold is an order that FDA issues to a sponsor to delay a proposed investigation or to suspend an ongoing investigation. The clinical hold may be ordered on one or more of the investigations covered by an investigational new drug application (IND). When a proposed study is placed on clinical hold, subjects may not be given the investigational drug or biologic as part of that study. When an ongoing study is placed on clinical hold, no new subjects may be recruited to the study and placed on the investigational drug or biologic, and patients already in the study should stop receiving therapy involving the investigational drug or biologic unless FDA specifically permits it.

When FDA concludes that there is a deficiency in a proposed or ongoing clinical trial that may be grounds for ordering a clinical hold, ordinarily FDA will attempt to resolve the matter through informal discussions with the sponsor. If that attempt is unsuccessful, a clinical hold may be ordered by or on behalf of the director of the division that is responsible for the review of the IND.

FDA regulations in § 312.48 provide dispute resolution mechanisms through which sponsors may request reconsideration of clinical hold orders. The regulations encourage the sponsor to attempt to resolve disputes directly with the review staff responsible for the review of the IND. If necessary, the sponsor may request a meeting with the review staff and management to discuss the clinical hold.

CBER began a process to evaluate the consistency and fairness of practices in ordering clinical holds by instituting a review committee to review clinical holds (see 61 FR 1033, January 11, 1996). CBER held its first clinical hold review committee meeting on May 17, 1995, and plans to conduct further quality assurance oversight of the IND process. The committee last met in November 1996. The review procedure of the committee is designed to afford an opportunity for a sponsor who does not wish to seek formal reconsideration of a pending clinical hold to have that clinical hold considered ''anonymously.'' The committee consists of senior managers of CBER, a senior official from the Center for Drug Evaluation and Research, and the FDA Chief Mediator and Ombudsman.

Clinical holds to be reviewed will be chosen randomly. In addition, the committee will review some of the clinical holds proposed for review by biological product sponsors. In general, a biological product sponsor should consider requesting review when it disagrees with FDA's scientific or procedural basis for the decision.

Requests for committee review of a clinical hold should be submitted to the FDA Chief Mediator and Ombudsman, who is responsible for selecting clinical holds for review. The committee and CBER staff, with the exception of the FDA Chief Mediator and Ombudsman, are never advised, either in the review process or thereafter, which of the clinical holds were randomly chosen and which were submitted by sponsors. The committee will evaluate the selected clinical holds for scientific content and consistency with FDA regulations and CBER policy.

The meetings of the review committee are closed to the public because committee discussions deal with confidential commercial information. Summaries of the committee deliberations, excluding confidential commercial information, may be requested in writing from the Freedom of Information Office (HFI–35), Food and Drug Administration, 5600 Fishers Lane, rm. 12A–16, Rockville, MD 20857, approximately 15 working days after the meeting, at a cost of 10 cents per page. If the status of a clinical hold changes following the committee's review, the appropriate division will notify the sponsor.

FDA invites biological product companies to submit to the FDA Chief Mediator and Ombudsman the name and IND number of any investigational biological product trial that was placed on clinical hold during the past 12 months that they want the committee to review at its February 11, 1997, meeting. Submissions should be made by January 9, 1997, to Amanda Bryce Norton, FDA Chief Mediator and Ombudsman (address above).

Dated: December 9, 1996.

William K. Hubbard,

Associate Commissioner for Policy Coordination.

[FR Doc. 96–31745 Filed 12–12–96; 8:45 am]

BILLING CODE 4160–01–F

Health Resources and Services Administration

Rural Health Outreach and Rural Network Development Program

AGENCY: Health Resources and Services Administration (HRSA).

ACTION: Notice of availability of funds.

SUMMARY: The Office of Rural Health Policy announces that fiscal year 1997 funds are available for grants under the Rural Health Outreach, Network Development, and Telemedicine Grant Program. This announcement deals with the Rural Outreach and Rural Network Development aspects of the program. The Telemedicine grants will be announced separately.

Two kinds of projects will be funded under this announcement: (1) Rural Outreach Grants for the development of innovative new service delivery systems in rural areas where support is provided for the actual delivery of new services or enhancement of existing services, and (2) Rural Network Development Grants for the planning and development of vertically integrated networks in rural areas where the emphasis is placed not on the actual delivery of services, but on efforts to restructure the delivery system in rural communities. Funds were appropriated for these grants under Public Law 104–208. The grants are authorized by Section 330A of the Public Health Service Act as amended by the Health Centers Consolidation Act of 1996, Public Law 104–299.

Applicants may not apply for both the Rural Outreach Grants and the Rural Network Development Grants.

NATIONAL HEALTH OBJECTIVES FOR THE YEAR 2000: The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of Healthy People 2000, a PHS-led national activity for setting priority areas. The Rural Health Outreach, Network Development, and Telemedicine Grant Program is related to the priority areas for health promotion, health protection and preventive services. Potential applicants may obtain a copy of Healthy People 2000 (Full Report: Stock No. 017–001–00474–C) Or Healthy People (Summary Report: Stock No. 017–001–00473–1) through the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402–9325 (Telephone (202)783–3238).

FUNDS AVAILABLE: Appropriations for FY 1997 include $16 million to support Rural Outreach and Rural Network Development Grants. Of this amount, it is anticipated that about $8 million will be available to support 40 new Rural

Outreach Grant awards and $8 million to support about 40 Rural Network Development awards. The budget period for new projects will begin September 30, 1997.

Individual grant awards under this notice will be limited to a total amount of $200,000 (direct and indirect costs) per year. Applications for smaller amounts are encouraged. Applicants may propose project periods for up to three years, but the duration of projects is contingent upon the availability of funds. Applicants are advised that continued funding of grants beyond the one year period covered by this announcement is contingent upon the appropriation of funds for the program and assessment of grantee performance. No project will be supported for more than three years.

DUE DATES: Applications for the program must be received by the close of business on March 31, 1997. Completed applications must be sent to HRSA GRANTS APPLICATION CENTER, 40 West Gude Drive, Suite 100, Rockville, MD 20850.

Applications shall be considered as meeting the deadline if they are either (1) received on or before the deadline date; or (2) postmarked on or before the deadline date and received in time for orderly processing. Applicants must obtain a legibly dated receipt from a commercial carrier or the U.S. Postal Service in lieu of a postmark. Private metered postmarks will not be acceptable as proof of timely mailing. Late applications will be returned to the sender.

The standard application form and general instructions for completing applications (Form PHS–5161–1, OMB #0937–0189) have been approved by the Office of Management and Budget. To receive an application kit write to: HRSA GRANTS APPLICATION CENTER, 40 West Gude Drive, Suite 100, Rockville, MD 20850, or call toll-free 1(888)300–HRSA.

FOR FURTHER INFORMATION CONTACT: Information or technical assistance regarding business, budget, or financial issues should be directed to the following staff from Office of Grants Management, Bureau of Primary Health Care, Health Resources and Services Administration, 4350 East-West Highway, 11th Floor, Bethesda, Md. 20814, (301) 594–4260 depending on the location of the proposed project:

Nancy Benson (301) 594–4232—IA, KS, MO, NE
Karen Campbell (301) 594–4259—AK, CO, ID, MT, ND, OR, SD, UT, WA, WY
Pam Hilton (301) 594–4255—GA, NJ, NY, Puerto Rico, Virgin Islands
Jo Lepkowski (301) 594–4261—AR, LA, NC, NM, OK, TX
Joyce Monk (301) 594–4254—District of Columbia, DE, MD, PA, SC, VA, WV
Sharon Robertson (301) 594–4268—AL, FL, KY, MS, TN
Kathleen Sample (301) 594–4251—AZ, CA, HI, NV, Palau and the South Pacific
Martha Teague (301) 594–4258—CT, MA, ME, NC, NH, VT
Carolyn Testerman (301) 594–4244—IL, IN, MI, MN, OH, WI

Requests for technical or programmatic information on this announcement should be directed to staff of the Office of Rural Health Policy, Room 9–05, Parklawn Building, 5600 Fishers Lane, Rockville, Md. 20857, (301) 443–0835 as follows:

Roberto Anson (301) 443–7440—AZ, CA, DE, HI, MD, NV, PA, VA, WV, Palau, the South Pacific
Arlene Granderson (301) 443–0613—IL, IN, IA, KS, MI, MN, MO, NE, NJ, NY, WI, Puerto Rico, Virgin Islands
Eileen Holloran (301) 443–7529—AK, AR, CO, ID, LA, MT, NM, ND, OK, OR, SD, TX, UT, WA, WY
Sandi Lyles (301) 443–7321—CT, ME, MA, NH, RI, VT
Lisa Shelton (301) 443–4269—AL, FL, GA, KY, MS, NC, SC, TN

SUPPLEMENTARY INFORMATION: The two categories of grants offered under this program, Rural Outreach Grants and Rural Network Development Grants, have a common purpose as stated in the authorizing legislation cited above. That purpose is ''to coordinate, restrain the cost of, and improve the quality of essential health care services in rural areas, including preventive and emergency services, through the development of integrated health care delivery systems or networks in rural areas and regions.'' The two types of grants available through this announcement are different approaches to achieve the same goals.

Rural Outreach Grants

These grants are very similar to the outreach projects awarded by the Office of Rural Health Policy over the past six years. They will support the development of innovative new health service delivery systems in rural areas that lack basic services. Grants will be awarded to support the actual delivery of new services. They may also be awarded to support activities that will expand access to or increase utilization of existing services. Programs in preventive health care, health education, quality improvement, emergency care and other services may be supported through the program. Applicants may propose projects to address the needs of a wide range of rural population groups including the poor, the elderly, adolescents, rural minority populations, pregnant women and children, populations with special health care needs, etc. Projects should be responsive to the special cultural and linguistic needs of specific populations. The grants may not be used to support planning activities.

A central goal of the Rural Outreach Grants is to better coordinate services through the development of new service delivery systems. In furtherance of this goal, participation in the program requires the formation of a service delivery network of three or more health care organizations, or a combination of three or more health care and social service organizations. At least one of the entities must be a health care service delivery organization. Individual members of the Rural Outreach Grant network might include such entities as physicians, hospitals, public health agencies, emergency care providers, mental health centers, Rural Health Clinics, social service agencies, health professions schools, other educational institutions, community and migrant health centers, civic organizations, dental providers, etc. There must be a memorandum of agreement or other documented arrangements to ensure effective collaboration among members of the service delivery network. Although applicants for the program must be nonprofit or public entities, other network members may be for-profit organizations.

The roles and responsibilities of each member of a Rural Outreach Grant network must be clearly defined and each must contribute significantly to the goals of the project. The local community must be involved in the project and committed to the goals of the network.

Review Considerations:

Applications for the Rural Outreach Grant Program will be evaluated on the basis of the following criteria:

1. The extent to which the applicant has documented and justified the need(s) for the proposed project. *20* Points

2. The extent to which the applicant has proposed innovative new approaches for meeting the health care needs of the community and developed measurable goals and objectives for carrying out the project. *20* Points

3. The extent to which the applicant has clearly defined the roles and responsibilities of each member of the network and demonstrated the

experience and expertise needed to manage the project. *20* Points

4. The level of local commitment and involvement with the project, as evidenced by the extent of cost participation on the part of the applicant, members of the network, and other organizations; letters of support from community leaders and organizations; and the feasibility of plans to sustain the project after Federal grant support is ended. *15* Points

5. The reasonableness of the budget that is proposed for the project. *15* Points

6. The extent to which the applicant has developed a realistic and workable plan for evaluating the project and the applicant's plan for disseminating information about the project. *10* Points

Rural Network Development Grants

These grants will support the development of vertically integrated health care networks in rural areas or regions of the country. Vertically integrated networks are defined as networks consisting of different types of providers (e.g., hospital, long-term care facility, rural health clinics) as opposed to horizontally integrated networks composed of only one type of provider (e.g., hospitals only). The grants will support both planning and developmental activities to assist providers and the rural communities they serve in restructuring the local health care delivery system. Vertically integrated networks may entail more formal relationships among the members than the networks envisioned for the Rural Outreach Grants. Also, the activities supported by these grants do not need to involve the actual delivery of services. Instead, it is expected that most activities will be aimed at developing and strengthening the organizational capabilities of the networks.

Like the outreach networks, vertically integrated networks supported under these grants must be composed of three or more health care providers or other entities that provide or support the delivery of health care services. All of the members of a network may not be owned by one entity. While social service providers may be part of a network, the grants will not support networks for the exclusive provision of social services. The members of a network must have a strong existing commitment to the network's goals and objectives and some history of prior collaboration before applying for the grant. Unlike the Rural Outreach Grants, the program will not support projects where the members have never collaborated in the past.

Although applicants for the program must be nonprofit or public entities, profit-making organizations may be members of a vertically integrated network. The local community must be involved in the project and committed to the goals of the network.

Review Considerations:

Applications for the Rural Network Development Grant Program will be evaluated on the basis of the following criteria:

1. Purpose and Benefits—10 Points

A. The strength of the applicant's description of the goals of the network and the problems and needs that will be addressed by the grant.

B. The extent to which the applicant has demonstrated the potential benefits of the project that will accrue to the communities and populations in the network service area.

2. Activities—15 Points

A. The extent to which the specific activities and functions to be supported by the grant will contribute to the overall goals of the network.

3. Self-Sustainability—20 Points

A. The extent to which the applicant's plan for continuing the project is likely to result in a self-sustaining network at the conclusion of the Federal grant.

4. Current Status and Capability—15 Points

A. The strength of organizational relationships between members of the network and the strength of governance arrangements for the network.

B. The extent of previous collaboration between members of the network.

5. Commitment—15 Points

A. The level of commitment and active involvement in the grant project as evidenced by the network members'' allocation of time, capital, cash and in-kind contributions and other resources needed for the project.

B. The extent of personal commitment to the project from the network leadership staff including leadership staff employed by each of the individual members of the network.

6. Community Involvement—20 Points

A. The extent to which the local communities to be served by the network and the grant project are involved with the planning and ongoing operations of the network.

7. Budget—5 Points

A. The reasonableness of the budget proposed for the project and the strength of the applicant's justification of the need for Federal funds.

Eligible Applications

The grant recipient must be a nonprofit or public entity which meets the requirements stated below. Applicants that meet one of these requirements are eligible for one or both of the grant opportunities described in this notice.

(1) The applicant's central administrative headquarters where the grant will be managed is not located in a Metropolitan Statistical Area as defined by the Office of Management and Budget. A list of the cities and counties that are designated as Metropolitan Statistical Areas is included in the application kit. If your organization's central administrative headquarters is located in one of these areas, you are not eligible for the program unless you meet one of the other two criteria listed below.

(Note to former applicants: The list of metropolitan statistical areas has been updated from previous years. Please check your status using the enclosed list.)

(2) Some Metropolitan Statistical Areas on the list are extremely large. We have divided these areas into rural and urban census tracts. Appendix I provides a list of these large Metropolitan Statistical Areas and the rural census tracts in each area. If your central administrative headquarters is located within one of these census tracts, you are eligible for the two grant opportunities.

(If you are eligible under this criterion, you must list your county and census tract under item #5 on the face page of the application or your application will be returned. If you do not know your census tract, appendix II provides the telephone numbers for regional offices of the census bureau. You should call the appropriate office to determine your census tract.)

(3) Your organization is constituted exclusively to provide services to migrant and seasonal farmworkers in rural areas and is supported under Section 329 of the Public Health Service Act. These organizations are eligible regardless of the urban or rural location of their administrative headquarters.

In addition to the above criteria, applicants must be capable of receiving the grant funds directly and must have the capability to manage the project. This means that applicants must be able to exercise administrative and program direction over the grant project; must be responsible for hiring and managing the project staff; must have the administrative and accounting capabilities to manage the grant funds;

and must have some permanent staff at the time a grant award is made. Further, applicants must have an Employer Identification Number from the Internal Revenue Service at the time of the grant award and other proof of organizational viability that may be requested by the Grants Management Office.

Applicants from the 50 United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Territories of the Virgin Islands, Guam, American Samoa, the Compact of Free Association Jurisdiction of the Republic of the Marshall Islands, the Republic of Palau, and the Federated States of Micronesia are eligible to apply.

Applications That Do Not Meet the Requirements Stated Above Will Not Be Reviewed

Current Rural Health Services Outreach grantees may not apply for funds to support the same project. Any new proposal they submit must have a different focus from the project that is currently receiving support.

Preference Points

The authorizing legislation gives preference *for both programs* to applications from networks that include: (1) a majority of the health care providers serving in the area or region to be served by the network; (2) any federally qualified health centers, rural health clinics, and local public health departments serving in the area or region; (3) outpatient mental health providers serving in the area or region; (4) appropriate social service providers, such as agencies on aging, school systems, and providers under the women, infants and children program, to improve access to and coordination of health care services.

A total of 10 preference points will be added to the review score of each approved application that includes any of the above mentioned preferences, agencies, or providers. Applicants for either type of grant offered under this announcement are eligible to receive the preference points.

The HRSA hopes to achieve a geographic balance in making new awards under this announcement. Therefore, HRSA will consider geographic coverage when deciding which approved applications to fund. With respect to the Rural Network Development Grants only, HRSA will also consider the balance between grants to newly emerging networks where planning is the major activity, and grants to more advanced networks.

Other Information

For both types of grants, at least 50 percent of the funds awarded must be spent in rural areas or for the benefit of rural communities. Grant funds may not be used for purchase, construction or renovation of real property. The grants will not support projects that are solely for the purchase of equipment or vehicles.

Applicants are required to participate in the cost of grant supported projects. Cost participation may be in cash or in-kind. In-kind contributions might include donated staff time, donated space or equipment, donated vehicles, or other non-cash resources.

Applicants are advised that the entire application may not exceed 70 pages in length including the project and budget narratives, face page, all forms, appendices, attachments and letters of support. Each page of the application must be numbered consecutively. All applications must be computer generated or typewritten in print measuring at least 12 characters (scalable or nonscalable font) per inch and legible. Margins must be no less than 1 inch on the top and ½ inch on the bottom and left and right sides.

In order to allow the Office of Rural Health Policy to plan for the objective review process, applicants are encouraged to notify the Office in writing of their intent to apply and the program they are applying for. This notification serves to inform the Office of anticipated numbers of applications which may be submitted. The address is: Office of Rural Health Policy, Health Resources and Services Administration, Parklawn Building, Room 9–05, Rockville, Md., 20857, or Fax # 301/443–2803. If notification is offered, it should be received no later that February 15.

Smoke-free Workplaces

The PHS strongly encourages all grant recipients to provide a smoke-free workplace and promote the non-use of all tobacco products. In addition, Public Law 103–227, the Pro-Children Act of 1994, prohibits smoking in certain facilities (or in some cases, any portion of a facility) in which regular or routine education, library, day care, health care or early childhood development services are provided to children.

Public Health System Impact Statement

This program is subject to the Public Health System Reporting Requirements. Reporting requirements have been approved by the Office of Management and Budget—# 0937–0195. Under these requirements, the community-based nongovernmental applicant must prepare and submit a Public Health System Impact Statement (PHSIS). The PHSIS is intended to provide information to State and local health officials to keep them apprised of proposed health services grant applications submitted by community-based organizations within their jurisdictions.

Community-based non-governmental applicants are required to submit the following information to the head of the appropriate State and local health agencies in the area(s) to be impacted no later than the Federal application receipt due date:

a. A copy of the face page of the application (SF 424).

b. An abstract of the project not to exceed one page, which provides:

(1) A description of the population to be served;

(2) A summary of the services to be provided;

(3) A description of the coordination planned with the appropriate State or local health agencies.

Executive Order 12372

This grant program has been determined to be a program which is subject to the provisions of Executive Order 12372 concerning intergovernmental review of Federal programs by appropriate health planning agencies as implemented by 45 CFR part 100. Executive Order 12372 allows States the option of setting up a system for reviewing applications from within their States for assistance under certain Federal programs. Applicants (other than Federally-recognized Indian tribal governments) should contact their State Single Point of Contact (SPOCs), a list of which will be included in the application kit, as early as possible to alert them to the prospective applications and receive any necessary instructions on the State process. For proposed projects serving more than one State, the applicant is advised to contact the SPOC of each affected State. All SPOC recommendations should be submitted to Larry Poole, Office of Grants Management, Bureau of Primary Health Care, 4350 East West Highway, 11th Floor, Bethesda, Maryland 20814, (301)594–4260. The due date for State process recommendations is 60 days after the application deadline of March 31, 1997 for competing applications. The granting agency does not guarantee to ''accommodate or explain'' State process recommendations it receives after that date. (See Part 148 of the PHS Grants Administration Manual, Intergovernmental Review of PHS Programs under Executive Order 12372,

and 45 CFR Part 100 for a description of the review process and requirements.

Applicants are required to notify their State Office of Rural Health (or other appropriate State entity) of their intent to apply for this grant program and to consult with such agency regarding the content of the application. The State Office can provide information and technical assistance. A list of State Offices of Rural Health is included with the application kit.

(OMB Catalog of Federal Domestic Assistance Number is 93.912)

Dated: December 9, 1996.

Ciro V. Sumaya,

Administrator.

Appendix I

*Census tract numbers are shown *below* each county name.

To be eligible under criterion #2 your organization's central administrative headquarters must be located in one of the census tracks or block numbered areas that is listed below your county. *The county name and the census tract number must be included with the rest of your address in section #*5 on the face page form 424 of the application or your application will be returned.

STATE

County

Tract Number

ALABAMA
Baldwin
101–102
106
110
114–116
Mobile
59
62
66
72.02
Tuscaloosa
107
ARIZONA
Coconino
16–25
Maricopa
101
405.02
507
611
822.02
5228
7233
*Mohave**
See Below
Pima
44.05
48–49
Pinal
01–02
04–12
Yuma
105–107
110
112–113
115–116
CALIFORNIA
Butte
24–36
El Dorado
301.01–301.02
302–303
304.01–304.02
305.01–305.03
306
310–315
Fresno
40
63
64.01
64.03
65–68
71–74
78–83
84.01–84.02
Kern
33.01–33.02
34–37
40–50
51.01
52–54
55.01–55.02
56–61
63
Los Angeles
5990
5991
9001–9002
9004
9012.02
9100–9101
9108.02
9109–9110
9200.01
9201
9202
9203.03
9301
Madera
01.02–01.05
02–04
10
11.98
12.98
Merced
01–02
03.01
04
05.01–05.02
06–08
19.98
20
21.98
22
23.01
24.
24.75–24.98
Monterey
109
112–0113
114.01–0114.02
115
Placer
201.01–201.02
202–204
216–217
219–220
Riverside
421
427.02–427.03
429–432
444
452.02
453–455
456.01–456.02
457.01–457.02
458–462
San Bernardino
89.01–89.02
90.01–90.02
91.01–91.02
93–95
96.01–96.03
97.01
97.03–97.04
98–99
100.01–100.02
102.01–102.02
103
104.01–104.03
105–107
San Diego
189.01–189.02
190
191.01
208
209.01–209.02
210
212.01–212.02
213
San Joaquin
40
44–45
52.01–52.02
53.02–53.04
54–55
San Luis Obispo
100–106
107.01–107.02
108
114
118–122
124–126
127.01–127.02
Santa Barbara
18
19.03
Santa Clara
5117.04
5118
5125.01
5127
Shasta

This entire county, although located in a large city MSA, is eligible under the Rural Outreach Grant program criteria.

*This county is divided into Block Numbered Areas (BNA), not Census Tracts (CT). You must include the BNA or CT # in Section 5 of the PHS–5161 if you are eligible under this criteria.

126–127
1504
Sonoma
1506.04
1537.01
1541–1543
Stanislaus
01
02.01
32–35
36.05
37–38
39.01–39.02
Tulare
02–07
26
28
40
43–44
Ventura
01–02
46
75.01
COLORADO
Adams
84
85.13
87.01
El Paso
38
39.01
46
Larimer
14
17.02
19.02
20.01
22
Mesa
12
15
18
19
Pueblo
28.04
32
34
Weld
19.02
20
24
25.01–25.02
FLORIDA
Collier
111–114
Dade
115
Marion
02
04–05
27
Osceola
401.01–401.02
402.01–402.02
403.01–403.02
404
405.01–405.02
405.03
405.05
406
Palm Beach
79.01–79.02
80.01–80.02
81.01–81.02
82.01–82.02
82.03–83.01
83.02
Polk
125–127
142–144
152
154–161
KANSAS
Butler
201–205
209
LOUISIANA
Rapides
106
135–136
Terrebonne
122–123
MINNESOTA
Polk *
204–210
*9701–9704
St. Louis
105
112–114
121–135
137.01–137.02
138–139
141
151–155
Stearns
103
105–111
MONTANA
Cascade
105
Yellowstone
15–16
19
NEVADA
Clark
57–59
Washoe
31.04
32
33.01–33.04
34
NEW MEXICO
Dona Ana
14
19
Nye
See Below
Sandoval
101–104
105.01
Santa Fe
101–102
103.01
Valencia *
* 9701
* 9703–9706
* 9708
* 9711–9712
NEW YORK
Herkimer
101
105.02
107–109
110.01–110.02
111–112
113.01
NORTH DAKOTA
Burleigh
114–115
Grand Forks
114–116
118
Morton
205
OKLAHOMA
Osage
103–108
OREGON
Clackamas
235–236
239–241
243
Jackson
24
27
Lane
01
05
07.01–07.02
08
13–16
PENNSYLVANIA
Lycoming
101–102
SOUTH DAKOTA
Pennington
116–117
TEXAS
Bexar
1720
1821
1916
Brazoria
606
609–619
620.01–620.02
621–624
625.01–625.03
626.01–626.02
627–632
Harris
354
544
546
Hidalgo
223–228
230–231
243
WASHINGTON
Benton
116–120
Franklin
208
King
327–328
330–331
Snohomish

532
536–538
Spokane
101–102
103.01–103.02
133
138
143
Whatcom
110
Yakima
18–26
WISCONSIN
Douglas
303
Marathon
17–18
20–23
WYOMING
Laramie
16–18

Appendix II

Bureau of the Census regional information service.

Atlanta, GA, 404–730–3957
Alabama, Florida, Georgia
Boston, MA, 617–424–0510
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Upstate New York
Charlotte, NC, 704–344–6144
Kentucky, North Carolina, South Carolina, Tennessee, Virginia
Chicago, IL, 708–562–1350
Illinois, Indiana, Wisconsin
Dallas, TX, 214–640–4470
Louisiana, Mississippi, Texas
Denver, CO, 303–969–7750
Arizona, Colorado, Nebraska, New Mexico, North Dakota, South Dakota, Utah, Wyoming
Detroit, MI, 313–259–1875
Michigan, Ohio, West Virginia
Kansas City, KS, 913–551–6711
Arkansas, Iowa, Kansas, Minnesota, Missouri, New Mexico, Oklahoma
Los Angeles, CA, 818–904–6339
California
Philadelphia, PA, 215–597–8313
Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania
Seattle, WA, 206–728–5314
Idaho, Montana, Nevada, Oregon, Washington

[FR Doc. 96–31748 Filed 12–12–96; 8:45 am]
BILLING CODE 4160–15–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–4086–N–75]

Submission for OMB Review: Comment Request

AGENCY: Office of Administration, HUD.

ACTION: Notice.

SUMMARY: The proposed information collection requirement described below has been 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; January 13, 1997.

ADDRESS: Interested persons are invited to submit comments regarding this proposal. Comments must be received within thirty (30) days from the date of this Notice. Comments should refer to the proposal by name and/or OMB approval number and should be sent to: Joseph F. Lackey, Jr., OMB Desk Officer, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Kay F. Weaver, Reports Management Officer, Department of Housing and Urban Development, 451 7th Street, Southwest, Washington, DC 20410, telephone (202) 708–0050. This is not a toll-free number. Copies of the proposed forms and other available documents submitted to OMB may be obtained from Ms. Weaver.

SUPPLEMENTARY INFORMATION: The Department has submitted the proposal for the collection of information, as described below, to OMB for review, as required by the Paperwork Reduction Act (44 U.S.C. Chapter 35).

The Notice lists the following information: (1) the title of the information collection proposal; (2) the office of the agency to collect the information; (3) the OMB approval number, if applicable; (4) the description of the need for the information and its proposed use; (5) the agency form number, if applicable; (6) what members of the public will be affected by the proposal; (7) how frequently information submissions will be required; (8) an estimate of the total number of hours needed to prepare the information submission including number of respondents, frequency of response, and hours of response; (9) whether the proposal is new, an extension, reinstatement, or revision of an information collection requirement; and (10) the names and telephone numbers of an agency official familiar with the proposal and of the OMB Desk Officer for the Department.

Authority: Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. 35, as amended.

Dated: November 5, 1996.

David S. Cristy,

Acting Director, Information Resources, Management Policy and Management Division.

Notice of Submission of Proposed Information Collection to OMB

Title of Proposal: Report of Tenants Accounts Receivable (TARS)—Indian Housing Program.

Office: Public and Indian Housing.

OMB Approval Number: None.

Description of the Need for the Information and its Proposed Use: Indian Housing Authorities (IHAs) prepare information on tenant accounts for each Annual Contributions Contract (ACC) executed. This information is submitted to HUD. HUD uses the information to monitor the effectiveness of rent collection procedures employed by IHAs. HUD will also input the data into the Management Information Retrieval System (MIRS).

Form Number: HUD–53020.

Respondents: State, Local, or Tribal Government.

Frequency of Submission: Annually, Semi-annually, or On Occasion.

Reporting Burden:

	Number of respondents	×	Frequency of response	×	Hours per response	=	Burden hours
HUD–53020	189		1–4.5		2		1,198

Total Estimated Burden Hours: 1,198.

Status: New.

Contact: Jo Ann Teiken, HUD, (202) 755–0088 x131; Joseph F. Lackey, Jr., OMB, (202) 395–7316.

Dated: November 5, 1996.

[FR Doc. 96–31735 Filed 12–12–96; 8:45 am]
BILLING CODE 4210–01–M

[Docket No. FR–4086–N–76]

Submission for OMB Review: Comment Request

AGENCY: Office of Administration, HUD.

ACTION: Notice.

SUMMARY: The proposed information collection requirement described below has been 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: January 13, 1997.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments must be received within thirty (30) days from the date of this Notice. Comments should refer to the proposal by name and/or OMB approval number and should be sent to: Joseph F. Lackey, Jr., OMB Desk Officer, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Kay F. Weaver, Reports Management Officer, Department of Housing and Urban Development, 451 7th Street, Southwest, Washington, DC 20410, telephone (202) 708–0050. This is not a toll-free number. Copies of the proposed forms and other available documents submitted to OMB may be obtained from Ms. Weaver.

SUPPLEMENTARY INFORMATION: The Department has submitted the proposal for the collection of information, as described below, to OMB for review, as required by the Paperwork Reduction Act (44 U.S.C. Chapter 35).

The Notice lists the following information: (1) The title of the information collection proposal; (2) the office of the agency to collect the information; (3) the OMB approval number, if applicable; (4) the description of the need for the information and its proposed use; (5) the agency form number, if applicable; (6) what members of the public will be affected by the proposal; (7) how frequently information submissions will be required; (8) an estimate of the total number of hours needed to prepare the information submission including number of respondents, frequency of response, and hours of response; (9) whether the proposal is new, an extension, reinstatement, or revision of an information collection requirement; and (10) the names and telephone numbers of an agency official familiar with the proposal and of the OMB Desk Officer for the Department.

Authority: Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. 35, as amended.

Dated: November 5, 1996.

David S. Cristy,

Acting Director, Information Resources, Management Policy and Management Division.

Notice of Submission of Proposed Information Collection to OMB

Title of Proposal: Application Requirements for Indian HOME Program (FR–2880).

Office: Public and Indian Housing.

OMB Approval Number: 2577–0191.

Description of the Need for the Information and Its Proposed Use: The information collected is required by the HOME Investment Partnerships Act. Indian Tribes, including Alaska Indians, Aleuts, and Eskimos, and any Alaskan Native Village of the U.S. (eligible applicants) will submit an application, certifications, a narrative, and supporting documentation that are responsive to selection criteria. The information provided to HUD will be reviewed and evaluated against rating criteria for possible grant funding.

Form Number: HUD–4121, HUD–4122, HUD–4123, HUD–4125, and HUD–4126.

Respondents: State, Local, or Tribal Governments.

Frequency of Submission: Annually and on Occasion.

Reporting Burden:

	Number of respondents	×	Frequency of response	×	Hours per response	=	Burden hours
HOME Program	80		1		40		3,200
ICDBG Program	220		1		40		8,800

Total Estimated Burden Hours: 12,000.

Status: Reinstatement, without changes.

Contact: David Pass, HUD, (202) 755–0102 x119; Joseph F. Lackey, Jr., OMB, (202) 395–7316.

Dated: November 5, 1996.

[FR Doc. 96–31736 Filed 12–12–96; 8:45 am]

BILLING CODE 4210–01–M

[Docket No. FR–4124–N–16]

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 7256, Department of Housing and Urban Development, 451 Seventh Street SW, Washington, DC 20410; telephone (202) 708–1226; TDD 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. Homeless

assistance providers interested in any such property should send a written expression of interest to HHS, addressed to Brian Rooney, 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: Ms. Barbara Jenkins, Air Force Real Estate Agency, (Area-MI), Bolling Air Force Base, 112 Luke Avenue, Suite 104, Building 5683, Washington, DC 20332–8020; (202) 767–4184; GSA: Mr. Brian K. Polly, Assistant Commissioner, General Services Administration, Office of Property Disposal, 18th and F Streets, NW, Washington, DC 20405; (202) 501–2059; Navy: Mr. John J. Kane, Deputy Division Director, Department of the Navy, Real Estate Operations, Naval Facilities Engineering Command, Code 241A, 200 Stovall Street, Alexandria, VA 22332–2300; (703) 325–0474; Transportation: Mr. Crawford F. Grigg, Director, Space Management, SVC–140, Transportation Administrative Service Center, Department of Transportation, 400 7th Street, SW, Room 2310, Washington, DC 20590; (202) 366–4246; (These are not toll-free numbers).

Dated: December 6, 1996.

Jacquie M. Lawing,

Deputy Assistant Secretary for Economic Development.

Title V, Federal Surplus Property Program Federal Register Report For 12/13/96

Suitable/Available Properties

Buildings (by State)

Hawaii

Bldg. S180
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640039
Status: Unutilized
Comment: 3412 sq. ft., 2-story, most recent use—bomb shelter, off-site use only, relocation may not be feasible.

Bldg. S181
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640040
Status: Unutilized
Comment: 4258 sq. ft., 1-story, most recent use—bomb shelter, off-site use only, relocation may not be feasible.

Bldg. 219
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640041
Status: Unutilized
Comment: 620 sq. ft., most recent use—damage control, off-site use only, relocation may not be feasible.

Bldg. 220
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640042
Status: Unutilized
Comment: 620 sq. ft., most recent use—damage control, off-site use only, relocation may not be feasible.

Bldg. 222
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640043
Status: Unutilized
Comment: 620 sq. ft., most recent use—damage control, off-site use only, relocation may not be feasible.

Kansas

Federal Office Building
400 Houston Street
Manhattan Co: Riley, KS 66502–
Landholding Agency: GSA
Property Number: 549640014
Status: Underutilized
Comment: portion of 11398 sq. ft. bldg., 1½ story w/basement, most recent use—office/storage.
GSA Number: 7–G–KS–0519

Maine

51 Housing Units w/garages
Charleston Family Housing Complex
Maxwell Lane & Randolph Drive
Bangor Co: Penobscot, ME 04401–
Landholding Agency: GSA
Property Number: 549640012
Status: Excess
Comment: 1300 sq. ft. each, 1-story.
GSA Number: 1–D–ME–526H

Michigan

Seul Choix Point Light
Gulliver Co: Schoolcraft, MI 49840–
Landholding Agency: GSA
Property Number: 549640005
Status: Excess
Comment: 1000 sq. ft. lighthouse, lease with Gulliver Historical Society thru Dec. 2009.
GSA Number: 1–U–MI–679A

Texas

Bldg. 110
Fort Crockett/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630006
Status: Unutilized
Comment: 500 sq. ft., most recent use—garage, historic properties.

Bldg. 109
Fort Crockett/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630007
Status: Unutilized
Comment: 2880 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 428
Fort Crockett/53rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630009
Status: Unutilized
Comment: 2700 sq. ft., most recent use—warehouse/office, historic properties.

Bldg. 433
Fort Crockett/53rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630010
Status: Unutilized
Comment: 1632 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 439
Fort Crockett/53rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630011
Status: Unutilized
Comment: 1632 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 440
Fort Crockett/53rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630012
Status: Unutilized

Comment: 1632 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 441
Fort Crockett/53rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630013
Status: Unutilized
Comment: 1632 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 442
Fort Crockett/53rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630014
Status: Unutilized
Comment: 1632 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 106
Fort Crockett/Seawall Blvd. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630015
Status: Unutilized
Comment: 2000 sq. ft., most recent use—garage, historic properties.

Bldg. 105
Fort Crockett/Seawall Blvd. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630016
Status: Unutilized
Comment: 1634 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 104
Fort Crockett/Seawall Blvd. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630017
Status: Unutilized
Comment: 1634 sq. ft. per floor, most recent use—residential, historic properties.

Bldg. 103
Fort Crockett/Seawall Blvd. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630018
Status: Unutilized
Comment: 1634 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 102
Fort Crockett/Seawall Blvd. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630019
Status: Unutilized
Comment: 1634 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Virginia

Bldg. 1470
509 King Street
Portsmouth, VA 23704–
Landholding Agency: Navy
Property Number: 779640044
Status: Unutilized
Comment: 21445 sq. ft., 3-story.

Land (by State)

Maine

Irish Ridge NEXRAD Site
Loring AFB
Fort Fairfield Co: Aroostook, ME 04742–
Landholding Agency: Air Force
Property Number: 189640017
Status: Unutilized
Comment: 3.491 acres in fee simple.

Patten Communications Site
Loring AFB
Stacyville Co: Herseytown ME 04742–
Landholding Agency: Air Force
Property Number: 189640018
Status: Unutilized
Comment: 19.3 acres in fee simple plus access easements.

Texas

Fort Hood Training Area
Ft. Hood Co: Coryell, TX
Landholding Agency: GSA
Property Number: 549640004
Status: Excess
Comment: 4.808 acres, most recent use—training area.
GSA Number: 7–D–TX–496–CG.

Suitable/Unavailable Properties

Buildings (by State)

Texas

Bldg. 115
Fort Crockett/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630001
Status: Unutilized
Comment: 500 sq. ft., most recent use—garage, historic properties.

Bldg. 114
Fort Crocket/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630002
Status: Unutilized
Comment: 3150 sq. ft. per floor, 2-story, most recent use—residence, historic properties.

Bldg. 113
Fort Crocket/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630003
Status: Unutilized
Comment: 200 sq. ft., most recent use—garage, historic properties.

Bldg. 112
Fort Crocket/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630004
Status: Unutilized
Comment: 2880 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

Bldg. 111
Fort Crocket/43rd St. Housing
Galveston Co: Galveston, TX 77553–
Landholding Agency: DOT
Property Number: 879630005
Status: Unutilized
Comment: 2880 sq. ft. per floor, 2-story, most recent use—residential, historic properties.

West Virginia

Ravenswood Public Access Site
No. 2, 4, 6 Washington Street South
Ravenswood Co: Jackson, WV 26164–
Landholding Agency: GSA
Property Number: 549640013
Status: Excess
Comment: 3 bldgs., most recent use—senior citizens center, museum, residence, preservation restrictions, subject to lease.
GSA Number: 4–D–WV–526

Unsuitable Properties

Buildings (by State)

California

National Weather Service Ofc.
Kern County Airport
Bakersfield Co: Kern, CA
Landholding Agency: GSA
Property Number: 549640011
Status: Excess
Reason: Within airport runway clear zone.
GSA Number: 9–C–CA–1481

Hawaii

Bldg. 4
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640030
Status: Unutilized
Reason: Extensive deterioration.

Bldg. 190
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640031
Status: Unutilized
Reason: Extensive deterioration.

Bldg. 310
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640032
Status: Unutilized
Reason: Extensive deterioration.

Bldg. S294
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640033
Status: Unutilized
Reason: Extensive deterioration.

Bldg. 593
Naval Station, Halawa Landing Area
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640034
Status: Unutilized
Reason: Extensive deterioration.

Bldg. Q13
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640035
Status: Unutilized
Reason: Extensive deterioration.

Bldg. Q14
Naval Station, Ford Island
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640036
Status: Unutilized
Reason: Extensive deterioration.

Bldg. 591
Naval Station, Halawa Landing Area
Pearl Harbor Co: Honolulu, HI 96860–
Landholding Agency: Navy
Property Number: 779640037
Status: Unutilized
Reason: Extensive deterioration.

Bldg. 592
Naval Station, Halawa Landing Area
Pearl Harbor Co: Honolulu, HI 96860–

Landholding Agency: Navy
Property Number: 779640038
Status: Unutilized
Reason: Extensive deterioration.

North Carolina

Bldg. 94, Coast Guard
Elizabeth City Co: Pasquotank, NC 27909–
Landholding Agency: DOT
Property Number: 879640004
Status: Unutilized
Reason: Secured Area.

[FR Doc. 96–31564 Filed 12–12–96; 8:45 am]

BILLING CODE 4210–29–M

[Docket No. FR–4190–D–01]

Order of Succession

AGENCY: Office of the Assistant Secretary for Fair Housing and Equal Opportunity (FHEO), HUD.

ACTION: Notice of order of succession for the Assistant Secretary for Fair Housing and Equal Opportunity.

SUMMARY: In this notice, the Assistant Secretary for Fair Housing and Equal Opportunity designates the Order of Succession for the position of Assistant Secretary for FHEO, and revokes the prior Order of Succession for this position.

EFFECTIVE DATE: November 12, 1996.

FOR FURTHER INFORMATION CONTACT: Dianne D. Taylor, Administrative Officer, Office of Fair Housing and Equal Opportunity, Administrative Support and Training Division, Department of Housing and Urban Development, 451 7th Street, SW, Room 5124, Washington, DC 20410–2000; telephone (202) 708–2701. [This is not a toll-free number]. A telecommunication device for hearing impaired persons (TDD) is available at 1–800–543–8294.

SUPPLEMENTARY INFORMATION: In this document, the Assistant Secretary for Fair Housing and Equal Opportunity is issuing the Order of Succession of officials authorized to serve as Acting Assistant Secretary for FHEO when, by reason of absence, disability, or vacancy in office, the Assistant Secretary for FHEO is not available to exercise the powers or perform the duties of the Office. This revised Order of Succession is being issued due to a reorganization of the Office of the Assistant Secretary for FHEO.

Accordingly, the Assistant Secretary for FHEO designates the following officials in the order specified to act for and assume the powers of the Assistant Secretary for FHEO;

Section A. Order of Succession

During any period when, by reason of absence, disability, or vacancy in office, the Assistant Secretary for Fair Housing and Equal Opportunity is not available to exercise the powers or perform the duties of the Office of the Assistant Secretary for FHEO, the following are hereby designated to serve as Acting Assistant Secretary for FHEO;

(1) Deputy Assistant Secretary for Enforcement and Investigations;

(2) Deputy Assistant Secretary for Program Operations and Compliance;

(3) Deputy Assistant Secretary for Operations and Management;

(4) Office of Policy & Regulatory Initiatives Director

(5) Director, Office of Investigations;

(6) Director, Office of Program Operations and Evaluation;

(7) Director, Office of Fair Housing Assistance and Voluntary Programs;

(8) Director, Office of Management and Field Coordination;

(9) Director, Office of Program Compliance and Disability Rights;

Section B. Authority Revoked

The Order of Succession of the Assistant Secretary for FHEO, published in the Federal Register on April 15, 1995, at 58 FR 7809, is hereby revoked.

Authority: Sec. 7(d) Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

Dated: November 12, 1996.

Elizabeth K. Julian,

Assistant Secretary for Fair Housing and Equal Opportunity.

[FR Doc. 96–31640 Filed 12–12–96; 8:45 am]

BILLING CODE 4210–28–M

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Notice of Intent To Prepare a Comprehensive Management Plan and Associated Environmental Document

SUMMARY: This notice advises the public that the U.S. Fish and Wildlife Service (Service) intends to gather information necessary to prepare a Comprehensive Management Plan (CMP) and an environmental document (environmental assessment or environmental impact statement) for Little Pend Oreille National Wildlife Refuge, Stevens County, Washington. The Service is furnishing this notice in compliance with service CMP policy and the National Environmental Policy Act (NEPA) and implementing regulations: (1) To advise other agencies and the public of our intentions, and (2) to obtain suggestions and information on the scope of issues to include in the environmental document.

DATES: Written comments should be received on or before January 13, 1997.

ADDRESSES: Address comments and requests for more information to: Refuge Manager, Little Pend Oreille National Wildlife Refuge, 1310 Bear Creek Road, Colville, Washington 99114.

SUPPLEMENTARY INFORMATION: The Service started the comprehensive management planning process for Little Pend Oreille National Wildlife Refuge (Little Pend Oreille NWR) in 1995. We held open houses at the Refuge headquarters in July and October 1995, and a public meeting in Colville, Washington in October 1995. We recorded issues and concerns expressed by people at these gatherings and have also received written comments. The Service informed people of the open houses and meeting through special mailings, newspaper articles, and radio announcements. Comments received to date will be considered in the development of the CMP and NEPA documentation.

It is U.S. Fish and Wildlife Service policy to have all lands within the National Wildlife Refuge System managed in accordance with an approved CMP. The CMP guides management decisions and identifies refuge goals, long-range objectives, and strategies for achieving refuge purposes. Public input into this planning process is encouraged. The CMP will provide other agencies and the public with a clear understanding of the desired conditions for the Refuge and how the Service will implement management strategies.

Established in 1939, the Service managed Little Pend Oreille NWR until 1965, when the Washington Department of Fish and Wildlife assumed management through a cooperative agreement. In 1994, the Service resumed management. We need a CMP because no formal, long-term management direction exists for managing Little Pend Oreille NWR. Until the CMP is completed, Refuge management will be guided by official Refuge purposes; Executive Order 8104; Federal legislation regarding management of national wildlife refuges; and other legal, regulatory and policy guidance.

Upon implementation, the CMP would apply only to Federal lands within the boundaries of Little Pend Oreille NWR. Issues to be addressed in the plan include grazing, pests including noxious weeds, degraded aquatic and riparian habitats, overstocked forest habitats, Air Force Survival School training, and public uses. The plan will include the following topics:

(a) Habitat management, including management of forest, riparian areas, water courses, reservoirs, wetlands, old farm fields, and meadows;

(b) Wildlife population management, including federally-listed endangered and threatened species, migratory birds, and native mammals and fish;

(c) Public use management, including hunting, fishing, trapping, wildlife observation and photography, environmental education, camping, horseback riding, mountain-bike riding, and snowmobiling;

(d) Cultural resource identification and protection; and

(e) Management of other special uses including military training.

Alternatives that address the issues and management strategies associated with these topics will be included in the environmental document.

We have evaluated and grouped concerns, issues, and opportunities identified by various publics to date in the following categories: Wildlife, wildlife habitat, recreation, and Air Force training. With the publication of this notice, the public is encouraged to send written comments on these and other issues, courses of action that the Service should consider, and potential impacts that could result from CMP implementation on Little Pend Oreille NWR. Comments already received are on record and need not be resubmitted.

The environmental review of this project will be conducted in accordance with the requirements of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), NEPA Regulations (40 CFR 1500–1508), other appropriate Federal laws and regulations, Executive Order 12996, and Service policies and procedures for compliance with those regulations.

We estimate that the draft environmental document will be available by October 1997.

Dated: December 6, 1996.

John H. Doebel,

Acting Regional Director, Region 1, Portland, Oregon.

[FR Doc. 96–31679 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–55–M

Bureau of Land Management

[AZ–930–07–1020–00]

Notice of Availability of the Finding of No Significant Impact and Supporting Environmental Assessment Involving the Proposed Statement Plan Amendment of Land Use Plans in Arizona for Implementation of Arizona Standards for Rangeland Health and Guidelines for Grazing Administration

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of availability

SUMMARY: In accordance with Section 202 of the National Environmental Policy Act of 1969, an environmental assessment (EA) on the proposed Statewide Plan Amendment for Implementation of Arizona Standards and Guidelines has been prepared. The Proposed Action would amend Arizona BLM land use plans (Resource Management Plans, Management Framework Plans and amendments) containing decisions which conflict with the Proposed Arizona Standards and Guidelines.

The EA was written to assess the impacts associated with changing land use plan decisions. The revised decisions will bring the affected plans and Arizona Standards and Guidelines into conformance. Based on the analysis of potential environmental impacts completed to this point, a Finding of No Significant Impact (FONSI) is anticipated.

DATES: Comments on the preliminary FONSI, supporting EA involving the proposed Statewide Plan Amendment for Implementation of Arizona Standards and Guidelines, and the Proposed Arizona Standards and Guidelines will be taken for the next 30 days and must be postmarked by January 13, 1997.

ADDRESSES: Comments on this action are to be sent to Ken Mahoney, Standards and Guidelines Team Leader, Bureau of Land Management, Arizona State Office, 222 North Central Avenue, Phoenix, Arizona 85004.

FOR FURTHER INFORMATION CONTACT: Ken Mahoney, Team Leader, Arizona State Office, 222 North Central Avenue, Phoenix, Arizona 85004, Telephone: (602) 417–9238.

SUPPLEMENTARY INFORMATION: Three alternatives are considered in the EA. The no action alternative (continuation of current management) provides a baseline for comparison with other alternatives. The Proposed Action is to change land use plan decisions which conflict with the Proposed Arizona Standards and Guidelines. This action affects the Safford and Yuma Resource Management Plans. Alternative A analyzes the effects of decision changes as a result of adopting the Fallback Standards and Guidelines contained in 43 CFR 4100. Alternative A affects the Arizona Strip, Safford, and Yuma Resource Management Plans.

Proposed Arizona Standards and Guidelines were developed in partnership with the Arizona Resource Advisory Council and with other public input.

Other Relevant Information

Once the comments are evaluated and appropriate modifications made, the Proposed Plan Amendment, FONSI, and supporting EA will be sent out for a 30-day protest period as required by BLM planning regulations (43 1610.5–2). A future Notice of Availability will be published initiating that protest period.

Copies of the Arizona Strip District, Safford District, and Yuma District Resource Management Plans and the land use plan conformance document can be reviewed in the Public Rooms of the BLM Offices listed:

Arizona State Office, 222 North Central Avenue, Phoenix, Arizona 85004
Arizona Strip Field Office, 345 East Riverside Drive, St. George, Utah 84790
Kingman Field Office, 2475 Beverly Avenue, Kingman, Arizona 86401
Lake Havasu Field Office, 2610 Sweetwater Avenue, Lake Havasu City, Arizona 86406
Phoenix Field Office, 2015 West Deer Valley Road, Phoenix, Arizona 85027
Safford Field Office, 711 14th Avenue, Safford, Arizona 85546
Tucson Field Office, 12661 East Broadway, Tucson, Arizona 85748
Yuma Field Office, 2555 Gila Ridge Road, Yuma, Arizona 85365–2240

Public Input Requested

Comments on the alternatives and the adequacy of the impact analyses. Comments are most useful when they address one or more of the following:

—Errors in the analysis;
—New information that would have a bearing on the analysis;
—Misinformation that could affect the outcome of the analysis;
—Requests for clarification;
—A substantive new alternative whose mix of allocations differs from any of the existing alternatives.

Michael A. Ferguson,

Deputy State Director, Resources Division.

[FR Doc. 96–31678 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–32–M

Intent To Prepare Environmental Impact Statement

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of intent to prepare an Environmental Impact Statement (EIS) for a mining Plan of Operations (POO) amendment for the Pegasus Gold Corporation, Florida Canyon Mine expansion project (Amendment #10), Pershing County, Nevada, and; notice of scoping period and public meetings.

SUMMARY: Pursuant to section 102(2)(c) of the National Environmental Policy Act of 1969 and, and title 43 of the Code of Federal Regulations, subpart 3809, the Bureau of Land Management (BLM) will be directing the preparation of an EIS for the proposed development of a mine in Pershing County, Nevada. The EIS will be prepared by contract and funded by the Pegasus Gold Corporation, Florida Canyon Mining Incorporated (FCMI). Public meetings will be held to identify issues to be addressed in the EIS, and to encourage public participation in the review process. Representatives of the BLM and FCMI will be summarizing the POO and accepting comments from the audience. The BLM invites comments and suggestions on the scope of the analysis.

DATES: Two scoping meetings will be held. The first is on Tuesday, January 7, 1997 at the Pershing County Community Center, 820 6th St., Lovelock, Nevada. The second will be Wednesday, January 8, 1997, at the Winnemucca Field Office of the BLM, 5100 E. Winnemucca Blvd., Winnemucca, Nevada. Both meetings are scheduled to run from 7–9 p.m. Written comments on the POO and scope of the EIS will be accepted until the close of business, January 24, 1997. The Draft EIS is expected to be completed by July of 1997, when the document will be made available for public review and comment.

ADDRESSES: Scoping comments may be sent to: District Manager, Winnemucca Field Office BLM, 5100 E. Winnemucca Blvd., Winnemucca, NV 89445, Attn: Ken Loda, Florida Canyon Project NEPA Coordinator.

FOR FURTHER INFORMATION CONTACT: Ken Loda, Winnemucca Field Office BLM, 5100 E. Winnemucca Blvd., Winnemucca NV 89445, phone (702) 623–1500.

SUPPLEMENTARY INFORMATION: This EIS will address the issues of geology, minerals, soils, water resources, vegetation, wildlife, grazing management, air quality, aesthetic resources, cultural resources, ethnographic concerns, paleontologic resources, land use, access, recreation, social and economic values related to project development.

FCMI has been operating the Florida Canyon Mine, an open-pit gold mine, since 1986. The Florida Canyon Mine is located on public and private lands adjacent to Interstate Highway 80, in Pershing County, Nevada, approximately 35 miles northeast of Lovelock and approximately 42 miles southwest of Winnemucca, Nevada.

Florida Canyon Mine uses conventional open pit mining methods including drilling, blasting, loading, and hauling. Production is currently at approximately 13.7 million tons of ore per year. A portion is crushed, agglomerated and conveyed to a single heap leach pad. The remainder is run-of-mine ore, hauled directly to the heap leach pad by trucks. Waste rock is delivered to waste dumps, or backfilled into portions of the mined out pit. Processing includes both a Merrill-Crowe plant and two carbon adsorption circuits. There are approximately 3,157 acres contained within the current plan boundary. Under current authorization, the existing operation will continue mining through 1997.

Proposed operations would require a plan boundary expansion of 2,362 acres, bringing the area within the total plan boundary to approximately 5,519 acres. Approximately 637 acres would be disturbed by this proposal, of which 466 acres is BLM-administered public land. Upon approval of this expansion proposal, mining would continue through 2002 at approximately the current level of production. The proposed dump expansion would require 304 acres to accommodate an additional 117 million tons of waste rock and up to 30 million tons of run-of-mine stockpile.

A conveyor corridor is proposed to move crushed ore from the existing crusher site to the new leach pad. An additional crusher would be installed near the proposed leach pad or the existing crusher would be relocated near that leach pad. The proposed leach pad is sized to hold 64 million tons of ore and the total lined pad area is approximately 203 acres. A new process plant would be located near the proposed leach pad. A carbon adsorption circuit with associated ponds and a solution corridor from the existing solution ponds to the new solution ponds is proposed. Other ancillary proposed actions include rerouting one public access road, relocating two stock water tanks, re-directing drainages, and constructing sediment ponds.

The mine would continue to be a zero discharge facility. An annual consumptive use of 2,000 acre feet of fresh water is anticipated. The Florida Canyon Project area contains three major drainages: Florida Canyon, Johnson Canyon, and Black Canyon. In addition, numerous unnamed drainages occur throughout the area. Surface water within the project area is limited to ephemeral streams resulting from snow-melt, precipitation events, and variations in local geology. All ephemeral drainages within the project area drain west toward the Humboldt River and Rye Patch Reservoir, located approximately three miles west of the proposed project area.

The reclamation plan includes re-contouring slopes where needed and covering with a minimum of one foot of suitable plant growth medium, then fertilization and seeding. Detoxification of FCMI's heap leach facilities would be accomplished through natural degradation (volatilization) of cyanide and trace metal recovery by conventional Merrill-Crowe and/or carbon adsorption or other suitable technology. Buildings, process structures, and other equipment would be removed from the site at the end of mining. Foundations would be buried in place prior to growth medium application and revegetation. Equipment, electrical and instrumentation, piping, miscellaneous fencing, and mobile trailers would also be removed from the site or returned to local vendors.

The main issue identified thus far in the project expansion is visual impact due to the proximity of Interstate 80.

Federal, state, and local agencies and other individuals or organizations who may be interested in or affected by the BLM's decision on the POO are invited to participate in the scoping process. The Authorized Officer will respond to public input and comment as part of the final EIS. The decision regarding the proposal will be recorded as a Record of Decision, which is subject to appeal under 43 CFR part 4.

Dated: November 26, 1996.

Ron Wenker,

District Manager, Winnemucca.

[FR Doc. 96–31635 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–HC–P

[NV–050–1020–001]

Mojave-Southern Great Basin Resource Advisory Council; Notice of Meeting Locations and Times

AGENCY: Bureau of Land Management, Interior.

ACTION: Resource Advisory Council Meeting Locations and Times.

SUMMARY: In accordance with the Federal Land Policy and Management Act and the Federal Advisory Committee Act of 1972 (FACA), 5 U.S.C., the Department of the Interior, Bureau of Land Management (BLM), council meeting of the Mojave-Southern Great Basin Resource Advisory Council will be held as indicated below. The agenda includes a public comment period, discussion of laws and regulations that pertain to grazing, and an update of standards and guidelines.

All meetings are open to the public. The public may present written comments to the council. Each formal council meeting will have a time allocated for hearing public comments. The public comment period for the council meeting is listed below. Depending of the number of persons wishing to comment, and time available, the time for individual oral comments may be limited. Individuals who plan to attend and need further information about the meetings, or need special assistance such as sign language interpretation or other reasonable accommodations, should contact Michael Dwyer at the Las Vegas District Office, 4765 Vegas Dr., Las Vegas, NV 89108, telephone, (702) 647–5000.

DATES, TIMES: Date is January 8, 1997 from 8:30 a.m. to approximately 4:30 p.m. The council will meet at the BLM Las Vegas District Office, located at 4765 Vegas Dr., Las Vegas, NV 89108. The public comment period will begin at 3 p.m.

SUPPLEMENTARY INFORMATION: The purpose of the council is to advise the Secretary of the Interior, through the BLM, on a variety of planning and management issues associated with the management of the public lands.

FOR FURTHER INFORMATION CONTACT: Lorraine Buck, Public Affairs Specialist, Las Vegas District, telephone: (702) 647–5000.

Dated: December 9, 1996.

Michael F. Dwyer,

District Manager.

[FR Doc. 96–31630 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–HC–M

(CO–030–07–1820–00–1784)

Colorado Resource Advisory Council Meetings

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice; Resource Advisory Council meetings.

SUMMARY: In accordance with the Federal Advisory Committee Act (5 USC), notice is hereby given that the Southwest, Northwest, and Front Range Resource Advisory Councils (RACs) will hold a joint meeting on Thursday, January 9, 1997, at the Bureau of Land Management (BLM) Colorado State Office, 2850 Youngfield, Lakewood, Colorado.

In addition to the joint RAC meeting, each RAC will also be holding individual meetings at BLM's Colorado State Office: the Southwest RAC will meet on January 9 and 10, 1997, and the Northwest and Front Range RACs will meet on January 10, 1997.

The Front Range RAC meeting originally scheduled for January 16, 1997, in Canon City, Colorado, has been cancelled.

DATES: The joint RAC meeting is scheduled for Thursday afternoon, January 9, 1997. The Southwest RAC meeting is scheduled for the morning of Thursday, January 9, 1997, and the morning of Friday, January 10, 1997. The Northwest and Front Range RAC meetings are scheduled for the morning of Friday, January 10, 1997.

ADDRESSES: For additional information on the joint RAC meeting or the Southwest RAC, contact Roger Alexander at 970–240–5335 (TDD 970–240–5366). For information about the Northwest RAC, contact Lynda Boody at 970–244–3000 (TDD 970–244–3011). For information about the Front Range RAC, contact Ken Smith at 719–269–8553 (TDD 719–269–8597).

SUPPLEMENTARY INFORMATION: The joint RAC meeting on January 9, 1997, will begin at 1:00 pm in the 4th floor conference room in the BLM Colorado State Office, 2850 Youngfield, Lakewood, Colorado (at the I–70/32nd Street exit). The agenda will include general information sharing and summaries of current issues and areas of concerns by each RAC, guest speakers (subject to availability), and public comments. The meeting is scheduled to end at 5:00 pm.

The Southwest RAC meeting will begin at 9:00 am, Thursday, January 9, 1997, and recess at 12:00 noon. The meeting will be held in one of the conference rooms at BLM's Colorado State Office, and the agenda will focus on user fees and recreation management. The Southwest RAC meeting will reconvene at 9:00 am, Friday, January 10, 1997 and end at 12:00 noon.

The Northwest RAC meeting will begin at 8:00 am, Friday, January 10, 1997, and end at 12:00 noon. The meeting will be held in one of the conference rooms at BLM's Colorado State Office, and the Northwest RAC will break out into three subgroups to discuss prescribed fire management, recreation management, and land exchanges.

The Front Range RAC meeting will begin at 8:30 am, Friday, January 10, 1997, and end at 2:30 pm. The meeting will be held in one of the conference rooms at BLM's Colorado State Office, and the agenda will focus on developing recreation guidelines.

All Resource Advisory Council meetings are open to the public. Interested persons may make oral statements to the Council, or written statements may be submitted for the Council's consideration. Depending on the number of persons wishing to make oral statements, a per-person time limit may be established by the Designated Federal Officer.

Summary minutes for Council meetings are made available to the public within thirty (30) days following each meeting. Please contact one of the above RAC coordinators to obtain copies of the minutes.

Dated: December 5, 1996.

Mark W. Stiles,

District Manager.

[FR Doc. 96–31633 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–JB–P

[NM010–1430–00]

Rio Grande National Wild and Scenic River, New Mexico Notice of Boundaries, Classification and Development Plans; Correction

AGENCY: Bureau of Land Management (BLM), Interior.

ACTION: Correction of legal descriptions of parcels included within the boundaries of the Wild and Scenic River.

SUMMARY: This notice corrects the third column of the FR Doc. No. 69–12601 appearing in the issue of Thursday, October 23, 1969 (34 FR 17207–17209), the following corrections are hereby made: In the third column, page 17208 under NMPM T. 27 N., R. 12 E., Sec. 5, add ''E½NW¼ that portion lying west of the Rio Grande, E½SW¼ that portion lying west of the Rio Grande'' and under Sec. 8, add ''SW¼NW¼ that portion lying northwest of the Rio Grande, NW¼SW¼ that portion lying northwest of the Rio Grande''. Under NMPM T. 28 N., R. 12 E., Sec. 8, add ''SE¼NW¼; and Sec. 9, add ''SE¼NE¼ that portion lying northwest of the Red River, NW¼NE¼SE¼ that portion lying northwest of the Red River,

NW¼SW¼SE¼ that portion lying northwest of the Red River'', under Sec. 16, add ''NW¼SE¼NW¼ that portion lying north of the Red River'', under Sec. 20, add ''NW¼NE¼ that portion lying northwest of the Red River, SW¼NW¼ that portion lying northwest of the Red River, W½W½SW¼ that portion lying west of the Rio Grande'',under Sec. 29, add ''W½W½NW¼ that portion lying west of the Rio Grande, W½NW¼SW¼ that portion lying west of the Rio Grande''; and under Sec. 31, add ''E½E½NE¼ that portion lying west of the Rio Grande.''

FOR FURTHER INFORMATION CONTACT: Terry Humphrey, Taos Resource Area, 226 Cruz Alta Road, Taos, NM 87571, (505) 758–8851.

SUPPLEMENTARY INFORMATION: The Wild and Scenic River boundary proposal in the Federal Register Notice dated October 23, 1969 was amended in the February 26, 1973 Federal Register Notice to correct legal descriptions. Upon recent comparison of Geographic Information System data and master title plats, it was discovered that several small parcels totalling 570 acres within the Wild and Scenic boundary were not legally described in either of the aforementioned Federal Register Notices. These small parcels all lie within the ''wild'' component of the Rio Grande Wild and Scenic River, New Mexico.

Michael R. Ford,

District Manager.

[FR Doc. 96–31644 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–FB–P

[NV–942–07–1420–00]

Filing of Plats of Survey; Nevada

AGENCY: Bureau of Land Management.

ACTION: Notice.

SUMMARY: The purpose of this notice is to inform the public and interested State and local government officials of the filing of Plats of Survey in Nevada.

EFFECTIVE DATES: Filing is effective at 10:00 a.m. on the dates indicated below.

FOR FURTHER INFORMATION CONTACT: Robert H. Thompson, Acting Chief, Cadastral Survey, Bureau of Land Management (BLM), Nevada State Office, 850 Harvard Way, P.O. Box 12000, Reno, Nevada 89520, 702–785–6541.

SUPPLEMENTARY INFORMATION

1. The Plat of Survey of the following described lands was officially filed at the Nevada State Office, Reno, Nevada on October 31, 1996:

The plat representing the metes-and-bounds survey of lots 1 and 2, in section 8, Township 15 North, Range 20 East, Mount Diablo Meridian, Nevada, under Group No. 738, was accepted October 28, 1996.

This survey was executed to meet certain administrative needs of the Bureau of Land Management.

2. The Supplemental Plat of the following described lands was officially filed at the Nevada State Office, Reno, Nevada on November 15, 1996:

The supplemental plat showing a subdivision of original lots 4, 5, and 8, sec. 7; and original lot 1, sec. 18, Township 30 North, Range 19 East, Mount Diablo Meridian, Nevada was accepted November 15, 1996.

This plat was prepared at the request of Fred Heivilin, Oil-Dry Corporation of America.

3. The Plat of Survey of the following described lands was officially filed at the Nevada State Office, Reno, Nevada on November 27, 1996:

The plat representing the dependent resurvey of a portion of the subdivisional lines, and the subdivision of section 17, Township 2 North, Range 37 East, of the Mount Diablo Meridian, Nevada, under Group No. 755, was accepted November 25, 1996. This survey was executed to meet certain needs of the Bureau of Land Management.

4. The Plats of Survey of the following described lands will be officially filed at the Nevada State Office, Reno, Nevada on January 23, 1997:

The plat representing the survey of a portion of the subdivisional lines of Township 6 South, Range 56 East, of the Mount Diablo Meridian, under Group No. 754, Nevada, was accepted December 3, 1996.

The plat representing the survey of a portion of the subdivisional lines, and the subdivision of sections 13 and 24, Township 7 South, Range 56 East, of the Mount Diablo Meridian, under Group No. 754, Nevada, was accepted December 3, 1996. These surveys were executed to meet certain administrative needs of the U.S. Department of the Air Force, Nellis Air Force Base.

5. Subject to valid existing rights the provisions of existing withdrawals and classifications, the requirements of applicable laws, and other segregations of record, those lands listed under item 4 are open to application, petition, and disposal, including application under the mineral leasing laws. All such valid applications received on or prior to January 23, 1997, shall be considered as simultaneously filed at that time. Those received thereafter shall be considered in order of filing.

6. The above-listed surveys are now the basic record for describing the lands for all authorized purposes. These surveys have been placed in the open files in the BLM Nevada State Office and are available to the public as a matter of information. Copies of the surveys and related field notes may be furnished to the public upon payment of the appropriate fees.

Dated: December 4, 1996.

Robert H. Thompson,

Acting Chief Cadastral Surveyor, Nevada.

[FR Doc. 96–31636 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–HC–P

National Park Service

Availability of a Supplemental Plan of Operations and Environmental Assessment for the Existing South Spring Fieldwide Gas Unit; AMOCO Production Company, Padre Island National Seashore, Kleberg County, TX

The National Park Service has received from AMOCO Production Company, a Supplemental Plan of Operations for the existing South Sprint Fieldwide Gas Unit at Padre Island National Seashore, Kleberg County, Texas.

Pursuant to § 9.52(b) of Title 36 of the Code of Federal Regulations, Part 9, Subpart B (36 CFR part 9B); the Plan of Operations and Environmental Assessment are available for public review and comment for a period of 30 days from the publication date of this notice in the Office of the Superintendent, Padre Island National Seashore, 9405 South Padre Island Drive, Corpus Christi, Texas. Copies of the documents are available from the Superintendent, Padre Island National Seashore, 9405 South Padre Island Drive, Corpus Christi, Texas 78418, and will be sent upon request.

Dated: December 5, 1996.

Joseph J. Sovich,

Acting Superintendent, Southwest System Support Office.

[FR Doc. 96–31612 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–10–M

Golden Gate National Recreation Area and Point Reyes National Seashore Advisory Commission; Notice of Meetings

Notice is hereby given in accordance with the Federal Advisory Committee Act that meetings of the Golden Gate National Recreation Area and Point Reyes National Seashore Advisory Commission will be held monthly for calendar year 1997 to hear presentations

on issues related to management of the Golden Gate National Recreation Area and Point Reyes National Seashore. Meetings of the Advisory Commission are scheduled for the following dates at San Francisco and at Point Reyes Station, California:

Wednesday, January 15, San Francisco, CA
Wednesday, February 12, San Francisco, CA
Saturday, February 22, Point Reyes, CA
Wednesday, March 12, San Francisco, CA
Saturday, April 9, San Francisco, CA
Wednesday, May 14, San Francisco, CA
Saturday, May 17, Point Reyes, CA
Wednesday, June 11, San Francisco, CA
Wednesday, July 9, San Francisco, CA
Wednesday, August 13, San Francisco, CA
Wednesday, September 10, San Francisco, CA
Wednesday, October 8, San Francisco, CA
Saturday, October 25, Point Reyes, CA
Wednesday, November 12, San Francisco, CA
Wednesday, December 10, San Francisco, CA

All meetings of the Advisory Commission will be held at 7:30 p.m. at GGNRA Park Headquarters, Building 201, Fort Mason, Bay and Franklin Streets, San Francisco or at 10:30 a.m. at the Dance Palace, corner of 5th and B Streets, Point Reyes Station, California, unless otherwise publicly noticed. Information confirming the time and location of all Advisory Commission meetings can be received by calling the Office of the Staff Assistant at (415) 556–4484.

The Advisory Commission was established by Public Law 92–589 to provide for the free exchange of ideas between the National Park Service and the public and to facilitate the solicitation of advice or other counsel from members of the public on problems pertinent to the National Park Service systems in Marin, San Francisco and San Mateo Counties. Members of the Commission are as follows:

Mr. Richard Bartke, Chairman
Ms. Amy Meyer, Vice Chair
Ms. Naomi T. Gray
Dr. Howard Cogswell
Mr. Michael Alexander
Mr. Jerry Friedman
Ms. Lennie Roberts
Ms. Yvonne Lee
Ms. Sonia Bolaños
Mr. Trent Orr
Mr. Redmond Kernan
Ms. Jacqueline Young
Mr. Merritt Robinson
Mr. R. H. Sciaroni
Mr. John J. Spring
Dr. Edgar Wayburn
Mr. Joseph Williams
Mr. Mel Lane

Anticipated agenda items at meetings this year will include:

- Presidio Lobos Creek plans
- Presidio Fire House expansion plans
- Update reports on the Presidio Trust activities
- Presidio Forest Management Plan
- Update presentations on the GGNRA Presidio Stewardship Program
- Updates on Army environmental remediation at the Presidio
- Reports on telecommunications applications at the Presidio and East Fort Baker
- Update report on the Sustainable Presidio Alliance
- Plans for Presidio Building 102 Visitor Center
- Presidio Mountain Lake studies
- Reports on Presidio projects: Community gardens, Project TRUE, and NIJC Indian Village
- Improvements at Golden Gate Bridge Toll Plaza
- Updates on Presidio transportation, tour bus, and parking plans
- Update on the Richmond Transport Project in the Presidio
- Report on a review of criteria for activities and operations of the GGNRA Special Use Permit office
- Reports on work of the Golden Gate National Parks Association
- Reports on programs and projects of GGNRA ''Park Partners''
- Status reports on the proposed Bay Area Ridge Trail
- Reports on GGNRA education programs
- Design plans for Crissy Field projects
- Report on Joint NPS/GG Bridge Museum at Bridge Toll Plaza
- Reports and review on the Cliff House Restoration Plan and other elements of the Sutro Design Plan
- Report on the transition and long-range planning for East Fort Baker
- GGNPA annual briefing
- Update on former Mill Valley AFS (Mount Tamalpais) cleanup and restoration project
- San Mateo issues: update on Phleger estate, status of Thornton Beach, SF Watershed issues
- Update on VA/Fort Miley park entrance project
- Update reports on joint operations agreement between State of California and NPS
- Report on Alcatraz After Hours Program
- Review of Fort Mason Reuse projects
- Updates on issues concerning management and planning at Point Reyes NS

These meetings will also contain Superintendent's and Presidio General Manager's Reports. Specific final agendas for these meetings will be made available to the public at least 15 days prior to each meeting and can be received by contacting the Office of the Staff Assistant, Golden Gate National Recreation Area, Building 201, Fort Mason, San Francisco, California 94123 or by calling (415) 556–4484.

These meetings are open to the public. They will be recorded for documentation and transcribed for dissemination. Minutes of the meetings will be available to the public after approval of the full Advisory Commission. A transcript will be available three weeks after each meeting. For copies of the minutes contact the Office of the Staff Assistant, Golden Gate National Recreation Area, Building 201, Fort Mason, San Francisco, California 94123.

Dated: December 4, 1996.

Brian O'Neill,

General Superintendent, Golden Gate National Recreation Area.

[FR Doc. 96–31611 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–70–P

Native American Graves Protection and Repatriation Act Review Committee: Meeting

AGENCY: National Park Service, Interior,

ACTION: Notice.

Notice is hereby given in accordance with the Federal Advisory Committee Act (FACA), 5 U.S.C. Appendix (1988), that a meeting of the Native American Graves Protection and Repatriation Act (NAGPRA) Review Committee will be held on March 25—27, 1997 in Norman, OK.

The Review Committee will meet at the Oklahoma Center for Continuing Education (OCCE) on the campus of the University of Oklahoma in Norman. Meetings will begin each day at 8:30 a.m. and conclude not later than 5:00 p.m.

The Native American Graves Protection and Repatriation Act Review Committee was established by Public Law 101–601 to monitor, review, and assist in implementation of the inventory and identification process and repatriation activities required under the statute.

The agenda for this meeting will include discussion of the disposition of culturally unidentifiable human remains, compliance by Federal agencies, and implementation of the statute in the State of Oklahoma.

This meeting will be open to the public. However, facilities and space for accommodating the public are limited. Any member of the public may file a written statement concerning the matters to be discussed with Dr. Francis P. McManamon, Departmental Consulting Archeologist.

Persons wishing further information concerning this meeting, or who wish to submit written statements may contact Dr. Francis P. McManamon, Departmental Consulting Archeologist, Archeology and Ethnography Program (MS 2275), National Park Service, P.O. Box 37127, Washington, DC 20013–7127; telephone: (202) 343–4101. Draft summary minutes of the meeting will be available for public inspection

approximately eight weeks after the meeting at the office of the Departmental Consulting Archeologist, 800 North Capitol St. NW, Suite 210, Washington, DC.

Dated: December 10, 1996,

Francis P. McManamon,

Departmental Consulting Archeologist, Manager, Archeology and Ethnography Program.

[FR Doc. 96–31740 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–70–F

Notice of Inventory Completion for Native American Human Remains in the Possession of the National Park Service, Little Bighorn Battlefield National Monument, Crow Agency, MT

AGENCY: National Park Service,

ACTION: Notice.

Notice is hereby given in accordance with provisions of the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3003 (d), of the completion of an inventory of human remains in the possession of the National Park Service, Little Bighorn Battlefield National Monument, Crow Agency, MT.

A detailed assessment of the human remains was made by National Park Service professional staff in consultation with representatives of the Arapahoe Tribe of the Wind River Reservation of Wyoming, Assiniboine and Sioux Tribes of Montana, Cheyenne River Sioux Tribe of South Dakota, Crow Tribe of Montana, Northern Cheyenne Tribe of Montana, Oglala Sioux Tribe of South Dakota, Rosebud Sioux Tribe of South Dakota, Santee Sioux Tribe of Nebraska, Sisseton-Wahpeton Sioux Tribe of Sioux Dakota, Three Affiliated Tribes (Arikara, Hidatsa, and Mandan), and Upper Sioux Indian Community of Minnesota. Representatives of the Blackfeet Tribe of Montana were invited to consultation meetings but did not attend.

In the 1890s, human remains representing a minimum of one individual were recovered from an unknown location in the area of Little Bighorn Battlefield by Howard Means, a surveyor. No individuals were identified. No associated funerary objects are present. Mr. Means' great-grandnephew and wife returned the remains, consisting of a skull and 2 femora, to the park in February 1996.

Results of non-destructive analysis of the remains suggest affiliation with the Sonota complex, a Middle Woodland group that occupied the western reaches of present-day North and South Dakota, including the Missouri River Basin, from approximately 90 AD to 600 AD. In general, the remains appear to be affiliated with Woodland groups as well as late prehistoric groups from the Northwestern Plains such as the Blackfeet, Crow, and Hidatsa. Historically, this area was inhabited by the Blackfeet, Crow, and Hidatsa, as well as the Arikara, Cheyenne, Mandan, and Sioux. Physical anthropological evidence suggests that the remains are most likely affiliated with the Crow or Hidatsa. Oral evidence from all tribes attending consultation meetings, and from the Blackfeet as well, supports this conclusion.

Based on the above-mentioned information, officials of the National Park Service have determined that, pursuant to 43 CFR 10.2 (d)(1), the human remains listed above represent the physical remains of a minimum of one individual of Native American ancestry. Officials of the National Park Service have determined that, pursuant to 25 U.S.C. 3001 (2), there is a relationship of shared group identity which can be reasonably traced between these Native American human remains and the Crow Tribe and the Hidatsa of the Three Affiliated Tribes.

This notice has been sent to officials of the Arapahoe Tribe of the Wind River Reservation of Wyoming, Assiniboine and Sioux Tribes of Montana, Cheyenne River Sioux Tribe of South Dakota, Crow Tribe of Montana, Northern Cheyenne Tribe of Montana, Oglala Sioux Tribe of South Dakota, Rosebud Sioux Tribe of South Dakota, Santee Sioux Tribe of Nebraska, Sisseton-Wahpeton Sioux Tribe of Sioux Dakota, Three Affiliated Tribes (Arikara, Hidatsa, and Mandan), and Upper Sioux Indian Community of Minnesota, and the Blackfeet Tribe of Montana. Representatives of any other Indian tribe that believes itself to be culturally affiliated with these human remains should contact Gerard A. Baker, Superintendent, Little Bighorn National Monument, P.O. Box 39, Crow Agency, MT 59022; telephone: (406) 638–2621, before January 13, 1997. Repatriation of the human remains to the Crow Tribe and Three Affiliated Tribes will begin after that if no additional claimants come forward.

Dated: December 9, 1996,

Veletta Canouts,

Acting, Departmental Consulting Archeologist,

Deputy Manager, Archeology & Ethnography Program.

[FR Doc. 96–31741 Filed 12–12–96; 8:45 am]

BILLING CODE 4310–70–F

DEPARTMENT OF LABOR

Office of the Secretary

Submission for OMB Review; Comment Request

December 9, 1996.

The Department of Labor (DOL) has submitted the following public information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (Pub. L. 0104–13, 44 U.S.C. Chapter 35). A copy of this individual ICR, with applicable supporting documentation, may be obtained by calling the Department of Labor Acting Departmental Clearance Officer, Theresa M. O'Malley ((202) 219–5096×166). Individuals who use a telecommunications device for the deaf (TTY/TDD) may call (202) 219–4720 between 9:00 a.m. and 12:00 p.m. Eastern time, Monday through Friday.

Comments should be sent to Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for the Employment and Training Administration, Office of Management and Budget, Room 10235, Washington, DC 20503 ((202) 395–7316), within 30 days from the date of this publication in the Federal Register.

The OMB is particularly interested in comments which:

* 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;
* Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
* Enhance the quality, utility, and clarity of the information to be collected; and
* 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.

Agency: Employment and Training Administration.

Title: Governor's Requests for Advances from the Federal Unemployment Account or Requests for Voluntary repayment of Such Advances.

OMB Number: 1205–0199.

Frequency: One-time.

Affected Public: State, Local or Tribal Government.

Number of Respondents: Loan Requests=44; Request for voluntary Repayments=157.

Estimated Time Per Respondent: 1 hour each.

Total Burden Hours: 201.

Total Annualized capital/startup costs: 0.

Total annual costs (operating/maintaining systems or purchasing services): 0.

Description: Title XII Section 1201 of the Social Security Act provides that the Governor of any State may at any time request that funds be transferred from the account of that State to the Federal unemployment account in repayment of part or all of the balance of advances made to that State under Section 1201.

Theresa M. O'Malley,

Acting Departmental Clearance Officer.

[FR Doc. 96–31690 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

Bureau of International Labor Affairs; U.S. National Administrative Office; North American Agreement on Labor Cooperation; Notice of Determination Regarding Review of Submission #9602

AGENCY: Office of the Secretary, Labor.

ACTION: Notice.

SUMMARY: The U.S. National Administrative Office (NAO) gives notice that on December 10, 1996, Submission #9602 was accepted for review insofar as it pertains to the issues of freedom of association and the right to organize, including the failure to insure that labor tribunals are impartial and independent, the failure to ensure that labor tribunal proceedings are fair, equitable and transparent, and the failure to effectively enforce labor law. The allegations of the submission that relate to the issue of minimum employment standards, including overtime pay, were not accepted for review. The submission was filed with the NAO on October 11, 1996 by the Communications Workers of America (CWA), the Union of Telephone Workers of Mexico (STRM), and the Federation of Unions of Goods and Services Companies (FESEBS) and concerns the operations of an employer in Cananea, State of Sonora, Mexico.

Article 16(3) of the North American Agreement on Labor Cooperation (NAALC) provides for the review of labor law matters in Canada and Mexico by the NAO. The objective of the review of the submission will be to gather information to assist the NAO to better understand and publicly report on the Government of Mexico's compliance with the objectives set forth in Articles 3 and 5 of the NAALC.

EFFECTIVE DATE: December 10, 1996.

FOR FURTHER INFORMATION CONTACT: Irasema T. Garza, Secretary, U.S. National Administrative Office, Department of Labor, 200 Constitution Avenue, N.W., Room C–4327, Washington, D.C. 20210. Telephone: (202) 501–6653 (this is not a toll-free number).

SUPPLEMENTARY INFORMATION: On October 11, 1996 the CWA, STRM, and FESEBS filed a submission with the NAO concerning allegations involving the operations of an employer in Cananea, State of Sonora, Mexico. The allegations of the submission relate to freedom of association and the right to organize and minimum employment standards.

Article 16(3) of the NAALC provides for the review of labor law matters in Canada and Mexico by the NAO. ''Labor law'' is defined in Article 49 of the NAALC to include freedom of association and the right to organize and minimum employment standards.

The procedural guidelines for the NAO, published in the Federal Register on April 7, 1994, 59 FR 16660, specify that, in general, the Secretary of the NAO shall accept a submission for review if it raises issues relevant to labor law matters in Canada or Mexico and if a review would further the objective of the NAALC. However, the guidelines permit the NAO to decline to review a submission if, inter alia, the submission is not sufficiently specific to determine the nature of the request and permit an appropriate review.

Submission #9602 relates to labor law matters in Mexico. A review would appear to further the objectives of the NAALC, as set out in Article 1, which include improving working conditions and living standards in each Party's territory; promoting, to the maximum extent possible, the labor principles set out in Annex 1 of the NAALC, among them freedom of association and the right to organize and minimum employment standards; promoting compliance with, and effective enforcement by each Party of, its labor law; and fostering transparency in the administration of labor law. Regarding minimum employment standards, however, it appears to the NAO that the submission is not sufficiently specific to determine the nature of the request or to permit appropriate review; therefore, review of that issue would not be appropriate.

Accordingly, the submission has been accepted for review with respect to the issues of freedom of association and the right to organize but not the issue of minimum employment standards. The NAO's decision is not intended to indicate any determination as to the validity or accuracy of the allegations contained in the submission.

The objective of the review will be to gather information to assist the NAO to better understand and publicly report on the Government of Mexico's compliance with the obligations agreed to under Articles 3 and 5 of the NAALC. The review will focus on compliance with, and effective enforcement of, labor laws that guarantee the right of association and the right to organize freely and prohibit the dismissal of workers because of efforts to exercise those rights. The review also will focus on the impartiality and independence of tribunals that conduct or review labor proceedings; and the fairness, equitability and transparency of labor tribunal proceedings. The review will be completed, and a public report issued, within 120 days, or 180 days if circumstances require an extension of time, as set out in the procedural guidelines of the NAO.

Signed at Washington, D.C. on December 10, 1996.

Irasema T. Garza,

Secretary, U.S. National Administrative Office.

[FR Doc. 96–31689 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–28–M

Employment and Training Administration

[TA–W–32,608 and NAFTA–01149]

Crown Pacific Limited Partnership, Redmond, OR; Notice of Affirmative Determination Regarding Application for Reconsideration

By letter of October 8, 1996, the Lumber and Sawmill Workers, Local 1017, requested administrative reconsideration of the Department of Labor's Notices of Negative Determination Regarding Eligibility to Apply for Worker Adjustment Assistance (TA–W–32,608) and NAFTA-Transitional Adjustment Assistance (NAFTA–01149) for workers of the subject firm. The denial notice for TA–W–32,608 was signed on September 17, 1996, and published in the Federal Register on October 1, 1996 (61 FR 51303). The denial notice for NAFTA–01149 was signed on September 13, 1996, and published in the Federal Register on October 1, 1996 (61 FR 51304).

The petitioner presents evidence that the Department's survey of the subject firm's customers was incomplete.

Conclusion

After careful review of the application, I conclude that the claim is of sufficient weight to justify reconsideration of the Department of Labor's prior decision. The application is, therefore, granted.

Signed at Washington, D.C. this 2nd day of December 1996.

Russell T. Kile,

Program Manager, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31681 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

[TA–W–32,693 and NAFTA–01218]

Decotech Innovations, Marion, NC; Dismissal of Application for Reconsideration

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Program Manager of the Office of Trade Adjustment Assistance for workers at Decotech Innovations, Marion, North Carolina. The review indicated that the application contained no new substantial information which would bear importantly on the Department's determination. Therefore, dismissal of the application was issued.

TA–W–32,693 and NAFTA–01218; Decotech Innovations Marion, North Carolina (December 2, 1996)

Signed at Washington, D.C. this 3rd day of December, 1996.

Russell T. Kile,

Program Manager, Policy & Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31684 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

[TA–W–32–709; NAFTA–01224]

Penn Mould Industries, Incorporated, Washington, PA; Notice of Affirmative Determination Regarding Application for Reconsideration

By letter of October 24, 1996, the American Flint Glass Workers Union, AFL–CIO, requested administrative reconsideration of the Department of Labor's Notices of Negative Determination Regarding Eligibility to Apply for Worker Adjustment Assistance (TA–W–32–709) and NAFTA-Transitional Adjustment Assistance (NAFTA–01224) for workers of the subject firm. The denial notice for TA–W–32–709 was signed on October 16, 1996, and published in the Federal Register on November 8, 1996 (61 FR 57904). The denial notice for NAFTA–01224 was signed on October 10, 1996, and published in the Federal Register on October 29, 1996 (61 FR 55882).

The petitioner presents evidence that the Department's survey of the subject firm's customers was incomplete.

Conclusion

After careful review of the application, I conclude that the claim is of sufficient weight to justify reconsideration of the Department of Labor's prior decision. The application is, therefore, granted.

Signed at Washington, D.C. this 27th day of November 1996.

Curtis K. Kooser,

Acting Program Manger, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31687 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

[TA–W–32,169 and TA–W–32,169A]

Diversified Apparel Resources, Inc.; Pulaski, VA and Honaker, VA; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 (19 USC 2273) the Department of Labor issued a Certification of Eligibility to Apply for Worker Adjustment Assistance on April 18, 1996, applicable to all workers of Diversified Apparel Resources, Inc. located in Pulaski, Virginia. The notice was published in the Federal Register on May 16, 1996 (61 FR 24815).

At the request of the company and petitioners, the Department reviewed the certification for workers of the subject firm. New Information provided by the company shows that worker separations have occurred at the Diversified Apparel Resources, Inc. production facility in Honaker, Virginia. The workers produce infant's and children's apparel.

The intent of the Department's certification is to include all workers of the subject firm who were adversely affected by increased imports. Accordingly, the Department is amending the certification to cover all workers of Diversified Apparel Resources, Inc., Honaker, Virginia.

The amended notice applicable to TA–W–32,169 is hereby issued as follows:

All workers of Diversified Apparel Resources, Inc., Pulaski, Virginia (TA–W–32,169) and Honaker, Virginia (TA–W–32,169A) who became totally or partially separated from employment on or after March 21, 1995 are eligible to apply for adjustment assistance under Section 223 of the Trade Act of 1974.

Signed at Washington, D.C. this 4th day of December 1996.

Russell T. Kile,

Program Manager, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31680 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

[TA–W–32,568]

Globe Metallurgical, Incorporated Niagara Falls, NY; Dismissal of Application for Reconsideration

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Program Manager of the Office of Trade Adjustment Assistance for workers at Globe Metallurgical, Incorporated, Niagara Falls, New York. The review indicated that the application contained no new substantial information which would bear importantly on the Department's determination. Therefore, dismissal of the application was issued.

TA–W–32,568; Globe Metallurgical, Incorporated Niagara Falls, New York (December 3,1996)

Signed at Washington, D.C. This 3rd day of December, 1996.

Russell T. Kile,

Program Manager, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31683 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

[TA–W–32,739]

Mission Plastics of DeQueen, DeQueen, AR; Notice of Termination of Certification

This notice terminates the Certificate Regarding Eligibility to Apply For Worker Adjustment Assistance issued by the Department on October 30, 1996, for all workers of Mission Plastics of DeQueen, located in DeQueen, Arkansas. The notice was published in the Federal Register on November 13, 1996 (61 FR 58219).

The Department, on its own motion, reviewed the certification for workers of Mission Plastics of DeQueen. Findings show that workers of the subject firm produced injection molded plastics for lawn and garden equipment.

New evidence submitted to the Department revealed that the major

declining customer of Mission Plastics had declining imports of thermoplastic parts while increasing purchases of those products from other domestic sources.

Since there are no adversely affected workers of the subject firm, the continuation of the certification would serve no purpose and the certification has been terminated.

Signed at Washington, D.C., this 26th day of November 1996.

Curtis K. Kooser,

Acting Program Manager, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31686 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

Dutchess Lingerie d/b/a Sylvester Textile; TA–W–31, 996 Sylvester, GA, TA–W–31, 996A Ft. Lee, NJ; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 (19 U.S.C 2273) the Department of Labor issued a Certification of Eligibility to Apply for Worker Adjustment Assistance on March 15, 1996, applicable to all workers of Dutchess Lingerie d/b/a Sylvester Textile located in Sylvester, Georgia. The notice was published in the Federal Register on April 3, 1996 (61 FR 14820).

At the request of the company, the Department reviewed the certification for workers of the subject firm. New information provided by the company shows that worker separations have occurred at Dutchess Lingerie in Ft. Lee, New Jersey. The workers of the subject firm in Ft. Lee provide administrative services in support of the production of the women's apparel and lingerie at the subject firms' Sylvester, Georgia location.

The intent of the Department's certification is to include all workers of the subject firm who were adversely affected by increased imports. Accordingly, the Department is amending the certification to cover all workers of Dutchess Lingerie, doing business as Sylvester Lingerie in Ft. Lee, New Jersey.

The amended notice applicable to TA–W–31, 996 is hereby issued as follows:

All workers of Dutchess Lingerie, doing business as Sylvester Lingerie, Sylvester, Georgia (TA–W–31, 996) and Ft. Lee, New Jersey (TA–W–31, 996A) engaged in employment related to the production of women's apparel and lingerie, who became totally or partially separated from employment on or after February 22, 1995 are eligible to apply for adjustment assistance under Section 223 of the Trade Act of 1974.

Signed at Washington, D.C. this 3rd day of December 1996.

Russell T. Kile,

Program Manager, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31682 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

[TA–W–32,668 and TA–W–32,668A]

Vanco Industries, Incorporated; Eutaw, AL and New York, NY; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 (19 USC 2273) the Department of Labor issued a Notice of Certification Regarding Eligibility to Apply for Worker Adjustment Assistance on October 16, 1996, applicable to workers of Vanco Industries, Incorporated located in Eutaw, Alabama. The notice was published in the Federal Register on November 8, 1996 (61 FR 57905).

At the request of petitioners, the Department reviewed the certification for workers of the subject firm. New findings show that layoffs have occurred at the headquarters of Vanco Industries, Incorporated, in New York, New York. The workers at the New York location provide administrative services for the Eutaw, Alabama production facility.

The intent of the Department's certification is to include all workers of Vanco Industries, Incorporated who were affected by increased imports. Accordingly, the Department is amending the worker certification to include workers at the New York, New York location of Vanco Industries, Incorporated.

The amended notice applicable to TA–W–32,668 is hereby issued as follows:

All workers of Vanco Industries, Incorporated, Eutaw, Alabama (TA–W–32,668) and New York, New York (TA–W–32,668A), who became totally or partially separated from employment on or after July 29, 1995, are eligible to apply for adjustment assistance under Section 223 of the Trade Act of 1974.

Signed at Washington, D.C. this 27th day of November 1996.

Curtis K. Kooser,

Acting Program Manager, Policy and Reemployment Services, Office of Trade Adjustment Assistance.

[FR Doc. 96–31688 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–30–M

Investigations Regarding Certifications of Eligibility To Apply for NAFTA Transitional Adjustment Assistance

Petitions for transitional adjustment assistance under the North American Free Trade Agreement-Transitional Adjustment Assistance Implementation Act (Pub. L. 103–182), hereinafter called (NAFTA–TAA), have been filed with State Governors under Section 250(b)(1) of Subchapter D, Chapter 2, Title II, of the Trade Act of 1974, as amended, are identified in the Appendix to this Notice. Upon notice from a Governor that a NAFTA–TAA petition has been received, the Program Manager of the Office of Trade Adjustment Assistance (OTAA), Employment and Training Administration (ETA), Department of Labor (DOL), announces the filing of the petition and takes actions pursuant to paragraphs (c) and (e) of Section 250 of the Trade Act.

The purpose of the Governor's actions and the Labor Department's investigations are to determine whether the workers separated from employment of after December 8, 1993 (date of enactment of Pub. L. 103–182) are eligible to apply for NAFTA–TAA under Subchapter D of the Trade Act because of increased imports from or the shift in production to Mexico or Canada.

The petitioners or any other persons showing a substantial interest in the subject matter of the investigations may request a public hearing with the Program Manager of OTAA at the U.S. Department of Labor (DOL) in Washington, D.C. provided such request is filed in writing with the Program Manager of OTAA not later than December 23, 1996.

Also, interested persons are invited to submit written comments regarding the subject matter of the petitions to the Program Manager of OTAA at the address shown below not later than December 23, 1996.

Petitions filed with the Governors are available for inspection at the Office of the Program Manager, OTAA, ETA, DOL, Room C–4318, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

Signed at Washington, D.C. this 3rd day of December, 1996.

Russell Kile,

Program Manager, Policy & Reemployment Services, Office of Trade Adjustment Assistance.

APPENDIX

Petitioner (union/workers/firm)	Location	Date received at Governor's office	Petition No.	Articles produced
Joe Manufacturing (UNITE)	San Francisco, CA	11/04/96	NAFTA–01320	Sewing of women's apparel.
Sunny Company (UNITE)	San Francisco, CA	11/04/96	NAFTA–01321	Sewing of women's apparel.
Barclay Home Products (Co.)	Robbinsville, NC	11/05/96	NAFTA–01322	Comforters, comforter ensembles, comforter ensembles with sheets.
Lucent Technologies (CWA)	Whitsett, NC	11/05/96	NAFTA–01323	Apollo cellular phones, consumer products.
Alde, Inc. (UNITE)	San Francisco, CA	11/01/96	NAFTA–01324	Sewing of women's apparel.
Karen Tang Sewing (UNITE)	San Francisco, CA	11/05/96	NAFTA–01325	Sewing of women's apparel.
Ferraz Corporation (Co.)	Parsippany, NJ	11/04/96	NAFTA–01326	Low voltage power electrical fuses.
Connor Corporation; Connor Rubber Technologies (UFCW).	Fort Wayne, IN	11/06/96	NAFTA–01327	Rubber battery casings and covers.
J.E. Morgan Knitting Mills (Wkrs)	Ilion, NY	11/06/96	NAFTA–01328	Knit garments.
Eaton Corporation (Wkrs)	Madison, WI	11/08/96	NAFTA–01329	Automotive control division.
Jensports; Division of Gateway Sportswear (UNITE).	New Kensington, PA	11/08/96	NAFTA–01330	Women's sportwear.
Pennsylvania Food Merchants (Co.)	Wormleysburg, PA	11/21/96	NAFTA–01331	Money order processing.
Old Ben Coal Co. (UMWA)	Edganton, WV	10/28/96	NAFTA–01332	Coal.
A.O. Smith Corp. (IBE)	Tipp City, OH	11/12/96	NAFTA–01333	In-bells, shafts and steel laminations.
Wright Bernet (GMPPAW)	Hamilton, OH	11/12/96	NAFTA–01334	Brushes, broom, industrial line cleaning products.
Plaid Clothing Group; J. Schoeneman (UNITE).	Chambersburg, PA	11/13/96	NAFTA–01335	Mens suits, slacks and sport coats.
Chicago Steel and Wire (Co.)	Chicago, IL	11/06/96	NAFTA–01336	Wire.
Rayonier, Inc. (AWPPW)	Port Angeles, WA	11/12/96	NAFTA–01337	Wood pulp.
Miller International (Co.)	Baxley, GA	11/07/96	NAFTA–01338	Woven shirts, vests and skirts.
Procter and Gamble Manufacturing (Wkrs)	Hatboro, PA	11/13/96	NAFTA–01339	Over the counter pharmaceutical products.
Gerber Childrenswear (Co.)	Fort Kent, ME	11/15/96	NAFTA–01340	Childrens sleepwear.
Willamette Industries (WCIW)	Dallas, OR	11/13/96	NAFTA–01341	Plywood production.
Springs Window Fashions (Co.)	City of Industry, CA	11/13/96	NAFTA–01342	Horizontal wood blinds, vertical blinds.
Sunbeam Household Products (Co.)	Coushatta, LA	11/18/96	NAFTA–01343	Steam and spray irons.
Agway, Inc. (Wkrs)	Waverly, NY	11/15/96	NAFTA–01344	Small pet feed.
Louisiana Pacific (Wkrs)	Ketchikan, AK	11/04/96	NAFTA–01345	Desolving pulp high grade sulphite.
Hamilton Beach (Wkrs)	Southern Pines, NC	11/21/96	NAFTA–01346	Assembly of soleplates and molding of coverbase.
AMP, Inc. (Wkrs)	Erie, PA	11/14/96	NAFTA–01347	Injected molded plastic electrical connectors.
Cypress Chemical (Wkrs)	El Paso, TX	11/20/96	NAFTA–01348	Fabric softeners, detergents, enzymes for stone washing jeans.
Hubbell, Inc. (IBEW)	St. Louis, MO	11/18/96	NAFTA–01349	Electrical fittings.
Mark IV Industries (USWA)	Waynesville, NC	11/19/96	NAFTA–01350	Automative hose and timing belts.
Lexington Apparel (Wkrs)	Bolivar, TN	11/21/96	NAFTA–01351	Men's dress slacks, jeans and casual slacks.
Lucent Technologies (Wkrs)	Atlanta, GA	11/22/96	NAFTA–01352	Repair/refurbish telephone equipment.
Dazey Corporation (Wkrs)	Osage City, KS	11/22/96	NAFTA–01353	Foot bath, foot saver, turbo spa body quencher.
Ball Corporation (Wkrs)	Columbus, IN	11/22/96	NAFTA–01354	Metal.
Jay Garment (The) (Wkrs)	Portland, IN	11/22/96	NAFTA–01355	Levi blue jeans.
Borcler Apparel (Wkrs)	El Paso, TX	11/22/96	NAFTA–01356	Shorts, skirts and jeans.
Harbor Bell (Wkrs)	Baycenter, WA	11/20/96	NAFTA–01357	Crab meat, shrimp, salmon.
Vineyard (The) (Co.)	Clouis, NM	11/15/96	NAFTA–01358	Fabric covered bed and bath accessories.
Quality Apparel (Wkrs)	New Bedford, MA	11/25/96	NAFTA–01359	Childrens and ladies sportswear.
Wex Tex Industries (Co.)	Dothan, AL	11/22/96	NAFTA–01360	Pajamas and robes, mens robes and boxer shorts.
Chicago Steel and Wire (Wkrs)	Chicago, IL	11/06/96	NAFTA–01361	Tin fine wire.
Trade Apparel (Wkrs)	El Paso, TX	11/26/96	NAFTA–01362	Pants, jackets and shorts.
Professional Manufacturing (Wkrs)	Paris, ID	11/25/96	NAFTA–01363	Fiberglass helmets, motorcycle, snowmobile and police helmets.
Channel Lumber (Co.)	Craigmont, ID	11/25/96	NAFTA–01364	Dimensional lumber.

[FR Doc. 96–31685 Filed 12–12–96; 8:45 am]
BILLING CODE 4510–30–M

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 provisions of the Davis-Bacon Act of March 3, 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 statutes, 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 supersedes 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 a part 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, N.W., Room S–3014, Washington, D.C. 20210.

Withdrawn General Wage Determination Decision

This is to advise all interested parties that the Department of Labor is withdrawing, from the date of this notice, General Wage Determination No. NE960019 dated march 15, 1996.

Agencies with construction projects pending, to which this wage decision would have been applicable, should utilize Wage Decision NE960038. Contracts for which bids have been opened shall not be affected by this notice. Also, consistent with 29 CFR 1.6(c)(2)(i)(A), when the opening of bids is less than ten (10) days from the date of this notice, this action shall be effective unless the agency finds that there is insufficient time to notify bidders of the change and the finding is documented in the contract file.

Modifications to General Wage Determination Decisions

The number of decisions listed in 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

Connecticut
- CT960001 (March 15, 1996)
- CT960003 (March 15, 1996)
- CT960004 (March 15, 1996)

New Jersey
- NJ90002 (March 15, 1996)

Volume II

Virginia
- VA960014 (March 15, 1996)
- VA960015 (March 15, 1996)
- VA960022 (March 15, 1996)
- VA960036 (March 15, 1996)
- VA960050 (March 15, 1996)
- VA960053 (March 15, 1996)
- VA960064 (March 15, 1996)
- VA960069 (March 15, 1996)
- VA960107 (March 15, 1996)

Volume III

Georgia
- GA960032 (March 15, 1996)

Volume IV

Indiana
- IN960002 (March 15, 1996)
- IN960003 (March 15, 1996)
- IN960006 (March 15, 1996)
- IN960016 (March 15, 1996)

Michigan
- MI960001 (March 15, 1996)
- MI960002 (March 15, 1996)
- MI960005 (March 15, 1996)
- MI960007 (March 15, 1996)
- MI960012 (March 15, 1996)
- MI960030 (March 15, 1996)
- MI960062 (March 15, 1996)
- MI960064 (March 15, 1996)

Ohio
- OH960002 (March 15, 1996)

Volume V

Arkansas
- AR960001 (March 15, 1996)
- AR960003 (March 15, 1996)

Iowa
- IA960003 (March 15, 1996)
- IA960019 (March 15, 1996)

Kansas
- KS960009 (March 15, 1996)
- KS960019 (March 15, 1996)
- KS960025 (March 15, 1996)
- KS960026 (March 15, 1996)

Nebraska
- NE960001 (March 15, 1996)
- NE960038 (March 15, 1996)
- NE960051 (March 15, 1996)
- NE960059 (March 15, 1996)

Texas
- TX960001 (March 15, 1996)
- TX960002 (March 15, 1996)
- TX960007 (March 15, 1996)
- TX960008 (March 15, 1996)
- TX960019 (March 15, 1996)
- TX960069 (March 15, 1996)
- TX960081 (March 15, 1996)

Volume VI

Alaska
- AK960001 (March 15, 1996)

California
- CA9600069 (March 15, 1996)

Colorado
- CO960003 (March 15, 1996)
- CO960007 (March 15, 1996)

CO960008 (March 15, 1996)
CO960016 (March 15, 1996)
CO960018 (March 15, 1996)
CO960025 (March 15, 1996)
Washington
WA960001 (March 15, 1996)
WA960003 (March 15, 1996)
WA960007 (March 15, 1996)

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.

The general wage determinations issued under the Davis-Bacon and related Acts are available electronically by subscription to the FedWorld Bulletin Board System of the National Technical Information Service (NTIS) of the U.S. Department of Commerce at (703) 487-4630.

Hard-copy subscriptions may be purchased from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 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 are distributed to subscribers.

Signed at Washington, D.C. this 6th day of December 1996.

Philip J. Gloss,

Chief, Branch of Construction Wage Determinations.

[FR Doc. 96–31407 Filed 12–12–96; 8:45 am]

BILLING CODE 4510–27–M

LIBRARY OF CONGRESS

[Docket No. 96–2 CARP–CRA]

Copyright Office: Termination of Proceeding To Adjust Cable Compulsory License Rates

AGENCY: Copyright Office, Library of Congress.

ACTION: Notice.

SUMMARY: The Copyright Office is announcing the termination of the proceeding to adjust the cable copyright royalty rates. The Office takes this action following the withdrawal of all pending petitions seeking a rate adjustment of the cable copyright royalty rates and gross receipts limitations. As the period for filing petitions to request a rate adjustment is over, no party may file a new petition to initiate a cable rate adjustment proceeding until 2000.

EFFECTIVE DATE: November 8, 1996.

FOR FURTHER INFORMATION CONTACT: Marilyn J. Kretsinger, Acting General Counsel, or Tanya Sandros, Attorney Advisor, at Copyright Arbitration Royalty Panel, P.O. Box 70977, Southwest Station, Washington, D.C. 20024. Telephone: (202) 707–8380. Telefax: (202) 707–8366.

SUPPLEMENTARY INFORMATION: Section 111 of the Copyright Act, 17 U.S.C., grants a compulsory copyright license to cable television systems for the retransmission of over-the-air broadcast stations to their subscribers. In exchange for the license, cable operators submit royalty payments, along with statements of account detailing their retransmissions, to the Copyright Office on a semiannual basis.

A cable system calculates its royalty payments in accordance with the statutory formula described in 17 U.S.C. 111(d). The cable system then makes a payment based upon its gross receipts from subscribers for the retransmission of broadcast signals. Section 111(d) subdivides cable systems, based on the amount of their gross receipts, into three categories: small, medium, and large. Small systems pay a fixed amount without regard to the number of broadcast signals they retransmit, while medium-sized systems pay a royalty, within a specific range, based on the number of signals they retransmit. Large cable systems calculate their royalties according to the number of distant broadcast signals which they retransmit to their subscribers.[1] Under this formula, a large cable system is required to pay a specified percentage of its gross receipts for each distant signal that it retransmits.

Congress established the gross receipts limitations that determine a cable system's size, and provided the gross receipts percentages (rates) for distant signals. 17 U.S.C. 111(d)(1). Congress also provided for adjustment of both the gross receipts limitations and the distant signal rates. 17 U.S.C. 801(b)(2). The limitations and rates can be adjusted to reflect national monetary inflation, changes in the average rates charged by cable systems for retransmission of broadcast signals, or changes in certain cable rules of the Federal Communications Commission in effect on April 15, 1976. 17 U.S.C. 801(b)(2) (A), (B), (C), and (D). The current gross receipts limitations and rates are set forth in 37 C.F.R. 256.2.

Section 803 of the Copyright Act, 17 U.S.C., provides that the gross receipts limitations and the rates of the cable compulsory license may be adjusted in 1995, and every subsequent fifth calendar year, upon filing a petition with the Library of Congress requesting an adjustment during these window years. If the Library determines that the petitioner has a ''significant interest'' in the royalty rate or rates in which adjustment is requested, the Library must convene a CARP to determine the adjustment. 17 U.S.C. 803(a)(1).

On December 29, 1995, the Library of Congress received two petitions requesting an adjustment to the cable compulsory license royalty rates. The ''Copyright Owners''[2] and the National Cable Television Association, Inc. each filed a petition seeking an adjustment to the cable copyright royalty rates.

In response to the petitions, the Librarian established the schedule for the cable rate adjustment proceeding. *See* Recommendation and Order in Docket No. 96–2 CARP–CRA (July 22, 1996). This order announced the 45-day precontroversy schedule which required the parties to the proceeding to submit their direct cases on November 8, 1996.

On November 8, 1996, the parties to the petitions, however, filed a Joint Withdrawal of Petitions for Rate Adjustment. The withdrawal notice states that the parties ''having agreed that they will not seek any adjustments to the cable copyright royalty rates and gross receipts limitations in effect as of December 31, 1995, hereby withdraw all of the pending petitions for rate adjustments filed by and on their behalf.'' Withdrawal Notice at 1.

The Librarian of Congress accepts the parties' withdrawal of their petitions to adjust the cable royalty rates, and as no other petitions seeking adjustment of the cable royalty rates were filed during the 1995 window period, the Librarian announces the termination of the CARP

[1] For cable systems which retransmit only local broadcast signals, there is still a minimum royalty fee which must be paid. This minimum royalty fee is not applied, however, once the cable system carries one or more distant signals.

[2] ''Copyright Owners'' is a collective term for Program Suppliers, Joint Sports Claimants, the National Association of Broadcasters, Music Claimants (the American Society of Composers, Authors, and Publishers, Broadcast Music, Inc., and SESAC. Inc.), Canadian Claimants, Devotional Claimants, the Public Broadcasting Service, and National Public Radio.

proceeding to make these adjustments, effective as of November 8, 1996, the filing date of the notice withdrawing both petitions for rate adjustments.

Dated: November 22, 1996.

Marybeth Peters,

Register of Copyrights.

Approved:

James H. Billington,

The Librarian of Congress.

[FR Doc. 96–31670 Filed 12–12–96; 8:45 am]

BILLING CODE 1410–33–P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Records Schedules; Availability and Request for Comments

AGENCY: National Archives and Records Administration, Office of Records Administration.

ACTION: Notice of availability of proposed records schedules; request for comments.

SUMMARY: The National Archives and Records Administration (NARA) publishes notice at least once monthly of certain Federal agency requests for records disposition authority (records schedules). Records schedules identify records of sufficient value to warrant preservation in the National Archives of the United States. Schedules also authorize agencies after a specified period to dispose of records lacking administrative, legal, research, or other value. Notice is published for records schedules that (1) propose the destruction of records not previously authorized for disposal, or (2) reduce the retention period for records already authorized for disposal. NARA invites public comments on such schedules, as required by 44 U.S.C. 3303a(a).

DATES: Request for copies must be received in writing on or before January 27, 1997. Once the appraisal of the records is completed, NARA will send a copy of the schedule. The requester will be given 30 days to submit comments.

ADDRESSES: Address requests for single copies of schedules identified in this notice to the Records Appraisal and Disposition Division (NIR), National Archives and Records Administration, College Park, MD 20740. Requesters must cite the control number assigned to each schedule when requesting a copy. The control number appears in the parentheses immediately after the name of the requesting agency.

SUPPLEMENTARY INFORMATION: Each year U.S. Government agencies create billions of records on paper, film, magnetic tape, and other media. In order to control this accumulation, agency records managers prepare records schedules specifying when the agency no longer needs the records and what happens to the records after this period. Some schedules are comprehensive and cover all the records of an agency or one of its major subdivisions. These comprehensive schedules provide for the eventual transfer to the National Archives of historically valuable records and authorize the disposal of all other records. Most schedules, however, cover records of only one office or program or a few series of records, and many are updates of previously approved schedules. Such schedules also may include records that are designated for permanent retention.

Destruction of records requires the approval of the Archivist of the United States. This approval is granted after a thorough study of the records that takes into account their administrative use by the agency of origin, the rights of the Government and of private persons directly affected by the Government's activities, and historical or other value.

This public notice identifies the Federal agencies and their subdivisions requesting disposition authority, includes the control number assigned to each schedule, and briefly describes the records proposed for disposal. The records schedule contains additional information about the records and their disposition. Further information about the disposition process will be furnished to each requester.

Schedules Pending

1. Department of Justice, United States Marshals Service (N1–527–97–3). Records related to inter-district movement of prisoners.

2. Department of the Treasury, Internal Revenue Service (N1–58–96–7). Audiovisual records accumulated by the IRS historian and determined by NARA to lack sufficient archival value to warrant permanent retention.

3. Department of the Treasury, Internal Revenue Service (N1–58–97–2). Art appraisal service case files.

4. Office of the Secretary of Defense (N1–330–96–1). Automated system containing data pertaining to health care services.

5. United States Information Agency (N1–59–97–3). Routine and facilitative records from Department of State predecessor elements transferred to the custody of USIA.

Dated: December 5, 1996.

James W. Moore,

Assistant Archivist for Records Administration.

[FR Doc. 96–31619 Filed 12–12–96; 8:45 am]

BILLING CODE 7515–01–M

NORTHEAST DAIRY COMPACT COMMISSION

Notice of Price Regulation Procedure; Hearing

Price regulation procedure hearings will be held on December 17, 1996, 10:00 am at the Lebanon Elks Lodge, Lebanon, NH, and on December 19, 1996 11:00 am at the Northborough Grange Hall, Northborough, MA.

I. Authority

(a) Article V, Section 11 of the Northeast Interstate Dairy Compact, and all other applicable Articles and Sections, as approved by Section 147 of the Federal Agricultural Improvement and Reform Act (FAIR ACT), P.L. 104–127, and as thereby set forth in S.J. Res. 28(1)(b) of the 104th Congress.

(b) Bylaws of the Northeast Dairy Compact Commission, adopted November 21, 1996.

(c) Resolution adopted by Northeast Dairy Compact Commission, November 21, 1996.

II. Summary of Notice

Pursuant to Article VI(B) of its bylaws, the Northeast Dairy Compact Commission hereby announces the commencement, on its own initiative, of a price regulation rulemaking proceeding. Pursuant to Article VI(C) of the Bylaws, the Commission further notices the scheduling of a hearing as provided below.

III. Statement of Subject Matter of Hearing

The hearing shall consider the following subjects and issues relating to the possible establishment of a compact over-order price regulation:

1. The balance between production and consumption of Class I, fluid milk products in the territorial region of the six participating, New England states.

2. The costs of production in the territorial region of the six participating, New England states, including, but not limited to the price feed, transportation costs, the cost of labor, including the reasonable value of the producer's own labor and management, machinery expense and interest expense.

3. The prevailing farm, wholesale and retail prices for milk outside the territorial region of the six participating New England states.

4. The costs of processing and distributing Class I, fluid milk products within the territorial region of the six participating New England states by plants located within the region.

5. The costs of delivering and marketing bulk, Class I, fluid milk to plants located within the territorial region of the six participating New England states from within and outside the region.

6. The costs of delivering and distributing packaged, Class I, fluid milk products within the territorial region of the six participating New England states processed outside the region.

7. The purchasing power of the general public.

8. The nature and function of all government programs providing food assistance in the form of Class I, fluid, milk products, such as the Women, Infants and Children Special Supplemental Food Program of the United States Child Nutrition Act of 1996, and the potential impact of compact over-order price regulation on such programs.

9. The costs of retailing Class I fluid milk products.

10. The econometrics of price transmission from the farm to retail price for Class I, fluid milk products.

11. The prices needed to yield a reasonable return to producers of milk and distributors of Class I, fluid, milk products.

12. Feasible actions which may be taken to ensure that compact over-order price regulation, if imposed, does not create an incentive for producers to generate additional supplies of milk.

IV. Dates, Times and Locations of Hearing

The Northeast Dairy Compact Commission will hold hearings:

1. Tuesday, December 17, 1996, at 10:00 am at the Lebanon Elks Lodge, Heater Road, Lebanon, NH.

2. Thursday, December 19, 1996 at 11:00 am at the Northborough Grange Hall, School Street, Northborough, MA.

V. Right to Provide Written Comment

Pursuant to Article VI(D) of the Bylaws, any person may participate in the rulemaking proceeding independent of the hearing process by submitting written comments and exhibits to the Northeast Dairy Compact Commission. The comment and/or exhibits may be submitted at any time until January 2, 1997. Comments and exhibits will be made part of the record of the rulemaking proceeding if they identify the author's name, address and occupation and if they include a sworn, notarized statement indicating that the comment and/or exhibit is presented based upon the author's personal knowledge and belief.

Comments and exhibits should be sent to: Northeast Dairy Compact Commission, 43 State Street, P.O. Box 1058, Montpelier, VT 05601, (802) 229–2028 (fax).

For more information, contact a New England state department of agriculture or the Compact Commission offices—(802) 229–1941.

Daniel Smith,

Executive Director.

[FR Doc. 96–31835 Filed 12–12–96; 8:45 am]

BILLING CODE 1650–01–M

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50–369 And 50–370]

Duke Power Company; Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF–9 and NPF–17 issued to Duke Power Company (the licensee) for operation of the McGuire Nuclear Station, Units 1 and 2, located in Mecklenburg County, North Carolina.

The proposed amendments would allow a one-time only change necessary to replace the existing 125-volt D.C. battery cells with new cells.

Before issuance of the proposed license amendments, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendments would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the license has provided its analysis of the issue of no significant hazards consideration, which is presented below:

First Standard

Operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The 125 volt DC Vital Instrumentation and Control Power System is not an accident initiator. It serves as an accident mitigation system. The new battery will be seismically mounted. There is no change in cabling required for the new battery and no change in the physical and electrical separation provisions for the battery. The performance of plant safety functions will not be degraded by the new battery.

The replacement battery consists of conventional low specific gravity cells which will be purchased to meet the same plant requirements as the installed battery. The replacement batteries will be purchased from a 10CFR21 Supplier whose 10 CFR 50 Appendix B Program has been audited by Duke's Supplier Verification Group.

Implementation of each battery bank replacement will require approximately 30 days. During the replacement period, a temporary battery bank, procured through the Commercial Grade Program for 1E usage, will be connected in place. The temporary battery will be installed in the Service Building due to space limitations in the Battery Room in Auxiliary Building. During each battery replacement period, the remaining three vital battery banks and their associated equipment will remain in their normal configuration and will not be reconfigured for preplanned activities or routine maintenance. The performance of their safety functions will not be degraded. The 125VDC Vital I&C Power System will be restored to the fully qualified configuration following each battery replacement period.

The ability to cross-tie the electrical buses for the batteries (as allowed by TS [Technical Specification] LCO [Limiting Condition for Operation] Action Statements) by manual action per procedure remains available as a backup in the event that the temporary battery is rendered unavailable during the replacement period. Each vital battery is sized to carry the continuous emergency and anticipated monetary loads of its own vital bus, and to also assume the loads of another vital bus (in a backup capacity), all for a one hour duty cycle.

The ambient temperature surrounding the temporary battery will be periodically monitored to ensure it remains with the battery specifications. Available ventilation in the temporary battery area is sufficient to prevent accumulation of excess hydrogen.

For the above reasons, it can be concluded that the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Second Standard

The amendment would not create the possibility of a new or different kind of accident from any kind of accident previously evaluated.

There are no new or common failure modes created by the use of low specific gravity cells. The low specific gravity battery

has exhibited consistently high reliability and will perform the same function as the existing batteries.

The GNB Type NCN stationary battery * * * has been chosen as the first option to replace the AT&T round cells. The GNB Type NCN battery is of a conventional rectangular cell design with a traditional vertical plate design. The second option is to use new low specific gravity round cells for replacement. Both options for battery replacement are sized in accordance with IEEE Std. 485–1983.

The temporary battery will be comprised of new low specific gravity cells. The temporary battery and its rack will be the same equipment that is normally used with the exclusion of the seismic bracing and mounting apparatus. With the temporary battery connected, there are no new failure modes for the distribution equipment associated with the battery being replaced.

The temporary battery installation creates a potentially new failure mode due to lack of seismic mounting and the location of the temporary batteries (outside of the Vital Area in a non-Seismic Category 1 structure). This new failure mode is considered insignificant due to the short duration for which the temporary configuration will be in place. Duke Power has analyzed the temporary battery configuration from a probabilistic risk assessment standpoint and has found the temporary battery has no significant impact on the CDF [core damage frequency] at McGuire.

For these reasons, the possibility of a new or different kind of accident from any kind of accident previously evaluated is not created.

Third Standard

The amendment would not involve a significant reduction in a margin of safety.

The vital batteries are required to power emergency and safe shutdown loads for safety related instrument and control equipment during certain accident conditions. Ultimately, safety related equipment required to maintain the integrity of fission product barriers depend upon proper performance of the new battery. The new low specific gravity battery will meet the current licensing basis and will perform the same safety function as the exiting vital battery. As such, the replacement battery will not affect any fission product barriers. The temporary battery is also fully capable of performing the safety function of the system if required and, thus, will have no detrimental impact on any fission product barriers. All required procedures and training will be developed and implemented prior to battery replacement. During the periods of battery replacement, if the temporary battery should become unavailable, the affected 125VDC channel will be declared inoperable and the normal TS LCO will be applied.

Since the acceptance limits with respect to the required redundancy and functional capability of the battery system are not affected by this change, there is no reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the Federal Register a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this Federal Register notice. Written comments may also be delivered to Room 6D22, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By January 13, 1997, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's ''Rules of Practice for Domestic Licensing Proceedings'' in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Atkins Library, University of North Carolina, Charlotte, (UNCC Station), North Carolina. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific

sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. Where petitions are filed during the last 10 days of the Notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to Herbert N. Berkow: petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this Federal Register notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to Mr. Albert Carr, Duke Power Company, 422 South Church Street, Charlotte, North Carolina 28242, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1) (i)–(v) and 2.714(d).

For further details with respect to this action, see the application for amendments dated November 26, 1996, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Atkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina.

Dated at Rockville, Maryland, this 9th day of December, 1996.

For the Nuclear Regulatory Commission.

Victor Nerses,

Senior Project Manager, Project Directorate II-2, Division of Reactor Projects—I/II, Office of Nuclear Reactor Regulation.

[FR Doc. 96–31662 Filed 12–12–96; 845 am]

BILLING CODE 7590–01–M

Advisory Committee on Reactor Safeguards; Revised Candidate Deadline

The deadline for seeking candidates for the NRC's Advisory Committee on Reactor Safeguards is extended from December 31, 1996 to January 31, 1997. Notice of this request for résumés was published in the Federal Register on Thursday, November 21, 1996 (61 FR 59250). All other information pertaining to this request remains the same.

For application materials, call 1–800–952–9678. Please refer to Announcement Number 97–001.

Dated: December 9, 1996.

Andrew L. Bates,

Advisory Committee Management Officer.

[FR Doc. 96–31661 Filed 12–12–96; 8:45 am]

BILLING CODE 7590–01–P

PENSION BENEFIT GUARANTY CORPORATION

Interest Assumption for Determining Variable-Rate Premium; Interest Assumptions for Multiemployer Plan Valuations Following Mass Withdrawal

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Notice of interest rates and assumptions.

SUMMARY: This notice informs the public of the interest rates and assumptions to be used under certain Pension Benefit Guaranty Corporation regulations. These rates and assumptions are published elsewhere (or are derivable from rates published elsewhere), but are collected and published in this notice for the convenience of the public. Interest rates are also published on the PBGC's home page (http://www.pbgc.gov).

DATES: The interest rate for determining the variable-rate premium under part 4006 applies to premium payment years beginning in December 1996. The interest assumptions for performing multiemployer plan valuations following mass withdrawal under part 4281 apply to valuation dates occurring in January 1997.

FOR FURTHER INFORMATION CONTACT: Harold J. Ashner, Assistant General Counsel, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street, NW., Washington, DC 20005, 202–326–4024 (202–326–4179 for TTY and TDD).

SUPPLEMENTARY INFORMATION:

Variable-Rate Premiums

Section 4006(a)(3)(E)(iii)(II) of the Employee Retirement Income Security Act of 1974 and § 4006.4(b)(1) of the PBGC's regulation on Premium Rates (29 CFR part 4006) prescribe use of an assumed interest rate in determining a single-employer plan's variable-rate premium. The rate is a specified percentage (currently 80 percent) of the annual yield on 30-year Treasury securities for the month preceding the beginning of the plan year for which premiums are being paid (the ''premium payment year''). The yield figure is reported in Federal Reserve Statistical Releases G.13 and H.15.

The assumed interest rate to be used in determining variable-rate premiums for premium payment years beginning in December 1996 (*i.e.*, 80 percent of the yield figure for November 1996) is 5.18 percent. The following table lists the assumed interest rates to be used in determining variable-rate premiums for premium payment years beginning

between January 1996 and December 1996.

For premium payment years beginning in	The required interest rate is
January 1996	4.85
February 1996	4.84
March 1996	4.99
April 1996	5.28
May 1996	5.43
June 1996	5.54
July 1996	5.65
August 1996	5.62
September 1996	5.47
October 1996	5.62
November 1996	5.45
December 1996	5.18

Multiemployer Plan Valuations Following Mass Withdrawal

The PBGC's regulation on Duties of Plan Sponsor Following Mass Withdrawal (29 CFR part 4281) prescribes the use of interest assumptions under the PBGC's regulation on Allocation of Assets in Single-employer Plans (29 CFR part 4044). The interest assumptions applicable to valuation dates in January 1997 under part 4044 are contained in an amendment to part 4044 published elsewhere in today's Federal Register. Tables showing the assumptions applicable to prior periods are codified in appendix B to 29 CFR part 4044.

Issued in Washington, D.C., on this 10th day of December 1996.

Martin Slate,

Executive Director, Pension Benefit Guaranty Corporation.

[FR Doc. 96–31716 Filed 12–12–96; 8:45 am]

BILLING CODE 7708–01–P

SECURITIES AND EXCHANGE COMMISSION

Submission for OMB Review; Comment Request

Upon Written Request, Copies Available From: Securities and Exchange Commission, Office of Filings and Information Services, Washington, DC 20549.

Extensions

Form 6–K; SEC File No. 270–107; OMB Control No. 3235–0116.
Form F–7; SEC File No. 270–331; OMB Control No. 3235–0383.
Form F–8; SEC File No. 270–332; OMB Control No. 3235–0378.
Form F–X; SEC File No. 270–336; OMB Control No. 3235–0379.
Sch. 13E–4F; SEC File No. 270–340; OMB Control No. 3235–0375.
Sch. 14D–1F; SEC File No. 270–338; OMB Control No. 3235–0376.
Sch. 14D–9F; SEC File No. 270–339; OMB Control No. 3235–0382.

Notice is hereby given that pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.), the Securities and Exchange Commission (''Commission'') has submitted to the Office of Management and Budget requests for approval of extension on previously approved collections of information:

Form 6–K elicits material information from issuers of publicly-traded securities promptly after the occurrence of specified or other important corporate events so that investors have current information upon which to base investment decisions. Form 6–K is filed by approximately 990 respondents annually for a total burden of 7920 hours.

Form F–7 may be used to register securities offered for cash upon the exercise of rights granted to existing shareholders of the registrant. Form F–7 is filed by approximately 10 respondents annually for a total burden of 20 hours.

Form F–8 may be used to register certain Canadian issuers in exchange offers or business combinations. Form F–8 is filed by approximately 5 respondents annually for a total burden of 10 hours.

Form F–X is used to appoint an agent for service of process by Canadian issuers registering securities on Form F–7, Form F–8, Form F–9 or Form F–10, or filing periodic reports on Form 40–F. Form F–X is filed by approximately 50 respondents annually for a total burden of 100 hours.

Schedule 13E–4F may be used by any issue incorporated or organized under the laws of Canada making a tender offer for the issuer's own securities, where less than 20% of the class of such issuer's securities that is the subject of the tender offer is held of record by United States residents. Schedule 13E–4F is filed by approximately 3 respondents annually for a total burden of 6 hours.

Schedule 14D–1F may be used by any person making a cash tender or exchange offer for securities of any issuer incorporated or organized under the laws of Canada that is a foreign private issuer, where less than 40% of the outstanding class of such issuer's securities that is the subject of the offer is held by United States holders. Schedule 14D–1F is filed by approximately 5 respondents annually for a total burden of 10 hours.

Schedule 14D–9F is used by any issuer incorporated or organized under the laws of Canada, or by any director or officer of such issuer, where the issuer is the subject of a tender offer for a class of its securities filed on Schedule 14D–1F. Schedule 14D–9F is filed by approximately 5 respondents annually for a total burden of 10 hours.

General comments regarding the estimated burden hours should be directed to the Desk Officer for the Securities and Exchange Commission at the address below. Any comments concerning the accuracy of the estimated average burden hours for compliance with Commission rules and form should be directed to Michael E. Bartell, Associate Executive Director, Office of Information Technology, Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549 and Desk Officer for the Securities and Exchange Commission, Office of Information and Regulatory Affairs, Office of Management and Budget, Room 3208, New Executive Office Building, Washington, DC 20503.

Dated: December 3, 1996.

Jonathan G. Katz,

Secretary.

[FR Doc. 96–31724 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Release No. IC–22377; 812–10344]

Bessemer Securities LLC et al.; Notice of Application

December 6, 1996.

AGENCY: Securities and Exchange Commission (''SEC'').

ACTION: Notice of Application for Exemption under the Investment Company Act of 1940 (the ''Act'').

APPLICANTS: Bessemer Securities LLC, Bessec Holdings, L.P., Bessemer Securities Corporation, Bessemer Capital Partners, L.P., Bessemer Ventures, Inc., Bessemer-Bradford Ventures, Inc., Bessemer Interstate Corp., Bessemer Properties, Inc., Bessemer Holdings, L.P., Bessemer Venture Partners L.P., Bessemer Venture Partners II L.P., Bessemer Venture Partners III L.P., Bessemer Venture Partners IV L.P., Bradford Venture Partners, L.P., Bradford Investors L.P.

RELEVANT ACT SECTION: Order requested under section 6(c) of the Act for an exemption from all provisions of the Act.

SUMMARY OF APPLICATION: The Applicants, private family-controlled special purpose investment vehicles whose interests are owned by the family and certain other persons, seek an exemption from all provisions of the

Act. The order would amend a prior order (the ''1992 Bessemer Order'').[1]

FILING DATE: The application was filed on September 13, 1996 and amended on November 20, 1996. Applicants have agreed to file an additional amendment, the substance of which is incorporated herein, during the notice period.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 27, 1996, and should be accompanied by proof of service on the applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street, N.W., Washington, D.C. 20549. Applicants, c/o Bessemer Securities LLC, 630 Fifth Avenue, New York, NY 10111–0333.

FOR FURTHER INFORMATION CONTACT: Kathleen L. Knisely, Law Clerk, at (202) 942–0517, or Alison E. Baur, Branch Chief, at (202) 942–0564 (Division of Investment Management, Office of Investment Company Regulation).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch.

Applicants' Representations

1. Bessemer Securities Corporation (''Bessemer''), incorporated under Delaware law in 1924, is a private investment company which has one class of securities outstanding. All of the outstanding securities of Bessemer is owned by trusts established for the benefit of descendants of Henry Phipps (''Phipps Family Members'') and charitable trusts or charitable foundations established by Phipps Family Members (collectively, the ''Trust''). There are currently 89 trusts and one charitable foundation; the number of Trusts is increasing with each generation of the Phipps family, as most Trusts permit the creation of subtrusts or the transfer in further trust upon the death of an income beneficiary.

2. Bessemer's shares are subject to a shareholders agreement that contains restrictions on share transfers. Each shareholder is bound not to sell, pledge or otherwise dispose of its Bessemer shares to third parties without first offering such shares to the other shareholders, except that dispositions are permitted (a) to or in trust for Phipps Family Members, their spouses, or charitable trusts established by Phipps Family Members, and (b) to the executors or administrators of the estate of a Phipps Family Member. Since 1934, substantially all of Bessemer's outstanding common stock has been held by the Trusts, predecessor trusts, charitable trusts or foundations established by Phipps Family Members. At no time has there been a public offering of Bessemer stock, nor has Bessemer stock been registered under any of the Federal securities laws. In fact, other than the charitable trusts and the charitable foundation, no one other than Phipps Family Members has ever had a beneficial interest in Bessemer's stock.

3. Bessemer's investments include, among other assets, private investments.[2] In general, the private investments segment of Bessemer's portfolio consists of substantial illiquid majority and minority interests in selected companies with growth potential, often in closely held or privately held companies. These investments are sometimes made directly by Bessemer, but in the majority of cases are made by partnerships, of which Bessemer or a wholly-owned subsidiary of Bessemer is the primary or only limited partner. Each of these partnerships is a limited partnership, in which Bessemer's interest as a limited partner exceeds 50%, and which is owned 90% or more by Bessemer and related persons. These partnerships are described more fully in paragraph 4 below.

4. Bessemer Capital Partners, L.P. (''BCP''), Bessemer Holdings, L.P., Bessemer Venture Partners L.P. (''Venture Partners''), Bessemer Venture Partners II L.P. (''Venture Partners II''), Bessemer Venture Partners III L.P. (''Venture Partners III''), Bessemer Venture Partners IV L.P. (''Venture Partners IV''), and Bradford Investors L.P. (''BILP'') are all Delaware partnerships. Bradford Venture Partners, L.P. (''Bradford Partners'') is a New Jersey Partnership (collectively, the ''Existing Partnerships''). The Existing Partnerships were formed in 1992 to serve as vehicles for Bessemer's investment activity.

5. Bessemer has four wholly-owned subsidiary corporations, Bessemer Ventures, Inc., Bessemer-Bradford Ventures, Inc., Bessemer Interstate Corp. and Bessemer Properties, Inc. (collectively, the ''Existing Subsidiaries''). Each of the Existing Subsidiaries is a corporation under Delaware law formed specifically to hold certain investments. The first two subsidiaries listed above are limited to partners of one or more of the partnerships discussed in paragraph 4 above. The latter two subsidiaries own interests in real estate partnerships or direct investments in real estate.

6. In the 1992 Bessemer Order, the SEC exempted Bessemer under section 6(c) from all provisions of the Act. Applicants seek an amended order to permit them to duplicate the basic structure of the investment vehicles exempted in the 1992 Bessemer Order, but with the top tier entities (Bessemer Securities LLC (''BSLLC'') and future Family Securities Companies, as defined in paragraph 15) in a form that will be treated as a partnership for tax purposes. If the requested order is granted, the current owners of Bessemer plan to contribute their shares of Bessemer to BSLLC. That contribution has been approved by the corporate trustees of the shareholder trusts (subject to receipt of the exemptive order requested herein), and will require approval by the individual trustee of the shareholders. When that transaction occurs, Bessemer will become a wholly-owned subsidiary of BSLLC. All of the outstanding interests of BSLLC will be owned by the Trusts in the same proportion as the Trusts hold outstanding common stock of Bessemer.

7. BSLLC is a Delaware limited liability company organized in 1996. It is intended to qualify as a partnership for federal tax purposes. All of the outstanding common membership interests in BSLLC are currently owned by the Trusts. Each Trust currently owns less than 10% of BSLLC's outstanding common interests and that will remain the case after the contribution of Bessemer shares to BSLLC. When the current owners of Bessemer contribute their shares to BSLLC, most or all of the capital of each Trust will be invested in BSLLC.

8. If the requested order is granted and the current owners of Bessemer contribute their shares to BSLLC, Bessemer and BSLLC will both be limited partners in the Partnership. Bessemer will have a limited partnership interest in the Partnership (representing approximately 74% of total equity of the Partnership) with a preferred rate of return and BSLLC will

[1] *Bessemer Securities Corporation*, Investment Company Act Release Nos. 18529 (Feb. 5, 1992) (notice) and 18594 (March 3, 1992) (order).

[2] *See Id.*

have a limited partnership interest in the Partnership (representing approximately 25% of total equity of the Partnership) subordinate to the return on Bessemer's limited partnership interest.

9. Approximately 70.6% of BSLLC's common membership interests is held by Trusts of which the trustees are Bessemer Trust Company (''BTC''), a New Jersey chartered bank, and one or more Phipps Family Members, and approximately 22.0% is held by Trusts of which BTC is the sole trustee. Approximately 7.4% is held by Trusts of which the trustees are Bessemer Trust Company, N.A. (''BTNA''), a national bank, and one or more Phipps Family Members. BTC and BTNA are wholly owned subsidiaries of The Bessemer Group, Inc. (''Bessemer Group''), a Delaware corporation registered under the Federal Bank Holding Company Act. All of the outstanding stock of Bessemer Group (except for director's qualifying shares) is owned by Phipps Family Members or by the Trusts, substantially all of the trustees of which are also BTC, BTNA and Phipps Family Members.

10. The initial officers and members of the board of managers of BSLLC are identical to the officers and board of directors of Bessemer, although that may change from time to time in the future. The common members of BSLLC have voting rights similar to the shareholders of a Delaware corporation (such as Bessemer), and could (if they chose to do so) elect a board of managers with members different than the members of the board of directors of Bessemer.

11. At no time has there been a public offering of BSLLC's shares, nor has BSLLC's shares been registered under any of the federal securities laws. Pursuant to the terms of BSLLC's limited liability company agreement (the ''LLC Agreement''), transfers of common interests in BSLLC are restricted. The LLC Agreement permits transfers to descendants of the same child of Henry Phipps as the transferor, or a trust the beneficial ownership of which is limited to descendants of the same child of Henry Phipps as the transferor and/or a qualifying charity, and transfers with the approval of 80% or more of the common interests. All other transfers require prior notice to BSLLC and other common members. That notice triggers a right to purchase the securities by related entities.

12. Bessec Holdings, L.P. (the ''Partnership'') is a newly formed Delaware limited partnership. Its purpose is to serve as a vehicle through which BSLLC and Bessemer will make private equity investments. The Partnership's portfolio will consist of illiquid interests in selected companies with growth potential, generally in closely held or privately held companies. The Partnership may co-invest in issuers with Bessemer Holdings, L.P., or other private investment vehicles formed by Bessemer, BSLLC or the Family Securities Companies. BSLLC and Bessemer will be the sole limited partners in the Partnership, and their interests will represent approximately 99% of its initial equity capital. The Partnership's sole general partner is Kylix Holdings, L.L.C. (''Kylix'').

13. Kylix is a New York limited liability company that is controlled directly by the president of Bessemer and BSLLC and two other persons who are involved directly in the management of the investments of partnerships formed by Bessemer and BSLLC. Kylix is also indirectly owned by each of these three persons and family trusts and family partnerships established by each of them (the interests in which are owned exclusively by or for the benefit of such person, his wife and direct lineal descendants and spouses of such descendants) and four other senior employees of Bessemer Partners & Co. involved in the management of the assets of the partnerships.

14. Kylix (or its affiliate Bessemer Partners & Co, a general partnership under common control with Kylix) will identify and analyze potential investments, request funding from BSLLC and Bessemer for investments, and manage investments made by the Partnership.

15. Under the Partnership's partnership agreement, Kylix may not dispose of its partnership interest without BSLLC's consent, nor may BSLLC or Bessemer dispose of their partnership interests without Kylix's consent, except that BSLLC may transfer its interest in connection with a merger, reorganization, sale or similar transaction without obtaining such consent. No additional general partners may be admitted without the approval of a majority in interest of the limited partners. The admission of new limited partners must be consented to by BSLLC.

16. It is possible that in the future other entities substantially similar to BSLLC (''Family Securities Companies'') and the Partnership (''Family Investment Vehicles'') (although possibly in corporate partnership, business trust, or limited liability company form) will be formed as vehicles for investment by the Phipps Family Members and the Trusts (i) for making investments in the manner in which BSLLC or the Partnership makes investments, (ii) making specifically identified new investments, (iii) to make other types of investments, or (iv) to succeed to BSLLC or the Partnership. The structure of each Family Securities Company will be similar to BSLLC and the structure of each Family Investment Vehicle will be similar to the Partnership in terms of its management and method of operation.

Applicants' Legal Analysis

1. Section 3(c)(1) of the Act excepts from the definition of ''investment company'' any issuer whose outstanding securities are beneficially owned by not more than 100 persons and which is not making, and does not presently propose to make, a public offering of its securities.

2. BSLLC and the Partnership are currently exempt from registration as an investment company under section 3(c)(1) the Act. Each of the applicants is also exempt from registration under the Act because they are currently operating within the terms of the 1992 Bessemer Order. One of the conditions to the 1992 Bessemer Order, however, is that Bessemer own at least 50% of the equity of the Phipps family investment vehicle. Because BSLLC will not be owned by Bessemer, applicants seek an amended order.

3. Applicants argue that section 3(c)(1) was intended to exclude ''private'' investment companies from the purview of the Act and that the SEC has authority under section 6(c) to exempt private companies that have more than 100 beneficial owners. *Maritime Corporation,* 9 SEC 906 (1941). Applicants cite a series of orders where the Commission has granted exemptions in a number of circumstances in which the applicant was a family-related private investment vehicle, notwithstanding the fact that in each instance it had more than 100 shareholders. Each of the orders was conditioned upon undertakings by the applicant designed to ensure that the investment vehicle would remain family controlled and private. *See, e.g., Heber J. Grant & Company,* Investment Company Act Release Nos. 20040 (January 27, 1994) (notice) and 20091 (February 23, 1994) (order); *Pitcairn Group L.P.,* Investment Company Act Release Nos. 21525 (November 20, 1995) (notice) and 21616 (December 20, 1995) (order); and *THC Partners,* Investment Company Act Release Nos. 21980 (May 23, 1996) and 22023 (June 18, 1996) (order).

4. Applicants submit that each of the applicants is, and the Family Securities Companies and the Family Investment

Vehicles will be, privately owned and family-controlled special purpose entities to which the Act was not intended to apply. Each of the applicants possesses the characteristics of a private company shared by the applicants in the previous exemptive orders. Applicants' investors share a close relationship to the Phipps family. BSLLC is being established by the Trusts that own Bessemer to pursue new investments. Bessemer itself is, and has been since 1924, owned entirely by Phipps Family Members and Trusts. Applicants argue that unlike the investment companies the Act was designed to regulate, BSLLC, the Partnership, the Family Securities Companies, and the Family Investment Vehicles will be operated as a private family enterprise.

5. Applicants state that all or a substantial percentage of each applicant is owned, directly or indirectly, by or for the benefit of Phipps Family Members and Trusts, except such portions owned by persons related to Bessemer who are managing the assets. They further state that no effort has been made to sell participations in the Partnership to persons other than BSLLC and Bessemer. The only investor in the Partnership (other than BSLLC and Bessemer) is Kylix. There is no public market for interests in the applicants, and there have been no transfers of such interests. Applicants state they have not sought and will not seek other investors in the applicants, the Family Securities Companies or the Family Investment Vehicles (other than Bessemer Investors, as defined below), either public or private. There has been no market for interests in applicants, Family Securities Companies and the Family Investment Vehicles, and there will not be any such market.

6. Applicants submit that the requested exemption is necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provision of the 1940 Act, within the meaning of section 6(c) of the 1940 Act

Applicants' Conditions

Applicants agree that the Order granting the requested relief shall be subject to the following conditions:

1. The requested exemption with respect to BSLLC shall be conditioned on the observance by it of the following conditions:

a. BSLLC will hold annual meetings of its members for the purpose of electing the members of the Board of Managers, ratifying the appointment of the independent accountants engaged by BSLLC, and transacting such other business as may properly come before such meetings.

b. BSLLC will furnish annually to its members its financial statements audited by an accounting firm of recognized national standing.

c. BSLLC will be at least 80% owned directly or indirectly by or for the benefit of Phipps Family Members and their spouses, and Trusts; and any part of BSLLC that is not owned directly or indirectly by or for the benefit of such persons will be beneficially owned (as the term is used in section 3(c)(1) of the Act) by not more than 35 persons and will not have been publicly offered.

d. BSLLC will not knowingly make available to any broker or dealer registered under the Securities Exchange Act of 1934 any financial information concerning BSLLC for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market for BSLLC's membership interests.

2. The requested exemption with respect to the Partnership shall be conditioned on the observance by the Partnership of the following conditions:

a. The Partnership will furnish annually to each partner its financial statements audited by an accounting firm of recognized national standing.

b. The Partnership will neither admit as a new partner, nor permit the assignment or transfer of any interest in the Partnership to, any individual or entity if that admission, assignment or transfer would cause the Partnership to fail to have the following characteristics: (1) The Partnership will be at least 90% owned directly or indirectly by or for the benefit of the following persons (''Bessemer Investors''): (i) BSLLC or one or more of its subsidiaries, (ii) Bessemer or one or more of its subsidiaries, (iii) Existing Partnerships; (iv) Family Securities Companies, (v) Family Investment Vehicles, (vi) Phipps Family members and their spouses, (vii) Trusts, (viii) natural persons who, at the time of their admission to the Partnership, are directors, managers or retired former directors or managers of BSLLC, Bessemer, a Family Securities Company, or an affiliate of BSLLC, Bessemer or a Family Securities Company, or are employees or retired former employees of BSLLC, Bessemer, a Family Securities Company or an affiliate of BSLLC, Bessemer, or a Family Securities Company who have (or had, in the case of retired former employees) a high level of executive, investment management, investment analysis or administrative responsibility, and any family trust, family partnership or comparable family entity established by such a natural person the interests in which are owned exclusively by or for the benefit of such natural person, his or her spouse and direct lineal descendants and spouses of such descendants, and charitable organizations, and (ix) natural persons who, although not employees of BSLLC or any affiliate of BSLLC, directly or indirectly actually manage the Partnership's, and Existing Partnership's or a Family Investment Vehicle's investments, and any family trust, family partnership or comparable family entity established by such a natural person the interests in which are owned exclusively by or for the benefit of such natural person, his or her spouse and direct lineal descendants and spouses of such descendants, and charitable organizations; (2) it will be at least 50% owned directly or indirectly by or for the benefit of Bessemer, BSLLC or a Family Securities Company; and (3) any part of the Partnership that is not held directly or indirectly by or for the benefit of Bessemer Investors will be beneficially owned (as the term is used in section 3(c)(1) of the Act) by not more than 35 persons and will not have been publicly offered.

c. The Partnership will not (1) admit any new general partner without the approval of the owners of majority in interest in the Partnership, or (2) have as an investment adviser to that vehicle any investment adviser to that vehicle other than (i) Bessemer, BSLLC, a Family Securities Company or one of their affiliates, (ii) one or more employees of Bessemer, BSLLC, a Family Securities Company, or one of their affiliates, (iii) an investment manager or a general partner (or one or more of its affiliates or employees) approved by the owners of a majority in interest of the Partnership, or (iv) a bank or trust company subsidiary of Bessemer Group.

d. The Partnership will not knowingly make available to any broker or dealer registered under the Securities Exchange Act of 1934 any financial information concerning the Partnership for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market in any partnership interest in the Partnership.

3. The requested exemption with respect to Bessemer shall be conditioned on the observance by it of the following conditions:

a. Bessemer will hold annual meetings of its shareholder or shareholders for the purpose of electing the members of the Board of Directors, ratifying the appointment of the independent accountants engaged by Bessemer, and transacting such other

business as may properly come before such meetings.

b. Bessemer will furnish annually to its shareholder or shareholders its financial statements which may be part of the consolidated financial statements of BSLLC, audited by an accounting firm of recognized national standing.

c. Bessemer will be at least 80% owned directly or indirectly by or for the benefit of BSLLC, a Family Securities Company, Phipps Family Members and their spouses, and Trusts; and any part of Bessemer that is not owned directly or indirectly by or for the benefit of such persons will be beneficially owned (as the term is used in section 3(c)(1) of the Act) by not more than 35 persons and will not have been publicly offered.

d. Bessemer will not knowingly make available to any broker or dealer registered under the Securities Exchange Act of 1934 any financial information concerning Bessemer for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market for Bessemer's common stock.

4. The requested exemption with respect to each Existing Partnership shall be conditioned on the observance by that Existing Partnership of the following conditions:

a. The Existing Partnership will furnish annually to each partner its financial statements audited by an accounting firm of recognized national standing.

b. The Existing Partnership will neither admit as a new partner, nor permit the assignment or transfer of any interest in the Existing Partnership to, any individual or entity if that admission, assignment or transfer would cause the Existing Partnership to fail to have the following characteristics: (1) the Existing Partnership will be at least 90% owned directly or indirectly by or for the benefit of Bessemer, BSLLC or a Family Securities Company; and (2) any part of the Existing Partnership that is not held directly or indirectly by or for the benefit of Bessemer Investors will be beneficially owned (as the term is used in section 3(c)(1) of the Act) by not more than 35 persons and will not have been publicly offered.

c. The Existing Partnership will not (1) admit any new general partner without the approval of the owners of majority in interest in the Existing Partnership, or (2) have as an investment adviser to that vehicle any investment adviser other than (i) Bessemer, BSLLC, a Family Securities Company or one of their affiliates, (ii) one or more employees of Bessemer, BSLLC, a Family Securities Company, or one of their affiliates, (iii) an investment manager or a general partner (or one or more of its affiliates or employees) approved by the owners of a majority in interest of the Existing Partnership, or (iv) a bank or trust company subsidiary of Bessemer Group.

d. The Existing Partnership will not knowingly make available to any broker or dealer registered under the Securities Exchange Act of 1934 any financial information concerning the Existing Partnership for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market in any partnership interest in the Existing Partnership.

5. The requested exemption with respect to each of Bessemer Ventures, Inc., Bessemer-Bradford Ventures, Inc., Bessemer Interstate Corp. and Bessemer Properties, Inc. (the ''Existing Subsidiaries'') shall be conditioned on the observance by that Existing Subsidiary of the following conditions:

a. All of the securities of the Existing Subsidiary will be owned directly or indirectly by or for the benefit of Bessemer, BSLLC or a Family Securities Company.

b. the Existing Subsidiary will not knowingly make available to any broker or dealer registered under the Securities Exchange Act of 1934 any financial information concerning the Existing Subsidiary for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market in any partnership interest in the Existing Subsidiary.

6. The requested exemption with respect to each Family Securities Company shall be conditioned on the observance by that Family Securities Company of the following conditions:

a. The Family Securities Company will hold annual meetings of its members for the purpose of electing the members of its board of managers, board of directors or persons serving a similar function, ratifying the appointment of the independent accountants engaged by the Family Securities Company, and transacting such other business as may properly come before such meetings.

b. The Family Securities Company will furnish annually to its members its financial statements audited by an accounting firm of recognized national standing.

c. The Family Securities Company will be at least 80% owned directly or indirectly by or for the benefit of Bessemer, Phipps Family Members and their spouses, and Trusts; and any part of the Family Securities Company that is not owned directly or indirectly by or for the benefit of such persons will be beneficially owned (as the term is used in section 3(c)(1) of the Act) by not more than 35 persons and will not have been publicly offered.

d. The Family Securities Company will not knowingly make available to any broker or dealer registered under the Securities Exchange Act of 1934 any financial information concerning the Family Securities Company for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market for securities issued by the Family Securities Company.

7. The requested exemption with respect to each Family Investment Vehicle may be conditioned on the observance by that Family Investment Vehicle of the following conditions:

a. The Family Investment Vehicle will furnish annually to each member, shareholder, partner or investor its financial statements audited by an accounting firm of recognized national standing.

b. The Family Investment Vehicle will neither admit as a new investor, nor permit the assignment or transfer of any interest in that Family Investment Vehicle to, any individual or entity if that admission, assignment or transfer would cause that Family Investment Vehicle to fail to have the following characteristics: (1) that Family Investment Vehicle will be at least 90% owned directly or indirectly by or for the benefit of Bessemer Investors; (2) it will be at least 50% owned directly or indirectly by or for the benefit of Bessemer, BSLLC or a Family Securities Company; and (3) any part of that Family Investment Vehicle that is not held directly or indirectly by or for the benefit of Bessemer Investors will be beneficially owned (as the term is used in section 3(c)(1) of the Act) by not more than 35 persons and will not have been publicly offered.

c. The Family Investment Vehicle will not (1) admit any new general partner (in the case of a limited partnership) or manager without the approval of the owners of a majority in interest of it, or (2) have as an investment adviser to that vehicle any investment adviser other than (i) Bessemer, BSLLC, a Family Securities Company or one or more of their affiliates, (ii) one or more employees of Bessemer, BSLLC, a Family Securities Company, or one of their affiliates, (iii) an investment manager or a general partner (or one or more of its affiliates or employees) approved by the owners of a majority in interest of the Family Investment Vehicle, or (iv) a bank or trust company subsidiary of the Bessemer Group.

d. The Family Investment Vehicle will not knowingly make available to any broker or dealer registered under

the Securities Exchange Act of 1934 any financial information concerning that Family Investment Vehicle for the purpose of knowingly enabling that broker or dealer to initiate any regular trading market in any interest in that Family Investment Vehicle.

For the SEC, by the Division of Investment Management, pursuant to delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 96–31617 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Investment Company Act Release No. 22376; 811–7161]

Dreyfus International Recovery Fund, Inc.; Notice of Application

December 6, 1996.

AGENCY: Securities and Exchange Commission (''SEC'').

ACTION: Notice of Application for Exemption Under the Investment Company Act of 1940 (the ''Act'').

APPLICANT: Dreyfus International Recovery Fund, Inc.

RELEVANT ACT SECTION: Section 8(f).

SUMMARY OF APPLICATION: Applicant requests an order declaring that it has ceased to be an investment company.

FILING DATES: The application was filed on June 24, 1996 and amended on September 20, 1996, and on November 26, 1996.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 31, 1996, and should be accompanied by proof of service on applicant in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 5th Street, NW., Washington, DC 20549. Applicant, 200 Park Avenue, New York, NY 10166.

FOR FURTHER INFORMATION CONTACT: Harry Eisenstein, Staff Attorney, at (202) 942-0552, or Alison E. Baur, Branch Chief, (202) 942-0564 (Office of Investment Company Regulation, Division of Investment Management).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch.

Applicant's Representations

1. Applicant, a registered open-end investment company, was organized as a Maryland corporation. On April 4, 1994, the applicant registered under section 8(a) of the Act and filed a registration statement on Form N–1A pursuant to section 8(b) of the Act and the Securities Act of 1933. The registration statement was declared effective on June 22, 1994 and applicant commenced its public offering of shares on June 29, 1994.

2. At a meeting held on March 11, 1996, applicant's Board of Director's determined that it was advisable and in the best interests of the applicant and the applicant's securityholders to liquidate the applicant and distribute its assets to the securityholders. The board based this determination on the fact that the applicant was unable to attract sufficient assets to operate efficiently.

3. On April 30, 1996, applicant's only shareholders were its investment adviser, Dreyfus Corporation (''Adviser''), and its sub-adviser, M&G Corporation (''Manager''). Prior to the time of valuation on such date, $21,858.04 was distributed to the Manager as share redemption proceeds at a net asset value of $11.49 per share. Applicant states that the distribution of share redemption proceeds to the Manager prior to the distribution to the Adviser is part of the Adviser's procedures designed to ensure that the Manager is made whole upon the liquidation of a fund.

4. At the time of valuation on April 30, 1996, 251,485.519 shares of common stock of the Fund were outstanding with aggregate and per share net asset value of $2,889,568.61 and $11.49, respectively. In total, applicant liquidated its securities and distributed $2,911.426.65 on April 30, 1996 at net asset value in cash to its security holders.

5. Applicant has no assets, liabilities, outstanding debts or shareholders as of the time of filing the application, and is not a party to any litigation or administrative proceeding. Applicant is not engaged, nor does it propose to engage, in any business activities other than those necessary for the winding-up of its affairs. Applicant will file appropriate certificates of dissolution or similar documents with the state of Maryland.

For the SEC, by the Division of Investment Management, under delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 96–31616 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Investment Company Act Release No. 22381; 811–5668]

The Hanover Funds, Inc.; Notice of Application

December 9, 1996.

AGENCY: Securities and Exchange Commission (''SEC'').

ACTION: Notice of application for deregulation under the Investment Company Act of 1940 (the ''Act'').

APPLICANT: The Hanover Funds, Inc.

RELEVANT ACT SECTION: Order requested under Section 8(f).

SUMMARY OF APPLICATION: Applicant requests an order declaring that it has ceased to be an investment company.

FILING DATE: The application was filed on September 12, 1996 and amended on November 25, 1996.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on January 6, 1997, and should be accompanied by proof of service on the applicant, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reasons for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street, N.W., Washington, D.C. 20549. Applicant, 237 Park Avenue, New York, N.Y. 10017.

FOR FURTHER INFORMATION CONTACT: Kathleen L. Knisely, Law Clerk, at (202) 942–0517, or Mary Kay Frech, Branch Chief at (202) 942–0564 (Division of Investment Management, Office of Investment Company Regulation).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee from the SEC's Public Reference Branch.

Applicant's Representations

1. Applicant is an open-end management investment company

organized as a Maryland corporation and consisting of six portfolios: The 100% U.S. Treasury Securities Money Market Fund, The U.S. Treasury Money Market Fund, The Cash Management Fund, The Tax Free Money Market Fund, The New York Tax Free Money Market Fund, and The Government Money Market Fund. All of the portfolios are diversified except for The New York Tax Free Money Market Fund, which is non-diversified.

2. On October 6, 1988, applicant filed a Notification of Registration on Form N–8A pursuant to section 8(a) under the Act and a registration statement on Form N–1A under the Securities Act of 1933. The registration statement became effective on December 12, 1988.

3. On December 13, 1995, applicant's board of directors approved an Agreement and Plan of Reorganization and Liquidation (the ''Plan'') whereby applicant would exchange its net assets for shares of Mutual Fund Trust (''MFT''), a Massachusetts business trust registered under the Act as an open-end management investment company, in exchange for shares of MFT.

4. In approving the Plan, the directors identified certain potential benefits likely to result from the reorganization, including, (a) that shareholders of the U.S. Treasury Money Market Fund, the Tax Free Money Market Fund, and the New York Tax Free Money Market Fund would be able to pursue substantially the same investment goals in respective larger funds, which would enhance the ability of portfolio managers to effect their portfolio transactions on more favorable terms and give portfolio managers greater investment flexibility and the ability to select a larger number of portfolio securities, with the attendant benefits of increased diversification, (b) that shareholders of each of applicant's portfolios would receive the combined investment advisory services of The chase Manhattan Bank, N.A. (including Chemical Bank as its successor, renamed The Chase Manhattan Bank) and Chase Asset Management or Texas Commerce Bank National Association, as the case may be, which the directors found to be experienced and qualified investment managers, (c) that shareholders of applicant's portfolios would become shareholders in a larger combined fund family consisting of a wide range of stock, bond, and money market funds, including both domestic and international portfolios, and (d) that shareholders of applicant's portfolios would benefit from a more focused marketing and distribution effort, thereby reducing potential investor confusion and promoting asset growth in such portfolios.

5. The investment advisers of applicant and MFT came under the common control of Chemical Banking Corporation (renamed The Chase Manhattan Corporation) as a result of the merger of The Chase Manhattan Corporation into Chemical Banking Corporation. Consequently, applicant and MFT may be deemed to be affiliated persons by reason of being under the control of investment advisers that are themselves under common control. Applicant therefore relied on the exemption provided by rule 17a–8 to effect the transaction.[1] Pursuant to rule 17a–8 under the Act, applicant board of directors determined that the proposed reorganization was in the best interest of applicant and that the interests of the existing shareholders would not be diluted as a result of the proposed reorganization.

6. On December 29, 1995, applicant filed a proxy statement with the SEC that was declared effective on February 8, 1996. On February 15, 1996, proxy materials were distributed to applicant's shareholders. Applicant's shareholders approved the Plan at special meetings held on April 2, 1996 and April 16, 1996.

7. On May 3, 1996 (the ''Closing Date''), the capitalization of applicant was as follows: The 100% U.S. Treasury Securities Money Market Fund had 1,779,110,820.74 shares outstanding, with aggregate net assets of $1,779,033,262 and a net asset value per share outstanding of $1.00; The U.S. Treasury Money Market Fund had 1,658,435,519.07 shares outstanding, with aggregate net assets of $1,658,335,329 and a net asset value per share outstanding of $1.00; The Cash Management Fund had 1,521,305,012.28 shares outstanding, with aggregate net assets of $1,521,280,125 and a net asset value per share outstanding of $1.00; The Tax Free Money Market Fund had 351,365,963.70 shares outstanding, with aggregate net assets of $350,999,109 and a net asset value per share outstanding of $1.00; The New York Tax Free Money Market Fund had 321,245,415.71 shares outstanding, with aggregate net assets of $321,162,382 and a net asset value per share outstanding of $1.00; and The Government Money Market Fund had 1,551,339,231.25 shares outstanding, with aggregate net assets of $1,551,222,906 and a net asset value per share outstanding of $1.00.

8. Pursuant to the Plan, on the Closing Date, applicant transferred all of the assets and liabilities of each of its six portfolios in exchange for shares of a corresponding portfolio of MFT. The number of shares issued to applicant was determined by dividing the net asset value per share of applicant's portfolio shares by the net asset value of a share of MFT portfolio shares of the corresponding MFT portfolio. Following this exchange, applicant distributed the shares of the corresponding MFT portfolio received in connection with the reorganization to its shareholders on a *pro rata* basis.

9. Expenses incurred in connection with the reorganization are estimated to be approximately $4,390,128, which includes legal fees, printing fees, audit fees and expenses, and proxy solicitation expenses. The expenses resulting from the reorganization were borne by The Chase Manhattan Corporation (including its affiliates). The Chase Manhattan Corporation is the ultimate parent of the investment advisers to MFT and applicant.

10. As of the date of the application, applicant had no shareholders and no securities outstanding. Applicant has no debts or other liabilities outstanding. Applicant is not a party to any litigation or administrative proceeding. Applicant is neither engaged nor proposes to engage in any business activities other than those necessary for the winding up of its affairs.

11. Applicant filed Articles of Transfer with the State of Maryland on May 6, 1996, and intends to file Articles of Dissolution with the State of Maryland.

For the Commission, by the Division of Investment Management, pursuant to delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 96–31722 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[1] Rule 17a–8 provides relief from the affiliated transaction prohibition of section 17(a) of the Act for a merger of investment companies that may be affiliated persons of each other solely by reason of having a common investment adviser, common directors, and/or common officers. The staff of the Division of Investment Management has stated that it would not recommend that the Commission take enforcement action under section 17(a) of the Act if investment companies that are affiliated persons solely by reason of having investment advisers that are under common control rely on rule 17a–8. *See, e.g.*, Capitol Mutual Funds and Nations Fund Trust (pub. avail. Feb. 24, 1994).

[Investment Company Act Release No. 22380; 811–4333]

Mitchell Hutchins/Kidder, Peabody Government Income Fund, Inc.; Notice of Application

December 6, 1996.

AGENCY: Securities and Exchange Commission (''SEC'').

ACTION: Notice of application for deregistration under the Investment Company Act of 1940 (the ''Act'').

APPLICANT: Mitchell Hutchins/Kidder, Peabody Government Income Fund, Inc.

RELEVANT ACT SECTION: Section 8(f).

SUMMARY OF APPLICATION: Applicant requests an order declaring that it has ceased to be an investment company.

FILING DATE: The application was filed on October 15, 1996.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's. Secretary and serving applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 31, 1996, and should be accompanied by proof of service on the applicant, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street, N.W., Washington, D.C. 20549. Applicant, c/o Dianne E. O'Donnell, Legal Department, Mitchell Hutchins Asset Management Inc., 1285 Avenue of the Americas, 18th Floor, New York, New York 10019.

FOR FURTHER INFORMATION CONTACT: Diane L. Titus, Paralegal Specialist, at (202) 942–0584, or Mary Kay Frech, Branch Chief, at (202) 942–0564 (Divisions of Investment Management, Office of Investment Company Regulation).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee from the SEC's Public Reference Branch.

Applicant's Representations

1. Applicant is an open-end, diversified management investment company organized as a corporation under the laws of the State of Maryland. On June 21, 1985, applicant registered under section 8(a) of the Act and filed a registration statement on Form N–1A pursuant to section 8(b) of the Act and the Securities Act of 1933, covering an indefinite number of shares of common stock. The registration statement was declared effective on October 8, 1985, and the initial public offering of common stock commenced thereafter.

2. On July 20, 1995, applicant's Board of Directors approve an Agreement and Plan of Reorganization and Liquidation (''Plan'') between applicant and PaineWebber Managed Investments Trust Fund on behalf of its series, PaineWebber U.S. Government Income Fund (''PW Fund''), whereby PW Fund was to acquire all the assets of applicant in exchange solely for shares of beneficial interest in PW Fund and the assumption by PW Fund of all of applicant's liabilities. In accordance with rule 17a–8 of the Act, applicant's directors determined that the reorganization was in the best interests of applicant and that the interests of applicant's existing shareholders would not be diluted as a result.[1]

3. According to applicant's proxy statement, the directors considered a number of factors in approving the Plan, including, (a) the compatibility of the investment objectives, policies, and restrictions of the funds, (b) the effect of the reorganization on expected investment performance, (c) the effect of the reorganization on the expense ratio of the PW Fund relative to its current expense ratio, and (d) possible alternatives to the reorganization, including continuing to operate on a stand-alone basis or liquidation.

4. Proxy materials relating to the Plan and the transactions contemplated thereby and a combined prospectus relating to the shares of PW Fund to be issued were mailed to applicant's shareholders on or about September 20, 1995. At a special meeting held on October 19, 1995, applicant's shareholders approved the Plan.

5. On October 20, 1995 (the ''Closing Date''), applicant had 2,722,401.99 of Class A shares, 87,709.60 of Class B shares, and 217,018.48 of Class C shares of common stock outstanding, having an aggregate net asset value of $38,732,027.42 of Class A shares, $1,247,329.82 of Class B shares, and $3,085,587.82 of Class C shares and a per share net asset value of $14.23 of Class A shares, $14.22 of Class B shares and $14.22 of Class C shares. Pursuant to the Plan, applicant transferred to PW Fund all rights, title, and interest in and to applicant's assets. In exchange therefor, PW Fund assumed all liabilities, debts, obligations, and duties of applicant, and issued to applicant the number of shares of PW Fund determined by dividing the net asset value of a share of applicant by the net asset value of a share of PW Fund, in each case as of the close of regular trading on the New York Stock Exchange, Inc. on the Closing Date.

6. On the Closing Date, applicant liquidated and distributed *pro rata* to its shareholders of record, determined as of the close of business on the Closing Date, the shares of PW Fund received by applicant in the reorganization, in exchange for such shareholders' shares of applicant.

7. The expenses incurred in connection with the reorganization consisted primarily of legal expenses, expenses of printing and mailing communications to shareholders, registration fees, and miscellaneous accounting and administrative expenses. These expenses totaled approximately $200,000 and were borne by applicant and PW Fund in proportion to their respective net assets.

8. As of the date of the application, applicant has no assets, debts or liabilities, and has no security holders. Applicant is not a party to any litigation or administrative proceedings. Applicant is not now engaged, and does not propose to engage, in any business activities other than those necessary for winding-up of its affairs.

9. On January 30, 1996, applicant and PW Fund filed Articles of Transfer with the Maryland State Department of Assessments and Taxation. Applicant intends to file Articles of Dissolution with the State of Maryland.

For the SEC, by the Division of Investment Management, under delegated authority.

Jonathan G. Katz,

Secretary.

[FR Doc. 96–31613 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[1]Applicant and PW Fund may be deemed to be affiliated persons of each other by reason of having a common investment adviser, common directors, and/or common officers. Although purchases and sales between affiliated persons generally are prohibited by section 17(a) of the Act, rule 17a–8 provides an exemption for certain purchases and sales among investment companies that are affiliated persons of each other solely by reason of having a common investment adviser, common directors, and/or common officers.

[Investment Company Act Release No. 22379; 811–4332]

Mitchell Hutchins/Kidder, Peabody Equity Income Fund, Inc.; Notice of Application

December 6, 1996.

AGENCY: Securities and Exchange Commission (''SEC'').

ACTION: Notice of application for deregistration under the Investment Company Act of 1940 (the ''Act'').

APPLICANT: Mitchell Hutchins/Kidder, Peabody Equity Income Fund, Inc.

RELEVANT ACT SECTION: Section 8(f).

SUMMARY OF APPLICATION: Applicant requests an order declaring that it has ceased to be an investment company.

FILING DATE: The application was filed on October 15, 1996.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 31, 1996, and should be accompanied by proof of service on the applicant, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street, N.W., Washington, D.C. 20549. Applicant, c/o Dianne E. O'Donnell, Legal Department, Mitchell Hutchins Asset Management Inc., 1285 Avenue of the Americas, 18th Floor, New York, New York 10019.

FOR FURTHER INFORMATION CONTACT: Diane L. Titus, Paralegal Specialist, at (202) 942–0564, or Mary Kay Frech, Branch Chief, at (202) 942–0584, (Division of Investment Management, Office of Investment Company Regulation).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee from the SEC's Public Reference Branch.

Applicant's Representations

1. Applicant is an open-end, diversified management investment company organized as a corporation under the laws of the State of Maryland. On June 21, 1985, applicant registered under section 8(a) of the Act and filed a registration statement on Form N–1A pursuant to section 8(b) of the Act and the Securities Act of 1933, covering an indefinite number of shares of common stock. The registration statement was declared effective on October 8, 1985, and the initial public offering of common stock commenced thereafter.

2. On April 26, 1995 and July 20, 1995, applicant's Board of Directors approved an Agreement and Plan of Reorganization and Liquidation (''Plan'') between applicant and PaineWebber America Fund on behalf of its series, PaineWebber Growth and Income Fund (''PW Fund''), whereby PW Fund was to acquire all the assets of applicant in exchange solely for shares of beneficial interest in PW Fund and the assumption by PW Fund of all of applicant's liabilities. In accordance with rule 17a–8 of the Act, applicant's directors determined that the reorganization was in the best interests of applicant and that the interests of applicant's existing shareholders would not be diluted as a result.[1]

3. According to applicant's proxy statement, the directors considered a number of factors in approving the Plan, including, (a) the compatibility of the investment objectives, policies, and restrictions of the funds, (b) the effect of the reorganization on expected investment performance, (c) the effect of the reorganization on the expense ration of the PW Fund relative to its current expense ratio, and (d) possible alternatives to the reorganization, including continuing to operate on a stand-alone basis or liquidation.

4. Proxy materials relating to the Plan and the transactions contemplated thereby and a combined prospectus relating to the shares of PW Fund to be issued were mailed to applicant's shareholder on or about September 8, 1995. At a special meeting held on October 6, 1995, applicant's shareholders approved the Plan.

5. On October 13, 1995 (the ''Closing Date''), applicant had 2,816,986.797 of Class A shares, 75,614.434 of Class B shares, and 153,428.676 of Class C shares of common stock outstanding, having an aggregate net asset value of $55,983,774.35 for Class A shares, $1,493,700.44 for Class B shares, and $3,044,662.68 for Class C shares, and a per share net asset value of $19.87 for Class A shares, $19.75 for Class B shares, and $19.84 for Class C shares. Pursuant to the Plan, applicant transferred to PW Fund all rights, title, and interest in and to applicant's assets. In exchange, therefor, PW Fund assumed all liabilities, debts, obligations, and duties of applicant, and issued to applicant the number of shares of PW Fund determined by dividing the net asset value of a share of applicant by the net asset value of a share of PW Fund, in each case as of the close of regular trading on the New York Stock Exchange, Inc. on the Closing Date.

6. On the Closing Date, applicant liquidated and distributed *pro rata* to its shareholders of record, determined as of the close of business on the Closing Date, the shares of PW Fund received by applicant in the reorganization, in exchange for such shareholders' shares of applicant.

7. The expenses incurred in connection with the reorganization consisted primarily of legal expenses, expenses of printing and mailing communications to shareholders, registration fees, and miscellaneous accounting and administrative expenses. These expenses totalled approximately $250,000 and were borne by applicant and PW Fund in proportion to their respective net assets.

8. As of the date of the application, applicant has no assets, debts or liabilities, and has no securityholders. Applicant is not a party to any litigation or administrative proceedings. Applicant is not now engaged, and does not propose to engage, in any business activities other than those necessary for winding-up of its affairs.

9. On January 30, 1996, applicant and PW Fund filed Articles of Transfer with the Maryland State Department of Assessments and Taxation. Applicant intends to file Articles of Dissolution with the State of Maryland.

For the SEC, by the Division of Investment Management, under delegated authority.

Jonathan G. Katz,

Secretary.

[FR Doc. 96–31615 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[1] Applicant and PW Fund may be deemed to be affiliated persons of each other by reason of having a common investment adviser, common directors, and/or common officers. Although purchases and sales between affiliated persons generally are prohibited by section 17(a) of the Act, rule 17a–8 provides an exemption for certain purchases and sales among investment companies that are affiliated persons of each other solely by reason of having a common investment adviser, common directors, and/or common officers.

[Investment Company Act Rel. No. 22382; 812–10318]

NASL Financial Services, Inc., et al.; Notice of Application

December 9, 1996.

AGENCY: Securities and Exchange Commission (SEC).

ACTION: Notice of Application for Exemption under the Investment Company Act of 1940 (the ''Act'').

APPLICANTS: NASL Financial Services, Inc. (''Adviser''), NASL Series Trust (''Trust''), and North American Funds (''Fund'' and, together with the Trust, ''Companies'').

RELEVANT ACT SECTIONS: Exemption requested under section 6(c) of the Act from the provisions of section 15(a) and

rule 18f–2 and from certain disclosure requirements set forth in item 22 of Schedule 14A under the Securities Exchange Act of 1934 (the ''Exchange Act''), items 2, 5(b)(iii), and 16(a)(iii) of Form N–1A, item 48 of Form N–SAR, item 3 of Form N–14, and sections 6–07(2) (a), (b), and (c) of Regulation S–X.

SUMMARY OF APPLICATION: Applicants seek an order to permit sub-advisers to serve as portfolio managers for series of the Trust and the Fund without obtaining shareholder approval and to grant relief from various disclosure requirements regarding advisory fees paid to the sub-advisers.

FILING DATES: The application was filed on August 29, 1996, and amended on November 27, 1996. Applicants have agreed to file an amendment during the notice period, the substance of which is included in this notice.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 30, 1996, and should be accompanied by proof of service on the applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street, NW., Washington, DC 20549. Applicants, 116 Huntington Avenue, Boston, MA 02116.

FOR FURTHER INFORMATION CONTACT: Harry Eisenstein, Senior Counsel, at (202) 942–0552, or Mercer E. Bullard, Branch Chief, at (202) 942–0564 (Division of Investment Management, Office of Investment Company Regulations).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch.

Applicants' Representations

1. The Trust, organized as a Massachusetts business trust, is an open-end management investment company registered under the Act. The Trust has 35 investment portfolios (''Trust Portfolios''), each with its own investment objectives and policies. Shares of the Trust are sold only to insurance companies and their separate accounts. The Trust currently serves as the underlying investment medium for amounts invested in annuity and variable life contracts issued by North American Security Life Insurance Company (''NASL''), First North American Life Assurance Company (''FNAL''), and The Manufacturers Life Insurance Company of America (''MLICA''). The Trust currently has three shareholders, NASL, FNAL and MLICA. NASL, FNAL, and MLICA share an ultimate common parent, The Manufacturers Life Insurance Company.

2. The Fund, organized as a Massachusetts business trust, is registered as an open-end management investment company under the Act. The Fund is comprised of thirteen separate portfolios (''Fund Portfolios'' and, together with the Trust Portfolios, ''Portfolios''), each with its own investment objectives and policies. Each Fund Portfolio has three classes of shares. Shares of each Fund Portfolio are sold to the public through certain securities dealers, banks, and other financial institutions or through the Adviser, which is the fund's distributor. Class A shares, other than those of the Money Market Portfolio, are subject to a maximum front-end sales charge of 4.75%. Class B shares, other than those of the Money Market Portfolio, are subject to a maximum 5% contingent deferred sales charge (''CDSC''), which decreases to zero if an investor holds his shares for more than six years. Class C shares, other than those of the Money Market Portfolio, are subject to a 1% CDSC, which is applied only if the investor redeems during the first year after the purchase of such shares; after the first year, the shares have no CDSC. All Fund Portfolios, other than the Money Market Portfolio, assess a fee pursuant to rule 12b–1 under the Act. Class A shares of the National Municipal Bond Portfolio are subject to a 0.15% rule 12b–1 fee, all of which may be used as a service fee, and Class B and Class C shares of that Portfolio are subject to a 1.00% rule 12b–1 fee, 0.25% of which may be used as a service fee. All other Fund Portfolios have a 0.35% Class A rule 12b–1 fee, 0.25% of which may be used as a service fee, and a 1.00% Class B and Class C rule 12b–1 fee, 0.25% of which may be used as a service fee.

3. The Adviser is a registered investment adviser under the Investment Advisers Act of 1940 and serves as investment adviser to the Portfolios. The Adviser also serves as principal underwriter of certain contracts issued by its parent, NASL. The Adviser is responsible for administering the business and affairs of the Trust and the Fund. The Companies pay the Adviser a fee for its services as a percentage of the current value of the net assets of each Portfolio.

4. The Companies at present engage sub-advisers (''Managers'') to manage each of their Portfolios. The day-to-day portfolio management of each Portfolio is provided by one Manager. In all, the Adviser employs 14 different Managers for the Companies' Portfolios. Under the Companies' proposed structure, some Portfolios may employ multiple managers.

5. The Managers are concerned only with selection of portfolio investments in accordance with a Portfolio's investment objectives and policies. They have no broader supervisory, management or administrative responsibilities with respect to a Portfolio or the respective Company. Managers' fees will be paid by the Adviser out of its fees from the Portfolios at rates negotiated with the Managers by the Adviser. One of the Managers, Manufacturers Adviser Corporation, will be an affiliate of the Adviser.

6. Applicants request an exemption from section 15(a) and rule 18f–2 to permit Managers approved by each Company's Board of Trustees to serve as portfolio managers for the Portfolios without obtaining shareholder approval of the agreements with the Managers (''Portfolio Management Agreements''), except that shareholder approval of a Portfolio Management Agreement with a Manager that is an ''affiliated person,'' as defined in Section 2(a)(3) of the Act, of any Company or the Adviser, other than by reason of serving as a Manager to one or more of the Portfolios (''Affiliated Manager'') will be obtained.

7. Applicants also request an exemption from certain disclosure requirements, set forth immediately below, that may require disclosure of fees paid to Managers.

8. Items 2, 5(b)(iii) and 16(a)(iii) of Form N–1A require the Companies to disclose in their prospectuses the investment adviser's compensation. Rule 20a–1 under the Act requires the disclosure of information in accordance with Schedule 14A under the Exchange Act. Items 22(a)(3)(iv), 22(c)(1)(ii), 22(c)(1)(iii), 22(c)(8) and 22(c)(9) of Schedule 14A, taken together, require that proxy statements for a shareholder meeting at which action is to be taken on the advisory contract, or that would establish new or higher advisory fees or expenses, disclose information regarding advisory fee rates and amounts. Item 48 of Form N–SAR provides that the Companies must

disclose the rate schedule for advisory fees paid to their advisers, including the Managers. Section 6–07(2) (a), (b) and (c) of Regulation S–X require that the Companies' financial statements contain information concerning fees paid to investment advisers, which could be interpreted to require disclosure of fees paid to the Managers. Item 3 of Form N–14, the prescribed registration form for business combinations involving open-end management investment companies requires a fee table that shows current fees for the registrant and the company being acquired (and pro forma fees, if different).

9. For each Portfolio, applicants purpose that the applicable Company disclose the following (both as a dollar amount and as a percentage of a Portfolio's net assets) (''Limited Fee Disclosure''): (a) fees to the Adviser by the Portfolio; (b) aggregate fees paid by the Adviser to Managers of that Portfolio; (c) net advisory fees retained by the Adviser with respect to the Portfolio after payment of Managers' fees; and (d) fees paid by the Adviser to any Affiliated Manager.

10. Applicants also make the foregoing requests for any series of the Companies organized in the future, and any subsequently registered open-end management investment companies advised in the future by the Adviser or by a person controlling, controlled by, or under common control with the Adviser that use a multi-manager structure as described in the application and that comply with the conditions to the requested order as set forth in the application.

Applicants' Legal Analysis

1. Section 15(a) of the Act makes it unlawful for any person to act as an investment adviser to a registered investment company except pursuant to a written contract that has been approved by a majority of the investment company's outstanding voting securities. Rule 18f–2 provides that each series or class of stock in a series company affected by a matter must approve such matter if the Act requires shareholder approval.

2. Section 6(c) of the Act provides that the SEC may exempt any person, security, or transaction from any provision of the Act if and to the extent that such exemption is necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act. Applicants state that the requested exemptions would be in accordance with the standards of section 6(c) for the reasons set forth below.

3. Applicants assert that investors in a Portfolio will rely on the Adviser for investment management. According to Applicants, these investors will expect the Adviser to select one or more Managers for a Portfolio. Thus, applicants believe that the role of the Managers, from the perspective of the investor, is comparable to that of the individual portfolio managers employed by other investment company advisory firms.

4. Each Company's prospectus and statement of additional information will include all required information concerning each Manager, except as modified by the proposed Limited Fee Disclosure. If a new Manager is retained, or a Portfolio Management Agreement is materially amended, the respective Company will furnish shareholders, within 60 days, with all the information that would have been provided in a proxy statement, provided that information regarding fees would be modified by the Proposed Limited Fee Disclosure.

5. Applicants contend that requiring shareholder approval of Portfolio Management Agreements places costs and burdens on each Company and its shareholders that do not advance their interests. Applicants additionally assert that shareholders are adequately protected by their voting rights concerning the advisory agreement between each Company and the Adviser, as well as by the responsibilities borne by the Adviser and each Company's Board of Trustees with respect to the Managers and the Portfolio Management Agreements.

6. Applicants note that the investment advisory fees paid to the Adviser will be disclosed in each Company's prospectus and statement of additional information. Applicants contend that each investor will, therefore, be able to determine whether its cost for investment advisory services, including the selection and supervision of Managers (and the reallocation of assets among multiple Managers from time to time, if and where applicable), is competitive with the services and costs which the investor could obtain elsewhere. Applicants note that some Managers use a ''posted'' rate schedule to set their fees, particularly at lower asset levels. Based upon the Adviser's extensive experience in dealing with portfolio managers and upon the Adviser's discussions with prospective Managers, applicants believe that some organizations will be unwilling to serve as Managers at any fee rate other than their ''posted'' fee rates, unless the rates negotiated for the Portfolios are not publicly disclosed. Applicants believe that forcing disclosure of Managers' fees would therefore tend to deprive the Adviser of its bargaining power while producing no benefit to shareholders, since the fees they pay would not be affected.

Applicants' Conditions

Applicants agree that the following conditions may be imposed in any order of the Commission granting the requested relief:

1. Each Company will disclose in its registration statement the Limited Fee Disclosure.

2. The Adviser will not enter into a Portfolio Management Agreement with any Affiliated Manager without that agreement, including the compensation to be paid thereunder, being approved by the shareholders of the applicable Portfolio.

3. At all times, a majority of each Company's Board of Trustees will continue to be persons each of whom is not an ''interested person'' of the Company as defined in section 2(a)(19) of the Act (''Independent Trustees''), and the nomination of new or additional Independent Trustees will be placed with the discretion of the then existing Independent Trustees.

4. Independent counsel knowledgeable about the Act and the duties of Independent Trustees will be engaged to represent the Independent Trustees of each Company. The selection of independent counsel will be placed within the discretion of the Independent Trustees.

5. The Adviser will provide the Board of Trustees of each Company, no less frequently than quarterly, with information about the Adviser's profitability on a per-Portfolio basis. The information will reflect the impact on profitability of the hiring or termination of any Managers during the applicable quarter.

6. Whenever a Manager is hired or terminated, the Adviser will provide the applicable Board of Trustees information showing the expected impact on the Adviser's profitability.

7. When a Manager change is proposed for a Portfolio with an Affiliated Manager, the Company's Trustees, including a majority of the Independent Trustees, will make a separate finding, reflected in the Company's Board minutes, that the change is in the best interests of the Portfolio and its shareholders (or, in the case of the Trust, the contract owners with assets allocated to any sub-account for which a Trust Portfolio serves as a funding medium) and does not involve

a conflict of interest from which the Adviser or the Affiliated Manager derives an inappropriate advantage.

8. Before a Portfolio may rely on the order requested by applicants, the operation of the Portfolio in the manner described in the application will be approved by a majority of its outstanding voting securities, as defined in the Act (or, in the case of the Trust, pursuant to voting instructions provided by contract owners with assets allocated to any sub-account of a registered separate account for which a Trust Portfolio serves as a funding medium), or, in the case of a new Portfolio whose public shareholders purchase shares on the basis of a prospectus containing the disclosure contemplated by condition 11 below, by the sole initial shareholder(s) before offering shares of that Portfolio to the public.

9. The Adviser will provide general management services to each Company and their Portfolios, including overall supervisory responsibility for the general management and investment of each Portfolio's securities portfolio, and, subject to review and approval by each Company's Board of Trustees, will (i) set the Portfolio's overall investment strategies; (ii) select Managers; (iii) when appropriate, allocate and reallocate the Fund's assets among Managers; (iv) monitor and evaluate the performance of Mangers; and (v) ensure that the Managers comply with the Portfolio's investment objectives, policies and restrictions.

10. Within 60 days of the hiring of any new Manager or the implementation of any proposed material change in a Management Agreement, shareholders will be furnished all information about the new Manager or Management Agreement that would be included in a proxy statement, except as modified by the order to permit Limited Fee Disclosure. Such information will include Limited Fee Disclosure and any change in such disclosure caused by the addition of a new Manager or any proposed material change in a Management Agreement. The Adviser will meet this condition by providing shareholders, within 60 days of the hiring of a Manager or the implementation of any material change to the terms of a Management Agreement, with an information statement meeting the requirements of Regulation 14C and Schedule 14C under the Exchange Act. The information statement also will meet the requirements of Schedule 14A under the Exchange Act, except as modified by the order to permit Limited Fee Disclosure. The Trust will ensure that the information statement is furnished to contract owners with assets allocated to any registered separate account for which the Trust serves as a funding medium.

11. Each Company will disclose in its prospectus the existence, substance, and effect of any order granted pursuant to the application.

12. No Trustee or officer of a Company or director or officer of the Adviser will own directly or indirectly (other than through a pooled investment vehicle over which such person does not have control) any interest in a Manager except for (i) ownership of interests in the Adviser or any entity that controls, is controlled by or is under common control with the Adviser; or (ii) ownership of less than 1% of the outstanding securities of any class of equity or debt of a publicly-traded company that is either a Manager or an entity that controls, is controlled by or is under common control with a Manager.

For the Commission, by the Division of Investment Management, under delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 96–31726 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Release No. 35–26618]

Filings Under the Public Utility Holding Company Act of 1935, as Amended (''Act'')

December 6, 1996.

Notice is hereby given that the following filing(s) has/have been made with the Commission pursuant to provisions of the Act and rules promulgated thereunder. All interested persons are referred to the application(s) and/or declaration(s) for complete statements of the proposed transaction(s) summarized below. The application(s) and/or declaration(s) and any amendments thereto is/are available for public inspection through the Commission's Office of Public Reference.

Interested persons wishing to comment or request a hearing on the application(s) and/or declaration(s) should submit their views in writing by December 30, 1996, to the Secretary, Securities and Exchange Commission, Washington, D.C. 20549, and serve a copy on the relevant applicant(s) and/or declarant(s) at the address(es) specified below. Proof of service (by affidavit or, in case of an attorney at law, by certificate) should be filed with the request. Any request for hearing shall identify specifically the issues of fact or law that are disputed. A person who so requests will be notified of any hearing, if ordered, and will receive a copy of any notice or order issued in the matter. After said date, the application(s) and/or declaration(s), as filed or as amended, may be granted and/or permitted to become effective.

Eastern Utilities Associates, et al. (70–8955)

Eastern Utilities Associates (''EUA''), P.O. Box 2333, Boston, Massachusetts 02107, a registered holding company, and its subsidiaries, Blackstone Valley Electric Company (''Blackstone''), Washington Highway, Lincoln, Rhode Island 02865, Eastern Edison Company (''Eastern''), 110 Mulberry Street, Brockton, Massachusetts 02403, Montaup Electric Company (''Montaup''), P.O. Box 2333, Boston, Massachusetts 02107, and Newport Electric Corporation (''Newport''), 12 Turner Road, Middleton, Rhode Island 02840 (collectively, ''Declarants'') have filed a declaration (''Declaration'') under sections 6(a) and 7 of the Act and rule 54 thereunder.

Declarants propose to enter into a revolving credit facility (''Facility'') from which they and certain other EUA subsidiaries will be permitted to borrow from time to time, from one or more commercial banks or other lending institutions (''Lenders'') up to $150 million in the aggregate through a period ending five years after the closing date of the agreement.[1] Borrowings may take the form of: (i) borrowings from all Lenders under the Facility on a pro rata basis (''Pro Rata Borrowings''); (ii) borrowings of at least $100,000 each and up to $20 million in the aggregate (''Swing Line Borrowings'') from a particular Lender (''Swing Line Lender''); and (iii) short-term borrowings for a period from seven days to 180 days from Lenders on a competitive bid basis (''Competitive Bid Borrowings''). All borrowings under the Facility will be unsecured and will be evidenced by promissory notes.

The following Declarants and Affiliates will have the following respective maximum borrowing limits under the Facility: Ocean State and ESC, $10 million each; and Cogenex, $75 million. EUA, Blackstone, Eastern,

[1] The other subsidiaries, EUA Cogenex Corporation (''Cogenex''), EUA Ocean State Corporation (''Ocean State''), EUA Service Corporation (''ESC''), EUA Energy Investment Corporation (''EEIC''), and EUA Energy Services, Inc. (''EUA Energy'') (collectively, ''Affiliates''), intend to finance authorized activities through the Facility. The Affiliates have not joined the Declaration as parties, however, because such financing is exempt from prior approval pursuant to rules 45 and 52.

Montaup and Newport will have unrestricted access to the Facility. Access to the Facility will be limited for a Declarant or an Affiliate other than Cogenex if such Declarant or Affiliate reduces its operating income by more than 20% as a result of selling an income-generating asset, and will be eliminated for a Declarant or an Affiliate other than Cogenex if such Declarant or Affiliate reduces its operating income by more than 50% as a result of selling an income-generating asset.

EUA states that, for the funding of short-term loans to Cogenex, EUA shall limit its borrowings under the Facility up to $25 million in the aggregate, the amount currently authorized in an order dated April 5, 1995 (HCAR No. 26266) (''Cogenex Order''). The terms and conditions of any loans made to Cogenex would be the same as the terms and conditions under the Facility. EUA further agrees that with the exception of the borrowings described in the first sentence of this paragraph (i.e., up to $25 million in the aggregate), EUA would not use any of its proposed borrowings under the Facility to invest in Cogenex.

Declarants will pay interest on any Pro Rata Borrowings, at the borrower's election, at a rate which is: (i) the greater of the Bank of New York's prime commercial lending rate or the federal funds rate plus ½% (''Alternative Base Rate''); or (ii) the London Interbank Offering Rate (''LIBOR'') for the applicable interest period, plus a margin of at least 0.15% and up to 0.45%, which margin rate shall be based upon the then current bond ratings of Eastern's First mortgage bonds (''LIBOR Rate'').

Declarants will pay interest on any Swing Line Borrowings at a rate or rate's to be determined by the borrower and the Swing Line Lender. Swing Line Borrowings in excess of $2.5 million in the aggregate could be converted, at the borrower's option, to Competitive Bid Borrowings or Pro Rata Borrowings. Swing Line Borrowings in excess of $20 million in the aggregate will be converted to Pro Rata Borrowings which would initially bear interest at the Alternate Base Rate. Upon the occurrence of an event of default by the borrower, or at the request of the Swing Line Lender, all outstanding Swing Line Borrowings could be replaced by and refinanced using the proceeds from Pro Rata Borrowings.

Declarants will pay interest on any Competitive Bid Borrowings at a rate or rates determined by competitive bid auction or auctions among the Lenders. If a Declarant so elects, the competitive bid auction agent will notify all of the Lenders of a requested loan amount, the date the loan will begin and the interest period for such loan, and will request that each Lender provide a quote for such loan. The Declarant may then choose to accept or reject any quotes it receives.

Interest calculations would be made on the basis of a 360-day year for the actual number of days elapsed except with respect to interest accruing at the Bank of New York's prime commercial lending rate, in which case interest would be calculated on the basis of a 365 or 366 day year for the actual number of days elapsed.

Any payment of principal and/or interest which is not paid when due would bear interest, to the extent permitted under applicable law, at a rate per annum equal to the interest rate otherwise applicable plus two percent.

Declarants will pay to the administrative agent for the Facility, for the pro rata account of the Lenders, an annual facility fee to be based upon the average daily amount of the Facility regardless of usage. The fee to be paid by the Declarants will be at least 0.10% and up to 0.30% of the average daily amount of the Facility, such percentage to be determined in accordance with the then current bond ratings of Eastern's first mortgage bonds. The administrative agent under the Facility will be a commercial bank, initially the Bank of New York, which will be paid a one-time agency fee of $50,000. An administrative fee of $7,500 will be paid to the administrative agent at closing and on each subsequent anniversary of the closing during the term of the Facility. Additionally, with respect to Competitive Bid Borrowings only, in the event that one or more Declarants request(s) a competitive bid, such Declarant(s) collectively will pay a $200 fee to the administrative agent in connection with such request.

Borrowings under the Facility will replace borrowings authorized by the Commission pursuant to order dated December 19, 1995 (HCAR Nos. 26433) (which authorized short-term financing for Eastern, Montaup, Blackstone, Newport, ESC, and Ocean State). Upon issuance of an order authorizing the transactions proposed in the instant Declaration, the authorization granted pursuant to HCAR No. 26433 (Dec. 19, 1995) will be replaced in its entirety and will cease to have effect. In addition, as a result of replacing EUA's ''regular bank lines of credit,'' the Facility will become the source of borrowings by EUA: (i) for the financing of EEIC and borrowings authorized pursuant to HCAR Nos. 24515A and 26028 (Dec. 4, 1987, as amended Jan. 11, 1988, and Apr. 15, 1994, respectively); (ii) authorized in connection with investments by EUA in EUA Energy, authorized by HCAR No. 26493 (Mar. 14, 1996), as subsequently amended; and (iii) for the financing of Cogenex authorized pursuant to the Cogenex Order. The Commission orders issued in connection with the financing of EEIC (HCAR Nos. 24515A and 26028) and investment in EUA Energy (HCAR No. 26493) will remain in full force and effect, as presently written.

The authorization granted by the Cogenex Order will be replaced in its entirety and will cease to have effect upon the issuance of the Commission's order authorizing the transactions proposed in the Declaration; provided, that the Commission's order authorizing the transactions proposed in the Declaration shall include authorization for the following transactions previously authorized by the Cogenex Order:

(a) EUA proposes to invest in Cogenex up to an aggregate principal amount of $50 million in one or any combination of short-term loans, capital contributions, or purchases of Cogenex common stock.

(b) Cogenex proposes to obtain financing in an aggregate principal amount not to exceed $200 million from any of the following sources: (i) up to $50 million from EUA, as described in (a) above, and (ii) $150 million from one or any combination of (A) the issuance and sale of unsecured notes (''New Notes'') through a private or a public offering, (B) the borrowing of proceeds from the issuance or sale of bonds by a state or political subdivision agency (''Bonds''), and (C) the borrowing of up to $75 million under the Facility. Should it become necessary to secure more favorable terms for the New Notes or Bonds, EUA proposes to guarantee, or provide an equity maintenance agreement for all or a portion of the obligations of Cogenex on the New Notes and Bonds. EUA and Cogenex request that the Commission reserve jurisdiction over the issuance and sale of the New Notes and Bonds and EUA's guarantee of or provision of an equity maintenance agreement for the New Notes and Bonds pending completion of the record.

(c) Cogenex proposes to extend its authority to invest in Northeast Energy Management, Inc. (''NEM'') and EUA Cogenex-Canada, Inc. (''Cogenex-Canada''), two wholly-owned non-utility subsidiaries of Cogenex, and their authority to borrow funds, with no increase in the amount of authorized funding. By Commission order dated January 28, 1994 (HCAR No. 25982), the Commission authorized Cogenex to

invest in NEM, and NEM to borrow from Cogenex, up to an aggregate $9.1 million. By Commission order dated September 30, 1994 (HCAR No. 26135), the Commission authorized Cogenex to provide equity and debt funding for Cogenex-Canada and for Cogenex-Canada to borrow from third parties in amounts not to aggregate more than $20 million outstanding. These authorizations were extended from December 31, 1995 through December 31, 1997 by the Cogenex Order.

The Facility will be used: (i) to pay, reduce or renew outstanding notes payable to banks as they become due; (ii) to finance the Declarants' respective cash construction expenditures for fiscal years 1996 through 2000; (iii) to provide funds to meet certain sinking fund requirements and retirements or redemptions of outstanding securities; (iv) in the case of EUA, to make short-term loans, capital contributions and open account advances in accordance with rule 45(b)(4) or rule 52 or as previously authorized by the Commission to Cogenex, EEIC and EUA Energy; (v) to pay for the cost of issuance of New Notes and Bonds of Cogenex; (vi) to provide for debt servicing reserves or expenses in connection with the issuance of New Notes and Bonds; (vii) for the Declarants' respective working capital requirements; and (viii) for other general corporate purposes.

For the Commission, by the Division of Investment Management, pursuant to delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 96–31618 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Rel. No. IC–22378; 812–10354]

Renaissance Capital Growth & Income Fund III, Inc. and Renaissance Capital Group, Inc.; Notice of Application

December 6, 1996.

AGENCY: Securities and Exchange Commission (''SEC'').

ACTION: Notice of application for exemption under the Investment Company Act of 1940 (the ''Act'').

APPLICANTS: Renaissance Capital Growth & Income Fund III, Inc. (the ''Company'') and Renaissance Capital Group, Inc. (the ''Adviser'').

RELEVANT ACT SECTIONS: Order requested under sections 6(c) and 57(i) of the Act and rule 17d–1 thereunder permitting certain joint transactions prohibited by section 57(a)(4) of the Act.

SUMMARY OF APPLICATION: Applicants request an order to permit the Company to co-invest with certain affiliated entities of the Adviser.

FILING DATES: The application was filed on September 19, 1996, and amended on November 8, 1996, and December 6, 1996. By letter dated December 6, 1996, applicants' counsel stated that an amendment, the substance of which is incorporated herein, will be filed during the notice period.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 30, 1996, and should be accompanied by proof of service on the applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street, N.W., Washington, D.C. 20549. Applicants, 8080 North Central Expressway, Suite 210, Dallas, Texas 75206.

FOR FURTHER INFORMATION CONTACT: Brian T. Hourihan, Senior Counsel, at (202) 942–0526, or Mary Kay Frech, Branch Chief, at (202) 942–0564 (Division of Investment Management, Office of Investment Company Regulation.)

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee from the SEC's Public Reference Branch.

Applicants' Representations

1. The Company, a Texas corporation, is a non-diversified closed-end investment company that has elected to operate as a business development company (''BDC'') under the Act. The Company's primary investment objective is to seek long-term capital appreciation through investments in ''eligible portfolio securities'' (as defined in the Act). In addition, the Company seeks to structure its investments to provide an element of current income through interest, dividends, and fees whenever feasible in light of market conditions and the cash flow characteristics of portfolio companies. The investments strategy of the Company is to invest in a diversified portfolio of companies that have the potential for rapid growth in sales, earnings, and enterprise value. The Company expects, after the completion of the initial investment phase, to maintain a portfolio of investments in 10 to 20 companies in diverse industries.

2. The Adviser is a registered investment adviser under the Investment Advisers Act of 1940 and provides investment advisory services to the Company.[1] The Adviser is responsible, subject to the supervision of the Company's board of directors, for administering the Company's business affairs. The adviser also serves as the investment adviser to Renaissance U.S. Growth & Income Trust PLC (''Renaissance PLC''), a public limited company organized under the laws of England and Wales. Applicants state that Renaissance PLC is not registered as an investment company in reliance on the exclusion from the definition of investment company in section 3(c)(1) of the Act. The adviser seeks to find investment opportunities for Renaissance PLC in smaller capitalized United States public companies with the potential for significant capital appreciation.

3. The principals of the Adviser will select investments for the Company and Renaissance PLC separately considering in each case the investment of objectives, investment position, available funds, and other pertinent factors of the particular investment fund, including applicable investment restrictions and regulatory requirements. Applicants state that the Company and Renaissance PLC frequently may invest in the same portfolio companies in proportion to their respective amounts of capital available for investment.

4. Applicants state that they would like the flexibility to co-invest with additional private and public investment funds that may or may not be located in the United States and that share a common investment adviser with the Company. Therefore, applicants request an order pursuant to sections 6(c) and 57(i) of the Act and rule 17d–1 thereunder to the extent necessary to permit the Company to co-invest with companies that are affiliated with the Adviser, including Renaissance PLC (each an ''Adviser Affiliate'').

[1] The Adviser also serves as the investment adviser to two other registered BDCs (Renaissance Capital Partners I, Ltd., and Renaissance Capital Partners II, Ltd.) which were fully invested and not actively pursuing investment opportunities.

Applicants' Legal Analysis

1. Section 57(a)(4) of the Act prohibits certain affiliated persons from participating in a joint transaction with a BDC in contravention of rules as prescribed by the SEC. Section 57(b)(2) provides that any investment adviser, any person directly or indirectly under common control with a BDC, or any person who is, within the meaning of section 2(a)(3) (C) or (D), an affiliated person of any such person shall be subject to section 57(a)(4). Under section 2(a)(3)(C), an affiliated person of another person includes any person directly or indirectly controlled by such person.

2. Section 57(i) of the Act provides that, until the SEC adopts rules and regulations under subsections (a) and (d) of section 57, the rules and regulations under sections 17(a) and 17(d) of the Act applicable to registered closed-end investment companies shall be deemed to apply to sections 57(a) and 57(d). Because the SEC has not adopted any rules under section 57(a)(4), rule 17d–1 applies.

3. Rule 17d–1, promulgated under section 17(d) of the Act, prohibits affiliated persons of an investment company from participating in joint transactions with the company unless the SEC has granted an order permitting such transactions. In passing on applications under rule 17d–1, the SEC considers whether the company's participation in the joint transactions is consistent with the provisions, policies, and purposes of the Act and the extent to which such participation is on a basis different from or less advantageous than that of other participants.

4. Section 6(c) of the Act provides that the SEC may exempt any person, security, or transaction from any provision of the Act if and to the extent that such exemption is necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act.

5. Because Renaissance PLC and other Adviser Affiliates may be deemed to be subject to section 57(a)(4) of the Act, investments by the Company in a portfolio company in which an Adviser Affiliate, including Renaissance PLC, also invests may be subject to section 57(a)(4) and prohibited absent an order under rule 17d–1 under the Act.

6. Applicants state that the obligations imposed on the Company's independent directors who are not ''interested persons'' as defined under section 2(a)(19) of the Act (''Independent Directors'') provide significant protection to investors against possible conflicts of interest in co-investments between the Company and Adviser Affiliates, including Renaissance PLC. Applicants believe that the conditions relating to the terms on which co-investments may be made as set forth in the application are consistent with the policies underlying the Act. Applicants also believe that the requested relief is consistent with the standards enumerated in section 6(c).

Applicants' Conditions

Applicants agree that the requested order shall be subject to the following conditions:

1. (a) To the extent that the Company is considering new investments, the Adviser will review investment opportunities on behalf of the Company, including investments being considered on behalf of any Adviser Affiliate. The Adviser will determine whether an investment being considered on behalf of an Adviser Affiliate (''Adviser Affiliate Investment'') is eligible for investment by the Company.

(b) If the Adviser deems an Adviser Affiliate Investment eligible for the Company (a ''co-investment opportunity''), the Adviser will determine what it considers to be an appropriate amount that the Company should invest. When the aggregate amount recommended for the Company and that sought by an Adviser Affiliate exceeds the amount of the co-investment opportunity, the amount invested by the Company shall be based on the ratio of the net assets of the company to the aggregate net assets of the Company and the Adviser Affiliate seeking to make the investment.

(c) Following the making of the determinations referred to in (a) and (b), the Adviser will distribute written information concerning all co-investment opportunities to the Company's Independent Directors. Such information will include the amount the Adviser Affiliate proposes to invest.

(d) Information regarding the Adviser's preliminary determinations will be reviewed by the Company's Independent Directors. The Company will co-invest with an Adviser Affiliate, only if a required majority (as defined in section 57(o) of the Act) (''Required Majority'') of the Company's Independent Directors conclude, prior to the acquisition of the investment, that:

(i) the terms of the transaction, including the consideration to be paid, are reasonable and fair to the shareholders of the Company and do not involve overreaching of the Company or such shareholders on the part of any person concerned;

(ii) the transaction is consistent with the interests of the shareholders of the Company and is consistent with the Company's investment objectives and policies as recited in filings made by the Company under the Securities Act of 1933, as amended, its registration statement and reports filed under the Securities Exchange Act of 1934, as amended, and its reports to shareholders;

(iii) the investment by the Adviser Affiliate would not disadvantage the Company, and that participation by the Company would not be on a basis different from or less advantageous than that of the Adviser Affiliate; and

(iv) the proposed investment by the Company will not benefit the Adviser or any affiliate entity thereof, other than the Adviser Affiliate making the co-investment, except to the extent permitted pursuant to sections 17(e) and 57(k) of the Act.

(e) The Company has the right to decline to participate in the co-investment opportunity or purchase less than its full allocation.

2. The Company will not make an investment for its portfolio if any Adviser Affiliate, the Adviser, or a person controlling, controlled by, or under common control with the Adviser is an existing investor in such issuer, with the exception of a follow-on investment that complies with condition number 5.

3. For any purchase of securities by the Company in which an Adviser Affiliate is a joint participant, the terms, conditions, price, class of securities, settlement date, and registration rights shall be the same for the company and the Adviser Affiliate.

4. If an Adviser Affiliate elects to sell, exchange, or otherwise dispose of an interest in a security that is also held by the company, the Adviser will notify the company of the proposed disposition at the earliest practical time and the Company will be given the opportunity to participate in such disposition on a proportionate basis, at the same price and on the same terms and conditions as those applicable to the Adviser Affiliate. The Adviser will formulate a recommendation as to participation by the Company in such a disposition, and provide a written recommendation to the Company's Independent Directors. The Company will participate in such disposition to the extent that a Required Majority of its Independent Directors determine that it is in the Company's best interest. Each of the Company and the Adviser Affiliate will bear its own

expenses associated with any such disposition of a portfolio security.

5. If an Adviser Affiliate desires to make a ''follow-on'' investment (*i.e.*, an additional investment in the same entity) in a portfolio company whose securities are held by the Company or to exercise warrants or other rights to purchase securities of such an issuer, the Adviser will notify the Company of the proposed transaction at the earliest practical time. The Adviser will formulate a recommendation as to the proposed participation by the Company in a follow-on investment and provide the recommendation to the Company's Independent Directors along with notice of the total amount of the follow-on investment. The Company's Independent Directors will make their own determination with respect to follow-on investments. To the extent that the amount of a follow-on investment opportunity is not based on the amount of the company's and the Adviser Affiliate's initial investments, the relative amount of investment by the Adviser Affiliate and the Company will be based on the ratio of the company's remaining funds available for investment to the aggregate of the Company's and the Adviser Affiliate's remaining funds available for investment. The company will participate in such investment to the extent that a Required Majority of its Independent Directors determine that it is in the company's best interest. The acquisition of follow-on investments as permitted by this condition will be subject to the other conditions set forth in the application.

6. The Company's Independent Directors will review quarterly all information concerning co-investment opportunities during the preceding quarter to determine whether the conditions set forth in the application were complied with.

7. The Company will maintain the records required by section 57(f)(3) of the Act as if each of the investments permitted under these conditions were approved by the Company's Independent Directors under section 57(f).

8. No Independent Director of the Company will be a director or general partner of any Adviser Affiliate with which the Company co-invests.

For the SEC, by the Division of Investment Management, under delegated authority.

Jonathan G. Katz,

Secretary.

[FR Doc. 96–31614 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Release No. 34–38024; File No. SR–Amex-96–47]

Self-Regulatory Organizations; Notice of Filing and Order Granting Accelerated Approval of Proposed Rule Change by the American Stock Exchange, Inc. Relating to a Pilot Program for Execution of Odd-Lot Orders

December 6, 1996.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] notice is hereby given that on December 2, 1996, the American Stock Exchange, Inc. (''Amex'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and to grant accelerated approval to the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend until February 10, 1997 its existing pilot program under Amex Rule 205 requiring execution of odd-lot market orders at the prevailing Amex quote with no differential charged.[2]

The text of the proposed rule change is available at the Office of the Secretary, the Amex, and at the Commission.

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 self-regulatory organization 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 self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

[1] 15 U.S.C. 78s(b)(1).

[2] The Exchange seeks accelerated approval of the proposed rule change in order to allow the pilot program, which expires on December 6, 1996, to continue without interruption.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Commission has approved, on a pilot basis extending to December 6, 1996, amendments to Amex Rule 205 to require execution of odd-lot market orders at the Amex quote with no odd-lot differential charged.[3] The procedures were initially approved by the Commission in 1989[4] and were most recently extended in February 1996.[5]

In approving prior extensions to the Exchange's odd-lot pilot program, the Commission has expressed interest in the feasibility of the Exchange utilizing the Intermarket Trading System (''ITS'') best bid or offer, rather than the Amex bid or offer, for purposes of the Exchange's off-lot pricing system. In File No. SR–Amex-95–03, requesting a further extension of the pilot program, the Exchange stated that it had determined to proceed with systems modifications to provide for execution of odd-lot market orders at the ITS best bid or offer.[6]

The Commission has approved amendments to Amex Rule 205 to accommodate the prospective modifications to the Exchange's odd-lot pricing system.[7] Specifically, amended Amex Rule 205 would provide that odd-lot market orders to buy or sell would be filled at the ''adjusted ITS offer'' or ''adjusted ITS bid,'' respectively, which

[3] Securities Exchange Act Release No. 35344 (Feb. 8, 1995), 60 FR 8430 (approving File No. SR–Amex-95–03).

[4] Securities Exchange Act Release No. 26445 (Jan. 10, 1989), 54 FR 2248 (approving File No. SR–Amex-88–23).

[5] *See* Securities Exchange Act Release No. 37462 (July 19, 1996), 61 FR 39170 (approving File No. SR–Amex-96–25). Prior to that release, the Commission had extended this pilot program twelve times. *See* Securities Exchange Act Release Nos. 36821 (Feb. 8, 1996), 61 FR 6050 (approving File No. SR–Amex-96–06); 35344 (Feb. 8, 1995), 60 FR 8430 (approving File No. SR–Amex-95–03); 34949 (Nov. 8, 1994), 59 FR 58863 (approving File No. SR–Amex-94–47); 34496 (Aug. 8, 1994), 59 FR 41807 (approving File No. SR–Amex-94–28); 33584 (Feb. 7, 1994), 59 FR 6983 (approving File No. SR–Amex-93–45); 32726 (Aug. 9, 1993), 58 FR 43394 (approving File No. SR–Amex93–24); 31828 (Feb. 5, 1993), 58 FR 8434 (approving File No. SR–Amex93–060; 30305 (Jan. 20, 1992(, 57 FR 4653 (approving File no. SR–Amex—92–04); 29922 (Nov. 8, 1991), 56 FR 58409 (approving File No. SR–Amex-91–30); 29186 (May 19, 1991), 56 FR 22488 (approving File No. SR–Amex-91–09); 28758 (Jan. 10, 1991), 56 FR 1656 (approving File No. SR–Amex-90–39); and 27590 (Jan. 5, 1990), 55 FR 1123 (approving File No. SR–Amex-89–31).

[6] *See* Securities Exchange Act Release No. 35344 (Feb. 8, 1995), 60 FR 8430 (approving File No. SR–Amex-95–03).

[7] *See* Securities Exchange Act Release No. 36181 (Sept. 1, 1995), 60 FR 47194 (approving File No. SR–Amex-95–24).

would be defined in Amex Rule 205, Commentary .04, as the lowest offer and highest bid disseminated by the Amex or by another ITS participant market.[8] Where quotation information is not available (*e.g.,* when quotation collection or dissemination facilities are inoperable) odd-lot market orders would be executed at the prevailing Amex bid or offer, or at a price deemed appropriate under prevailing market conditions. These procedures also will apply to odd-lot limit orders that are immediately executable based on the Amex quote at the time the order is received at the trading post or through Post Execution Reporting (''PER'') system.

As the Exchange noted in SR–Amex-95–24, it will implement these amendments upon completion of the necessary systems enhancements by the Exchange and the Securities Information Automation Corporation (''SIAC''). Upon implementation of the amended rule, the Exchange will notify the Commission, as well as Exchange members and member organizations. In order to provide the additional time necessary to implement these systems enhancements, the Exchange proposes to extend the existing pilot program procedures under Amex Rule 205 until February 10, 1997.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with Section 6(b)[9] of the Act in general and furthers the objectives of Section 6(b)(5)[10] and Section 11A(a)(1)[11] in particular in that it is designed to facilitate the economically efficient execution of odd-lot transactions and to improve the execution of customers' orders.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange believes the proposed rule change will impose no burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has neither solicited nor received written comments with respect to the proposed rule change.

III. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. 20549. 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 at the Commission's Public Reference Section, 450 Fifth Street, N.W., Washington, D.C. 20549. Also, copies of such filing will be available for inspection and copying at the principal office of the Amex. All submissions should refer to File No. SR–Amex–96–47 and should be submitted by January 6, 1997.

IV. Commission's Findings and Order Granting Accelerated Approval of the Proposed Rule Change

The Commission finds that the Exchange's proposal to extend its pilot program concerning the execution of odd-lot orders through February 10, 1997, is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange. Specifically, the Commission believes the proposal is consistent with Section 6(b)(5) and Section 11A(a)(1) of the Act[12] because the Exchange's proposed pricing procedures are designed to facilitate transactions in odd-lot orders, to help ensure the economically efficient execution of these transactions, and, in general, to protect investors and the public interest. The Commission further believes the revised procedures should provide investors with more timely executions of their odd-lot orders and should produce execution prices that more accurately reflect market conditions than would otherwise be the case under the pre-pilot pricing procedures.[13]

Nevertheless, the Commission is concerned that the Exchange has been unable to implement the new odd-lot pricing procedures as planned. Under the current pilot pricing procedures, which only use the Amex quote in establishing the execution price, some odd-lot orders may not be receiving the best available price.[14] Therefore, the Commission expects the Exchange to complete the systems modifications upon which implementation of the new odd-lot pricing procedures depend before the February 10, 1997 deadline.[15] To ensure that the Commission is adequately informed of the Exchange's progress towards such completion, the Commission again requests that the Exchange provide the Commission with a status report regarding this project on the first day of every month until the necessary system modifications are completed. Finally, upon completion of the systems modifications, the Exchange should give advance notice to the Commission of the date when the new odd-lot pricing procedures are to be implemented.[16]

The Commission finds good cause for approving the proposed rule change prior to the thirtieth day after the date of publication of notice thereof in the Federal Register. This will permit the pilot program to continue on an uninterrupted basis while the Amex works to implement the new procedures. In addition, the procedures the Exchange proposes to continue using are identical to the procedures that were published previously in the Federal Register for the full comment period and were approved by the Commission.[17]

[8] In order to protect against the inclusion of incorrect or stale quotations when determining the highest bid and lowest offer, Amex Rule 205, Commentary .04, contains seven criteria that must be met before a quotation in a stock from another ITS market center will be considered. If the ITS quotation fails to meet one of the specified criteria, the best bid or offer disseminated by the Exchange will be use. *See* Securities Exchange Act Release No. 36181 (Sept. 1, 1995), 60 FR 47194 (approving File No. SR–Amex-95–24).

[9] 15 U.S.C. 78f(b).

[10] 15 U.S.C. 78f(b)(5).

[11] 15 U.S.C. 78k–1(a)(1).

[12] 15 U.S.C. 78f(b)(5) and 78k–1(a)(1).

[13] Prior to the 1989 pilot program, odd-lot market orders were routed to a specialist and held in accumulation in the PER system or by the specialist until a round-lot execution in that security took place on the Exchange. Subsequent to the round-lot execution, the odd-lot order received the same price as the last Exchange round-lot transaction, plus or minus an odd-lot dealer differential. *See* Securities Exchange Act Release No. 26445 (Jan. 10, 1989), 54 FR 2248 (approving File No. SR–Amex–88–23).

[14] *See* Securities Exchange Act Release No. 35344 (Feb. 8, 1995), 60 FR 8430 (noting that the Exchange's current pricing formula does not include quotations from other markets).

[15] As noted above, the new procedures provide for odd-lot market orders to be filled at the ''adjusted its best bid or offer.''

[16] The Commission expects the Amex to implement the new odd-lot pricing procedures no later than the February 10, 1997 expiration of this pilot extension.

[17] *See* Securities Exchange Act Release No. 35344 (Feb. 8, 1995); 60 FR 8430; Securities Exchange Act Release No. 36821 (Feb. 8, 1996), 61 FR 6050; and Securities Exchange Act Release No. 37462 (July 19, 1996), 61 FR 39170.

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[18] that the proposed rule change (SR–Amex–96–47) is approved on a pilot basis for a two-month period ending on February 10, 1997.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[19]

Jonathan G. Katz,

Secretary.

[FR Doc. 96–31725 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[Release No. 34–38009; File No. SR–NASD–96–28]

Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Granting Approval to Proposed Rule Change and Notice of Filing of, and Order Granting Accelerated Approval to, Amendment No. 3 to the Proposed Rule Change Relating to NASD Telemarketing Rules

December 2, 1996.

I. Introduction

On June 28, 1996, the National Association of Securities Dealers, Inc. (''NASD'' or ''Association'') submitted to 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 NASD telemarketing rules.[3] The proposed rule change was published for comment in the Federal Register on July 30, 1996.[4] The Commission received two comment letters regarding the proposal.[5]

II. Background

Pursuant to the Telephone Consumer Protection Act (''TCPA''),[6] the NASD adopted in June 1995, a ''cold call'' rule[7] that paralleled one of the rules of the Federal Communications Commission (''FCC Rule'')[8] and requires persons who engage in telephone solicitations to sell products and services (''telemarketers'') to establish and maintain a list of persons who have requested that they not be contacted by the caller (''do-not-call list'').[9]

Under the Telemarketing and Consumer Fraud and Abuse Prevention Act (''Telemarketing Act''), which became law in August 1994,[10] the Federal Trade Commission adopted detailed regulations (''FTC Rules'')[11] to prohibit deceptive and abusive telemarketing acts and practices that became effective on December 31, 1995.[12] The FTC Rules, among other things, (i) require the maintenance of ''do-not-call'' lists and procedures, (ii) prohibit certain abusive, annoying, or harassing telemarketing calls, (iii) prohibit telemarketing calls before 8 a.m. or after 9 p.m., (iv) require a telemarketer to identify himself or herself, the company he or she works for, and the purpose of the call, and (v) require express written authorization or other verifiable authorization from the customer before the firm may use negotiable instruments called ''demand drafts.''[13]

Under the Telemarketing Act, the SEC is required either to promulgate or to require the SROs to promulgate rules substantially similar to the FTC Rules, unless the SEC determines either that the rules are not necessary or appropriate for the protection of investors or the maintenance of orderly markets, or that existing federal securities laws or SEC rules already provide for such protection. The NASD believes that, because the SROs will be the primary enforcers of these rules, it may be more appropriate for the SROs individually to adopt separate rules than for the SEC to adopt rules for the entire industry. In addition, these rules relate to the regulation of sales practices, which the NASD believes it should take the lead in promulgating and enforcing. The NASD believes it has implemented the prohibition against certain abusive, annoying, or harassing telemarketing calls contained in the FTC Rules by issuing an interpretation that such conduct is violative of existing rules.[14] The NASD believes that the proposed rule change addresses all other relevant elements of the FTC Rules not covered by existing federal securities laws and regulations.

III. Description of the Proposals

Time Limitations and Disclosure

The proposed rule change adds Rule 2211 to the NASD's Conduct Rules to prohibit, under proposed paragraph (a) to Rule 2211, a member or person associated with a member from making outbound telephone calls to the residence of any person for the purpose of soliciting the purchase of securities or related services at any time other than between 8 a.m. and 9 p.m. local time at the called person's location, without the

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[18] 15 U.S.C. § 78s(b)(2).

[19] 17 C.F.R. 200.30–3(a)(12).

[1] 15 U.S.C. (§ 78s(b)(1) (1988).

[2] 17 CFR 240.19b–4 (1994).

[3] On July 18, 1996, the NASD filed Amendment No. 1 to its proposal. Letter from John Ramsay, Deputy General Counsel, NASD Regulation, Inc. (''NASDR''), to Katherine A. England, Assistant Director, Division of Market Regulation, SEC, dated July 18, 1996. On July 24, 1996, the NASD filed Amendment No. 2 to its proposal. Letter from John Ramsay, Deputy General Counsel, NASDR, to Katherine A. England, Assistant Director, Division of Market Regulation, SEC, dated July 24, 1996. On October 21, 1996, the NASD filed Amendment No. 3 to its proposal. Letter from John Ramsay, Deputy General Counsel, NASDR, to Katherine A. England, Assistant Director, Division of Market Regulation, SEC, dated October 18, 1996.

[4] *See* Securities Exchange Act Release No. 37475 (July 24, 1996), 61 FR 39686 (July 30, 1996) (notice of File No. SR–NASD–96–28).

[5] *See* Letter from Brad N. Bernstein, Assistant Vice President & Senior Attorney, Merrill Lynch, to Jonathan G. Katz, Secretary, SEC, dated August 19, 1996 (''Merrill Lynch Letter''), and Letter from Frances M. Stadler, Associate Counsel, Investment Company Institute (''ICI''), to Jonathan G. Katz, Secretary, SEC, dated Aug. 21, 1996 (''ICI Letter'').

[6] 47 U.S.C. § 227.

[7] Under the ''cold call'' rule, each NASD member who engages in telephone solicitation to market its products and services is required to make and maintain a centralized do-not-call list of persons who do not wish to receive telephone solicitations from such member or its associated persons. Securities Exchange Act Release No. 35831 (Jun. 9, 1995), 60 FR 31527 (Jun. 15, 1995) (order approving File No. SR–NASD–95–13).

[8] Pursuant to the TCPA, the FCC adopted rules in December 1992 that, among other things, (1) prohibit cold-calls to residential telephone customers before 8 a.m. or after 9 p.m. (local time at the called party's location) and (2) require persons or entities engaging in cold-calling to institute procedures for maintaining a ''do-not-call'' list that included, at a minimum, (a) a written policy for maintaining the do-not-call list, (b) training personnel in the existence and use thereof, (c) recording a consumer's name and telephone number on the do-not-call list at the time the request not to receive calls is made, and retaining such information on the do-not-call list for a period of at least ten years, and (d) requiring telephone solicitors to provide the called party with the name of the individual caller, the name of the person or entity on whose behalf the call is being made and a telephone number or address at which such person or entity may be contacted. 57 FR 48333 (codified at 47 CFR 64.1200). With certain limited exceptions, the FCC Rules apply to all residential telephone solicitations, including those relating to securities transactions. *Id.* While the FCC Rules are applicable to brokers that engage in telephone solicitation to market their products and services, those regulations cannot be enforced by either the SEC or the securities self-regulatory organizations (''SROs'').

[9] Release No. 35831, *supra* note 7.

[10] 15 U.S.C. §§ 6101–08.

[11] 16 CFR 310.

[12] §§ 310.3–4 of FTC Rules.

[13] *Id.* Pursuant to the Telemarketing Act, the FTC Rules do not apply to brokers, dealers, and other securities industry professionals. Section 3(d)(2)(A) of the Telemarketing Act.

A ''demand draft'' is used to obtain funds from a customer's bank account without that person's signature on a negotiable instrument. The customer provides a potential payee with bank account identification information that permits the payee to create a piece of paper that will be processed like a check, including the words ''signature on file'' or ''signature pre-approved'' in the location where the customer's signature normally appears.

[14] The NASDR issued a Notice to Members (''NTM'') that sets forth the interpretation that abusive communications from members or associated persons of members to customers is a violation of Rule 2110 of the NASD's Conduct Rules. The NASDR published this NTM in July 1996. NTM 96–44 (July 1996).

prior consent of the person, and to require, under proposed paragraph (b) to Rule 2211, such member or associated person to promptly disclose to the called person in a clear and conspicuous manner the caller's identity and firm, the telephone number or address at which the caller may be contacted, and that the purpose of the call is to solicit the purchase of securities or related services.

Proposed paragraph (c) to Rule 2211 creates exemptions from the time-of-day and disclosure requirements of paragraphs (a) and (b) for telephone calls by associated persons responsible for maintaining and servicing accounts of certain ''existing customers'' assigned to or under the control of the associated persons. Paragraph (c) defines ''existing customer'' as a customer for whom the broker or dealer, or a clearing broker or dealer on behalf of the broker or dealer, carriers an account. Proposed subparagraph (c)(1) exempts such calls, by an associated person, to an existing customer who, within the preceding twelve months, has effected a securities transaction in, or made a deposit of funds or securities into, an account under the control of or assigned to the associated person at the time of the transaction or deposit. Proposed subparagraph (c)(2) exempts such calls, by an associated person, to an existing customer who, at any time, has effected a securities transaction in, or made a deposit of funds or securities into an account under the control of or assigned to the associated person at the time of the transaction or deposit, as long as the customer's account has earned interest or dividend income during the preceding twelve months. Each of these exemptions also permit calls by other associated persons acting at the direction of an associated person who is assigned to or controlling the account. Proposed paragraph (c)(3) exempts telephone calls to a broker or dealer. The proposed rule change also expressly clarifies that the scope of this rule is limited to the telemarketing calls described herein; the terms of the Rule do not otherwise expressly or by implication impose on members any additional requirements with respect to the relationship between a member and a customer or between a person associated with a member and a customer.[15]

Demand Draft Authorization and Recordkeeping

The proposed rule change amends Rule 3110 of the NASD's Conduct Rules to (i) prohibit a member or person associated with a member from obtaining from a customer or submitting for payment a check, draft, or other form of negotiable paper drawn on a customer's checking, savings, share, or similar account (''demand draft'') without that person's express written authorization, which may include the customer's signature on the instrument, and (ii) to require the retention of such authorization for a period of three years. The proposal also states that this provision shall not, however, require maintenance of copies of negotiable instruments signed by customers.[16]

IV. Summary of Comments

The Commission received two negative comment letters regarding the NASD's initial proposal to amend NASD telemarketing rules.[17] The issues raised therein, together with responses by the NASD, including amendments to its initial proposed rule change, are discussed below.

In the Merrill Lynch Letter, Merrill Lynch objected to paragraph (c) of Rule 2211, which exempts from the time-of-day and disclosure requirements of paragraphs (a) and (b) telephone calls by associated persons calls by associated persons, or other associated persons acting at the direction of such persons for purposes of maintaining and servicing existing customers assigned to or under the control of the associated persons, to certain categories of ''existing customers.'' Merrill Lynch stated that the language of paragraph (c) implies that the relationship between the associated person controlling or assigned to the specific customer account is the defining relationship for purposes of the Rule rather than the relationship between the firm and the customer. Merrill Lynch further stated that the language appears to disregard the common practice of a firm designating an associated person in place of one earlier assigned to an account but who may no longer be assigned to it or may no longer be associated with the firm. Accordingly, Merrill Lynch suggested deletion of the phrase ''under the control of or assigned to such associated person'' in paragraph (c) of Rule 2211 and replacing the words ''an account that, at the time of the transaction or the deposit, was under the control of or assigned to, such associated person'' in subparagraphs (c)(1) and (2) of Rule 2211 with the phrase ''an account maintained at the member.'' Merrill Lynch also objected to the definition of ''existing customer'' provided in subparagraph (c)(3) of Rule 2211, which defines the term as ''a customer for whom the broker or dealer, or clearing broker or dealer on behalf of such broker or dealer, carries an account.'' Merrill Lynch stated that the language fails to recognize those customers that may use or engage services of the firm, but not maintain an account with the firm. Accordingly, Merrill Lynch suggested modifying the definition of ''existing customer'' to mean ''a person who currently maintains an account with, has positions or assets on the books of, or who within the past twelve months has used services provided by the firm, an affiliated firm, or a clearing broker or dealer acting, on its behalf.''

Merrill Lynch also objected to NASD Conduct Rule 3110, which seeks to (i) prohibit a member from obtaining from a customer or submitting for payment a check, draft, or other form of negotiable paper drawn on a customer's checking, savings or similar account without obtaining that person's express written authorization; and (ii) to require the retention of such authorization for a three year period. Merrill Lynch stated that this creates an unintended consequence with respect to original checks in that it requires the maintenance of customer checks for three years. This is because actual checks pass out of the receiving firms' possession and return ultimately to the makers' banks, and thus physically could not be retained. Accordingly, Merrill Lynch suggested adding to subparagraph (g)(3) the following language: ''This provision shall not, however, require maintenance of copies of negotiable instruments signed by customers.''

In response to the Merrill Lynch Letter, the NASDR amended Rule 2211 by adding the following to subparagraph (c)(3): ''The scope of this Rule shall not otherwise expressly or by implication impose on members any additional requirements with respect to the relationship between a member and a customer or between a person associated with a member and a customer.'' The NASDR believes that this clarifies that the proposed rule is not intended to affect the definition of ''customer'' or the nature of firm-customer or salesperson-customer relationships, outside the context of the rule. The NASDR also amended Rule 3110 by adding the following to subparagraph (g)(3): ''This provision shall not, however, require maintenance of copies of negotiable instruments signed by customers.''

In the ICI Letter, the ICI raised the concern that Rule 3110 may apply to and, therefore, prohibit certain

[15] *See* Amendment No. 3, *supra* note 3.

[16] *Id.*

[17] *See supra* note 5.

telephonic or electronic mutual fund transactions initiated by existing mutual fund shareholders. For example, the ICI argued that telephone exchange transactions could be deemed to violate Rule 3110 because they entail oral instructions to redeem shares of one fund and purchase shares of another fund. Moreover, ICI argues that unless the broker-dealer's customer provided written authorization to debit the customer's bank account to his or her broker-dealer, who in turn forwarded such written authorization to the fund's distributor, the distributor could be deemed to be in violation of Rule 3110. In response to the ICI Letter, the NASDR stated that electronic or telephonic mutual fund transfers initiated by existing mutual fund shareholders do not involve telemarketing and, therefore, Rule 3110 does not apply to such transactions.

V. Discussion

After careful consideration of the comments and the NASDR's responses thereto, the Commission has determined to approve the proposed rule change. The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to the Association, and, in particular, with Section 15A(b)(6) of the Act[18] which requires, among other things, that the rules of the Association be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest.[19] The proposed rule change is consistent with these objectives in that it imposes time restriction and disclosure requirements, with certain exceptios, on members' telemarketing calls, requires verifiable authorization from a customer for demand drafts, and prevents members from engaging in certain deceptive and abusive telemarketing acts and practices while allowing for legitimate telemarketing practices.

The Commission believes that the addition of Rule 2211, prohibiting a member or person associated with a member from making outbound telephone calls to the residence of any person for the purpose of soliciting the purchase of securities or related services at any time other than between 8 a.m. and 9 p.m. local time at the called person's location, without the prior consent of the person, is appropriate. The Commission notes that, by restricting the times during which a member or person associated with a member may call a residence, the proposal furthers the interest of the public and provides for the protection of investors by preventing members and member organizations from engaging in unacceptable practices, such as persistently calling members of the public at unreasonable hours of the day and night.

The Commission also believes that the addition of Rule 2211, requiring a member or person associated with a member to promptly disclose to the called person in a clear and conspicuous manner the caller's identity and firm, telephone number or address at which the caller may be contacted, and that the purpose of the call is to solicit the purchase of securities or related services, is appropriate. By requiring the caller to identify himself or herself and the purpose of the call, the Rule assists in the prevention of fraudulent and manipulative acts and practices by providing investors with information necessary to make an informed decision when purchasing securities. Moreover, by requiring the associated person to identify the firm for which he or she works and the telephone number or address at which the caller may be contacted, the Rule encourages responsible use of the telephone to market securities.

The Commission also believes that Rule 2211, creating exemptions from the time-of-day and disclosure requirements for telephone calls by associated persons, or other associated persons acting at the direction of such persons, to certain categories of ''existing customers'' is appropriate. The Commission believes it is appropriate to create an exemption for calls to customers with whom there are existing relationships in order to accommodate personal and timely contact with a broker who can be presumed to know when it is convenient for a customer to respond to telephone calls. Moreover, such an exemption also may be necessary to accommodate trading with customers in multiple time zones across the United States. The Commission, however, believes that the exemption from the time-of-day and disclosure requirements should be limited to calls to persons with whom the broker has a minimally active relationship. In this regard, the Commission believes that Rule 2211 achieves an appropriate balance between providing protection for the public and the members' interest in competing for customers.

The Commission also believes that the amendment to Rule 3110, requiring that a member or person associated with a member obtain from a customer, and maintain for three years, express written authorization when submitting for payment a check, draft, or other form of negotiable paper drawn on a customer's checking, savings, share or similar account, is appropriate. The Commission notes that by requiring a member or person associated with a member to obtain express written authorization from a customer in the above-mentioned circumstances assists in the prevention of fraudulent and manipulative acts in that it reduces the opportunity for a member or person associated with a member to misappropriate customers' funds. Moreover, the Commission believes that by requiring a member or person associated with a member to retain the authorization for three years, Rule 3110 protects investors and the public interest in that it provides interested parties with the ability to acquire information necessary to ensure that valid authorization was obtained for the transfer of a customer's funds for the purchase of a security.

Finally, the Commission believes that the proposed rule achieves a reasonable balance between the Commission's interest in preventing members from engaging in deceptive and abusive telemarketing acts and the members' interest in conducting legitimate telemarketing practices.

The Commission finds good cause for approving Amendment No. 3 prior to the thirtieth day after the date of publication of notice thereof in the Federal Register. Amendment No. 3 simply clarifies portions of the proposed Rule and does not raise any significant regulatory concerns. Therefore, the Commission believes that granting accelerated approval to Amendment No. 3 is appropriate and consistent with Section 15A and Section 19(b)(2) of the Act.

Interested persons are invited to submit written date, views and arguments concerning Amendment No. 3. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of the submission, all subsequent Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. 20549. 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

[18] 15 U.S.C. § 780–3.

[19] In approving these rules, the Commission has considered the proposed rules' impact on efficiency, competition, and capital formation. 15 U.S.C. § 78c(f).

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–96–28 and should be submitted by January 6, 1997.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[20] that the proposed rule change (SR–NASD–96–28), as amended, as approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[21]

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 96–31723 Filed 12–12–96; 8:45 am]

BILLING CODE 8010–01–M

[20] 15 U.S.C. § 78s(b)(2).

[21] 17 CFR 200.30–3(a)(12) (1994).

SOCIAL SECURITY ADMINISTRATION

Agency Information Collection Activities: Proposed Collection Request

The Social Security Administration publishes a list of information collection packages that will require submission to the Office of Management and Budget (OMB) for clearance in compliance with Public Law 104–13 effective October 1, 1995, The Paperwork Reduction Act of 1995. The information collection listed below requires extension of the current OMB approval:

1. Letter to Employer Requesting Wage Information—0960–0138. The information collected on form SSA-L4201 is used by the Social Security Administration to determine eligibility and proper payment for Supplemental Security Income (SSI) applicants/recipients. The respondents are employers of applicants for and recipients of SSI payments.

To receive a copy of the form(s) or clearance packages(s), call the SSA Reports Clearance Officer on (410) 965–4125 or write to her at the address listed below. Written comments and recommendations regarding information collections should be sent within 60 days from the date of this publication directly to the SSA Reports Clearance Officer at the following address: Social Security Administration, DCFAM, Attn: Judith T. Hasche, 1–A–21 Operations Building, 6401 Security Blvd., Baltimore, MD 21235.

In addition to your comments on the accuracy of the agency's burden estimate, we are soliciting comments on the need for the information; its practical utility; ways to enhance its quality, utility and clarity; and on ways to minimize burden on respondents, including the use of automated collection techniques or other forms of information technology.

Dated: December 9, 1996.

Judith T. Hasche,

Reports Clearance Officer, Social Security Administration.

[FR Doc. 96–31646 Filed 12–12–96; 8:45 am]

BILLING CODE 4190–29–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Air Traffic Control Tower; West Memphis, Arkansas; Notice of Decommissioning

AGENCY: Federal Aviation Administration [FAA], DOT.

SUMMARY: Notice is hereby given that on or about December 27, 1996, the Airport Traffic Control Tower at West Memphis, Arkansas will be decommissioned. This information will be reflected in the FAA Organization Statement the next time it is issued.

49 U.S.C. 1348, 1354(a); 439 U.S.C. 106(g)

Issued in Fort Worth, Texas, on December 6, 1996.

Clyde M. DeHart, Jr.,

Regional Administrator, Southwest Region.

[FR Doc. 96–31729 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–13–M

Notice of Intent To Rule on Application To Impose and Use the Revenue from a Passenger Facility Charge (PFC) at Nashville International Airport, Nashville, TN

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment the application to impose and use the revenue from a PFC at Nashville 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 January 13, 1997.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate to the FAA at the following address: Memphis Airports District Office, 2851 Directors Cove, Suite #3, Memphis, TN 38131–0301.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to General William G. Moore, Jr., President of the Metropolitan Nashville Airport Authority at the following address: Metropolitan Nashville Airport Authority, One Terminal Drive, Suite 501, Nashville, Tennessee 37214–4114.

Air carriers and foreign air carriers may submit copies of written comments previously provided to the Metropolitan Nashville Airport Authority under section 158.23 of Part 158.

FOR FURTHER INFORMATION CONTACT: Mr. Charles L. Harris, Airport Program Manager, Memphis Airports District Office, 2851 Directors Cove, Suite 3, Memphis, Tennessee 38131–0301; telephone number 901–544–3495. The application may be reviewed in person at this location.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Nashville International Airport under 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 December 6, 1996, the FAA determined that the application to impose and use the revenue from a PFC submitted by the Metropolitan Nashville Airport Authority 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 March 6, 1997.

The following is a brief overview of the application.

PFC application number: 97–03–C–00–BNA.

Level of the proposed PFC: $3.00.

Proposed charge effective date: January 1, 2002.

Proposed charge expiration date: March 15, 2002.

Total estimated PFC revenue: $1,475,000.

Total amount of Use approval requested in this application: $1,475,000.

Brief description of proposed project(s): Multiple User Flight Information Display System.

Class or classes of air carriers which the public agency has requested not be required to collect PFCs: Part 135 (air taxi) operators.

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 Metropolitan Nashville Airport Authority.

Issued in Memphis, Tennessee, on December 6, 1996.

LaVerne F. Reid,

Manager, Memphis Airports District Office.

[FR Doc. 96–31730 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–13–M

National Highway Traffic Safety Administration

[NHTSA Docket No. 96–123–N01]

Proposed Information Collection Comment Request; National Survey of Drinking and Driving Attitudes and Behavior: 1997

AGENCY: National Highway Traffic Safety Administration, DOT.

ACTION: Notice and request for comments on data collection.

SUMMARY: More than 300,000 persons were reported injured and more than 17,000 persons died in alcohol-related motor vehicle crashes in 1995, (Traffic Safety Facts: 1995, NHTSA-National Center for Statistics and Analysis). NHTSA is committed to the development of effective programs to reduce the incidence of these crashes. In order to properly plan and evaluate programs intended to reduce alcohol-impaired driving, the agency needs to periodically update its knowledge and understanding of the public's attitudes and behaviors with respect to drinking and driving. To gather these key data, NHTSA intends to administer a modified version of the National Survey of Drinking and Driving Attitudes and Behavior (NSDDAB) in 1997 to a national probability sample of the driving age public. The purpose of this notice is to invite public comment on this study.

DATES: Written comments must be submitted on or before February 17, 1997.

ADDRESSES: Direct all written comments to National Highway Traffic Safety Administration, Docket Section, Room 5111, Docket # 96–123–N01, 400 Seventh St., S.W., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Paul J. Tremont, Ph.D., Contracting Officer's Technical Representative, Office of Research and Traffic Records (NTS–31), 400 Seventh St., S.W., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

I. Abstract

In 1991, NHTSA conducted the first in a series of biennial surveys of the driving-age public (16 or older) to identify patterns and trends in public attitudes and behaviors towards drinking and driving. The proposed study, to be administered in the 3rd quarter of 1997, will collect data on topics included in the first three studies (and several additional topics), including: frequency of drinking and driving and of riding with an impaired driver, ways to prevent drinking and driving, enforcement of drinking driving laws including the use of sobriety checkpoints, understanding of BAC levels and legal limits, and crash and injury experience.

II. Method Of Data Collection

The survey will be administered by telephone to a national probability sample of the driving age public (aged 16 years or older as of their last birthday). Participation by respondents is voluntary. The interview is anticipated to average 20–25 minutes; for non-drinkers and non-drivers the interview will average below 20 minutes, while for drinker-drivers it will average slightly over 20 minutes.

Interviewers will use computer assisted telephone interviewing to reduce survey administration time and to minimize data collection errors. A Spanish-language questionnaire and bi-lingual interviewers will be used to reduce language barriers to participation. All respondent's results will remain anonymous and completely confidential. Participant names are not collected during the interview and the telephone number used to reach the respondent is separated from the data record prior to its entry into the analytical database.

III. Use of Findings

The findings will assist NHTSA in addressing the problem of alcohol-impaired driving and in formulating programs and recommendations to Congress. NHTSA will use the findings to identify areas to target current programs and activities to achieve the greatest benefit, to develop new programs to decrease the likelihood of drinking and driving behaviors, and to provide informational support to states, localities, and law enforcement agencies that will aid them in their efforts to reduce drinking and driving crashes and fatalities.

IV. Data

OMB Number: None.

Form Number: None.

Type of Review: Regular submission.

Affected Public: The non-institutionalized population of the United States aged 16 and older living in telephone households.

Estimated number of respondents: 4000.

Estimated time per survey respondent: 20 minutes.

Estimated total burden hours: 1,333.

Estimated total cost of project including survey component: $53.29 per survey respondent.

V. Paperwork Reduction Act

This notice and request for comments is being conducted in compliance with the Paperwork Reduction Act of 1995, Public law 104–13 (44 U.S.C. 3506(c)(2)(A)).

VI. Request for Comments

Comments are invited on (a) The appropriateness of the approach to meeting the objectives of the study, (b) the types of questions that should be asked of respondents, (c) ways to enhance the quality, utility, and clarity of the information collected, (d) the accuracy of the burden estimate, (e) ways to minimize the burden of the collection of information on the respondents.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection. Copies of all comments will be placed in Docket 96–123, Notice 1, in the NHTSA Docket Section in Room 5111, Nassif Building, 400 7th Street, S.W., Washington, DC 20590 and will become a matter of public record.

Issued on: November 22, 1996.

James H. Hedlund,

Associate Administrator for Traffic Safety Programs, National Highway Traffic Safety Administration.

[FR Doc. 96–31483 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–59–P

[Docket No. 96–086; Notice No. 1]

Reports, Forms, and Record keeping Requirements

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Request for public comment on proposed collections of information.

SUMMARY: This notice solicits public comments on continuation of the requirement for the motor vehicle glazing manufacturer numbers.

Before a Federal agency can collect certain information from the public, it must receive approval from the Office of Management and Budget (OMB). Under new procedures established by the Paperwork Reduction Act of 1995, before seeking OMB approval, Federal agencies must solicit public comment on proposed collections of information, including extensions and reinstatements of previously approved collections.

This document describes the collection of the identity of new motor vehicle glazing manufacturers and the assignment of a unique identification number to each prime glazing manufacturer, for which NHTSA intends to seek OMB approval.

DATES: Comments must be received on or before February 11, 1997.

ADDRESSES: Comments must refer to the docket and notice numbers cited at the beginning of this notice and be submitted to Docket Section, Room 5109, NHTSA, 400 Seventh St. S.W., Washington, D.C. 20590. Please identify the proposed collection of information for which a comment is provided, by referencing its OMB Clearance Number. It is requested, but not required, that 1 original plus 2 copies of the comments be provided. The Docket Section is open on weekdays from 9:30 a.m. to 4:00 p.m.

FOR FURTHER INFORMATION CONTACT: Complete copies of each NHTSA request for collection of information approval may be obtained at no charge from Mr. Ed Kosek, NHTSA Information Collection Clearance Officer, NHTSA, 400 Seventh Street, S.W., Room 6123, Washington, D.C. 20590. Mr. Kosek's telephone number is (202) 366–2589. Please identify the relevant collection of information by referring to its OMB Clearance Number.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995, before an agency submits a proposed collection of information to OMB for approval, it must publish a document in the Federal Register providing a 60-day comment period and otherwise consult with members of the public and affected agencies concerning each proposed collection of information. The OMB has promulgated regulations describing what must be included in such a document. Under OMB's regulations (at 5 CFR 1320.8(d)), an agency must ask for public comment on the following:

(i) 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;

(ii) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(iii) how to enhance the quality, utility, and clarity of the information to be collected; and

(iv) how to minimize the burden of the collection of information on those who are to respond, including 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.

In compliance with these requirements, NHTSA asks public comment on the following proposed collections of information:

Assigning Code Numbers to Glazing Manufacturers

FMVSS 205 Section 6, Certification and Markings

Type of Request—Extension of a currently approved collection.

OMB Clearance Number—2127–0038.

Form Number—This collection of information uses no standard form.

Requested Expiration Date of Approval—Three years from the approval date.

Summary of the Collection of Information—NHTSA requires each new motor vehicle glazing manufacturer to request and be assigned a unique mark or number. This number is then used by the manufacturer as their unique company identification on their self-certification label on each piece of motor vehicle glazing.

Description of the need for the information and proposed use of the information—In order to ensure glazing and motor vehicle manufacturers are complying with Federal Motor Vehicle Safety Standard Number 205, ''Glazing Materials,'' NHTSA requires a certification label on each piece of glazing. As part of that certification label, the company must identify itself with the simple two or three digit number assigned by the agency. Failure to clearly identify the manufacturer would make the certification label and therefore the safety standard compliance unenforceable.

Description of the Likely Respondents (Including Estimated Number, and Proposed Frequency of Response to the Collection of Information)—NHTSA anticipates that approximately 21 new prime glazing manufacturers per year will contact the agency and request a manufacturer identification number. These new glazing manufacturers must submit one letter, one time, identifying their company. In turn, the agency responds by assigning them a unique manufacturer number.

Estimate of the Total Annual Reporting and Record keeping Burden Resulting from the Collection of Information— NHTSA estimates that each manufacturer will need one-half hour to prepare a letter at a cost of $20.00 per hour. Thus, the number of estimated reporting burden hours a year on manufacturers 10.5 hours, at a total cost of $210.

Authority: 44 U.S.C. 3506(c); delegation of authority at 49 CFR 1.50.

Dated: August 30, 1996.

Patricia Breslin,

Acting Associate Administrator for Safety Performance Standards.

[FR Doc. 96–31746 Filed 12–12–96; 8:45 am]

BILLING CODE 4910–59–P

Surface Transportation Board

[STB Finance Docket No. 33140]

Columbia Basin Railroad Company, Inc.—Exemption To Lease and Operate—Burlington Northern Railroad Co. and BNSF Acquisition, Inc.

Columbia Basin Railroad Company, Inc. (CBRC), a non-carrier, has filed a verified notice of exemption under 49 CFR 1150.31 to lease and operate the following rail lines: (1) Connell (MP 186.9) to Wheeler, WA (MP 147.3); (2) Bassett Junction (MP 0.0) to Schrag, WA (MP 12.50); (3) Moses Lake (MP 18.3) to Sieler, WA (MP 5.0); and (4) Sieler (MP 5.0) to Wheeler, WA (MP 0.0). According to CBRC, it will lease a total of 65.4 miles of the lines which were to be acquired by Burlington Northern Railroad Company (BNRR) and BNSF Acquisition Inc. when they consummated the transaction authorized in Burlington Northern Santa Fe Corporation, BNSF Acquisition Corp., and Burlington Northern Railroad Company—Control—Washington Central Railroad Company, Inc., STB Finance Docket No. 32974 (STB served Oct. 25, 1996). In addition, CBRC will acquire trackage rights to provide local and overhead freight service over BNRR's 13-mile line between Warden (MP 1976.0) and Othello, WA (MP 1989.0).

The transaction was expected to be consummated on or after December 4, 1996 contemporaneously with the

transaction in STB Finance Docket No. 32974.

If the verified notice contains false or misleading information, the exemption is void *ab initio.* 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 automatically stay the transaction.

An original and 10 copies of all pleadings, referring to STB Finance Docket No. 33140, must be filed with the Surface Transportation Board, Office of the Secretary, Case Control Branch, 1201 Constitution Avenue, N.W., Washington, DC 20423. In addition, a copy of each pleading must be served on Mark H. Sidman, 1350 New York Avenue, N.W., Suite 800, Washington, DC 20005–4797.

Decided: December 6, 1996.

By the Board, David M. Konschnik, Director, Office of Proceedings.

Vernon A. Williams,

Secretary.

[FR Doc. 96–31712 Filed 12–12–96; 8:45 am]

BILLING CODE 4915–00–P

DEPARTMENT OF THE TREASURY

Submission for OMB Review; Comment Request

December 4, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Bureau of Alcohol, Tobacco and Firearms (BATF)

OMB Number: 1512–0081
Form Number: ATF F 5130.22 and ATF F 5230.23
Type of Review: Extension
Title: Brewer's Bond (5130.22); and Brewer's Bond Continuation Certificate (5130.23)
Description: The Brewer's Bond, ATF F 5130.22, is executed by a brewer and surety company to ensure payment of the excise tax on beer removed from the brewery. The Continuation Certificate, ATF F 5130.23, is executed by a brewer or surety company to continue in effect the coverage of a Brewer's Bond by the surety company.
Respondents: Business or other for-profit
Estimated Number of Respondents: 280
Estimated Burden Hours Per Respondent: 1 hour
Frequency of Response: On occasion
Estimated Total Reporting Burden: 280 hours
OMB Number: 1512–0341
Form Number: ATF REC 5150/8
Type of Review: Extension
Title: Stills: Notices, Registration, and Records
Description: The information collection is used to account for and regulate the distillation of distilled spirits to protect the revenue and to provide identification of distillers.
Respondents: Business or other for-profit
Estimated Number of Recordkeepers: 10
Estimated Burden Hours Per Recordkeeper: 30 minutes
Frequency of Response: On occasion
Estimated Total Recordkeeping Burden: 21 hours

Clearance Officer: Robert N. Hogarth (202) 927–8930, Bureau of Alcohol, Tobacco and Firearms, Room 3200, 650 Massachusetts Avenue, N.W., Washington, DC 20226.

OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31691 Filed 12–12–96; 8:45 am]

BILLING CODE 4810–31–P

Submission to OMB for Review; Comment Request

December 4, 1996

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Internal Revenue Service (IRS)

OMB Number: New
Form Number: IRS Form 941 TeleFile
Type of Review: New collection
Title: Employer's Quarterly Federal Tax Return
Description: Form 941 TeleFile is used by employers to report by phone payments made to employees subject to income and social security and Medicare taxes and the amounts of these taxes.
Respondents: Business or other for-profit, Not-for-Profit institutions, State, Local or Tribal Government
Estimated Number of Respondents/Recordkeepers: 68,480
Estimated Burden Hours Per Respondent/Recordkeeper:
Recordkeeping—4 hr., 4 min.
Learning about the law or the form—6 min.
Preparing the worksheet—10 min.
TeleFile phone call—12 min.
Frequency of Response: Quarterly
Estimated Total Reporting/Recordkeeping Burden: 1,243,597 hours

Clearance Officer: Garrick Shear (202) 622–3869, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, N.W., Washington, DC 20224.

OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10226, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31692 Filed 12–12–96; 8:45 am]

BILLING CODE 4830–01–P

Submission for OMB Review; Comment Request

December 4, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Departmental Office/Office of Data Management

OMB Number: 1505–0016
Form Number: International Capital Form BQ–1
Type of Review: Extension
Title: Treasury International Capital Form BQ–1, Part 1—Banks' Own Claims and Selected Claims of Broker or Dealer on Foreigners; Part 2—Domestic Customers' Claims on

Foreigners Held by Reporting Bank, Broker or Dealer, Payable in Dollars
Description: Form BQ–1 is required by law (22 USC 95a, 22 USC 286f and 3103). It is designed to collect timely and reliable information on international capital movements, including data on dollar claims of U.S. banks, other depository institutions, brokers and dealers, and of their domestic customers, vis-a-vis foreigners.
Respondents: Business or other for-profit
Estimated Number of Respondents: 800
Estimated Burden Hours Per Respondent: 4 hours
Frequency of Response: Quarterly
Estimated Total Reporting Burden: 12,800 hours
Clearance Officer: Lois K. Holland (202) 622–1563, Departmental Offices, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.
OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31693 Filed 12–12–96; 8:45 am]

BILLING CODE 4810–25–P

Submission for OMB Review; Comment Request

December 5, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Bureau of Alcohol, Tobacco and Firearms (BATF)

OMB Number: 1512–0022
Form Number: ATF Form 5320.20
Type of Review: Extension
Title: Application to Transport Interstate or Temporarily Export Certain National Firearms Act (NFA) Firearms
Description: This form is used to request permission to move certain National Firearms Act (NFA) firearms in interstate or foreign commerce.
Respondents: Individuals or households
Estimated Number of Respondents: 800
Estimated Burden Hours Per Respondent: 30 minutes
Frequency of Response: On occasion
Estimated Total Reporting Burden: 400 hours
OMB Number: 1512–0027
Form Number: ATF Form 4 (5320.4)
Type of Review: Extension
Title: Application for Tax Paid Transfer and Registration of a Firearm
Description: This form must be submitted to ATF to obtain approval for tax paid transfers of National Firearms Act (NFA) firearms. Approval of a transfer and registration of a firearm to a new owner are accomplished with the information supplied on this document.
Respondents: Business or other for-profit, Individuals or households
Estimated Number of Respondents: 7,853
Estimated Burden Hours Per Respondent: 4 hours
Frequency of Response: On occasion
Estimated Total Reporting Burden: 31,412 hours
OMB Number: 1512–0028
Form Number: ATF Form 5 (5320.5)
Type of Review: Extension
Title: Application for Tax-Exempt Transfer and Registration of a Firearm
Description: The National Firearms Act requires that the information contained on this form be submitted to the Secretary for a tax-exempt transfer of a National Firearms Act (NFA) firearm. Approval of the form amends the record in the National Firearms Registration and Transfer Record to show the current owner of the firearm.
Respondents: Individuals or households, Business or other for-profit, Federal Government, State, Local or Tribal Government
Estimated Number of Respondents: 62,321
Estimated Burden Hours Per Respondents: 4 hours
Frequency of Response: On occasion
Estimated Total Recordkeeping Burden: 498,568 hours
Clearance Officer: Robert N. Hogarth (202) 927–8930, Bureau of Alcohol, Tobacco and Firearms, Room 3200, 650 Massachusetts Avenue, NW., Washington, DC 20226.
OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31694 Filed 12–12–96; 8:45 am]

BILLING CODE 4180–31–P

Submission for OMB Review; Comment Request

December 5, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Special Request: In order to conduct the surveys described below during the January–March 1997 timeframe, the Department of the Treasury is requesting that the Office of Management and Budget (OMB) review and approve this information collection by December 18, 1996. To obtain a copy of this survey, please contact the IRS Clearance Officer at the address listed below.

Internal Revenue Service (IRS)

OMB Number: 1545–1432
Project Number: M:SP:V 96–023–G
Type of Review: Revision
Title: 1996 Income Verification Program (IVP) Customer Satisfaction Surveys
Description: The objectives of this survey are to (1) assess the impact of the VIP process on taxpayers; (2) compare the lenders' level of satisfactions with the traditional disclosure system and the redesigned disclosure system; and (3) identify means of improving satisfaction with the IRS service.
Respondents: Individuals or households.
Estimated Number of Respondents: 203.
Estimated Burden Hours Per Respondent:
Advance Letter—2 minutes
Initial Mailing: Intro Letter—2 minutes; Questionnaire—10 minutes
Postcard Reminder—1 minute
Second Mailing: Intro Letter—2 minutes; Questionnaire—10 minutes
Frequency of Response: Other
Estimated Total Reporting Burden: 46 hours.
Clearance Officer: Garrick Shear (202) 622–3869, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, N.W., Washington, DC 20224.
OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room

10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31695 Filed 12–12–96; 8:45 am]

BILLING CODE 4830–01–P

Submission for OMB Review; Comment Request

December 5, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Special Request: In order to conduct the survey described below in early January 1997 timeframe, the Department of the Treasury is requesting that the Office of Management and Budget (OMB) review and approve this information collection by December 17, 1996. To obtain a copy of this survey, please contact the IRS Clearance Officer at the address listed below.

Internal Revenue Service (IRS)

OMB Number: 1545–1432
Project Number: M:SP:V 97–001–G
Type of Review: Revision
Title: Portland Federal/State Customer Satisfaction Survey
Description: To evaluate whether the shared walk-in site better meets the combined Federal and State tax issue needs of the taxpayer, a customer satisfaction survey has been developed that will help determine which type of services are most needed and whether employee training and the services provided needed to be improved. Also to be evaluated is the public's reaction to the basic concept of a shared walk-in area with a view toward the possible expansion to other sites and for extended periods of time.
Respondents: Individuals or households
Estimated Number of Respondents: 560
Estimated Burden Hours Per Respondent: 2 minutes
Frequency of Response: Other
Estimated Total Reporting Burden: 19 hours
Clearance Officer: Garrick Shear (202) 622–3869, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, N.W., Washington, DC 20224
OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer

[FR Doc. 96–31696 Filed 12–12–96; 8:45 am]

BILLING CODE 4830–01–P

Submission to OMB for Review; Comment Request

December 5, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Internal Revenue Service (IRS)

OMB Number: 1545–1500
Form Number: IRS Form 8850
Type of Review: Extension
Title: Work Opportunity Credit Pre-Screening Notice and Certification Request
Description: A job applicant completes and signs, under penalties of perjury, the top portion of the form to indicate that he or she is a member of a targeted group. If the employer has a belief that the applicant is a member of a targeted group, the employer signs the other portion of the form under penalties of perjury and submits it to the state employment security agency (SESA) as part of a written request for certification.
Respondents: Business or other for-profit, Farms
Estimated Number of Respondents/Recordkeepers: 85,000
Estimated Burden Hours Per Respondent/Recordkeeper:
Recordkeeping—2 hr., 32 min.
Learning about the law or the form—37 min.
Preparing and sending this form to the SESA—33 min.
Frequency of Response: On occasion
Estimated Total Reporting/Recordkeeping Burden: 1,480,000 hours
Clearance Officer: Garrick Shear (202) 622–3869, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, N.W., Washington, DC 20224.
OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10226, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31697 Filed 12–12–96; 8:45 am]

BILLING CODE 4830–01–P

Submission for OMB Review; Comment Request

December 9, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Special Request: In order to conduct the surveys described below during the mid-January 1997 timeframe, the Department of the Treasury is requesting that the Office of Management and Budget (OMB) review and approve this information collection by December 18, 1996. To obtain a copy of this survey, please contact the IRS Clearance Officer at the address listed below.

Internal Revenue Service (IRS)

OMB Number: 1545–1349
Project Number: SOI–22
Type of Review: Revision
Title: 1997 Telephone Routing Interactive System (TRIS) Application Automated Customer Satisfaction Surveys
Description: IRS will assess customer satisfaction and ease of use of the Telephone Routing Interactive System (TRIS) applications and measure how easy callers find the applications to use by conducting satisfaction surveys with callers who successfully use the different applications.
Respondents: Individuals or households
Estimated Number of Respondents: 37,525
Estimated Burden Hours Per Respondent: 1 minute
Frequency of Response: Other
Estimated Total Reporting Burden: 625 hours

Clearance Officer: Garrick Shear (202) 622–3869, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, N.W., Washington, DC 20224.

OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31699 Filed 12–12–96; 8:45 am]

BILLING CODE 4830–01–P

Submission for OMB Review; Comment Request

December 9, 1996.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

Special Request: In order to begin the survey described below at the end of January 1997 timeframe, the Department of the Treasury is requesting that the Office of Management and Budget (OMB) review and approve this information collection by December 23, 1996. To obtain a copy of this survey, please contact the IRS Clearance Officer at the address listed below.

Internal Revenue Service (IRS)

OMB Number: 1545–1432
Project Number: M:SP:V 96–024–G
Type of Review: Revision
Title: Internal Revenue Service Notice Redesign Survey: CP2000
Description: The purpose of this survey is to assess customer satisfaction of the redesigned CP2000 notice. The survey will be conducted in the coverage area of the Cincinnati Service Center.
Respondents: Individuals or households
Estimated Number of Respondents: 2,670
Estimated Burden Hours Per Respondent:
Advance Letter 2 minutes
Initial Mailing: Intro Letter—2 minutes; Questionnaire—5 minutes
Postcard Reminder 1 minute
Second Mailing: Intro Letter—2 minutes; Questionnaire—5 minutes
Frequency of Response: Other
Estimated Total Reporting Burden: 218 hours

Clearance Officer: Garrick Shear (202) 622–3869, Internal Revenue Service, Room 5571, 1111 Constitution Avenue, N.W., Washington, DC 20224.

OMB Reviewer: Alexander T. Hunt (202) 395–7860, Office of Management and Budget, Room 10202, New Executive Office Building, Washington, DC 20503.

Lois K. Holland,

Departmental Reports Management Officer.

[FR Doc. 96–31700 Filed 12–12–96; 8:45 am]

BILLING CODE 4830–01–P

Office of the Secretary

List of Countries Requiring Cooperation With an International Boycott

In order to comply with the mandate of section 999(a)(3) of the Internal Revenue Code of 1986, the Department of the Treasury is publishing a current list of countries which may require participation in, or cooperation with, an international boycott (within the meaning of section 999(b)(3) of the Internal Revenue Code of 1986).

On the basis of the best information currently available to the Department of the Treasury, the following countries may require participation in, or cooperation with, an international boycott (with the meaning of section 999(b)(3) of the Internal Revenue Code of 1986)

Bahrain
Iraq
Kuwait
Lebanon
Libya
Oman
Qatar
Saudi Arabia
Syria
United Arab Emirates
Yemen, Republic of

Dated: December 6, 1996.

Joseph Guttentag,

International Tax Counsel (Tax Policy).

[FR Doc. 96–31634 Filed 12–12–96; 8:45 am]

BILLING CODE 4810–25–M

COMMISSION ON UNITED STATES-PACIFIC TRADE AND INVESTMENT POLICY

Office of the United States Trade Representative

Notice of Meeting of the Commission on United States-Pacific Trade and Investment Policy

AGENCY: Commission on United States-Pacific Trade and Investment Policy/ Office of the United States Trade Representative.

ACTION: Notice that the next two meetings of the Commission on United States-Pacific Trade anda Investment Policy are scheduled for December 16–17, 1996 from 9:30 a.m. to 5:30 p.m. These meetings will be closed to the public.

SUMMARY: The Commission on United States-Pacific Trade and Investment Policy will hold its next two meetings on December 16–17, 1996 from 9:30 a.m. to 5:30 p.m. These meetings will be closed to the public. These meetings will focus on development of the Commission's final recommendations and its report to the President. Pursuant to Section 2155(f)(2) of Title 19 of the United States Code, the USTR has determined that these meetings will be concerned with matters the disclosure of which seriously compromise the development by the United States Government of trade policy, priorities, negotiating objectives or bargaining positions with respect to the operation of any trade agreement and other matters arising in connection with the development, implementation and administration of the trade policy of the United States.

DATES: These meeting are scheduled for December 16–17, 1996, unless otherwise notified.

ADDRESSES: These meetings will be held at the U.S. Department of Commerce, Patent and Trademark Office, Office of Patent Policy Dissemination, Crystal Square 4, Suite 700, 1745 Jefferson Davis Highway (Route 1) Arlington, VA 22202, unless otherwise notified.

FOR FURTHER INFORMATION CONTACT: Nancy Adams, Executive Director of the Commission on United States-Pacific Trade and Investment Policy, Room 400, 600 17th Street, NW, Washington, D.C. 20508, (202) 395–9679.

Nancy Adams,

Executive Director Commission on United States-Pacific Trade and Investment Policy.

Jennifer Hillman,

Acting United States Trade Repesentative.

[FR Doc. 96–31597 Filed 12–12–96; 8:45 am]

BILLING CODE 3190–01–M

Corrections

Federal Register
Vol. 61, No. 241
Friday, December 13, 1996

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.

GENERAL SERVICES ADMINISTRATION

41 CFR Ch. 301

[FTR Amendment 52]

RIN 3090-AF98

Federal Travel Regulation; Maximum Per Diem Rates

Correction

In rule document 96–29768 beginning on page 59185 in the issue of Thursday, November 21, 1996, make the following correction:

Appendix A to Ch. 301 [Corrected]

On page 59196, in the table, under the state of Washington, in the fourth line from the bottom, the numbers 51, 30, and 81 in columns two, three and four, respectively, are removed following the Anacortes/Mt. Vernon/Whidbey Island, Skagit and Island locality.

BILLING CODE 1505–01–D

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 96N—0425]

Paclitaxel Drug Products; Environmental Information Needed in New Drug Applications, Abbreviated New Drug Applications, and Investigational New Drug Applications

Correction

In notice document 96–29486 beginning on page 58694 in the issue of Monday, November 18, 1996, make the following correction:

On page 58695, in the first column, in the third paragraph, in the last line, ''November 18, 1976'' should read ''November 18, 1996''.

BILLING CODE 1505–01–D

federal register

Friday
December 13, 1996

Part II

Environmental Protection Agency

40 CFR Part 50

National Ambient Air Quality Standards for Particulate Matter; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 50

[AD-FRL–5659–5]

RIN 2060–AE66

National Ambient Air Quality Standards for Particulate Matter: Proposed Decision

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In accordance with sections 108 and 109 of the Clean Air Act (Act), EPA has reviewed the air quality criteria and national ambient air quality standards (NAAQS) for particulate matter (PM) and for ozone (O_3). Based on these reviews, EPA proposes to change the standards for both classes of pollutants. This document describes EPA's proposed changes with respect to the NAAQS for PM. The EPA's proposed actions with respect to O_3 are being proposed elsewhere in today's Federal Register.

With respect to PM, EPA proposes to revise the current primary PM_{10} standards by adding two new primary $PM_{2.5}$ standards set at 15 μg/m^3, annual mean, and 50 μg/m^3, 24-hour average, to provide increased protection against a wide range of PM-related health effects, including premature mortality and increased hospital admissions and emergency room visits (primarily in the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (in children and individuals with cardiopulmonary disease such as asthma); decreased lung function (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The proposed annual $PM_{2.5}$ standard would be based on the 3-year average of the annual arithmetic mean $PM_{2.5}$ concentrations, spatially averaged across an area. The proposed 24-hour $PM_{2.5}$ standard would be based on the 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations at each monitor within an area. The EPA also solicits comment on two alternative approaches for selecting the levels of $PM_{2.5}$ standards. The EPA proposes to revise the current 24-hour primary PM_{10} standard of 150 μg/m^3 by replacing the 1-expected-exceedance form with a 98th percentile form, averaged over 3 years at each monitor within an area, and solicits comment on an alternative proposal to revoke the 24-hour PM_{10} standard. The EPA also proposes to retain the current annual primary PM_{10} standard of 50 μg/m^3. Further, EPA proposes new data handling conventions for calculating 98th percentile values and spatial averages (Appendix K), proposes to revise the reference method for monitoring PM as PM_{10} (Appendix J), and proposes a new reference method for monitoring PM as $PM_{2.5}$ (Appendix L).

The EPA proposes to revise the current secondary standards by making them identical to the suite of proposed primary standards. In the Administrator's judgment, these standards, in conjunction with the establishment of a regional haze program under section 169A of the Act, would provide appropriate protection against PM-related public welfare effects including soiling, material damage, and visibility impairment.

DATES: Written comments on this proposed rule must be received by February 18, 1997.

ADDRESSES: Submit comments in duplicate if possible on the proposed action to: Office of Air and Radiation Docket and Information Center (6102), Attention: Docket No. A–95–54, U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

Public hearings: The EPA will announce in a separate Federal Register document the date, time, and address of the public hearing on this proposed rule.

FOR FURTHER INFORMATION CONTACT: Ms. Patricia Koman, MD–15, Air Quality Strategies and Standards Division, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone: (919) 541–5170.

SUPPLEMENTARY INFORMATION:

Docket

Docket No. A–95–54 incorporates by reference the docket established for the air quality criteria document (Docket No. ECAO–CD–92–0671). The docket may be inspected at the above address between 8:00 a.m. and 5:30 p.m. on weekdays, and a reasonable fee may be charged for copying.

Availability of Related Information

Certain documents are available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. Available documents include: Air Quality Criteria for Particulate Matter (Criteria Document) (three volumes, EPA/600/P–95–001aF thru EPA/600/P–95–001cF, April 1996, NTIS # PB–96–168224, $234.00 paper copy); and Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information (Staff Paper) (EPA–452/R–96–013, July 1996, NTIS # PB–97–115406, $47.00 paper copy and $19.50 microfiche). (Add a $3.00 handling charge per order.) A limited number of copies of other documents generated in connection with this standard review, such as technical support documents pertaining to air quality, monitoring, and health risk assessment, can be obtained from: U.S. Environmental Protection Agency Library (MD–35), Research Triangle Park, NC 27711, telephone (919) 541–2777. These and other related documents are also available for inspection and copying in the EPA docket identified above.

The Staff Paper and human health risk assessment support documents are now available on the Agency's Office of Air Quality Planning and Standards' (OAQPS) Technology Transfer Network (TTN) Bulletin Board System (BBS) in the Clean Air Act Amendments area, under Title I, Policy/Guidance Documents. To access the bulletin board, a modem and communications software are necessary. To dial up, set your communications software to 8 data bits, no parity and one stop bit. Dial (919) 541–5742 and follow the on-screen instructions to register for access. After registering, proceed to choice ''<T> Gateway to TTN Technical Areas'', then choose ''<E> CAAA BBS''. From the main menu, choose ''<1> Title I: Attain/Maint of NAAQS'', then ''<P> Policy Guidance Documents.'' To access these documents through the World Wide Web, click on ''TTN BBSWeb'', then proceed to the Gateway to TTN Technical areas, as above. If assistance is needed in accessing the system, call the help desk at (919) 541–5384 in Research Triangle Park, NC.

Implementation Activities

When revisions to the primary and secondary PM standards are implemented by the States, the utility, petroleum, mining, iron and steel, automobile, and chemical industries are likely to be affected, as well as other manufacturing concerns that emit PM or precursors to PM. The extent of such effects will depend on implementation policies and control strategies adopted by the States to assure attainment and maintenance of revised standards.

The EPA is developing appropriate policies and control strategies to assist States in the implementation of the proposed revisions to the PM NAAQS. The resulting implementation strategies

will be proposed for public comment in the future.

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I. Background

A. Legislative Requirements

Two sections of the Act govern the establishment, review, and revision of NAAQS. Section 108 (42 U.S.C. 7408) directs the Administrator to identify pollutants which ''may reasonably be anticipated to endanger public health and welfare'' and to issue air quality criteria for them. These air quality criteria are to ''accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of [a] pollutant in the ambient air * * * .''

Section 109 (42 U.S.C. 7409) directs the Administrator to propose and promulgate ''primary'' and ''secondary'' NAAQS for pollutants identified under section 108. Section 109(b)(1) defines a primary standard as one ''the attainment and maintenance of which, in the judgment of the Administrator, based on the criteria and allowing an adequate margin of safety, [are] requisite to protect the public health.'' The margin of safety requirement was intended to address uncertainties associated with inconclusive scientific and technical information available at the time of standard setting, as well as to provide a reasonable degree of protection against hazards that research has not yet identified. Both kinds of uncertainties are components of the risk associated with pollution at levels below those at which human health effects can be said to occur with reasonable scientific certainty. Thus, by selecting primary standards that provide an adequate margin of safety, the Administrator is seeking not only to prevent pollution levels that have been demonstrated to be harmful but also to prevent lower pollutant levels that she finds may pose an unacceptable risk of harm, even if the risk is not precisely identified as to nature or degree. The Act does not require the Administrator to establish a primary NAAQS at a zero-risk level, but rather at a level that reduces risk sufficiently so as to protect public health with an adequate margin of safety.

A secondary standard, as defined in section 109(b)(2), must ''specify a level of air quality the attainment and maintenance of which, in the judgment of the Administrator, based on [the] criteria, are requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of [the] pollutant in the ambient air.'' Welfare effects as defined in section 302(h) [42 U.S.C. 7602(h)] include, but are not limited to, ''effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.''

Section 109(d)(1) of the Act requires periodic review and, if appropriate, revision of existing air quality criteria and NAAQS. Section 109(d)(2) requires appointment of an independent scientific review committee to review criteria and standards and recommend new standards or revisions of existing criteria and standards, as appropriate. The committee established under section 109(d)(2) is known as the Clean Air Scientific Advisory Committee (CASAC), a standing committee of EPA's Science Advisory Board.

B. Related Control Requirements

States are primarily responsible for ensuring attainment and maintenance of ambient air quality standards once EPA has established them. Under section 110 of the Act (42 U.S.C. 7410) and related provisions, States are to submit, for EPA approval, State implementation plans (SIP's) that provide for the attainment and maintenance of such standards through control programs directed to sources of the pollutants involved. The States, in conjunction with EPA, also administer the prevention of significant deterioration program (42 U.S.C. 7470–7479) for these pollutants. In addition, Federal programs provide for nationwide reductions in emissions of these and other air pollutants through the Federal Motor Vehicle Control Program under Title II of the Act (42 U.S.C. 7521–7574), which involves controls for automobile, truck, bus, motorcycle, and aircraft emissions; the new source performance standards under section 111 (42 U.S.C. 7411); and the national emission standards for hazardous air pollutants under section 112 (42 U.S.C. 7412).

C. Review of Air Quality Criteria and Standards for PM

Particulate matter is the generic term for a broad class of chemically and physically diverse substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. Particles originate from a variety of anthropogenic stationary and mobile sources as well as from natural sources. Particles may be emitted directly or formed in the atmosphere by transformations of gaseous emissions such as sulfur oxides (SO_X), nitrogen oxides (NO_X), and volatile organic compounds (VOC). The chemical and physical properties of PM vary greatly with time, region, meteorology, and source category, thus complicating the assessment of health and welfare effects.

The last review of PM air quality criteria and standards was completed in

July 1987 with notice of a final decision to revise the existing standards (52 FR 24854, July 1, 1987). In that decision, EPA changed the indicator for particles from total suspended particles (TSP) to PM_{10}.[1] Identical primary and secondary PM_{10} standards were set for two averaging times: (1) 50 μg/m^3, expected annual arithmetic mean, averaged over 3 years, and (2) 150 μg/m^3, 24-hour average, with no more than one expected exceedance per year.[2]

The EPA formally initiated the current review of the air quality criteria for PM in April 1994 by announcing its intention to develop a revised Air Quality Criteria Document for Particulate Matter (henceforth, the ''Criteria Document''). Thereafter, the EPA presented its plans for review of the criteria and standards for PM under a highly accelerated, court-ordered schedule[3] at a public meeting of the CASAC in December 1994. Several workshops were held by EPA's National Center for Environmental Assessment (NCEA) to discuss important new health effects information in November 1994 and January 1995. External review drafts of the Criteria Document were made available for public comment and were reviewed by CASAC at public meetings held in August and December 1995 and February 1996. The CASAC came to closure in its review of the Criteria Document, advising the Administrator in a March 15, 1996 closure letter (Wolff, 1996a) that ''although our understanding of the health effects of PM is far from complete, a revised Criteria Document which incorporates the Panel's latest comments will provide an adequate review of the available scientific data and relevant studies of PM.'' CASAC and public comments from these meetings and from subsequent written comments and the closure letter were incorporated as appropriate in the final Criteria Document (U.S. EPA, 1996a).

External review drafts of a staff paper prepared by the Office of Air Quality Planning and Standards (OAQPS), Review of the National Ambient Air Quality Standards for Particulate Matter: Assessment of Scientific and Technical Information (henceforth, the ''Staff Paper'') were made available for public comment and were reviewed by CASAC at public meetings in December 1995 and May 1996.[4] The CASAC came to closure in its review of the Staff Paper, advising the Administrator in a June 13, 1996 closure letter (Wolff, 1996b) that ''the Staff Paper, when revised, will provide an adequate summary of our present understanding of the scientific basis for making regulatory decisions concerning PM standards.'' CASAC and public comments from these meetings, subsequent written comments, and the CASAC closure letter were incorporated as appropriate in the final Staff Paper (U.S. EPA, 1996b).

The principal focus of this current review of the air quality criteria and standards for PM is on recent epidemiological evidence reporting associations between ambient concentrations of PM and a range of serious health effects. Particular attention has been given to several size-specific classes of particles, including PM_{10} and the principal fractions of PM_{10}, referred to as the fine ($PM_{2.5}$)[5] and coarse ($PM_{10-2.5}$)[6] fractions. As discussed in the Criteria Document, fine and coarse fraction particles can be differentiated by their sources and formation processes and their chemical and physical properties, including behavior in the atmosphere. Detailed discussions of atmospheric formation, ambient concentrations, and health and welfare effects of PM, as well as quantitative estimates of human health risks associated with exposure to PM, can be found in the Criteria Document and Staff Paper.

This review of the scientific criteria for PM has occurred simultaneously with the review of the criteria for ozone (O_3). These criteria reviews as well as related implementation strategy activities to date have brought out important linkages between O_3 and PM. A number of community epidemiological studies have found similar health effects to be associated with exposure to O_3 and PM, including, for example, aggravation of respiratory disease (e.g., asthma), increased respiratory symptoms, and increased hospital admissions and emergency room visits for respiratory causes. Laboratory studies have found potential interactions between O_3 and various constituents of PM. Other key similarities relating to exposure patterns and implementation strategies exist between O_3 and PM, specifically fine particles. These similarities include: (1) Atmospheric residence times of several days, leading to large urban and regional-scale transport of the pollutants; (2) similar gaseous precursors, including NO_X and VOC, which contribute to the formation of both O_3 and fine particles in the atmosphere; (3) similar combustion-related source categories, such as coal and oil-fired power generation and industrial boilers and mobile sources, which emit particles directly as well as gaseous precursors of particles (e.g., SO_X, NO_X, VOC) and O_3 (e.g., NO_X, VOC); and (4) similar atmospheric chemistry driven by the same chemical reactions and intermediate chemical species that form both high O_3 and fine particle levels. High fine particle levels are also associated with significant impairment of visibility on a regional scale.

These similarities provide opportunities for optimizing technical analysis tools (i.e., monitoring networks, emission inventories, air quality models) and integrated emission reduction strategies to yield important co-benefits across various air quality management programs. These co-benefits could result in a net reduction of the regulatory burden on some source category sectors that would otherwise be impacted by separate O_3, PM, and visibility protection control strategies.

In recognition of the multiple linkages and similarities in effects and the potential benefits of integrating the Agency's approaches to providing for appropriate protection of public health and welfare from exposure to O_3 and PM, EPA plans to complete the review of the NAAQS for both pollutants on the same schedule. Accordingly, today's Federal Register contains a separate notice announcing proposed revisions to the O_3 NAAQS. Linking the O_3 and PM review schedules provides an important opportunity to materially improve the nation's air quality management programs—both in terms of communicating a more complete description of the health and welfare effects associated with the major components of urban and regional air pollution, and by helping the States and local areas to plan jointly to address both PM and O_3 air pollution at the same time with one process, and to

[1] PM_{10} refers to particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers.

[2] A more complete history of the PM NAAQS is presented in section II.B of the OAQPS Staff Paper, Review of National Ambient Air Quality Standards for Particulate Matter: Assessment of Scientific and Technical Information (U.S. EPA, 1996b).

[3] A court order entered in *American Lung Association* v. *Browner*, CIV–93–643–TUC–ACM (D. Ariz., October 6, 1994), as subsequently modified, requires publication of proposed and final decisions on the review of the PM NAAQS by November 29, 1996 and June 28, 1997, respectively.

[4] The Staff Paper evaluates policy implications of the key studies and scientific information in the Criteria Document, identifies critical elements that EPA staff believes should be considered, and presents staff conclusions and recommendations of suggested options for the Administrator's consideration.

[5] $PM_{2.5}$ refers to particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

[6] $PM_{10-2.5}$ refers to those particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers but greater than 2.5 micrometers.

work together with industry to address common sources of air pollution. The EPA believes this integrated approach will lead to more effective and efficient protection of public health and the environment.

II. Rationale for Proposed Decisions on Primary Standards

This notice presents the Administrator's proposed decisions to establish new annual and 24-hour $PM_{2.5}$ primary standards and to revise the form of the current 24-hour PM_{10} primary NAAQS, based on a thorough review, in the Criteria Document, of the latest scientific information on known and potential human health effects associated with exposure to PM at levels typically found in the ambient air. These decisions also take into account and are consistent with: (1) Staff Paper assessments of the most policy-relevant information in the Criteria Document, upon which staff recommendations for new and revised primary standards are based; (2) CASAC advice and recommendations, as reflected in discussions of drafts of the Criteria Document and Staff Paper at public meetings, in separate written comments, and in the CASAC's closure letters to the Administrator; and (3) public comments received during the development of these documents, either in connection with CASAC meetings or separately.

As discussed more fully below, the rationale for the proposed revisions of the PM primary NAAQS includes consideration of: (1) Health effects information, and alternative views on the appropriate interpretation and use of the information, as the basis for judgments about the risks to public health presented by population exposures to ambient PM; (2) insights gained from a quantitative risk assessment conducted to provide a broader perspective for judgments about protecting public health from the risks associated with PM exposures; and (3) specific conclusions regarding the need for revisions to the current standards and the elements of PM standards (i.e., indicator, averaging time, form, and level) that, taken together, would be appropriate to protect public health with an adequate margin of safety.

As with virtually any policy-relevant scientific research, there is uncertainty in the characterization of health effects attributable to exposure to ambient PM. As discussed below, however, there is now a greatly expanded body of health effects information as compared with that available during the last review of the PM standards. Moreover, the recent evidence on PM-related health effects has undergone an unusually high degree of scrutiny and reanalysis over the past several years, beginning with a series of workshops held early in the review process to discuss important new information. A number of opportunities were provided for public comment on successive drafts of the Criteria Document and Staff Paper, as well as for intensive peer review of these documents by CASAC at several public meetings attended by many knowledgeable individuals and representatives of interested organizations. In addition, there have been a number of important scientific conferences, symposia, and colloquia on PM issues, sponsored by the EPA and others, in the U.S. and abroad, during this period. While significant uncertainties exist, the review of the health effects information has been thorough and deliberate. In the judgment of the Administrator, this intensive evaluation of the scientific evidence has provided an adequate basis for regulatory decision making at this time, as well as for the comprehensive research plan recently developed by EPA, and reviewed by CASAC and others, for improving our future understanding of the relationships between ambient PM exposures and health effects.

A. Health Effects Information

This section outlines key information contained in the Criteria Document (Chapters 10–13) and the Staff Paper (Chapter V) on known and potential health effects associated with airborne PM, alone and in combination with other pollutants that are routinely present in the ambient air. The information highlighted here summarizes: (1) The nature of the effects that have been reported to be associated with ambient PM; (2) sensitive subpopulations that appear to be at greater risk to such effects; (3) an integrated evaluation of the health effects evidence; and (4) the PM fractions of greatest concern to health.

Since the last review of the PM criteria and standards, the most significant new evidence on the health effects of PM is the greatly expanded body of community epidemiological studies. The Criteria Document stated that these recent studies provide ''evidence that serious health effects (mortality, exacerbation of chronic disease, increased hospital admissions, etc.) are associated with exposures to ambient levels of PM found in contemporary U.S. urban airsheds even at concentrations below current U.S. PM standards'' (U.S. EPA, 1996a, p. 13–1). Although a variety of responses to constituents of ambient PM have been hypothesized to contribute to the reported health effects, the relevant toxicological and controlled human studies published to date have not identified an accepted mechanism(s) that would explain how such relatively low concentrations of ambient PM might cause the health effects reported in the epidemiological literature. The discussion below notes the key issues raised in assessing community epidemiological studies, including alternative interpretations of the evidence, both for individual studies and for the evidence as a whole.

1. Nature of the Effects

As discussed in the Criteria Document and Staff Paper, the key health effects categories associated with PM include: (1) Premature mortality; (2) 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); (3) changes in lung function and increased respiratory symptoms; (4) changes to lung tissues and structure; and (5) altered respiratory defense mechanisms. Most of these effects have been consistently associated with ambient PM concentrations, which have been used as a measure of population exposure, in a number of community epidemiological studies. Additional information and insights on these effects are provided by studies of animal toxicology and controlled human exposures to various constituents of PM conducted at higher-than-ambient concentrations. Although, as noted above, mechanisms by which particles cause effects have not been elucidated, there is general agreement that the cardio-respiratory system is the major target of PM effects.

a. Mortality

i. Short-Term Exposure Studies

As discussed in the Staff Paper, the most notable evidence on the health effects of community air pollution containing high concentrations of PM has come from the dramatic pollution episodes of Belgium's industrial Meuse Valley, Donora, Pennsylvania, and London, England. Based on analyses of a series of episodes in London, there was general acceptance in the last Criteria Document (U.S. EPA, 1982a) and in critical reviews of PM-associated health effects that London air pollution at high concentrations (at or above 500–

1000 μg/m^3 of PM[7] and sulfur dioxide (SO_2)) was causally related to increased mortality. Further analyses of daily mortality over 14 London winters suggested that particles were more likely to be responsible for the associations of health effects with air pollution than SO_2, and that the association continued to the lower concentrations of PM measured in London (150 μg/m^3, measured as BS).

From 1987 to present, numerous epidemiological studies using improved statistical techniques and expanded particle monitoring data have reported statistically significant[8] positive associations between increased daily or several-day average concentrations of PM [as measured by a variety of indices, including TSP, PM_{10}, $PM_{2.5}$, sulfate, and BS] and premature mortality in communities across the U.S. as well as in Europe and South America. Of 38 analyses and reanalyses of these studies (referred to as daily mortality studies) published between 1988 and 1996, most found statistically significant associations between increases in short-term ambient PM concentrations and total non-accidental mortality (U.S. EPA, 1996a, Table 12–2).

More specifically, the effects estimates for PM_{10} reported in these studies fall within a range of approximately 2 to 8 percent increase in the relative risk[9] of mortality for a 50 μg/m^3 increase in 24-hour average PM_{10} concentrations. The consistency in these results is notable, particularly since these studies examined PM-mortality relationships in 18 different locations varying significantly in climate, human activity patterns, aerosol composition, and amounts of co-occurring gaseous pollutants [e.g., SO_2 and ozone(O^3)], using a variety of statistical techniques. A rough estimate of the incremental relative risk attributed to PM concentrations seen in the worst London episode also falls within this range (U.S. EPA, 1996b, p. V–13). It is also important to note that the magnitude of the relative risks, while significant from a public health perspective because the potentially exposed population is large, are small compared to those usually found in epidemiological studies of occupational and other risk factors.

Some of these daily mortality studies examined PM-mortality associations for both total non-accidental mortality and cause-specific mortality. In general, such studies have reported higher relative risks for respiratory and cardiovascular causes of death than for total mortality, as well as higher risks for mortality in the elderly (>65 years of age) than for mortality in the general population.

ii. Long-Term Exposure Studies

By the time of the previous review of the PM criteria in 1987, numerous epidemiological studies of a cross-sectional design had reported statistically significant associations linking higher long-term (single or multi-year) concentrations of various indices of PM with higher mortality rates across numerous U.S. communities. However, the usefulness of such studies for quantitative purposes was at that time limited by the lack of supporting evidence available from daily mortality studies or the toxicological literature, and by unaddressed confounders and methodological problems inherent in these cross-sectional studies.

More recently, epidemiological studies of a prospective-cohort design have been conducted, including in particular the Six City study (Dockery et al., 1993) and the American Cancer Society (ACS) study (Pope et al., 1995), that lend support to the earlier cross-sectional studies of mortality. These two recent studies reflect significant methodological advances over the earlier studies, including the use of subject-specific information, and provide evidence for an association between long-term PM concentrations and mortality. At least some fraction of mortality was reported to reflect cumulative PM impacts in addition to those associated with short-term concentrations (U.S. EPA, 1996a, p. 13–34).

The Six City study, which followed more than 8,000 adults for 14 years, found that long-term PM concentrations ($PM_{15/10}$, $PM_{2.5}$, and sulfate) in six U.S. cities were statistically significantly associated with increased rates of total mortality and cardiopulmonary mortality, even after adjustment for smoking, education level, and occupation. Specifically, this study reported increases in relative risk of 26% and 37% for total and cardiopulmonary-related mortality, respectively, between the cities with the highest and lowest PM concentrations. The ACS study was designed to follow up on the findings from the Six City study, using a much larger number of individuals (more than half a million adults followed for seven years) and cities. The ACS investigators reported that, after adjustment for other risk factors, multi-year concentrations of $PM_{2.5}$ (for 47 U.S. cities) and sulfate (for 151 cities) were found to be statistically significantly associated with both total and cardiopulmonary mortality. The ACS study reported increases in relative risk of 17% and 31% for total and cardiopulmonary mortality, respectively.

Some reviewers have raised concerns regarding the adequacy of the adjustment for confounders in these prospective-cohort studies, maintaining that other uncontrolled factors may be responsible for the observed mortality rates (Lipfert and Wyzga, 1995; Moolgavkar and Luebeck, 1996; Moolgavkar, 1994). The Criteria Document indicates, however, that it is unlikely that these studies overlooked plausible confounders, although the addition of factors not taken into account might well alter the magnitude of the association (U.S. EPA, 1996a, p. 12–180). In particular, the Criteria Document cautions that the magnitude of relative risks associated with PM concentrations reported in these studies may be overestimated because some of the effects may be due to historical PM concentrations that were significantly higher than the ones used to estimate population exposures in these studies.

The Criteria Document concludes that the Six City and ACS studies, taken together with the earlier cross-sectional studies, suggest that: 1) there may be increases in mortality in disease categories that are consistent with long-term exposure to PM, and 2) at least some fraction of these deaths reflects cumulative PM impacts greater than those reported in the daily mortality studies (U.S. EPA, 1996a, p. 13–34).

iii. Degree of Lifespan Shortening

The degree of lifespan shortening associated with PM exposure in these studies is viewed by many as an important consideration in evaluating mortality effects in a public health context. The epidemiological findings of associations between short- and long-term ambient PM concentrations and premature mortality provide some insight into this issue. The mortality effects estimates associated with long-term PM concentrations in the prospective-cohort studies are

[7] Measured as British Smoke (BS), which gauges the darkness of PM collected on a filter and is most sensitive to combustion generated carbon particles. When calibrated to a mass measurement, as in the historical London studies, BS is an indicator of fine mode particles.

[8] Statistically significant results are reported at a 95% confidence level.

[9] Many of the recent epidemiological studies report effects estimates in terms of a percentage increase in the risk of mortality in the study population (as compared to the baseline rate in the population as a whole) associated with a specific increase in ambient PM concentrations measured by one or more outdoor monitors. These effects estimates generally are based on a statistical model of the entire study period, which typically spanned multiple years or seasons.

considerably larger (Six City study) to somewhat larger (ACS study) than those from the daily mortality studies, suggesting that a substantial portion of the deaths associated with long-term PM exposure may be independent of the deaths associated with short-term exposure (U.S. EPA, 1996a, p. 13–44). The Criteria Document suggests that the extent of lifespan shortening implied by the long-term exposure studies could be on the order of years (U.S. EPA, 1996a, p. 13–45).

As discussed in the Staff Paper, attempts to quantitatively evaluate the extent of lifespan shortening in the daily mortality studies to date provide no more than suggestive results, with the investigators recognizing that more research is needed in this area (U.S. EPA, 1996b, p. V–19–20). The limited analyses available suggest that at least some portion of the daily mortality associated with PM may occur in individuals who would have died within days in the absence of PM exposure (U.S. EPA, 1996b, p. V–19–20). Researchers in this area also note that it is possible that the reported deaths might be substantially premature if a person becomes seriously ill but would have otherwise recovered without the extra stress of PM exposure (U.S. EPA, 1996b, p. V–19–20).

Quantification of the degree of lifespan shortening inherent in the long- and short-term exposure mortality studies is difficult and requires assumptions about life expectancies given other risk factors besides PM exposure, including the ages at which PM-attributable deaths occur and the general levels of medical care available to sensitive subpopulations in an area. Because of these uncertainties, it is not possible to develop with confidence quantitative estimates of the extent of life-shortening accompanying the increased mortality rates that have been associated with exposures to PM (U.S. EPA, 1996a, p. 13–45).

b. Aggravation of Respiratory and Cardiovascular Disease

Given the statistically significant positive associations between ambient PM concentrations and mortality outlined above, it is reasonable to expect that community epidemiological studies should also find increased PM-morbidity associations. As noted in the Criteria Document, this is indeed the case. Twelve of the 13 epidemiological studies of hospital admissions in North America (U.S. EPA, 1996a, Table 13–3) report statistically significant positive associations between short-term concentrations of PM and hospital admissions for respiratory-related and cardiac diseases. More specifically, these studies report increases from 6 to 25 percent in the relative risk of hospital admissions for respiratory disease, pneumonia, and chronic obstructive pulmonary disease (COPD), for a 50 μg/m^3 increase in 24-hour average PM_{10} concentrations. A smaller, but statistically significant, increase in relative risk of 2 percent was reported in one study of hospital admissions for ischemic heart disease.[10]

Indirect measures of morbidity, including school absences, restricted activity days, and work loss days have also been used as indicators of acute respiratory conditions in community studies of PM. For example, the statistically significant association reported between short-term PM concentrations and school absences is consistent with an effect from PM exposure, because respiratory conditions are the most frequent cause of school absences (U.S. EPA, 1996a, Chapter 12). Recent studies have also reported statistically significant associations between short-term PM concentrations and both (1) respiratory-related restricted activity days and (2) work loss days (U.S. EPA, 1996b, p. V–22).

c. Altered Lung Function and Increased Respiratory Symptoms

Community epidemiological studies of ambient PM concentrations and laboratory studies of human and animal exposures to high concentrations of PM components show that PM exposure can be associated with altered lung function and increased respiratory symptoms. A number of epidemiological studies in the U.S. (U.S. EPA, 1996a, Tables 13–3 and 13–4) show associations between short-term PM concentrations and increased upper and lower respiratory symptoms and cough, as well as decreases in pulmonary function [e.g., forced expiratory capacity for one second (FEV_1) and peak expiratory flow rate (PEFR)]. Taken together, these studies suggest that sensitive individuals, such as children (especially those with asthma or pre-existing respiratory symptoms), may have increased or aggravated symptoms associated with PM exposure, with or without reduced lung function.

Results from respiratory symptom studies of long-term PM concentrations (U.S. EPA, 1996a, Table 13–5) are consistent with and supportive of the associations reported for short-term PM concentrations. Studies conducted in multiple U.S. communities in recent years have reported that increased symptoms of respiratory ailments in children, including bronchitis, are associated with increasing annual PM concentrations across the communities (U.S. EPA, 1996a, p. 12–372). Recent evidence for an association between long-term exposure to PM and decreased lung function in children and adults is suggestive, but more limited (U.S. EPA, 1996a, p. 12–202).

The increased risk for respiratory symptoms and related respiratory morbidity reported in the epidemiological studies is important not only because of the immediate and near-term symptoms produced, but also because of the longer-term potential for increases in the development of chronic lung disease. Specifically, recurrent childhood respiratory illness has been suggested to be a risk factor for later susceptibility to lung damage (U.S. EPA, 1996b, p. V–27).

d. Alteration of Lung Tissue and Structure

Community epidemiological studies have generally not been used to evaluate the extent to which exposure to PM directly alters lung tissues and cellular components, although some autopsy studies have found limited qualitative evidence of such effects from community air pollution (U.S. EPA, 1996b, p. V–27). Evidence of morphological (i.e., structural) damage from PM exposure has come primarily from animal and occupational studies of high concentrations of acid aerosols and other PM components, including coarse particle dusts. While morphological alterations have been extensively studied for exposures to acid aerosols, such studies have been conducted at concentrations well above current ambient levels. Long-term exposure of animals to somewhat lower concentrations of acid mixtures have been shown to induce morphological changes, which may be relevant to clinical small airway disease. Recent work in animals using lower concentrations, approaching ambient levels, of ammonium sulfate and nitrate suggest morphometric changes that could lead to a decrease in compliance or a ''stiffening'' of the lung (U.S. EPA, 1996b, p. V–27–29).

Occupational exposure to crystalline silica, which is a component of coarse dust, has been associated with a specific form of pulmonary inflammation and fibrosis (silicosis) (U.S. EPA, 1996a, p. 11–127). Based on analyses of the silica content of resuspended crustal material collected from several U.S. cities as part of the last review, staff concluded that

[10] Ischemic heart disease is a general term for heart diseases in which there is an insufficient blood supply to the heart muscle.

the risk of silicosis at levels permitted by the current annual PM_{10} NAAQS was low. The 1982 Staff Paper (U.S. EPA, 1982b) summarized qualitative evidence for morphometric changes associated with long-term exposure to crustal dusts, as suggested by autopsy studies of humans and animals exposed to various crustal dusts near or slightly above current ambient levels in the Southwest; however, no inferences regarding quantitative exposures of concern can be drawn from these studies.

e. Changes in Respiratory Defense Mechanisms

Responses to air pollutants often depend upon their interaction with respiratory tract defense mechanisms that can detoxify or physically remove inhaled material (e.g., antigenic stimulation of the immune system and mucocilliary clearance). Either depression or over-activation of such defense systems may be involved in the development of lung diseases (U.S. EPA, 1996a, p. 11–55). Acid aerosols (H_2SO_4) have been shown to alter mucocilliary clearance in healthy human subjects at levels as low as 100 $\mu g/m^3$; such effects are also reported in animals (U.S. EPA, 1996a, pp. 11–60–61). Persistent impairment of clearance may lead to the inception or progression of acute or chronic respiratory disease, and may be a plausible link between acid aerosol exposure and respiratory disease.

Alveolar macrophages play a role in resistance to bacterial infection, the induction and expression of immune reactions, and the production of a number of biologically active chemicals that are involved in respiratory defense mechanisms (U.S. EPA, 1996a, pp. 11–56–66). Various exposures to PM constituents (e.g., acid aerosols, sulfates, and road dust) at concentrations that range from near to well above ambient levels have been shown to affect such macrophage functions in experimental animals (U.S. EPA, 1996b, pp. V–29–31).

2. Sensitive Subpopulations

The recent epidemiological information summarized in the Criteria Document provides evidence that several subpopulations are apparently more sensitive (i.e., more susceptible than the general population) to the effects of community air pollution containing PM. As discussed above, the observed effects in these subpopulations range from the decreases in pulmonary function reported in children to increased mortality reported in the elderly and in individuals with cardiopulmonary disease. Such subpopulations may experience effects at lower levels of PM than the general population, and the severity of effects may be greater.

Based on a qualitative assessment of the epidemiological evidence of effects associated with PM for subpopulations that appear to be at greatest risk with respect to particular health endpoints (U.S. EPA, 1996a, Tables 13–6, 13–7), the Staff Paper draws the following conclusions with respect to sensitive subpopulations (U.S. EPA, 1996b, pp. V–31–36):

(1) Individuals with respiratory disease (e.g., COPD, acute bronchitis) and cardiovascular disease (e.g., ischemic heart disease) are at greater risk of premature mortality and hospitalization due to exposure to ambient PM.

(2) Individuals with infectious respiratory disease (e.g., pneumonia) are at greater risk of premature mortality and morbidity (e.g., hospitalization, aggravation of respiratory symptoms) due to exposure to ambient PM. Also, exposure to PM may increase individuals— susceptibility to respiratory infections.

(3) Elderly individuals are also at greater risk of premature mortality and hospitalization for cardiopulmonary causes due to exposure to ambient PM.

(4) Children are at greater risk of increased respiratory symptoms and decreased lung function due to exposure to ambient PM.

(5) Asthmatic children and adults are at risk of exacerbation of symptoms associated with asthma, and increased need for medical attention, due to exposure to PM.

3. Evaluation of Health Effects Evidence

As discussed above, a range of serious health effects in sensitive subpopulations has been associated with ambient PM concentrations in a large number of community epidemiological studies. Questions as to whether the reported associations represent causal relationships can be addressed by consideration of the adequacy and strength of the individual studies; the consistency of the associations, as evidenced by repeated observations by different investigators, in different places, circumstances, and time; the coherence of the associations (i.e., the logical or systematic interrelationships between different types of health effects); and the biological plausibility of the reported associations. Because of limitations in the available evidence from controlled laboratory studies of PM components, it is generally recognized that an understanding of biological mechanisms that could explain the reported associations has not yet emerged. Thus, the following discussion focuses on the epidemiological evidence as a basis for assessing the weight of evidence for inferences about the causality of the relationships between health effects and exposures to ambient PM concentrations. In particular, issues associated with interpreting individual study results are presented, followed by a discussion of the consistency and coherence of the health effects evidence as a whole.

a. Interpretation of Individual Study Results

While it is widely accepted that serious effects are causally related to the high concentrations of air pollution observed in the historical episodes, there is less consensus as to the most appropriate interpretation of the more recent studies finding associations of such effects with ambient PM concentrations below the levels of the current NAAQS (e.g., Schwartz, 1994b; Dockery et al., 1995; Moolgolvkar et al., 1995b; Moolgolvkar and Luebeck, 1996; Li and Roth, 1995; Samet et al., 1996; Wyzga and Lipfert, 1995b):

> In this regard, several viewpoints currently exist on how best to interpret the epidemiology data: one sees PM exposure indicators as surrogate measures of complex ambient air pollution mixtures and reported PM-related effects represent those of the overall mixture; another holds that reported PM-related effects are attributable to PM components (per se) of the air pollution mixture and reflect independent PM effects; or PM can be viewed both as a surrogate indicator as well as a specific cause of health effects. In any case, reduction of PM exposure would lead to reductions in the frequency and severity of the PM-associated health effects. (U.S. EPA, 1996a, p. 13–31)

Such alternative interpretations as to the causality underlying the reported PM-effects associations result from a number of specific issues that have been raised regarding the adequacy and strength of individual studies.

Of particular concern is the possibility that independent risk factors, related to both ambient PM concentrations and the reported effects, could potentially confound or modify the apparent PM-effects associations. Possible independent risk factors include weather-related variables and other pollutants present in the ambient air (e.g., SO_2, CO, O_3, NO_2), which have been addressed to varying degrees in most of the epidemiological studies. Other concerns are related to the influence of the choice of statistical models used by investigators and to the uncertainties introduced by the imprecision in measurements of ambient air pollutants, as well as the use of such measurements as surrogates for population exposures.[11] The Criteria

[11] In subsequent discussions, the term ''exposure misclassification'' is used to refer to combined uncertainties introduced by the related issues of

Document and Staff Paper evaluated the studies with respect to each of these issues, as summarized below:

(1) Many recent studies, including a reanalysis by the Health Effects Institute (HEI) (Samet et al., 1996), have considered the influence of weather on the results reported in studies of short-term exposures, because fluctuations in weather are associated with both changes in PM and other pollutant levels and the reported health effects. The Criteria Document concludes that the PM effects estimates are relatively insensitive to the different methods of weather adjustment used in these studies, that the role of weather-related variables has been addressed adequately, and that it is highly unlikely that weather can explain a substantially greater portion of the health effects attributed to PM than has already been accounted for in the models (U.S. EPA, 1996a, p. 13–54).

(2) A number of recent reanalyses of daily mortality studies have examined the influence of other pollutants that commonly occur in the ambient air together with PM. Most attention has been focused on Philadelphia, where extensive data are available on TSP, NO_2, O_3, CO, and SO_2. In fact, reanalyses of the Philadelphia data have led HEI investigators to conclude that a single pollutant cannot be readily identified as the best predictor of air pollution-related mortality in Philadelphia based on analyses of Philadelphia data alone (Samet et al., 1996). Based on such single-city analyses, some have argued that estimated PM effects may be overstated or potentially non-existent due to confounding by other pollutants that might actually be responsible for the effects. While it is reasonable to expect that other pollutants may play a role in modifying the magnitude of the estimated effects of PM on mortality, either through pollutant interactions or independent effects, the extent of any such co-pollutant modification is less clear. The Criteria Document notes that some mortality and morbidity studies have found little change in the PM relative risk estimates after inclusion of other co-pollutants in the model, and, in analyses where the PM relative risk estimates were reduced, the PM effects estimates typically remained statistically significant. Accordingly, the Criteria Document concludes that the PM-effects associations are valid and, in a number of studies, not seriously confounded by co-pollutants (U.S. EPA, 1996a, p. 13–57).

(3) Many investigators have examined how the choice of statistical models or the ways in which they were specified may have influenced reported PM-effects associations. In reviewing this issue, the Criteria Document finds that, while model specification is important and can influence PM-effects estimates, appropriate modeling strategies have been adopted by most investigators (U.S. EPA, 1996a, section 13.4.2.2). The Criteria Document concludes that, ''the largely consistent specific results, indicative of significant positive associations of ambient PM exposures and human mortality/morbidity effects, are not model specific, nor are they artifactually derived due to misspecification of any specific model. The robustness of the results of different modeling strategies and approaches increases our confidence in their validity'' (U.S. EPA, 1996a, p. 13–54).

(4) A difficulty noted by many reviewers in interpreting the epidemiological studies, particularly for quantitative purposes, is the uncertainty and possible bias introduced by the use of outdoor monitors to estimate a population-level index of exposure. Even in studies where outdoor PM levels near population centers are well represented by monitors, the extent to which fluctuations in outdoor concentrations are found to affect indoor concentrations and personal exposure to PM of outdoor origin remains an issue of importance. This issue is particularly salient since some of the sensitive subpopulations in the daily mortality and hospital admissions studies can be expected to spend more time indoors than the general population. Some commentors have expressed concerns regarding the lack of correlation shown in some studies that made cross-sectional comparisons of outdoor PM with indoor or personal exposures to PM (which includes PM from the indoor and personal environment). The Criteria Document found, however, that on a longitudinal basis (e.g., day-to-day), personal exposure to PM_{10} can be well correlated with outdoor measurements, and that the effects reported in the short-term epidemiological studies are not due to indoor-generated particles (U.S. EPA, 1996a, p. 1–10). Specifically, the Criteria Document concluded that ''the measurements of daily variations of ambient PM concentrations, as used in the time-series epidemiological studies of Chapter 12, have a plausible linkage to the daily variations of human exposures to PM from ambient sources, for the populations represented by the ambient monitoring stations'' (U.S. EPA, 1996a, p. 1–10).

The strength of the correspondence between outdoor concentrations and personal exposure levels on a day-to-day basis serves to reduce, but not eliminate, the potential error introduced by using outside monitors as a surrogate for personal exposure. Some commentors have suggested the net effect of misclassifying total exposure to PM might bias reported relationships between outdoor PM and mortality (or morbidity) effects towards a linear, non-threshold relationship, when in fact a threshold model of response may be more appropriate. While such a threshold has not been demonstrated in studies to date, the potential influence of exposure misclassification serves to increase the uncertainty in the reported concentration-response relationships, particularly for the lower range of concentrations.

(5) A closely related issue, namely errors in the measurement of the concentrations of air pollutants, can also introduce uncertainty and bias in effects estimates reported in epidemiological studies of PM and co-pollutants. While questions about the magnitude of measurement error and its effect on the PM-health effects associations have not been resolved, some aspects of this issue have been examined in two recent studies (Schwartz and Morris, 1995; Schwartz et al., 1996). These results suggest that the influence of measurement error for individual variables is to bias the PM-effects estimates downward (i.e., to underestimate effects). These analyses, however, do not assess the potential effect of exposure misclassification on effects estimates for different components of PM, or for other co-pollutants. In such multiple pollutant analyses, measurement error or, more generally, exposure misclassification can theoretically bias effects estimates of PM or co-pollutants in either direction, introducing further uncertainties in the estimated concentration-response relationships for all pollutants (U.S. EPA, 1996b, pp. V–39–43). A comprehensive, formal treatment of the potential influences of exposure misclassification is, therefore, an important research need. As noted below, however, the available evidence on the consistency of the PM effects relationships in multiple urban locations with widely varying indoor/outdoor conditions and a variety of monitoring approaches makes it less likely that the observed findings are an artifact of errors in measurement of pollution or of exposure.

errors in measurement of pollution and in the use of outdoor measurements to index population exposures.

b. Consistency and Coherence of the Health Effects Evidence

As discussed above, the individual epidemiological studies indicate that health effects are likely associated with PM, even after taking into account issues regarding the adequacy and strength of these studies. However, because individual studies are inherently limited as a basis for addressing questions of causality, the consistency and coherence of the evidence across the studies have also been considered in the Criteria Document (U.S. EPA, 1996a, section 13.4.2.5) and Staff Paper (U.S. EPA, 1996b, pp. V–54–58), as summarized below.

Of the more than 80 community epidemiological studies that evaluated associations between short-term concentrations of various PM indicators and mortality and morbidity endpoints (U.S. EPA, 1996a, Tables 12–2, 12–8 to 13), more than 60 such studies reported positive, statistically significant associations. These studies have been conducted by a number of different investigators, in a number of geographic locations throughout the world (with different climates and co-pollutants), using a variety of statistical techniques, and with varying temporal relationships. Despite these differences, the finding of statistically significant associations is relatively consistent across the studies (U.S. EPA, 1996a, Table 12–2).

More specifically, in looking across those studies that evaluated associations between short-term PM_{10} concentrations and mortality and morbidity endpoints, various aspects of consistency and coherence can be observed. These observations are discussed below in reference to Figure 1 (adapted from Figure V–2 in the Staff Paper). Figure 1 displays the estimated relative risk for a 50 $\mu g/m^3$ increase in measured 24-hour PM_{10} levels, derived from studies that the Criteria Document concluded permit quantitative comparisons across various cause-specific mortality and morbidity endpoints (i.e., respiratory hospital admissions, COPD or ischemic heart disease hospital admissions, and cough and lower and upper respiratory symptoms) (U.S. EPA, 1996b, Tables V–4, V–6; U.S. EPA, 1996a, Section 12.3.2.2).

Figure 1 illustrates that the effects estimates for each health endpoint are relatively consistent across the studies. Some variation would be expected, however, due to the differences among the study areas in the concentrations and relative composition of PM and other air pollutants, and in the demographic and socioeconomic characteristics of the study populations, including the distributions of sensitive subpopulations, as well as a result of random error. Thus, the Criteria Document concludes that the relatively small ranges of variability in the effects estimates observed in these studies are consistent with expectations based on assuming causal relationships between mortality and morbidity effects and PM exposure (U.S. EPA, 1996a, Section 13.4.1.1).

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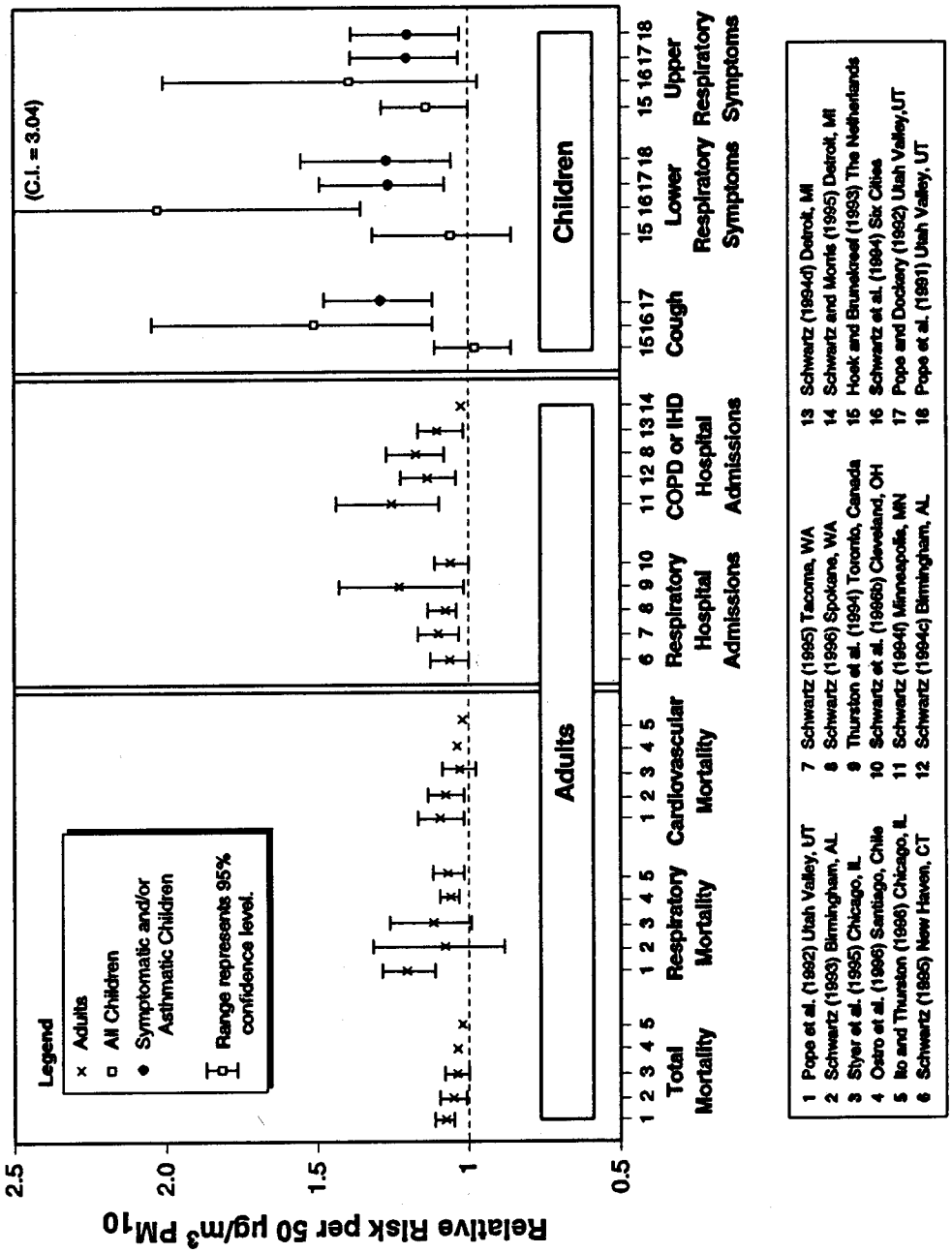
Figure 1. Relationship Between Relative Risk per 50 $\mu g/m^3$ PM_{10} and Specific Causes of Mortality and Morbidity in Adults and Children



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As noted above, it is reasonable to expect that co-pollutants present in the study areas might modify the apparent effects of PM by atmospheric interactions (e.g., through dissolution/adsorption or aerosol formation reactions) or by independent and/or interactive effects on sensitive subpopulations (e.g., respiratory function changes from exposures to O_3 or SO_2). Moreover, the possibility of exposure misclassification for primary gaseous pollutants (e.g., CO, SO_2) could diminish their apparent significance relative to PM. If such PM effects modification was occurring to an appreciable degree, the associations with PM would be expected to be consistently high in areas with high co-pollutant concentrations, and consistently low in areas with low co-pollutant concentrations. On the contrary, in an examination of reported PM_{10}-mortality associations as a function of the varying levels of co-pollutants in study areas, consistent effects estimates were observed across wide ranges of co-pollutant concentrations (U.S. EPA, 1996b, Figures V–3a, V–3b). While it is possible that different pollutants may serve to confound or otherwise influence particles in different areas, it seems unlikely that this would lead to such similar associations and consistent relative risk estimates as have been reported for PM in a large number of studies.

In addition to the consistency observed in the PM associations for each health endpoint, these studies also exhibit coherence in the kinds of health effects that have been associated with PM exposure. For example, the association of PM with mortality is mainly linked to respiratory and cardiovascular causes, which is coherent with the observed PM associations with respiratory- and cardiovascular-related hospital admissions.

Coherence is also observed across studies of both short- and long-term exposures to PM. For example, the existence of statistically significant PM-mortality associations from long-term as well as short-term exposures reinforces the likelihood that PM is a causal factor for premature mortality relative to that which might be reasonably inferred from either type of study alone. Furthermore, the fact that mortality has been associated with both short- and long-term exposures is important with respect to the credibility of ambient PM as a cause of mortality involving significant life-years lost. If there was no evidence of excess mortality from studies of long-term exposures, it might be inferred based on the short-term studies that reported daily mortality was due solely to lifespan shortening of only days or weeks in individuals already near death.

This qualitative coherence is further supported by the quantitative coherence across several health endpoints. For example, if the relationships were causal, PM-related hospitalization would be expected to occur substantially more frequently than PM-related mortality (even though many deaths attributed to air pollution probably do not occur in hospitals). The Criteria Document notes that is indeed the case (U.S. EPA, 1996a, p. 13–64 and Table 13–8). Based on the relative risk estimates from the short-term exposure studies, expected increases in respiratory- and cardiovascular-related hospital admission rates associated with PM are substantially larger than the expected increases in mortality rates for the same causes.

The coherence in the epidemiological evidence is strengthened by those studies in which different health effects are associated with ambient PM concentrations in the same study population. Specifically, studies of Detroit, Birmingham, Philadelphia, and Utah Valley all find that ambient PM concentrations in each of these cities are associated with increases in a variety of respiratory- and cardiovascular-related health effects in the elderly and adult subpopulations in these cities (U.S. EPA, 1996a, p. 13–66).

As summarized above, there is evidence that PM exposure is associated with increased risk for health effects ranging in severity from asymptomatic pulmonary function decrements, to respiratory and cardiopulmonary illness requiring hospitalization, to excess mortality from respiratory and cardiovascular causes (U.S. EPA, 1996a, p. 13–67). The consistency and coherence of the epidemiological evidence greatly adds to the strength and plausibility of the reported associations. The Criteria Document concludes that the overall coherence of the health effects evidence suggests (a likely causal role of ambient PM in contributing to the reported effects) (U.S. EPA, 1996a, p. 13–1).

4. Particulate Matter Fractions of Concern

The previous criteria and standards review included an integrated examination of available literature on the potential mechanisms, consequences, and observed responses to particle deposition in the major regions of the respiratory tract (U.S. EPA, 1982b). The review concluded with general agreement that particles that deposit in the thoracic region (tracheobronchial and alveolar regions) (i.e., particles smaller than 10 μm diameter), were of greatest concern for public health. Thus, the PM NAAQS were revised as a result of the last review from TSP to PM_{10} standards. Particle dosimetry and mechanistic considerations developed in the current review continue to support the view that, for particles that typically occur in the ambient air, those that are capable of penetrating to the thoracic regions of the respiratory tract are of greatest concern to health (U.S. EPA, 1996b, Section V).

Section V.F of the Staff Paper summarizes the evidence regarding the health effects associated with the fine ($PM_{2.5}$) and coarse ($PM_{10-2.5}$) fractions of PM_{10}. Both fine and coarse fraction particles can deposit in the thoracic regions of the respiratory tract. However, based on atmospheric chemistry, exposure, and mechanistic considerations, the Criteria Document concludes it would be most appropriate to ''consider fine and coarse mode particles as separate subclasses of pollutants'' (U.S. EPA, 1996a, p. 13–94), and to measure them separately as a basis for planning effective control strategies.

Given the significant physical and chemical differences between the two subclasses of PM_{10} (U.S. EPA, 1996b, pp. V–69–78), it is reasonable to expect that differences may exist between fine and coarse fraction particles in both the nature of potential effects and the relative concentrations required to produce such effects. The Criteria Document highlights a number of specific components of PM that could be of concern to health, including components typically within the fine fraction (e.g., acid aerosols including sulfates, certain transition metals, diesel particles, and ultrafine particles), and other components typically within the coarse fraction (e.g., silica, resuspended dust, and bioaerosols). While components of both fractions can produce health effects, in general the fine fraction appears to contain more of the reactive substances potentially linked to the kinds of effects observed in the epidemiological studies. The fine fraction also contains by far the largest number of particles and a much larger aggregate surface area than the coarse fraction. The greater surface area of the fine fraction increases the potential for surface absorption of other potentially toxic components of PM (e.g., metals, acids, organic materials), and dissolution or absorption of pollutant

gases and their subsequent deposition in the thoracic region.

The Staff Paper presents the available quantitative and qualitative information on the effects of fine particles and its constituents (U.S. EPA, 1996b, pp. V–60–63). Because of the number of pertinent studies published since the last review, far more quantitative epidemiological data exist today for relating fine particles to mortality, morbidity, and lung function changes in sensitive subpopulations, in terms of both short- and long-term ambient concentrations, than was the case for PM_{10} at the conclusion of the last review.[12] Like the more numerous PM_{10} studies, the fine particle studies (e.g., studies using $PM_{2.5}$, sulfates) generally find statistically significant positive associations between fine particle concentrations and mortality and morbidity endpoints, with more than 20 studies conducted in a number of geographic locations throughout the world, including the U.S., Canada, and Europe. More specifically, daily mortality effects estimates reported for $PM_{2.5}$ fall within the range of approximately 3 to 6 percent increases in relative risk for a 25 $\mu g/m^3$ increase in 24-hour average $PM_{2.5}$ concentrations, for those cities with statistically significant positive associations (U.S. EPA, 1996b, Table V–12). This collection of studies shows qualitative coherence in the types of health effects associated with fine particle exposure including mortality, morbidity, symptoms, and changes in lung function (U.S. EPA, 1996b, Tables V–11 to V–13).

By contrast, the current review finds much less direct epidemiological or toxicological evidence regarding the potential effects of coarse fraction particles at typical ambient concentrations. As discussed in the Staff Paper, community epidemiological studies directly comparing the effects of fine and coarse fraction particles provide evidence that reported PM associations with mortality and decreased lung function in children are more likely associated with fine fraction particles (U.S. EPA, 1996b, pp. V–63–67). On the other hand, both past and current reviews of occupational and toxicological literature have found ample qualitative reasons for concern about higher-than-ambient concentrations of coarse fraction particles. At such elevated levels, coarse fraction particles are linked to short-term effects such as aggravation of asthma and increased upper respiratory illness, which are consistent with enhanced deposition of coarse fraction particles in the tracheobronchial region (U.S. EPA, 1996a, p. 13–51). Children may be particularly sensitive to such an effect, since they typically spend more time in outdoor activities, such that they may encounter higher exposures and doses of coarse fraction particles than other potentially sensitive populations.

In addition, long-term deposition of insoluble coarse fraction particles in the alveolar region may have the potential for enhanced toxicity, in part because clearance from this region of the lung is significantly slower than from the tracheobronchial region. Limited qualitative support for this concern is found in autopsy studies of animals and humans exposed to various ambient crustal dusts at or slightly above ambient levels typical in the Southwest.

Unlike the case for fine particles, the clearest community epidemiological evidence regarding coarse fraction particles finds such effects only in areas with numerous marked exceedances of the current PM_{10} standard (U.S. EPA, 1996a, p. 13–51). In this regard, it appears that the weight of the available evidence allowing direct comparisons between the two size fractions of PM_{10} suggests that ambient coarse fraction particles are either less potent or a poorer surrogate for community effects of air pollution than are fine fraction particles.

B. Quantitative Risk Assessment

The Staff Paper presents the results of a quantitative assessment of health risks for two example cities, including risk estimates for several categories of health effects associated with: (1) existing PM air quality levels, (2) projected PM air quality levels that would occur upon attainment of the current PM_{10} standards, and (3) projected PM air quality levels that would occur upon attainment of alternative $PM_{2.5}$ standards. As an integral part of this assessment, qualitative and, where possible, quantitative characterizations of the uncertainties in the resulting risk estimates have been developed, as well as information on baseline incidence rates for the health effects considered. The risk assessment is intended as an aid to the Administrator in judging which alternative PM NAAQS would reduce risks sufficiently to protect public health with an adequate margin of safety, recognizing that such standards will not be risk-free.

As discussed in Section A above, the Criteria Document concludes that the overall consistency and coherence of the epidemiological evidence suggests a likely causal role of ambient PM in contributing to adverse health effects. An alternative interpretation is that PM may be serving as an index for the complex mixture of pollutants in urban air. The manner in which the PM epidemiological evidence is used in this risk assessment is consistent with either of these alternative interpretations of the evidence.

Despite the consistency and coherence of the epidemiological evidence reporting health effects associated with PM, EPA cautions that quantitative risk estimates derived from these studies include significant uncertainty, and thus, should not be viewed as demonstrated health impacts. EPA believes, however, that they do represent reasonable estimates as to the possible extent of risk for these effects given the available information.

1. Overview

The following discussion briefly summarizes the scope of the risk assessment and key components of the risk model. A more detailed discussion of the risk assessment methodology and results is presented in the Staff Paper and technical support documents (Abt Associates, 1996a, b).

The risk assessment focused on selected health effects endpoints discussed above for which adequate quantitative information is available (U.S. EPA, 1996a, Table VI–2), including increased daily mortality, increased hospital admissions for respiratory and cardiopulmonary causes, and increased respiratory symptoms in children. All concentration-response relationships used in the assessment were based on findings from human epidemiological studies, and consequently rely on fixed-site, population-oriented, ambient monitors as a surrogate for actual PM exposures.

Risk estimates were developed for the urban centers of two example cities, one eastern (Philadelphia County) and one western (Southeast Los Angeles County), for which sufficient PM_{10} and $PM_{2.5}$ air quality data were available. Risk estimates were calculated only for ambient PM levels in excess of estimated annual average background levels.[13] This approach of estimating

[12] The 1986 Staff Paper cited PM studies conducted in essentially 3 locations as a basis for the 24-hour standard, and 4 studies involving a total of 10 cities as a basis for the annual standard; none measured PM_{10} directly (EPA, 1986b).

[13] As discussed in Chapter IV of the Staff Paper, annual average background levels of $PM_{2.5}$ are estimated to range from approximately 1–4 $\mu g/m^3$ in western areas and 2–5 $\mu g/m^3$ in eastern areas, with the maximum 24-hour levels estimated to reach as high as about 15–20 $\mu g/m^3$ over the course of a year. Background PM is defined in the Staff Paper as the distribution of PM concentrations that

Continued

risks in excess of background was judged to be more relevant to policy decisions regarding ambient air quality standards than risk estimates that include effects potentially attributable to uncontrollable background PM concentrations. For these analyses, an estimate of the annual average background level was used, rather than a maximum 24-hour value, since estimated risks were aggregated for each day throughout the year. Risks have been estimated for a recent year of PM air quality data in each of the two example cities. Risk estimates were calculated for Los Angeles County with PM levels adjusted downward to just attain the current PM_{10} standards. Finally, risk estimates were also calculated for both example cities where PM levels were further adjusted to just attain various alternative $PM_{2.5}$ standards.

As discussed in Chapter 13 of the Criteria Document, the interpretation of specific concentration-response relationships is the most problematic issue in conducting risk assessments for PM-associated health effects at this time, due to (1) the absence of clear evidence regarding mechanisms of action for the various health effects of interest; (2) uncertainties about the shape of the concentration-response relationships; and (3) concern about whether the use of ambient $PM_{2.5}$ and ambient PM_{10} fixed-site monitoring data adequately reflects the relevant population exposures to PM that are responsible for the reported health effects. The reported study results used in this assessment are based on linear concentration-response models extending only down to the lowest PM concentrations observed within each study. [14] Thus, concentration-response relationships were not extrapolated below the range of the PM concentration air quality data reported in any given study. Alternatively, the data do not rule out the possibility of an underlying non-linear, threshold concentration-response relationship. Although these alternative interpretations of study results could significantly affect estimated risks, only very limited information is available to aid in resolving this issue (U.S. EPA, 1996a, section 13.6.5). Thus, the approach taken in the PM risk assessment is to address alternative concentration-response models through sensitivity and integrated uncertainty analyses to develop ranges of estimated risks, rather than characterizing any particular set of risk estimates as representing the ''best'' estimates.

Risk estimates for PM-associated health effects in excess of background PM levels (i.e., excess risk) were initially developed based on a set of ''base case'' assumptions. These base case assumptions reflect the use of: (1) Mid-point estimates from the ranges of estimated annual average background concentrations for the eastern and western regions of the U.S. to represent typical background levels; (2) essentially linear concentration-response relationships down to the lowest PM level observed in each study; and (3) annual distributions of 24-hour PM_{10} and $PM_{2.5}$ concentrations that were obtained by taking a recent year of PM air quality data in each example city and adjusting all PM concentrations exceeding the estimated background concentration level by the same percentage to simulate attainment of alternative standards (referred to as a ''proportional rollback'' approach). While there are many different methods of adjusting PM air quality distributions to reflect future attainment of alternative standards, analysis of historical data (Abt, 1996b) support the use of such a proportional method for adjusting air quality values.

For comparison with alternative standards, it is desirable to estimate health risks associated with PM air quality that do not include the effect of concentrations in excess of those allowed by the current PM_{10} standards. Since the air quality in one of the two cities examined, Los Angeles, exceeded the current PM_{10} standards, both PM_{10} and $PM_{2.5}$ concentrations were proportionally rolled back (preserving the $PM_{2.5}/PM_{10}$ ratio) to air quality concentrations that just attain the current PM_{10} standards. While this necessarily introduces additional uncertainty into the risk estimates, it is required in order to compare risks associated with attaining the current PM_{10} standards with risks associated with attainment of alternative $PM_{2.5}$ standards.

Sensitivity analyses have been conducted to examine the impact on the risk estimates of these and other assumptions, by varying each assumption independently. For example, the impact of using alternative estimates for background concentrations was examined by replacing the mid-point estimate with the lower and the upper end of the range of estimated annual average background levels. In addition, integrated uncertainty analyses have been conducted specifically for the excess mortality associated with PM exposures to examine the range of risk estimates when several key assumptions and uncertainties are considered simultaneously, rather than one at a time. The key issues examined in the integrated uncertainty analyses include: (1) Variability in the underlying concentration-response relationship resulting from combining the results of $PM_{2.5}$ mortality studies in six cities to estimate the relative risks in the two example cities; (2) consideration of alternative potential threshold concentrations; (3) inclusion of the range of estimates for PM background levels; and (4) use of alternative PM air quality adjustment procedures to simulate attainment of alternative standards based on analysis of historical data.

2. Key Observations

The discussion below highlights the key observations and insights from the risk assessment, together with important caveats and limitations.

(1) Fairly wide ranges of estimates of the incidence of PM-related mortality and morbidity effects were calculated for the two locations analyzed when the effects of key uncertainties and alternative assumptions were considered.

This point is illustrated below for mortality estimates using base case and alternative assumptions, as well as for morbidity estimates using base case assumptions alone.[15] For example, the incidence of mortality associated with short-term $PM_{2.5}$ exposures upon attainment of the current PM_{10} standards was estimated to range from approximately 400 to 1,000 deaths per year in Los Angeles County (with a population of 3.6 million) under base case assumptions, and from approximately 100 to 1,000 deaths using alternative assumptions considered in the integrated uncertainty analysis.[16] For Philadelphia County (with a population of 1.6 million), a city with better air quality than Los Angeles and already well below the current PM_{10}

would be observed in the U.S. in the absence of anthropogenic emissions of PM and precursor emissions of VOC, NO_x, and SO_x in North America.

[14] See Table VI–2 in the Staff Paper (U.S. EPA, 1996b) for information about the reported PM mean and range of concentration levels observed in the various epidemiological studies used in the risk assessment.

[15] In the examples presented here the ranges of estimated incidences are based on the 90 percent credible intervals from the risk analyses. The 90 percent credible interval represents the range from the 5th percentile to the 95th percentile of the estimated risk distribution, and provides a reasonable characterization of the range of estimated values that results from the various uncertainties that could be incorporated quantitatively in the risk analyses.

[16] Incidence estimates of roughly 400 to 1,000 excess deaths per year represent roughly 2 to 4 percent of the total mortality incidence in Los Angeles County.

standards, estimated mortality associated with short-term $PM_{2.5}$ exposures ranged from approximately 200 to 500 deaths per year under base case assumptions, and from approximately 20 to 500 deaths per year under alternative assumptions considered in the integrated uncertainty analyses.[17]

Morbidity effects associated with exposures to $PM_{2.5}$ are estimated using base case assumptions to range from approximately 250 to 1,600 respiratory-related hospital admissions per year and from 23,000 to 58,000 cases of respiratory symptoms in children per year for Los Angeles.[18] For Philadelphia County, morbidity effects associated with exposures to $PM_{2.5}$ are estimated using base case assumptions to range from about 70 to 450 respiratory-related hospital admissions and from 6,000 to 15,000 cases of respiratory symptoms per year.[19]

(2) Risk estimates associated with attainment of alternative $PM_{2.5}$ standards described in the Staff Paper show highly variable reductions in PM-associated risk which are a function of the particular city and the levels of the standards.

Risk estimates for PM-associated mortality and morbidity health effects have been estimated for alternative annual $PM_{2.5}$ standards[20] of 15 and 20 μg/m³, alone and in combination with alternative daily standards[21] ranging from 25 to 65 μg/m³. For two cases considering only annual $PM_{2.5}$ standards, the mean estimates (using base case assumptions) of excess mortality and morbidity associated with short-term $PM_{2.5}$ exposures in Los Angeles County were reduced by roughly 45–50% for attainment of an annual $PM_{2.5}$ standard level of 15 μg/m³, and by roughly 20–25% for attainment of an annual standard level of 20 μg/m³.[22] These estimates of risk reduction are incremental to the risk reductions associated with attainment of the current PM_{10} standards as explained above. Similarly, for an area already in attainment with the current PM_{10} standards (Philadelphia County), mean estimates of excess morbidity and mortality associated with short-term exposures to $PM_{2.5}$ were not affected by an annual standard of 20 μg/m³ but were reduced by about 15–20% upon attainment of an annual $PM_{2.5}$ standard of 15 μg/m³.[23]

As noted above, risk estimates for PM-associated mortality and morbidity health effects also have been estimated for alternative 24-hour $PM_{2.5}$ standards ranging from 25 to 65 μg/m³ (in combination with an annual standard of 20 μg/m³). These combinations of standards result in cases for which the 24-hour standard was generally controlling the degree of risk reduction. Mean estimates of excess mortality and morbidity associated with short-term $PM_{2.5}$ exposures in Los Angeles County were reduced by roughly 85% for a daily standard of 25 μg/m³, and by roughly 40–50% for a daily standard of 65 μg/m³, beyond the risks associated with attainment of the current PM_{10} standards when base case assumptions were used.[24] Similarly, for Philadelphia County, the mean estimates of excess mortality and morbidity were reduced by roughly 70–75% for a daily standard of 25 μg/m³, and about 10% for a daily standard of 65 μg/m³.[25]

(3) Based on the results from the sensitivity analyses of key uncertainties and the integrated uncertainty analyses, the single most important factor influencing the uncertainty associated with the risk estimates is whether or not a threshold concentration exists below which PM-associated health risks are not likely to occur.

Alternative assumed threshold concentrations considered in these analyses result in as much as a 3- to 4-fold difference in estimated risk associated with PM exposures in Los Angeles County (U.S. EPA, 1996b, Figure VI–8; Abt Associates, 1996b, Exhibits 7.19 and 7.20) depending on the likelihood imputed to various $PM_{2.5}$ threshold concentrations. In an area with PM concentrations well below the current PM standards (e.g., Philadelphia County), differences in risk associated with a recent year of PM air quality may be even greater for alternative threshold assumptions, since these locations would be expected to have a greater proportion of PM concentrations below assumed threshold concentrations.

(4) Based on results from the sensitivity analyses of key uncertainties and/or the integrated uncertainty analyses, quantitative consideration of the following uncertainties is estimated to have a much more modest impact on the risk estimates: (a) Inclusion of individual co-pollutant species when estimating PM effect sizes (based on reported estimates of effects modification); (b) the choice of approach to adjusting the slope of the concentration-response relationship when analyzing alternative possible threshold concentrations; (c) the value chosen to represent average background PM concentrations; and (d) the choice of air quality adjustment approaches for simulating attainment of alternative PM standards.

(5) Additional sources of uncertainty associated with risk analyses of alternative $PM_{2.5}$ standard scenarios which could not be addressed quantitatively include: (a) Uncertainty in the pattern of air quality concentration reductions that would be observed across the distribution of 24-hour $PM_{2.5}$ concentrations in areas attaining the standards, and (b) uncertainty concerning the degree to which PM concentration-response relationships may reflect contributions from other pollutants, or the particular contribution of certain constituents of $PM_{2.5}$, and whether such constituents would be reduced in similar proportion as the reduction in $PM_{2.5}$.

To the extent concentrations of other combustion source co-pollutants are reduced more or less than $PM_{2.5}$ concentrations in attaining alternative $PM_{2.5}$ standards, estimates of health effects reduced by such standards would be expected to be related to the degree to which these co-pollutants in fact play a role in producing or modifying PM-associated effects. Similarly, if specific constituents of $PM_{2.5}$ mass have differing potencies in

[17] Incidence estimates of 200 to 500 excess deaths per year associated with PM exposures represent roughly 1 to 2.5 percent of total mortality in Philadelphia County.

[18] Incidence estimates of 250 to 1,600 respiratory-related hospital admissions associated with PM exposures represent roughly 1.5 to 10 percent of total respiratory-related hospital admissions in Los Angeles County. Incidence estimates of 23,000 to 58,000 cases of respiratory symptoms represent roughly 15 to 40 percent of total respiratory symptom cases in Los Angeles County.

[19] Incidence estimates of 70 to 450 cardiopulmonary-related hospital admissions associated with PM exposures represent roughly 0.5 to 3.5 percent of total respiratory-related hospital admissions in Philadelphia County. Incidence estimates of 6,000 to 15,000 cases of respiratory symptoms associated with PM exposures represent roughly 10 to 30 percent of total respiratory symptom cases in Philadelphia County.

[20] The annual standards analyzed were simulated by adjusting the annual average concentration at the population-oriented monitor in the study area with the highest measured values to the standard level under consideration.

[21] The alternative daily standards analyzed were the 1-expected-exceedance form of the standard.

[22] In Los Angeles County, a 45–50% reduction in excess mortality and morbidity associated with short-term $PM_{2.5}$ exposures represents decreases of roughly 320 excess deaths, 540 cardiopulmonary-related hospital admissions, and 22,000 cases of respiratory symptoms; a 20–25% reduction represents decreases of roughly 150 excess deaths, 250 cardiopulmonary-related hospital admissions, and 11,000 cases of respiratory symptoms.

[23] In Philadelphia County, a 15–20% reduction in excess mortality and morbidity associated with short-term $PM_{2.5}$ exposures represents decreases of roughly 60 excess deaths, 70 cardiopulmonary-related hospital admissions, and 2,000 cases of respiratory symptoms.

[24] In Los Angeles County, an 85% reduction in excess mortality and morbidity associated with short-term $PM_{2.5}$ exposures represents decreases of roughly 590 excess deaths, 1000 cardiopulmonary-related hospital admissions, and 37,000 cases of respiratory symptoms; a 40–50% reduction represents decreases of roughly 280 excess deaths, 480 cardiopulmonary-related hospital admissions, and 20,000 cases of respiratory symptoms.

[25] In Philadelphia County, a 70–75% reduction in excess mortality and morbidity associated with short-term $PM_{2.5}$ exposures represents decreases of roughly 260 excess deaths, 320 cardiopulmonary-related hospital admissions, and 8,000 cases of respiratory symptoms; a 10% reduction represents decreases of roughly 40 excess deaths, 50 cardiopulmonary-related hospital admissions, and 1,000 cases of respiratory symptoms.

producing effects relative to other $PM_{2.5}$ constituents, estimates of risk reduced would be expected to vary if these constituent concentrations are reduced to different degrees by control strategies designed to attain alternative $PM_{2.5}$ standards.

(6) The peak 24-hour $PM_{2.5}$ concentrations appear to contribute a relatively small amount to the total health risk posed by the entire air quality distribution as compared to the risks associated with the low to mid-range concentrations.

Standards with a 24-hour averaging time are traditionally based on the highest 24-hour values observed in a year, concentrations for which the risk on an individual day is highest. However, examining a typical distribution of ambient 24-hour $PM_{2.5}$ concentrations over the course of a year in conjunction with $PM_{2.5}$ concentration-response relationships, as illustrated in Figures 2a, 2b, and 2c, the peak $PM_{2.5}$ concentrations contribute much less to the total health risk over a year than the low- to mid-range $PM_{2.5}$ concentrations.

More specifically, Figures 2a, 2b, and 2c illustrate some of the characteristics of the integration of air quality distributions and concentration-response relationships as used to predict total risk from ambient particle exposures across a year. These figures show the relative contribution of different portions of a typical urban ambient $PM_{2.5}$ concentration distribution to mortality risk from short-term exposures. As shown in Figures 2b and 2c, low- to mid-range concentrations (e.g., 10–50 $\mu g/m^3$) account for the largest amount of estimated mortality risk on an annualized basis.

The portion of the air quality distribution that contributes significantly to total health risk over the course of a year is, of course, smaller if effects thresholds are assumed or if much higher levels of estimated background $PM_{2.5}$ concentrations are used (Figure 2c). However, even with this assumption, most of the aggregate risk associated with short-term exposures likely results from the large number of days during which the 24-hour average concentrations are in the low- to mid-range, below peak 24-hour concentrations. Even though higher 24-hour concentrations, including peaks above 70 $\mu g/m^3$, clearly contribute more mortality per day than low- to mid-range concentrations, the much larger number of days within the low- to mid-ranges results in this interval being associated with the largest proportion of the total risk.

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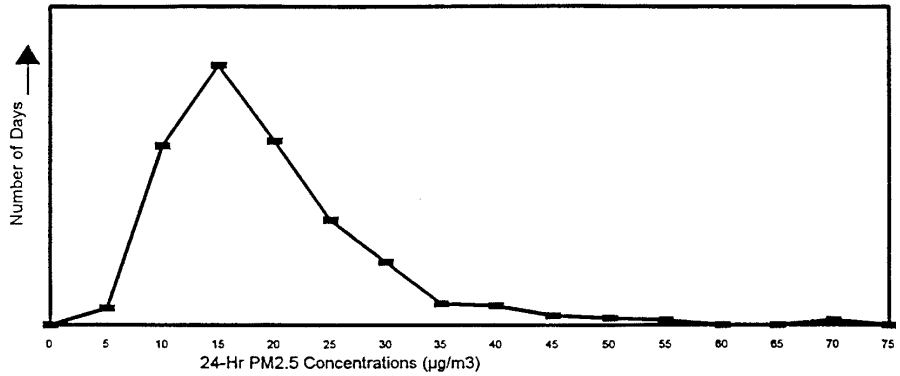

Figure 2a. Illustrative Air Quality Distribution of 24-Hour $PM_{2.5}$ Concentrations—This figure shows an example of a frequency distribution of the number of days exceeding various 24-hour average $PM_{2.5}$ concentrations over a year.

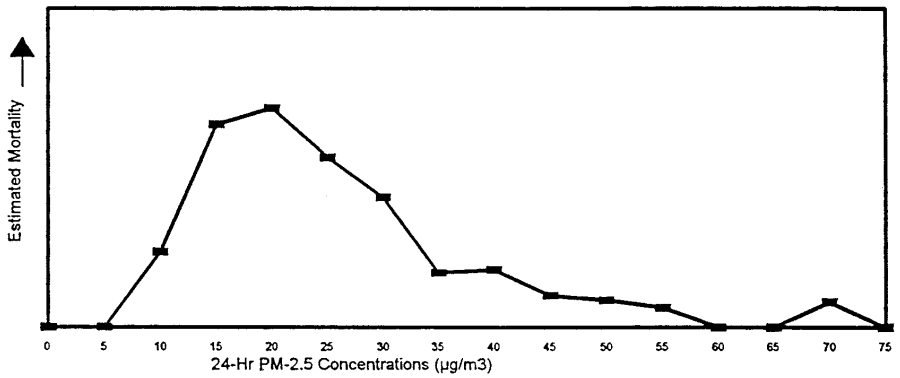

Figure 2b. Estimated Mortality Risks Using A Non-Threshold Concentration-Response Relationship—This figure illustrates the proportion of estimated mortality incidence, using a non-threshold concentration-response relationship, associated with each concentration range shown above in Figure 2a.

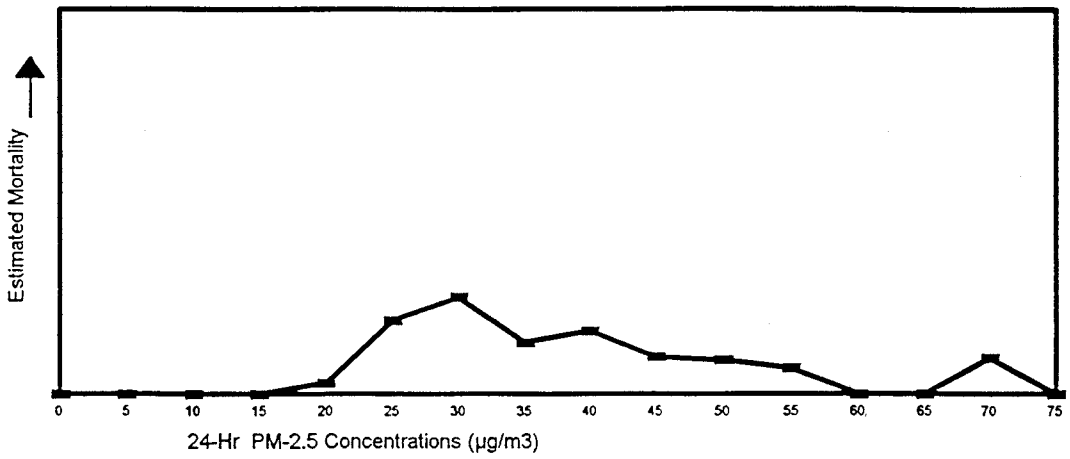

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Figure 2c. Estimated Mortality Risks Using An Illustrative Threshold Concentration-Response Relationship—This figure illustrates the proportion of estimated mortality incidence, using an example threshold concentration of 18 µg/m^3 $PM_{2.5}$, associated with each concentration range shown above in Figure 2a.

An annual $PM_{2.5}$ standard would almost certainly require areas whose air quality concentrations are above those necessary for attainment to reduce $PM_{2.5}$ concentrations across a wide range of the 24-hour air quality distribution rather than just a few high 24-hour values, thus resulting in more significant risk reduction than would a 24-hour standard set so as to control the peak concentrations. Further, an annual standard would be expected to lead to greater consistency in the risk reduced in different geographic areas having similar initial air quality than would a 24-hour standard of similar impact, in terms of the number of areas affected. Such a 24-hour standard would focus on reducing the highest 24-hour concentrations rather than on the entire air quality distribution.

(7) There is greater uncertainty about estimated excess mortality (and other effects) associated with PM exposures as one considers increasingly lower concentrations approaching background levels.

As discussed in Section A above, one of the most important uncertainties related to estimating excess mortality associated with PM exposures is the shape of the concentration-response relationship. The existing epidemiological data reporting excess mortality associated with PM exposures do not rule out the possibility that there may be a threshold concentration below which excess mortality associated with PM exposures does not occur. As one considers progressively higher PM concentrations it is increasingly unlikely that there is a threshold at these higher levels. In contrast, as one considers increasingly lower PM concentrations, there is increasing uncertainty about the shape and magnitude of the estimated concentration-response relationship over the lower range of concentrations. This increasing uncertainty is due to questions about: (1) The possible impact of multiple co-pollutants on the estimated concentration-response relationships; (2) whether exposure misclassification associated with the use of ambient monitors as a measure of population exposure might be masking a non-linear relationship; and (3) whether a biological threshold may exist below which excess mortality associated with PM exposures does not occur. In addition, there is uncertainty about background levels, and thus about the extent to which effects associated with PM exposures at concentrations approaching estimated background levels are attributable to controllable, non-background sources of ambient PM.

C. Need for Revision of the Current Primary PM Standards

The overarching issue in the present review of the primary NAAQS is whether, in view of the advances in scientific knowledge reflected in the Criteria Document and Staff Paper, the existing standards should be revised and, if so, what revised or new standards would be appropriate. The concluding section of the integrative summary of health effects information in the Criteria Document provides the following summary of the science with respect to this issue:

The evidence for PM-related effects from epidemiologic studies is fairly strong, with most studies showing increases in mortality, hospital admissions, respiratory symptoms, and pulmonary function decrements associated with several PM indices. These epidemiologic findings cannot be wholly attributed to inappropriate or incorrect statistical methods, misspecification of concentration-effect models, biases in study design or implementation, measurement errors in health endpoint, pollution exposure, weather, or other variables, nor confounding of PM effects with effects of other factors. While the results of the epidemiology studies should be interpreted cautiously, they nonetheless provide ample reason to be concerned that there are detectable health effects attributable to PM at levels below the current NAAQS (U.S. EPA, 1996a, p. 13–92).

Given the nature of the health effects in question, this finding clearly suggests that revision of the current NAAQS is appropriate. The extensive PM epidemiological data base provides evidence of serious health effects (e.g., mortality, exacerbation of chronic disease, increased hospital admissions) in sensitive subpopulations (e.g., the elderly, individuals with cardiopulmonary disease). Although the increase in relative risk is small for the most serious outcomes (see Figure 1), it

is likely significant from an overall public health perspective, because of the large number of individuals in sensitive subpopulations that are exposed to ambient PM and the significance of the health effects (U.S. EPA, 1996a, p. 1–21).

While the lack of demonstrated mechanisms that explain the range of epidemiological findings is an important caution, which presents difficulties in providing an integrated assessment of PM health effects research, qualitative information from laboratory studies of the effects of particle components at high concentrations and dosimetry considerations suggest that the kinds of effects observed in community studies (e.g., respiratory- and cardiovascular-related responses) are at least plausibly related to PM.[26] Indeed, the Criteria Document and Section V.E of the Staff Paper point to the consistency of the results of the epidemiological studies from a large number of different locations and the coherent nature of the observed effects as being suggestive of a likely causal role of ambient PM in contributing to the reported effects.

Given the evidence that such effects may occur at levels below the current standards, the serious nature and potential magnitude of the public health risks involved, and the need to consider the fine and coarse fractions as distinct classes of particles, the Staff Paper and the CASAC (Wolff, 1996b) concluded that revision of the current standards is clearly appropriate. Moreover, at the May 1996 public meeting (U.S. EPA, 1996e), and in separate written comments (including Lippmann et al., 1996), a majority of CASAC panel members recommended revisions that would strengthen the health protection provided by the current PM standards. Based on the rationale and recommendations contained in the Staff Paper and the CASAC closure letter, the Administrator concludes that the current PM standards should be revised.

D. Indicators of PM

In formulating alternative approaches to establishing adequately protective, effective, and efficient PM standards, it is necessary to specify the fraction of particles found in the ambient air that should be used as the indicator(s) for the standards. In this regard, the most recent assessment of scientific information in the Criteria Document, summarized in Chapters IV and V of the Staff Paper, continues to support past staff and CASAC recommendations regarding the selection of size-specific indicators for PM standards. More specifically, the Staff Paper finds that the following conclusions reached in the 1987 review remain valid:

(1) Health risks posed by inhaled particles are influenced both by the penetration and deposition of particles in the various regions of the respiratory tract and by the biological responses to these deposited materials.

(2) The risks of adverse health effects associated with deposition of ambient fine and coarse fraction particles in the thoracic (tracheobronchial and alveolar) regions of the respiratory tract are markedly greater than for deposition in the extrathoracic (head) region. Maximum particle penetration to the thoracic region occurs during oronasal or mouth breathing.

(3) The risks of adverse health effects from extrathoracic deposition of general ambient PM are sufficiently low that particles which deposit only in that region can safely be excluded from the standard indicator.

(4) The size-specific indicator(s) should represent those particles capable of penetrating to the thoracic region, including both the tracheobronchial and alveolar regions.

These conclusions, together with information on the dosimetry of particles in humans, were the basis for the promulgation in 1987 of a new size-specific indicator for the PM NAAQS, PM_{10}, that includes particles with an aerodynamic diameter smaller than or equal to a nominal 10 μm. The recent information on human particle dosimetry contained in the Criteria Document provides no basis for changing 10 μm as the appropriate cut point for particles capable of penetrating to the thoracic regions.

The Staff Paper concludes, however, that continued use of PM_{10} as the sole indicator for the PM standards would not provide the most effective and efficient protection from the health effects of particulate matter (U.S. EPA, 1996b, pp. VII–4–11). The recent health effects evidence and the fundamental physical and chemical differences between fine and coarse fraction particles have prompted consideration of separate standards for the fine and coarse fractions of PM_{10}. In this regard, the Criteria Document concludes that fine and coarse fractions of PM_{10} should be considered separately (U.S. EPA, 1996a, p. 13–93). Taking into account such information, CASAC found sufficient scientific and technical bases to support establishment of separate standards relating to these two fractions of PM_{10}. Specifically, CASAC advised the Administrator that ''there is a consensus that retaining an annual PM_{10} NAAQS * * * is reasonable at this time'' and that there is ''also a consensus that a new $PM_{2.5}$ NAAQS be established'' (Wolff, 1996b).

While it is difficult to distinguish the effects of either fine or coarse fraction particles from those of PM_{10}, comparisons between fine and coarse fraction particles presented in the Staff Paper suggest that fine particles are a better surrogate for those components of PM that are linked to mortality and morbidity effects at levels below the current standards (U.S. EPA, 1996b, P. VII–18). Moreover, a regulatory focus on fine particles would likely also result in controls on gaseous precursors of fine particles (e.g., SO_X, NO_X, VOC), which are all components of the complex mixture of air pollution that has most generally been associated with mortality and morbidity effects. The Staff Paper concludes that, in contrast to fine particles, coarse fraction particles are more clearly linked with certain morbidity effects at levels above those allowed by the current 24-hour standard.

The Administrator concurs with staff and CASAC recommendations to control particles of health concern (i.e., PM_{10}) through separate standards for fine and coarse fraction particles. The following sections outline the basis for the Administrator's decision on specific indicators for fine and coarse particle standards.

1. Indicators for the Fine Fraction of PM_{10}

The Administrator concludes that it is appropriate to control fine particles as a group, as opposed to singling out particular components or classes of fine particles. The qualitative literature, evaluated in Chapter 11 of the Criteria Document and summarized in Section V.C of the Staff Paper, has reported various health effects associated with high concentrations of a number of fine particle components (e.g., sulfates, nitrates, organics, transition metals), alone or in some cases in combination with gases. Community studies have found significant associations between fine particles or PM_{10} and health effects in various areas across the U.S. where such fine particle components correlate significantly with particle mass. As noted above, it is not possible to rule out any one of these components as contributing to fine particle effects. Thus, the Administrator finds that the present data more readily support a standard based on the total mass of fine particles.

[26] Epidemiological studies alone cannot be used to demonstrate mechanisms of action, but they can provide evidence useful in making inferences with regard to causal relationships (U.S. EPA, 1996b, p. V–9).

In specifying a precise size range for a fine particle standard, both the staff and CASAC recommend $PM_{2.5}$ as the indicator of fine particles (Wolff, 1996b). The particle diameter reflecting the mass minimum between the fine and coarse modes typically lies between 1 and 3 µm, and the scientific data support a sampling cut point to delineate fine particles in this range. Because of the potential overlap of fine and coarse particle mass in this intermodal region, EPA recognizes that any specific sampling cut point would result in only an approximation of the actual fine-mode particle mass. Thus, the choice of a specific diameter within this size range is largely a policy judgment. The staff and CASAC recommendation for a 2.5 µm sampling cut point is based on considerations of consistency with the community health studies, the limited potential for intrusion of coarse fraction particles into the fine fraction, and availability of monitoring technology.[27] $PM_{2.5}$ encompasses all of the potential agents of concern in the fine fraction, including most sulfates, acids, fine particle transition metals, organics, and ultrafine particles, and includes most of the aggregate surface area and particle number in the entire distribution of atmospheric particles.

The Administrator concurs with staff and CASAC recommendations, and concludes that $PM_{2.5}$ is the appropriate indicator for fine particle standards. Details of this definition are further specified in the Federal Reference Method discussed in section V below and proposed in a new Appendix L.

2. Indicators for the Coarse Fraction of PM_{10}

The Criteria Document and Staff Paper conclude that epidemiological information, together with dosimetry and toxicological information, support the need for a particle indicator that addresses the health effects associated with coarse fraction particles within PM_{10} (i.e., $PM_{10-2.5}$). As noted above, coarse fraction particles can deposit in those sensitive regions of the lung of most concern. Although the role of coarse fraction particles in much of the recent epidemiological results is unclear, limited evidence from studies where coarse fraction particles are the dominant fraction of PM_{10} suggest that significant short-term effects related to coarse fraction particles include aggravation of asthma and increased upper respiratory illness. In addition, qualitative evidence suggests potential chronic effects associated with long-term exposure to high concentrations of coarse fraction particles.

In selecting an indicator for coarse fraction particles, the Administrator took into account the views of several CASAC panel members who suggested using the coarse fraction directly (i.e., $PM_{10-2.5}$) as the indicator. However, the Administrator notes that the existing ambient data base for coarse fraction particles is smaller than that for fine particles, and that the only studies of clear quantitative relevance to effects most likely associated with coarse fraction particles have used undifferentiated PM_{10}. In fact, it was the consensus of CASAC that it is reasonable to consider PM_{10} itself as a surrogate for coarse fraction particles, when used in conjunction with $PM_{2.5}$ standards. The monitoring network already in place for PM_{10} is large. Therefore, in conjunction with the decision to have separate standards for $PM_{2.5}$, the Administrator concludes, consistent with CASAC recommendations, that it is appropriate to retain PM_{10} as the particle indicator for standards intended to protect against the effects most likely associated with coarse fraction particles.

E. Averaging Time of $PM_{2.5}$ Standards

As discussed above, the Administrator has concluded that $PM_{2.5}$ is an appropriate indicator for standards intended to provide protection from effects associated primarily with fine particles. The recent health effects information includes reported associations with both short-term (from less than 1 day to up to 5 days) and long-term (from generally a year to several years) measures of PM. On the basis of this information, summarized in Chapter V of the Staff Paper, the Administrator has considered both short- and long-term $PM_{2.5}$ standards.

1. Short-term $PM_{2.5}$ Standard

The current 24-hour averaging time is consistent with the majority of community epidemiological studies, which have reported associations of health effects with 24-hour concentrations of various PM indicators such as PM_{10}, fine particles, and TSP. Such health effects, including premature mortality and increased hospital admissions, have generally been reported with same-day, previous day, or longer lagged single-day concentrations, although some studies have reported stronger associations with multiple-day average concentrations. In any case, the Administrator recognizes that a 24-hour $PM_{2.5}$ standard can effectively protect against episodes lasting several days, since such a standard would provide protection on each day of a multi-day episode, while also protecting sensitive individuals who may experience effects after even a single day of exposure.

Although most reported effects have been associated with daily or longer measures of PM, evidence also suggests that some effects may be associated with PM exposures of shorter durations. For example, controlled human and animal exposures to specific components of fine particles, such as acid aerosols, suggest that bronchoconstriction can occur after exposures of minutes to hours. Some epidemiological studies of exposures to acid aerosols have also found changes in respiratory symptoms in children using averaging times less than 24 hours. However, such reported results do not provide a satisfactory quantitative basis for setting a fine particle standard with an averaging time of less than 24 hours, nor do current gravimetric mass monitoring devices make such shorter durations generally practical at present. Further, the Administrator recognizes that a 24-hour average $PM_{2.5}$ standard which leads to reductions in 24-hour average concentrations is likely to lead as well to reductions in shorter-term average concentrations in most urban atmospheres, thus providing some degree of protection from potential effects associated with shorter duration exposures.

For these reasons, the Administrator has concluded that a short-term $PM_{2.5}$ standard with a 24-hour averaging time can serve to control short-term ambient $PM_{2.5}$ concentrations, thus providing protection from health effects associated with short-term (from less than 1-day to up to 5-day) exposures to $PM_{2.5}$.

2. Long-Term $PM_{2.5}$ Standard

Community epidemiological studies have reported associations of annual and multi-year average concentrations of PM_{10}, $PM_{2.5}$, sulfates, and TSP with an array of health effects, notably premature mortality, increased respiratory symptoms and illness (e.g., bronchitis and cough in children), and reduced lung function. The relative risks associated with such measures of long-term exposures, although highly

[27] Some commentors have recommended the use of a smaller cutpoint at 1 µm (PM_1) to further reduce coarse particle intrusion. PM_1 has not been used in health studies, although in most cases collected mass should be similar to those for cutpoints of 2.1 or 2.5 µm. While this indicator could reduce intrusion of coarse particles, it might also omit portions of hygroscopic acid sulfates in high humidity environments. PM_1 sampling technologies have been developed; however, PM_1 samplers have not been widely used in the field to date, and there are some concerns about loss of certain organic materials relative to an instrument with a larger size cut.

uncertain, appear to be larger than those associated with short-term exposures. Based on the available epidemiology, and consistent with the limited relevant toxicological and dosimetric information, the Administrator concludes that significant, and potentially independent, health consequences are likely associated with long-term PM exposures.

The Administrator has considered this evidence, which suggests that some health endpoints reflect the cumulative effects of PM exposures over a number of years. In such cases, an annual standard would provide effective protection against persistent long-term (several years) exposures to PM. Requiring a much longer averaging time would also complicate and unnecessarily delay control strategies and attainment decisions.

The Administrator has also considered the seasonality of emissions of fine particles and their precursors in some areas (e.g., wintertime smoke from residential wood combustion, summertime regional acid sulfate and ozone formation), which suggests that some effects associated with annual average concentrations might be the result of repeated seasonally high exposures. However, different seasons are likely of concern in different parts of the country, and the current evidence does not provide a satisfactory quantitative basis for setting a national fine particle standard in terms of a seasonal averaging time.

In addition, the Administrator recognizes that an annual standard would have the effect of controlling air quality broadly across the yearly distribution of 24-hour $PM_{2.5}$ concentrations, although such a standard would not as effectively limit peak 24-hour concentrations as would a 24-hour standard. Thus, as discussed above in Section B above (see especially Figures 2a, 2b, 2c), an annual standard could also provide protection from health effects associated with short-term exposures to $PM_{2.5}$.

For these reasons, the Administrator has concluded that a long-term $PM_{2.5}$ standard with an annual averaging time can serve to control both long- and short-term ambient $PM_{2.5}$ concentrations, thus providing protection from health effects associated with long-term (seasonal to several years) and, to some degree, short-term exposures to $PM_{2.5}$.

3. Combined Effect of Annual and 24–Hour Standards

Having concluded that both 24-hour and annual $PM_{2.5}$ standards are appropriate, the Administrator considered the potential combined effects of such standards on PM concentration levels and distributions prior to considering the form and level of each standard. The existing health effects evidence could, of course, be used to assess the form and level of each standard independently, with short-term health effects evidence being used as the basis for a 24-hour standard and the long-term health effects evidence as the basis for an annual standard. Some CASAC panel members apparently used this approach as a basis for their views on appropriate averaging times and standard levels. In particular, a few members focused only on a 24-hour $PM_{2.5}$ standard in light of the relative strength of the short-term exposure studies. On the other hand, two members focused only on an annual standard, recognizing that strategies to meet an annual standard would provide protection against effects of both short- and long-term exposures.

The Administrator has focused on a policy approach that considers the consistency and coherence, as well as the limitations, of the body of evidence as a whole, and recognizes that there are various ways to combine two standards to achieve an appropriate degree of public health protection. Such an approach to standard setting that integrates the body of health effects evidence and air quality analyses, and considers the combined effect of the standards, has the potential to result in a more effective and efficient suite of standards than an approach that only considers short- and long-term evidence, analyses, and standards independently.

In considering the combined effect of such standards, the Administrator notes that while an annual standard focuses on annual average $PM_{2.5}$ concentrations, it would also result in fewer and lower 24-hour peak concentrations. Alternatively, a 24-hour standard which focuses on peak concentrations would also result in lower annual average concentrations. Thus, either standard could be viewed as providing both short- and long-term protection, with the other standard serving as a ''backstop'' in situations where the daily peaks and annual averages are not consistently correlated.

The Administrator believes that the suite of $PM_{2.5}$ standards can be most effectively and efficiently defined by treating the annual standard as the generally controlling standard for lowering both short- and long-term $PM_{2.5}$ concentrations. As a supplement to the annual standard, the 24-hour standard would serve as a backstop to provide additional protection against days with high peak $PM_{2.5}$ concentrations, localized ''hot spots,'' and risks arising from seasonal emissions that would not be well controlled by a national annual standard. In reaching this view, the Administrator took into account the factors discussed below.

(1) Based on one of the key observations from the quantitative risk assessment (Section B, Figures 2a, 2b, 2c), the Administrator notes that much if not most of the aggregate annual risk associated with short-term exposures results from the large number of days during which the 24-hour average concentrations are in the low- to mid-range, below the peak 24-hour concentrations. As a result, lowering a wide range of ambient 24-hour $PM_{2.5}$ concentrations, as opposed to focusing on control of peak 24-hour concentrations, is the most effective and efficient way to reduce total population risk. Further, there is no evidence suggesting that risks associated with long-term exposures are likely to be disproportionately driven by peak 24-hour concentrations. Thus, an annual standard that controls an area's attainment status is likely to reduce aggregate risks associated with both short- and long-term exposures with more certainty than a 24-hour standard.

(2) The consistency and coherence of the health effects data base is more directly related to long-term measures of air quality (e.g., the annual distributions of 24-hour PM concentrations), rather than to 24-hour concentrations on individual days. More specifically, judgments about the quantitative consistency of the large number of short-term exposure studies reporting associations with 24-hour concentrations arise from comparing the relative risk results derived from analyzing the associations across the entire duration of the studies, which typically spanned at least an annual time frame.

(3) An annual average measure of air quality is more stable over time than are 24-hour measures. Thus, a controlling annual standard is likely to result in the development of more consistent risk reduction strategies over time, since an area's attainment status will be less likely to change due solely to year-to-year variations in meteorological conditions that affect the formation of fine particles, than under a controlling 24-hour standard.

Under this policy approach, the annual $PM_{2.5}$ standard would serve in most areas as the target for control programs designed to be effective in lowering the broad distribution of $PM_{2.5}$ concentrations, thus protecting not only

against long-term effects but also short-term effects as well. In combination with such an annual standard, the 24-hour $PM_{2.5}$ standard would be set so as to protect against the occurrence of peak 24-hour concentrations and those that present localized or seasonal effects of concern in areas where the highest 24-hour-to-annual mean $PM_{2.5}$ ratios are appreciably above the national average.

The Administrator recognizes that this policy approach represents a new way of thinking about the combined effects of short- and long-term standards, and that there are alternative views about this approach. Accordingly, the Administrator solicits comment on this policy approach for defining the most effective and efficient suite of $PM_{2.5}$ standards.

F. Form of $PM_{2.5}$ Standards

1. Annual Standard

As discussed in some detail during the last review of the PM NAAQS (see 49 FR 10408, March 20, 1984; 52 FR 24634, July 1, 1987), the expected annual arithmetic mean (i.e., the annual arithmetic mean averaged over 3 years) is a relatively stable measure of air quality that reflects the total cumulative dose of PM to which an individual or population is exposed. Short-term peaks have an influence on the arithmetic mean that is proportional to their frequency, magnitude, and duration, and, thus, their contribution to cumulative exposure and risk. As a result, the annual arithmetic mean form of an annual standard provides protection across a wide range of the air quality distribution contributing to exposure and risk, in contrast to other forms, such as the geometric mean, that deemphasize the effects of short-term peak concentrations. On this basis, the Administrator concurs with the Staff Paper recommendation, supported by CASAC, to use the 3-year average annual arithmetic mean as the form for an annual $PM_{2.5}$ standard, consistent with the current form of the annual PM_{10} standard.

The Staff Paper and some CASAC panel members also recommended that consideration be given to calculating the $PM_{2.5}$ annual arithmetic mean for an area by averaging the annual arithmetic means derived from multiple, primarily population-oriented monitoring sites within a monitoring planning area. In considering a calculation method for annual arithmetic averages that involves spatial averaging of monitoring data, the Administrator specifically took into account the following factors:[28]

(1) Many of the community-based epidemiological studies examined in this review used spatial averages, when multiple monitoring sites were available, to characterize area-wide PM exposure levels and the associated population health risk. Even in those studies that used only one monitoring location, the selected site was chosen to represent community-wide exposures, not the highest value likely to be experienced within the community. Thus, spatial averages are most directly related to the epidemiological studies used as the basis for the proposed revisions to the PM NAAQS.

(2) Under the policy approach advanced earlier, the annual $PM_{2.5}$ standard would be intended to reduce aggregate population risk from both long- and short-term exposures by lowering the broad distribution of $PM_{2.5}$ concentrations across the community. An annual standard based on spatially averaged concentrations would better reflect area-wide PM exposure levels than would a standard based on concentrations from a single monitor with the highest measured values.

(3) Under this policy approach, the 24-hour $PM_{2.5}$ standard would be intended to supplement a spatially averaged annual $PM_{2.5}$ standard by providing protection against peak 24-hour concentrations, localized ''hot spots,'' and risk arising from seasonal emissions that would not be as well controlled by an annual standard. Accordingly, the 24-hour $PM_{2.5}$ standard should be based on the single population-oriented monitoring site within the monitoring planning area with the highest measured values.

Based on these considerations, the Administrator believes that the form of a $PM_{2.5}$ annual standard should be expressed as the annual arithmetic mean, temporally averaged over 3 years and spatially averaged over all designated monitoring sites. Such designations would be based on criteria contained in the proposed revision to the monitoring siting guidance in 40 CFR Part 58 that accompanies this notice. In the Administrator's judgment, an annual $PM_{2.5}$ standard expressed in this form, established in conjunction with a 24-hour $PM_{2.5}$ standard, would provide the most appropriate target for reducing area-wide population exposure to fine particle pollution.

On the other hand, the Administrator is mindful that adoption of spatial averaging for an annual $PM_{2.5}$ standard would add a degree of complexity to the monitor siting requirements for a new $PM_{2.5}$ monitoring network and the specification of those areas across which spatial averaging should be permitted. These issues are addressed more fully in the accompanying proposed revisions to 40 CFR Part 58. Of particular concern is whether appropriate and effective criteria can be developed and implemented for determining areas within which spatial averaging would be reflective of the area-wide population risk. The EPA recognizes that some monitoring planning areas may have to be subdivided into smaller subareas to reflect gradients in particle levels (e.g., upwind suburban sites, central city sites, downwind sites) as well as topographical barriers or other factors that may result in a monitoring planning area having several distinct air quality regimes.

Because of the importance of this issue, the notice of proposed revisions to 40 CFR Part 58 specifically requests broad public input on the approaches advanced in that notice with respect to the selection of sites and designation of areas for spatial averaging. Recognizing the complexities that spatial averaging may introduce into risk management programs and that unforeseen issues may arise from public comment on the 40 CFR Part 58 notice, the Administrator also requests comment on the alternative of basing the annual standard for $PM_{2.5}$ on the population-oriented monitor site within the monitoring planning area with the highest 3-year average annual mean. Based on comments received, the Administrator may choose either of these two approaches for specifying the form of the annual $PM_{2.5}$ standard at the time of promulgation of any revisions to the PM standards. Proposed methods for using monitored concentrations to make a comparison with a spatially averaged annual mean standard, as well as associated calculations and other data handling conventions, are presented below in the section on proposed revisions to Appendix K.

2. 24-Hour Standard

The current 24-hour PM_{10} standard is expressed in a ''1-expected-exceedance'' form. That is, the standard is formulated on the basis of the expected number of days per year (averaged over 3 years) on which the level of the standard will be exceeded. The test for determining attainment of the current 24-hour

[28] Spatial averaging of monitoring data is also discussed in the notice of a proposed decision on the O_3 NAAQS published today. Different considerations apply in the two cases principally because of differences between (1) the nature of the health effects evidence for $PM_{2.5}$ and O_3; (2) the proposed suite and annual and 24-hour $PM_{2.5}$ standards, in contrast to a single proposed O_3 standard; and (3) the existence of an established, extensive O_3 monitoring network, in contrast to the absence at present of such a network for $PM_{2.5}$.

standard is presented in Appendix K to 40 CFR Part 50.

Since promulgation of the current 24-hour PM_{10} standard in 1987, a number of concerns have been raised about the 1-expected-exceedance form. These include, in particular, the year-to-year stability of the number of exceedances, the stability of the attainment status of an area, and the complex data handling conventions specified in Appendix K, including the procedures for making adjustments for missing data and less-than-every-day monitoring.

In light of these concerns, the Staff Paper and several CASAC panel members (Wolff, 1996b) recommended that consideration be given to adoption of a more stable and robust form for 24-hour PM standards. In considering this recommendation, the Administrator noted that the use of a concentration-based percentile form would have several advantages over the current 1-expected-exceedance form:

(1) Such a concentration-based form is more directly related to the ambient PM concentrations that are associated with health effects. Given that there is a continuum of effects associated with exposures to varying levels of PM, the extent to which public health is affected by exposure to ambient PM is related to the actual magnitude of the PM concentration, not just whether the concentration is above a specified level. With an exceedance-based form, days on which the ambient PM concentration is well above the level of the standard are given equal weight to those days on which the PM concentration is just above the standard (i.e., each day is counted as one exceedance), even though the public health impact on the two days is significantly different. With a concentration-based form, days on which higher PM concentrations occur would weigh proportionally more than days with lower PM concentrations for the design value, since the actual concentrations are used directly in determining whether the standard is attained.

(2) More specifically, a concentration-based percentile form would also compensate for missing data and less-than-every-day monitoring, thereby reducing or eliminating the need for complex data handling procedures in the Appendix K test for attainment. As a result, an area's attainment status would be based directly on monitoring data rather than on a calculated value adjusted for missing data or less-than-every-day monitoring.

(3) Further, a concentration-based form, averaged over 3 years, also has greater stability than the expected exceedance form and, thus, would facilitate the development of more stable implementation programs by the States.

In light of these advantages, and taking into account the CASAC recommendation as well as concerns regarding adjustments for missing data and less-than-every-day monitoring, the Administrator believes that adoption of a concentration percentile form for the 24-hour $PM_{2.5}$ standard would be appropriate.

Having reached this view, the Administrator considered various specific percentile values for such a form. In doing so, she took into account two factors. First, the 24-hour $PM_{2.5}$ standard is intended to supplement the annual $PM_{2.5}$ standard by providing a ''back stop'' to provide additional protection against extremely high peak days, localized ''hot spots,'' and risks arising from seasonal emissions. Second, the form of the 24-hour $PM_{2.5}$ standard should provide an appropriate degree of increased stability relative to the current form. A more stable statistic would reduce the impact of a single high exposure event that may be due to unusual meteorological conditions alone, and thus would provide a more stable basis upon which to design effective control programs.

With these purposes in mind, the Administrator observed that while a percentile value such as the 90th or 95th would provide substantially increased stability when compared to a more extreme air quality statistic (e.g., the current 1-expected-exceedance form), it would likely not serve as an effective ''back stop,'' because it would allow a large number of days with peak $PM_{2.5}$ concentrations above the standard level. For example, in a 365 day data base, the 90th and 95th percentiles would equal the 37th and 19th highest 24-hour concentrations, respectively. On the other hand, a percentile value selected much closer to the tail of the air quality distribution (e.g., a 99th or greater percentile) would not likely provide significantly more health protection nor significantly increased stability as compared to the current form. In balancing these issues, the Administrator believes that a 98th percentile value form of a standard, set at an appropriate level, would achieve the desired outcomes of both a 24-hour standard that would serve as an effective supplement to the $PM_{2.5}$ annual standard and a more stable form. Proposed methods for using monitored concentrations to make a comparison with a concentration percentile form of a 24-hour standard, averaged over 3 years, as well as associated calculations and other data handling conventions, are presented below in the section on proposed revisions to Appendix K.

G. Levels for the Annual and 24-Hour $PM_{2.5}$ Standards

As discussed in Section E above, the Administrator believes that an annual $PM_{2.5}$ standard can provide the requisite reduction in risk associated with both annual and 24-hour averaging times in most areas of the U.S. Under this approach, the 24-hour standard would be intended to provide supplemental protection against extreme peak fine particle levels that may occur in some localized situations or in areas with distinct variations in seasonal fine particle levels. In reaching judgments as to appropriate levels to propose for both the annual and 24-hour $PM_{2.5}$ standards, the Administrator has considered the combined protection afforded by both the annual and 24-hour standards, taking into account the forms discussed above in Section F.

With this approach in mind, the Administrator has considered the available health effects evidence and related air quality information presented in the Criteria Document and summarized in Chapters IV–VII of the Staff Paper and in Section A above, which provides the basis for decisions on standard levels that would reduce risk sufficiently to protect public health with an adequate margin of safety, recognizing that such standards will not be risk free. In so doing, the Administrator has considered both the strengths and the limitations of the available evidence and information, as well as alternative interpretations of the scientific evidence advanced by various CASAC panel members (Wolff, 1996b; Lippmann et al., 1996) and public commenters, arising primarily from the inherent uncertainties and limitations in the health effects studies.

Beyond those factors, but clearly related to them, a range of views have been expressed by CASAC panel members and the public as to the appropriate policy response to the available health effects evidence and related air quality information. Toward one end of the spectrum, the view has been expressed that only a very limited policy response is appropriate in light of the many key uncertainties and unanswered questions that, taken together, call into question the fundamental issue of causality in the reported associations between ambient levels of $PM_{2.5}$ and mortality and other serious health effects. Toward the other end, the view has been expressed that the consistency and coherence of the epidemiological evidence can appropriately be interpreted as

demonstrating causality in the relationships between $PM_{2.5}$ and health endpoints that are clearly adverse, and that uncertainties in the underlying health effects information should be treated, regardless of their nature, as warranting a maximally precautionary policy response. A third view would suggest an intermediate policy response, taking into account not only the consistency and coherence of the health effects evidence, but also the recognition of key uncertainties and unanswered questions that increasingly call into question the likelihood of PM-related effects as $PM_{2.5}$ concentrations decrease below the mean values in areas where effects have been observed and/or as such concentrations approach background levels.

Reflecting these divergent views, both of the science itself and of how the science should be used in making policy decisions on proposed standards, the Administrator has considered three alternative approaches to selecting appropriate standard levels, as described below.

(1) One approach would place great weight on the uncertainties and limitations in the available health effects studies considered individually, such as the possible existence of effects thresholds and unanswered questions regarding the causal agent(s) responsible for the reported health effects, and on the limited amount of research currently available that has measured $PM_{2.5}$ directly. This approach would recognize $PM_{2.5}$ as a component of air pollution that should be addressed through a NAAQS, since serious health effects have been linked to the complex mix of urban air pollution containing PM (or some subset of particles within the fine fraction for which $PM_{2.5}$ appears to be a reasonable surrogate). Beyond that recognition, however, this approach would reflect the judgment that significant new regulatory programs directed toward fine particle concentrations well below those permitted under the current PM_{10} standards may be premature until additional research has addressed the key uncertainties and unanswered questions especially with regard to plausible physiological mechanisms for effects at such low exposure levels.

Such an approach would be based on the judgment that the current scientific evidence has not demonstrated adverse public health effects from fine particle concentrations well below those corresponding to the current standard and that it would be difficult to target regulatory programs toward the specific pollutants that may be responsible for the health effects of concern in the absence of an understanding of the mechanism(s) by which these effects are produced. Although there is currently significant uncertainty regarding nationwide ambient concentrations of $PM_{2.5}$,[29] since little actual monitoring data are available, the Administrator believes that such an approach could be reflected by setting a standard near the upper end of the range recommended in the Staff Paper; i.e., an annual standard level up to 20 $\mu g/m^3$ in combination with a 24-hour standard of up to 65 $\mu g/m^3$.[30]

A policy decision to set $PM_{2.5}$ standards at these levels would recognize that, while the scientific evidence demonstrating adverse effects from fine particles specifically is not conclusive, fine particles should nonetheless be regulated separately through $PM_{2.5}$ standards, to provide public health protection with an adequate margin of safety, as specified in the Act. Such standards would result in the establishment of new regulatory programs to reduce potential health risks in areas where current levels are high enough to warrant serious concern. Such standards would also result in the establishment of a new monitoring network to better characterize fine particle levels and composition in major population areas throughout the U.S. This would in turn facilitate further research into health effects associated with ambient $PM_{2.5}$ levels, which would likely lead to a better understanding in the future of the key uncertainties and unanswered questions that currently exist, especially with regard to mechanisms and the identification of components of urban air pollution, and specifically of fine particles, on which to focus future regulatory efforts.

(2) In sharp contrast, a second approach would place great weight on the consistency and coherence of the entire body of epidemiological evidence, the seriousness of the associated health effects (e.g., premature mortality and increased hospital admissions), and the magnitude of the incidence of such effects that can be estimated from plausible assumptions in an analysis of the quantitative effects evidence. While recognizing that uncertainties and unanswered questions remain, this approach would suggest policy decisions that would result in major new regulatory programs directed at fine particles even as additional research is ongoing.

Such an approach could be viewed as a maximally precautionary response, reflecting judgments that the likely effects are as serious and potentially adverse to large numbers of sensitive individuals as the reported evidence might suggest, and that uncertainties in the evidence should be treated, regardless of their nature, as warranting greater protection. Such an approach would be predicated on interpreting the epidemiological evidence as sufficient to have made a compelling case for causality in relationships between $PM_{2.5}$ and health effects at the lower concentrations observed in these studies. Based on uncertain estimates of $PM_{2.5}$ air quality, such an approach could be reflected by an annual standard level at the lower end of the range recommended in the Staff Paper, i.e., an annual standard level down to about 12 $\mu g/m^3$, in combination with a 24-hour standard set within the lower part of the range recommended in the Staff Paper, from 20 $\mu g/m^3$, at which the 24-hour standard might primarily control, up to about 50 $\mu g/m^3$, where the annual standard might primarily control.[31]

A policy decision to set $PM_{2.5}$ standards at these levels would not only result in a new monitoring network and facilitate additional health effects research, but would likely result in major reductions in $PM_{2.5}$ levels throughout the U.S., with associated reductions in risks to public health. Commensurate reductions in health risks would result only if, in fact, there is a continuum of health risk down to the lower end of the ranges of air quality observed in the key epidemiological studies, and if the reported associations

[29] Nationwide $PM_{2.5}$ estimates have been derived from the nationwide PM_{10} air quality data base but reflect a significant degree of uncertainty due to the highly variable relationship between $PM_{2.5}$ and PM_{10} air quality values across locations and seasons (Fitz-Simons et al., 1996).

[30] In presenting their opinions on the appropriate policy choice for $PM_{2.5}$ standards, several CASAC panel members supported levels consistent with this approach. In addition, three CASAC members expressed a preference for standards that would be equivalent in stringency to the current PM_{10} standards; with the suggestion that standard levels of 25 to 30 $\mu g/m^3$, annual average, and $\geq$75 $\mu g/m^3$, 24-hour average (presumably for the same 1-expected-exceedence form used for comparison of options in the Staff Paper), would approximate equivalence (Wolff, 1996b). As CASAC recognized, the wide variability in $PM_{2.5}/PM_{10}$ ratios in time and location precludes defining uniform $PM_{2.5}$ standards that would provide close to ''equivalent'' protection to the current standard in all or even most areas. However, based on estimated $PM_{2.5}$ data for 1993–95, the combination of 20 $\mu g/m^3$, annual spatially averaged mean, and 65 $\mu g/m^3$, 24-hour, 98th percentile, standards is likely to be less stringent than the current standards in terms of the numbers of counties predicted not to meet that alternative.

[31] This range of levels for a 24-hour $PM_{2.5}$ standard is consistent with the levels recommended by four CASAC panel members, although no members supported an annual $PM_{2.5}$ standard as low as 12 $\mu g/m^3$.

are, in fact, causally related to $PM_{2.5}$. By setting standards at levels where the possibility of effects thresholds are more likely and there is greater potential that other elements in the air pollution mix (or some subset of particles within the fine fraction) are at least in part responsible for or modifying the effects being causally attributed to $PM_{2.5}$, such standards might result in regulatory programs that go beyond those that are needed to effectively reduce risks to public health. The policy goal of such an approach would be to focus maximal regulatory efforts on controlling potential risks to public health, with a large margin of safety that takes into account the uncertainties and limitations in the available evidence or treating them as warranting increased protection in all cases.

In assessing these two sharply contrasting alternative approaches, the Administrator is mindful that the proponents of each, both within the scientific community and in the public at large, can advance reasoned and potentially persuasive arguments in support of their preferred policy approaches. In considering the bases for these two contrasting views, however, the Administrator was drawn to consider a third approach representing an intermediate policy response, as discussed below.

(3) The third approach would focus primarily on standard levels designed to limit annual $PM_{2.5}$ concentrations to somewhat below those where the body of epidemiological evidence is most consistent and coherent. Such an approach would recognize both the strengths and the limitations of the full range of scientific and technical information on the health effects of PM, as well as associated uncertainties, as interpreted by the Criteria Document, Staff Paper, and CASAC. The Administrator believes that such an approach would appropriately reflect the weight of the evidence as a whole.

In identifying $PM_{2.5}$ standard levels consistent with this overall approach, the Administrator has placed greatest weight on those epidemiological studies reporting associations between health effects and direct measures of fine particles, most notably those recent studies conducted in North America (summarized in Tables V–12 to V–14 of the Staff Paper). Key considerations and study results upon which this approach is based are presented below.

As previously discussed, the Administrator is proposing to select the level of the annual standard so as to protect against the range of effects associated with both short- and long-term exposures to PM, with the 24-hour standard level selected to provide supplemental protection against peak concentrations that might occur over limited areas and/or for limited time periods. In selecting the level of an annual standard, therefore, the Administrator has considered epidemiological studies of both short- and long-term exposures to fine particles.

The effects estimates from the daily studies (in Table V–12 of the Staff Paper) are based on analyses of daily $PM_{2.5}$ concentrations that occurred over the course of the year(s) studied. While effects may occur over the full range of concentrations observed in the studies, the strongest evidence for daily $PM_{2.5}$ effects is associated with annual concentrations at or above the mean levels reported for these studies.[32] Given the serious nature of the potential effects, the Administrator believes it is both prudent and appropriate to select a level for an annual standard at or below such concentrations. An examination of the annual means from the combined Six City analysis of daily mortality and respiratory symptoms (Schwartz et al., 1996a), together with those from studies in individual cities for which statistically significant PM-effects associations are reported (from Table V–12 in the Staff Paper), finds mean concentrations ranging from about 16 to 21 $\mu g/m^3$. In addition, the mean concentrations in cities where short-term exposure associations characterized in the Criteria Document as nearly statistically significant (U.S. EPA, 1996a, p. 13–40) range from about 11 $\mu g/m^3$ to 30 $\mu g/m^3$. Taken together, this evidence suggests that an annual standard level of about 15 $\mu g/m^3$ may be appropriate to reduce the risk of short-term effects of fine particles.

The Administrator also examined this level in light of the effects reported in epidemiological studies of long-term exposures to fine particles (Table V–13 in the Staff Paper), which may reflect the accumulation of daily effects over time as well as potential effects uniquely associated with long-term exposures. Even though subject to additional uncertainties, the long-term studies provide important insights with respect to the overall protection afforded by an annual standard. The most direct comparison with the daily fine particle mortality studies is provided by two long-term cohort studies (Dockery et al., 1993; Pope et al., 1995). The annual mean $PM_{2.5}$ concentration for the multiple cities included in both of these studies (6 and 47 cities, respectively) was 18 $\mu g/m^3$ each study (U.S. EPA, 1996b, p. E–10). The Staff Paper assessment of the concentration-response results from these studies concluded that the evidence for increased risk was more apparent at annual concentrations at or above 15 $\mu g/m^3$ (Table E–3 in the Staff Paper). As noted in the Staff Paper and the Criteria Document, however, the estimated magnitude of effects may be related to somewhat higher historical concentrations than the affected communities experienced during the time period of the studies; this consideration suggests that a level of 15 $\mu g/m^3$ would incorporate a margin of safety.

Taking the epidemiological studies of both short- and long-term exposures together, the Administrator believes the concordance of evidence for PM effects and associated levels provides clear support for an annual $PM_{2.5}$ standard level of about 15 $\mu g/m^3$. This level is below the range of annual data most strongly associated with both short- and long-term effects, and because even small changes in annual means in this concentration range can make significant differences in overall risk reduction and total population exposures, the Administrator believes it would provide an adequate margin of safety. Moreover, the means in areas where $PM_{2.5}$ concentrations were statistically significantly associated with daily mortality (about 16 to 21 $\mu g/m^3$) reflect an 8-year average; thus, the proposed use of a 3-year average mean would provide additional protection. Although the possibility of effects at lower annual concentrations cannot be excluded, the evidence for that possibility is highly uncertain and, as previously discussed, the likelihood of significant health risk, if any, becomes smaller as concentrations approach the lower end of the range of air quality observed in the key epidemiological studies and/or background levels.

For the reasons specified above, however, an annual, spatially averaged standard cannot be expected to offer fully effective and efficient protection against all potential short-term effects in areas with strong local or seasonal sources. The broad-based community studies considered in this review generally could not evaluate such peak exposure conditions directly. Given the public health purposes of the 24-hour standard, the Administrator believes it should be set at a level that generally supplements the control provided by an annual standard and reasonably reflects the peak levels observed in

[32] As discussed in Appendix E of the Staff Paper (U.S. EPA, 1996b, p. E–4), there is generally the greatest statistical confidence in the association at and above the mean concentration.

communities where health effects have been associated with daily levels of fine particles.

An examination of air quality in cities where short-term exposure associations are characterized in the Criteria Document as statistically significant or nearly so (U.S. EPA, 1996a, p. 13–40) shows that the 98th percentile 24-hour average $PM_{2.5}$ concentrations ranged from approximately 35 μg/m³ to 90 μg/m³ (Koman, 1996), with the majority of cities ranging from above 40 to above 50 μg/m³. Based on this examination of relevant air quality information, the Administrator believes that a 98th percentile 24-hour $PM_{2.5}$ standard of 50 μg/m³ (at the monitoring site within the monitoring planning area with the highest 3-year average) would provide an appropriate supplement or ''backstop'' to a spatially averaged annual mean standard of 15 μg/m³.

In the Administrator's judgment, the factors discussed above provide ample reason to believe that both annual and 24-hour $PM_{2.5}$ standards are appropriate to protect public health from adverse health effects associated with short- and long-term exposures to ambient fine particles. Further, she believes these factors provide a clear basis for judging that an annual standard set at 15 μg/m³, in combination with a 24-hour standard set at 50 μg/m³, would protect public health with an adequate margin of safety.

The Administrator is mindful, however, that in assessing these factors a series of judgments had to be made with respect to both the interpretation of the underlying scientific evidence and the treatment of inherent uncertainties and limitations in the available information in making policy choices. Accordingly, the Administrator solicits broad public comment, not only on her proposed decision to establish new $PM_{2.5}$ standards of 15 μg/m³, annual average, and 50 μg/m³, 24-hour average, but also on the two alternative approaches described above. Based on the comments received and the accompanying rationale, the Administrator may choose at the time of final promulgation to adopt other standards within the range of these alternative approaches in lieu of the standards she is proposing today.

H. Conclusions Regarding the Current PM_{10} Standards

1. Averaging Time and Form

In conjunction with the proposed $PM_{2.5}$ standards, the new function of PM_{10} standard(s) would be to protect against potential effects associated with coarse fraction particles in the size range of 2.5 to 10 μm. As noted above, coarse fraction particles are plausibly associated with certain effects from both long- and short-term exposures. Based on qualitative considerations, deposition of coarse fraction particles in the respiratory system could be expected to aggravate effects in individuals with asthma. The Criteria Document and Staff Paper found support for this expectation in limited epidemiological evidence on the effects of coarse fraction particles, suggesting that aggravation of asthma and respiratory infections and symptoms may be associated with daily or episodic increases in PM_{10} that is dominated by coarse fraction particles. The potential buildup of insoluble coarse fraction particles in the lung after long-term exposures to high levels should also be considered.

Based on assessments of the available information in the Criteria Document and Staff Paper, both the staff and CASAC recommended retention of an annual PM_{10} standard. The staff, with CASAC concurrence, recommended retention of the current expected annual mean form of the standard, which is the same form being proposed for the annual $PM_{2.5}$ standard. As noted in the staff assessment, the current annual PM_{10} standard offers substantial protection against both long- and short-term effects of coarse fraction particles.

The staff and CASAC also recommended that consideration be given to retention of a 24-hour standard to provide additional protection against potential effects of short-term exposures to coarse fraction particles. The staff, with CASAC concurrence, also recommended that if a 24-hour standard is retained, the form of the standard should be revised to provide a more robust target for practical coarse particle controls. For the reasons outlined above regarding the form of the 24-hour $PM_{2.5}$ standard, the Administrator believes the 98th percentile concentration based form would also be an appropriate form for a 24-hour PM_{10} standard.

2. Levels for Alternative Averaging Times

a. Annual PM_{10} Standard

As a result of the more limited information for coarse fraction particles, the Administrator's approach for selecting a level of the standard is directly related to the approach taken in the last review of the PM NAAQS. In that review, evidence from limited quantitative studies was used in conjunction with support from the qualitative literature in selecting the level of the current annual PM_{10} standard. The staff assessment of the major quantitative basis for the level of that standard (Ware et al., 1986), together with a more recent related study (Dockery et al., 1989), now finds the same range of levels of concern (40–50 μg/m³) as was found in the previous standard review. The staff finds that it is possible, but not certain, that coarse fraction particles, in combination with fine particles, may have influenced the observed effects at these levels. Based on particle deposition considerations, it is possible that cumulative deposition of coarse fraction particles could be of concern in children, who are more prone to be active outdoors than sensitive adult subpopulations.

Qualitative evidence of other long-term coarse particle effects, most notably from long-term buildup of silica-containing materials, supports the need for a long-term standard, but does not provide evidence of effects below the range of 40–50 μg/m³ (U.S. EPA, 1996a, p. 13–79). The staff concludes that the qualitative evidence with respect to biological aerosols also supports the need to limit coarse materials, but should not form the major basis for a national standard (U.S. EPA, 1996a, p. 13–79). In addition, the nature and distribution of such materials, which vary from endemic fungi (e.g., valley fever) to pollens larger than 10 μm, are not appropriately addressed by traditional air pollution control programs.

Based on its review of the available information, CASAC found ''a consensus that retaining an annual PM_{10} NAAQS at the current level is reasonable at this time'' (Wolff, 1996b). Taking into account the above considerations, as more fully detailed in the Staff Paper and the CASAC recommendations, the Administrator proposes to retain the current annual PM_{10} standard of 50 μg/m³ to protect against the long- and short-term effects of coarse fraction particles.

b. 24–Hour PM_{10} Standard

As discussed above, EPA staff and CASAC also recommended that consideration should be given to a 24-hour standard for coarse fraction particles as measured by PM_{10}. Unlike the case for the annual standard, however, the staff found that the original quantitative basis for the level of the current 24-hour PM_{10} standard (150 μg/m³) is no longer appropriate. Instead, the staff found the main quantitative basis for a short-term standard is provided by the two community studies of exposure to fugitive dust referenced above. Because these studies reported multiple large

exceedences of the current 24-hour standard, and because of limitations in the studies themselves, they provide no basis to lower the level of the standard below 150 μg/m³. Moreover, none of the qualitative literature regarding the potential short-term effects of coarse particles provides a basis for a lower standard level. Both EPA staff and CASAC recommended that if a 24-hour PM_{10} standard is retained, the level of the standard should be maintained at 150 μg/m³, although with a revised form.

In the judgment of the Administrator, retention of a 24-hour PM_{10} standard at the level of 150 μg/m³ with a 98th percentile form would provide adequate protection against the short-term effects of coarse particles that have been identified to date in the scientific literature. However, analyses of the available air quality relationships show that such a standard might not add greatly to the protection afforded by the current PM_{10} annual standard (Fitz-Simons et al., 1996). As noted in the Staff Paper and by some CASAC panel members, it is possible that the current annual standard might provide adequate protection against both long- and short-term effects of coarse particles, especially when viewed in conjunction with the overall proposal to add new annual and 24-hour $PM_{2.5}$ standards. Therefore, the Administrator also solicits comment on the alternative of retaining the current annual PM_{10} standard and revoking the current 24-hour PM_{10} standard.

I. Proposed Decisions on Primary Standards

For the reasons discussed above, and taking into account the information and assessments presented in the Criteria Document and the Staff Paper, the advice and recommendations of CASAC, and public comments to date, the Administrator proposes to amend the current suite of PM_{10} standards by adding new $PM_{2.5}$ standards and by revising the form of the current 24-hour PM_{10} standard. Specifically, the Administrator proposes to add two new primary $PM_{2.5}$ standards set at 15 μg/m³, annual mean, and 50 μg/m³, 24-hour average. The proposed new annual $PM_{2.5}$ standard would be met when the 3-year average of the annual arithmetic mean $PM_{2.5}$ concentrations, spatially averaged across an area, is less than or equal to 15 μg/m³, with fractional parts of 0.05 or greater rounding up. The Administrator solicits comment on the alternative of using the 3-year average of the annual arithmetic mean $PM_{2.5}$ concentrations at each monitor within an area rather than a spatially averaged value. The proposed new 24-hour $PM_{2.5}$ standard would be met when the 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations at each monitor within an area is less than or equal to 50 μg/m³, with fractional parts of 0.5 or greater rounding up. Data handling conventions are specified in proposed revisions to Appendix K, as discussed in Section IV below, and a reference method for monitoring PM as $PM_{2.5}$ is specified in a proposed new Appendix L, as discussed in Section V below.

In recognition of alternative views as to the appropriate policy response, the Administrator also solicits comments on two alternative sets of new annual and 24-hour $PM_{2.5}$ standards: (1) An annual standard set at a level up to 20 μg/m³, in combination with a 24-hour standard set at a level up to 65 μg/m³; and (2) an annual standard set at a level as low as 12 μg/m³, in combination with a 24-hour standard set at a level within the range of 20 to 50 μg/m³.

The Administrator also proposes to retain the current annual PM_{10} standard at the level of 50 μg/m³, which would be met when the 3-year average of the annual arithmetic mean PM_{10} concentrations at each monitor within an area is less than or equal to 50 μg/m³, with fractional parts of 0.5 or greater rounding up. Further, the Administrator proposes to retain the current 24-hour PM_{10} standard at the level of 150 μg/m³, but to revise the form such that the standard would be met when the 3-year average of the 98th percentile of the monitored concentrations at the highest monitor in an area is less than or equal to 150 μg/m³, rounding to the nearest 10 μg/m³. Data handling conventions are specified in proposed revisions to Appendix K, as discussed in Section IV below, and revisions to the reference method for monitoring PM as PM_{10} (Appendix J) are proposed as discussed in Section V below. The Administrator also solicits comment on the alternative of revoking the current 24-hour PM_{10} standard.

III. Rationale for Proposed Decision on the Secondary Standards

The Criteria Document and Staff Paper examined the effects of PM on such aspects of public welfare as visibility, materials damage, and soiling. The following discussion of the rationale for the proposed secondary standards focuses on those considerations most influential in the Administrator's proposed decision.

A. Visibility Impairment

This section of the notice presents the Administrator's proposed decision to address the effects of PM on visibility by setting secondary standards identical to the suite of proposed primary standards, in conjunction with the establishment of a regional haze program under section 169A of the Act.[33] In the Administrator's judgment, this approach is the most effective way to address visibility impairment given the sharp regional variations in concentrations of non-anthropogenic PM as well as other factors (e.g., humidity) that affect visibility. By augmenting the protection provided by secondary standards set identical to the proposed suite of primary standards with a regional haze program, the Administrator believes that an appropriate degree of visibility protection can be achieved in the various regions of the country.

In coming to this proposed decision, the Administrator took into account several factors, including: (1) Staff assessments of the most policy-relevant information in the Criteria Document and Staff Paper; (2) the degree of visibility improvement expected through attainment of the recommended primary standards; (3) the regional variation of naturally occurring levels of PM and visual range; (4) difficulties inherent in attempting to address visibility impairment by setting national secondary standards; and (5) EPA's authority to develop a national regional haze program under section 169A of the Act that can allow for regionally-specific approaches to protecting visibility. The Administrator's consideration of each of these factors is discussed below.

The Administrator first concluded, based on information presented in the Criteria Document and Staff Paper, that impairment of visibility is an important effect of PM on public welfare, and that it is experienced throughout the U.S., in multi-state regions, urban areas, and remote class I Federal areas[34] alike. Visibility is an important welfare effect because it has direct significance to 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 where they live and work, and in places where

[33] Congress adopted section 169A of the Act because of concern that the NAAQS and Prevention of Significant Deterioration programs may not provide adequate visibility protection nationally, particularly for ''areas of great scenic importance.'' *See* H.R. Rep. No. 294, 95th Congress, 1st Session, 203–205 (1977).

[34] There are 156 mandatory class I Federal areas protected by the visibility provisions in sections 169A and 169B of the Act. These areas are defined in section 162 of the Act as those national parks exceeding 6000 acres, wilderness areas and memorial parks exceeding 5000 acres, and all international parks which were in existence on August 7, 1977.

they enjoy recreational opportunities. Visibility is 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.

Visibility conditions are determined by the scattering and absorption of light by particles and gases, from both natural and anthropogenic sources. Visibility is often described in terms of visual range, light extinction, or deciviews.[35] The classes of fine particles principally responsible for visibility impairment are sulfates, nitrates, organic matter, elemental carbon (soot), and soil dust. Fine particles are more efficient per unit mass at scattering light than coarse particles. The scattering efficiency of certain classes of fine particles, such as sulfates, nitrates, and some organics, increases as relative humidity rises because these particles can absorb water and grow to sizes comparable to the wavelength of visible light. 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.

The Administrator also considered the information in the Criteria Document and Staff Paper describing estimated background levels of PM and natural light extinction. In the United States, estimated annual average background levels of $PM_{2.5}$ are lower in the West than in the East. Because visibility in a pristine environment is very sensitive to an additional 1 or 2 $\mu g/m^3$ of $PM_{2.5}$ in the atmosphere, estimated light extinction due to natural background levels of $PM_{2.5}$ varies fairly significantly between the East and the West. Based on estimated background light extinction levels summarized in Table VIII–2 of the Staff Paper, naturally occurring visual range in the East is approximately 105 to 195 kilometers, whereas in the West it is approximately 190 to 270 kilometers. Increased light scattering of certain particles due to higher average relative humidity in the East is an important factor leading to this regional difference.

The Administrator also assessed potential visibility improvements[36] on urban and regional scales that would result from attainment of the proposed primary standards for $PM_{2.5}$ are attained. In many cities having annual average $PM_{2.5}$ concentrations exceeding 17 $\mu g/m^3$, improvements in annual average visibility resulting from attainment of the proposed primary standards are expected to be perceptible (i.e., to exceed 1 deciview). Based on annual average $PM_{2.5}$ data reported in Table 12–2 of the Criteria Document and Table V–12 in the Staff Paper, many cities in the Northeast, Midwest, and Southeast, as well as Los Angeles, would be expected to see perceptible improvement in visibility.

In Washington, D.C., for example, where the IMPROVE network[37] shows average $PM_{2.5}$ levels at about 19 $\mu g/m_3$ during 1992–1995, approximate annual average visibility would be expected to improve from 21 km visual range (29 deciview) to 27 km (27 deciview). Annual average visibility in Philadelphia, where annual $PM_{2.5}$ levels have been recently measured at 17 $\mu g/m^3$, would be expected to change from about 24 to 27 km, an improvement of about 1 deciview. In Los Angeles, where recent data shows annual average $PM_{2.5}$ levels at approximately 30 $\mu g/m^3$, visibility would be expected to improve from about 19 to 34 km (30 to 24 deciview) if the proposed annual standard is attained.

It is important to note that some urban areas would be expected to have annual average $PM_{2.5}$ concentrations reduced below the proposed primary standard level of 15 $\mu g/m^3$ when implementation of regional control strategies for PM and other air quality programs, such as those addressing acid rain and mobile sources, are taken into account together. On the other hand, some urban areas with annual $PM_{2.5}$ levels at or below the 15 $\mu g/m^3$ level would be expected to see little, if any, improvement in annual average visibility. This may be particularly true of certain western urban areas that are dominated by coarse rather than fine particles.

The Administrator also considered the potential effect on urban visibility when the proposed 24-hour $PM_{2.5}$ standard of 50 $\mu g/m^3$ is attained. In some urban areas, attainment of the 24-hour standard would be expected to reduce to some degree the number and intensity of ''bad visibility'' days (i.e., the 20% of days having the greatest impairment over the course of a year). For example, maximum 24-hour $PM_{2.5}$ concentrations have been recorded in recent years at over 140 $\mu g/m^3$ at several California locations, and at over 70 $\mu g/m^3$ in Philadelphia. If the level and frequency of peak PM concentrations are reduced, improvements would be expected in those days where visibility is worst. Some of these improvements in peak concentrations may even be experienced in urban areas having annual averages below the annual standard.

Having concluded that attainment of the proposed annual and 24-hour $PM_{2.5}$ standards would lead to visibility improvements in many eastern and some western urban areas, the Administrator also considered potential improvements to visibility on a regional scale. In the rural East, attainment of the proposed $PM_{2.5}$ standards could result in regional visibility improvement (e.g., in certain mandatory Federal Class I areas such as Shenandoah and Great Smoky Mountains National Parks) if regional control strategies are adopted and carried out in order to reduce the impact of long-range transport of fine particles such as sulfates. It is important to recognize that fine particle emission reductions achieved by other air quality programs, such as those to reduce acid rain or mobile source emissions, are also expected to improve Eastern regional visibility conditions (U.S. EPA, 1993). In the West, strategies to attain the recommended standards are less likely to significantly improve visibility on a regional basis. However, areas downwind from large urban areas, such as Southern California, would likely see some improvement in annual average visibility.

Based on the foregoing, the Administrator concludes that attainment of secondary standards set at the level of the proposed primary standards for $PM_{2.5}$ would be expected to result in visibility improvements in the eastern U.S. at both urban and regional scales, but little or no change in the western U.S. except in and near selected urban areas.

The Administrator also considered whether establishment of a more stringent national secondary standard or standards would be effective and efficient in providing increased visibility protection in the western U.S. Table VIII–4 of the Staff Paper indicates

[35] 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 poorer 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.

[36] Estimates of annual average visibility improvements assume (1) that the % reduction for each fine particle constituent is equal to the % reduction in the mass of fine particles, and (2) the overall light extinction efficiency of the fine particle pollutant mix does not change. (Damberg and Polkowsky, 1996)

[37] IMPROVE (Interagency Monitoring of PROtected Visual Environments) is a visibility monitoring network managed cooperatively by EPA, Federal land management agencies, and State representatives. An analysis of IMPROVE data for 1992–1995 is found in Sisler et al. (1996).

that the current level of annual average light extinction (resulting from both anthropogenic *and* background sources of PM) in several western locations, such as the Colorado Plateau, is about equal to the level of *background* light extinction (i.e., the level representing nonanthropogenic sources only) in the East. This regional difference is due to higher background particle concentrations in the East, the greater light scattering associated with higher humidity levels in the East, and significantly lower concentrations of anthropogenic PM in remote western locations as compared with remote eastern sites.

Because of these regional differences, it is the Administrator's judgment that national secondary standards intended to maintain or improve visibility conditions on the Colorado Plateau would have to be set at or even below natural background levels in the East, the attainment of which would effectively require elimination of all eastern anthropogenic emissions. Conversely, national secondary standards that would achieve an appropriate degree of visibility improvement in the East would permit further degradation in the West. Due to this regional variability in visibility conditions created by differing background fine particle levels and the effect of humidity on these background levels, the Administrator concludes that proposing more stringent national secondary standards would not be an effective or appropriate means to protect the public welfare from adverse impacts of PM on visibility in all parts of the country.

The Administrator then considered the potential effectiveness of a regional haze program in addressing regional differences in visibility impairment and thereby supplementing the protection that would be achieved by setting the secondary standards identical to the suite of proposed primary standards. A program to address this widespread, regionally uniform type of haze caused by a multitude of sources is required by sections 169A and 169B of the Act. In 1977, Congress established as a national goal ''the prevention of any future, and the remedying of any existing, manmade impairment of visibility in mandatory Class I areas.'' EPA is required by section 169A(b)(2) of the Act to ensure that ''reasonable progress'' is achieved toward meeting the national goal. The structure and requirements of sections 169A and 169B, to be implemented by the States, make it clear that visibility protection programs can be specific to each affected region, in contrast with the national applicability of a secondary NAAQS. The EPA is currently engaged in efforts to develop a regional haze program, and will have the benefit of the June 1996 recommendations from the Grand Canyon Visibility Transport Commission as well as recommendations from the Federal Advisory Committee Act (FACA) Subcommittee on Ozone, Particulate Matter, and Regional Haze Implementation Programs which are expected by the end of the year.

An important factor considered in this review is whether a regional haze program, in conjunction with secondary standards set identical to the suite of proposed primary standards for PM, would provide appropriate protection for visibility in non-Class I areas. Based on the following recommendation from the 1993 report of the National Research Council, Protecting Visibility in National Parks and Wilderness Areas, the Administrator believes such protection would be provided:

> Efforts to improve visibility in Class I areas also would benefit visibility outside these areas. Because most visibility impairment is regional in scale, the same haze that degrades visibility within or looking out from a national park also degrades visibility outside it. Class I areas cannot be regarded as potential islands of clean air in a polluted sea.

The Administrator recognizes, however, that people living in certain urban areas may place a high value on unique scenic resources in or near these areas, yet could have visibility problems attributable to local sources that would not necessarily be addressed by the combined effects of a regional haze program and secondary standards identical to the proposed suite of primary standards for PM. This may be particularly true of certain cities located near scenic vistas in the West. In the Administrator's judgment, State or local regulatory approaches, such as recent action by Colorado to establish a local visibility standard for the city of Denver, would be more appropriate and effective in addressing these special situations because of the localized and unique characteristics of the problems involved. Visibility in an urban area located near a Class I area can also be improved through State implementation of the current visibility regulations, by which emission limitations can be imposed on a source or group of sources found to be contributing to ''reasonably attributable'' impairment in the Class I area.

Based on the above considerations, the Administrator proposes to set secondary standards identical to the proposed suite of primary standards, in conjunction with a regional haze program under sections 169A and 169B of the Act, as the most appropriate and effective means of addressing the welfare effects associated with visibility impairment. Together, the two programs and associated control strategies should provide appropriate protection against the effects of PM on visibility and allow all regions of the country to make reasonable progress toward the national visibility goal.

B. Materials Damage and Soiling Effects

Annual and 24-hour secondary standards for PM_{10} effects on materials damage and soiling were established in 1987 at levels equal in all respects to the primary standards. As discussed in the Criteria Document and Staff Paper, particles affect materials by promoting and accelerating the corrosion of metals, by degrading paints, and by deteriorating building materials such as concrete and limestone. Soiling is found to reduce the aesthetic quality of buildings and objects of historical or social interest. Past studies have found that residential properties in highly polluted areas typically have lower values than those in less polluted areas. Thus, at high enough concentrations, particles become a nuisance and result in increased cost and decreased enjoyment of the environment.

After reviewing the extent of relevant studies and other information provided since the 1987 review of the PM standards, the Administrator concurs with staff and CASAC conclusions that the available data do not provide a sufficient basis for establishing a secondary standard based on soiling or materials damage alone. In the Administrator's judgment, however, setting secondary standards identical to the suite of proposed $PM_{2.5}$ and PM_{10} primary standards, as discussed above, would provide increased protection against the effects of fine particles and retain an appropriate degree of control on coarse particles. Accordingly, the Administrator proposes to set the secondary standards identical to the suite of proposed primary standards to protect against materials damage and soiling effects of PM.

C. Proposed Decision on the Secondary Standards

The Administrator proposes to set secondary standards identical to the suite of proposed primary standards, in conjunction with establishment of a regional haze program. In her judgment, such an approach would provide appropriate protection against the welfare effects associated with particle pollution.

If at the time of final promulgation the most stringent approach to setting the $PM_{2.5}$ primary standards were to be adopted, the Administrator would propose to set the secondary standards identical to the final suite of primary standards. However, even if the levels of the $PM_{2.5}$ standards were to be set as low as 12 μg/m³ and 25 μg/m³, respectively, for the annual and 24-hour $PM_{2.5}$ standards, the Administrator would still foresee the need for a regional haze program to supplement the visibility protection afforded by such standards. If, on the other hand, the levels of the $PM_{2.5}$ primary standards were to be set at up to 20 μg/m³, annual average, and up to 65 μg/m³, 24-hour average, the Administrator would find it necessary to re-examine whether a separate lower secondary standard would have to be established to protect against the welfare effects associated with particle pollution. Based on the above discussion, the Administrator would consider setting separate secondary standards for $PM_{2.5}$ at 15 μg/m³, annual average, and 50 μg/m³, 24-hour average, with PM_{10} standards set identical to the final primary PM_{10} standards. In her judgment, such a suite of secondary standards, in conjunction with the establishment of a regional haze program, would appropriately protect public welfare from the effects of particle pollution.

IV. Revisions to Appendix K—Interpretation of the PM NAAQS

The EPA is proposing to revise Appendix K to 40 CFR part 50 to reflect the proposed forms for the annual and 24-hour standards for $PM_{2.5}$ and PM_{10}. The proposed revisions to Appendix K explain the computations necessary for determining when the proposed primary and secondary standards are met. More specifically, the proposed revisions address data reporting, handling, and rounding conventions, with example calculations. The proposed revisions do not address the treatment of exceptional events data. Policies for addressing exceptional and natural events are part of the standards implementation process.

Key elements of the proposed revisions to Appendix K are outlined below.

A. $PM_{2.5}$ Computations and Data Handling Conventions

As discussed in section II.F above, EPA is proposing a spatially averaged annual mean as the form of the annual $PM_{2.5}$ and a 98th percentile concentration form of the 24-hour $PM_{2.5}$ standard. The proposed Appendix K explains the data handling conventions and computations for the annual and 24-hour forms of the $PM_{2.5}$ standards in sections 2.1 and 2.2, respectively; data rounding conventions in section 2.3; monitoring considerations in section 2.4; and formulas for calculating the annual and 24-hour forms in sections 2.5 and 2.6, respectively.

With regard to the annual $PM_{2.5}$ standard, EPA is proposing to spatially average the annual mean values in areas designated to represent population exposures. The spatial average is to be carried out using data from monitoring sites designated in a State monitoring plan in accordance with the proposed revisions to 40 CFR Part 58. Also, EPA is proposing that the requirements for 3 years of data for comparison with the standard be fulfilled by the spatial averaging network as a whole, not by individual monitors within the network. The EPA also proposes that intermediate averaging over calendar quarters be retained for the annual average form of the standard. Quarterly averages may be important to ensure representative sampling in areas with extreme seasonal variation; however, this extra calculation has little effect on the calculated 3-year average value (SAI, 1996, pp. 6–9). Thus, EPA solicits comments on whether or not the calculation of quarterly means as an intermediate step in deriving the annual mean should be retained.

With regard to the 24-hour $PM_{2.5}$ standard, the proposed Appendix K defines the 98th percentile as the daily value out of a year of monitoring data below which 98 percent of all values in the group fall.

State and local agencies are expected to report daily $PM_{2.5}$ concentrations to the nearest 0.1 μg/m³ for concentrations less than 100 μg/m³ and to the nearest 1 μg/m³ for higher values. The incremental sensitivity of proposed $PM_{2.5}$ monitors is better than that for PM_{10}, and $PM_{2.5}$ measurements can be reported to 3 significant digits.

In addition to instrument sensitivity, the number of measured values used to calculate an averaged value affects the precision of the value to be compared with the level of the standard. In calculating a 3-year average of annual means, many values (typically 144 values to as many as 1095 values) are used to calculate the annual mean, whereas only 3 values are averaged to calculate the 24-hour standard. As a result, the annual and 24-hour standards are expressed with different degrees of precision and, thus, different rounding conventions are appropriate. Specifically, when calculating a 3-year average of annual mean values, the second decimal place shall be rounded (0.05 to be rounded up) to fall within the ±15% precision goal for the $PM_{2.5}$ measurements. When calculating the 3-year average of the 98th percentile values, only two significant digits are retained at levels near the standard, with the non-significant first decimal place rounded (0.5 μg/m³ to be rounded up to the next highest 1 μg/m³).

To determine whether the proposed standards are met, the calculated value of the 3-year average of the annual means and the 3-year average of the 98th percentile values would be compared to the level of the relevant standard. The proposed annual standard of 15.0 μg/m³ is expressed to the nearest 0.1 μg/m³, while the 24-hour standard of 50 μg/m³ is expressed to the nearest 1 μg/m³, reflective of the quantitative uncertainties in the health effects evidence upon which these standards are based. More specifically, these uncertainties include the measurement uncertainty inherent in the ambient $PM_{2.5}$ concentrations used in epidemiological studies upon which consideration of the levels of the standards have been based. Because the measurement precision is expressed as a percentage of the measured value (±15%), the magnitude of the target concentration affects the appropriate number of significant digits for the purpose of comparison to the standard. The EPA believes that expressing the proposed annual standard to the nearest 0.1 μg/m³ and the 24-hour standard to the nearest 1 μg/m³ is consistent with the quality assurance goal for $PM_{2.5}$ measurements, as stated in the proposed Appendix A of 40 CFR Part 58, to be within ±15%.

B. PM_{10} Computations and Data Handling Conventions

As discussed in section II.H above, the EPA is proposing to retain the annual mean as the form of the annual PM_{10} standard, and to revise the form of the 24-hour PM_{10} standard to a 98th percentile form. The 98th percentile for the 24-hour PM_{10} standard would be calculated in the same manner as described in section A above for the $PM_{2.5}$ standard. The proposed Appendix K explains the data handling conventions and computations for the annual and 24-hour forms of the PM_{10} standards in sections 3.1 and 3.2, respectively; rounding conventions in section 3.3; monitoring considerations in section 3.4; and formulas for calculating the annual and 24-hour forms in sections 3.5 and 3.6, respectively.

State and local agencies report daily PM_{10} concentrations to the nearest 1 μg/

m^3 since the typical incremental sensitivity of currently PM_{10} monitors is 1 μg/m^3. As with the $PM_{2.5}$ standards, the number of measured values used to calculate an averaged value affects the precision of the value to be compared with the level of the standard. As a result, the annual and 24-hour standards are expressed with different degrees of precision and different rounding conventions. Specifically, when calculating the annual mean concentration (i.e., typically with 144 values or greater), the non-significant first decimal place shall be rounded (with 0.5 rounded up) to preserve the number of significant digits in the reported data. When calculating the 3-year average of the annual 98th percentile values (i.e., 3 values are averaged), only two significant digits are retained at levels near the standard, with the non-significant units digit rounded (5 μg/m^3 to be rounded up to the next highest 10 μg/m^3).

To determine whether the proposed standards are met, the calculated value of the 3-year average of the annual means and the 3-year average of the annual 98th percentile values would be compared to the levels of the respective standards. The proposed annual standard of 50 μg/m^3 is expressed to the nearest 1 μg/m^3, while the 24-hour standard of 150 μg/m^3 is expressed to the nearest 10 μg/m^3, reflective of the quantitative uncertainties in the health effects evidence upon which these standards are based. More specifically, these uncertainties include the measurement uncertainty inherent in the ambient PM_{10} concentrations used in epidemiological studies upon which consideration of the levels of the standards have been based. Because the measurement precision is expressed as a percentage of the measured values (±15%), the magnitude of the target concentration affects the number of significant digits for the purpose of comparison to the standard. The EPA believes that expressing the proposed annual standard to the nearest 1 μg/m^3 and the 24-hour standard to the nearest 10 μg/m^3 is consistent with the quality assurance guidelines that indicate that the precision for PM_{10} measurements shall be within ±15%.

V. Reference Methods for the Determination of Particulate Matter as $PM_{2.5}$ and PM_{10} in the Atmosphere

A. Revisions to Appendix J—Reference Method for PM_{10}

During the course of this review, EPA has received a number of comments regarding the appropriateness of the current practice of adjusting measured PM_{10} concentrations to reflect standard conditions of temperature and pressure (25 °C and 760 mm Hg, respectively), as required by Appendix J to Part 50. The practice was originally adopted to provide a standard basis for comparing all pollutants measured in terms of mass per unit volume (e.g., μg/m^3). As EPA has reviewed the ambient standards for gaseous pollutants, however, technical changes have been made to express them on a pollutant volume/air volume basis (i.e., ppm) that is insensitive to differences in altitude and temperature. Such an approach is not applicable to particulate pollutants. The question arises whether continuing the past practice of making temperature and pressure adjustments for PM is appropriate or necessary.

Information in the Criteria Document on the health and welfare effects of PM provides no clear basis for making such adjustments. Recent health effects studies have been conducted in cool and warm climates, and in cities at high altitude (e.g., Denver) as well as near sea level (e.g., Philadelphia) (U.S. EPA, 1996a). These studies provide no evidence that risk associated with PM exposures is affected by variations in altitude. Accordingly, any effect that would be accounted for by temperature and pressure adjustments would be below the detection limits of epidemiological studies. While extremes of altitude might be expected to increase the delivered dose of PM in those not acclimatized to such locations, the dosimetric studies summarized in the Criteria Document provide no clear support for any quantitative adjustment to standard conditions. With respect to welfare effects, visibility is directly related to the actual mass of fine particles in the atmosphere. Adjustment of PM concentrations collected at higher altitudes to standard conditions would therefore lead to an overstatement of the effect of PM on visibility in such locations. Similarly, there is no evidence in the Criteria Document suggesting that effects on materials damage and soiling are dependent on altitude.

Based on this assessment, EPA concludes that a continuation of the practice of adjusting PM_{10} concentrations to standard conditions of temperature and pressure is not warranted or appropriate. Accordingly, EPA proposes to delete this requirement from Appendix J and to make corresponding revisions in 40 CFR Part 50.3. In addition, EPA proposes to make minor modifications to update Appendix J.

B. Appendix L—New Reference Method for $PM_{2.5}$

A new reference method for the measurement of fine particles (as $PM_{2.5}$) in the ambient air has been developed for the primary purpose of determining attainment of the new $PM_{2.5}$ standards. The proposed method is described in a new Appendix L to part 50, and would join the other reference methods (or measurement principles) specified for other criteria pollutants in other appendices to part 50.

In developing a new reference method for $PM_{2.5}$, EPA staff consulted with a number of individuals and groups in the monitoring community, including instrument manufacturers, academics, consultants, and experts in State and local agencies. The approach and key specifications were submitted to the CASAC Technical Subcommittee for Fine Particle Monitoring, which held a public meeting to discuss the FRM and related monitoring issues on March 1, 1996. Comments on the proposed method were provided orally and in writing by interested parties. The Technical Subcommittee indicated their overall satisfaction with the FRM approach in a letter (Price, 1996) forwarded by CASAC to the Administrator.

1. Approach

In addition to the primary purpose of the new $PM_{2.5}$ reference method (determining attainment of the standards), the EPA considered a variety of possible secondary goals and objectives that this measurement method might also fulfill. Subsequently, various alternative $PM_{2.5}$ measurement techniques were evaluated. From this analysis, the EPA determined that the new reference method should be based on a conventional type ambient air sampler that collects 24-hour integrated $PM_{2.5}$ samples on a filter that is subsequently moisture and temperature equilibrated and analyzed gravimetrically.

This type of sampler is relatively inexpensive and easy to use by monitoring agency personnel, operates over a wide range of ambient conditions, produces a measurement that is comparable to large sets of previously collected PM data in existing data bases, and provides a physical sample that can be further analyzed for chemical composition. The proposed $PM_{2.5}$ sampler is a low volume sampler operating at 1 cubic meter per hour, for a total sample volume of 24 m^3 for the specified 24-hour sample collection period. The sample is collected on a 47 mm Teflon® filter.

2. PM Concentrations Based on Actual Air Volume

In accordance with the proposed change to the PM_{10} reference method in Appendix J, ambient concentrations measured with the new reference method would be expressed as micrograms of PM mass per actual cubic meter of air sampled ($\mu g/m^3$), rather than mass per cubic meter of air adjusted to standard temperature and pressure (25 °C and 760 mm Hg, respectively). This convention would provide PM concentration measurements that are more representative of the actual mass of $PM_{2.5}$ present in conditions of cold temperatures and for monitoring sites at high altitude.

3. Sampler

Although the sampler is conventional in configuration, its design is more sophisticated than previous samplers used for collection of PM samples. This more sophisticated sampler, together with improved manufacturing and operational quality assurance, is necessary to achieve the more stringent data quality objectives established for $PM_{2.5}$ monitoring data.

To meet precision requirements, the critical mechanical components of the inlet, particle size separator, downtube, and upper filter holder are proposed to be specified by design, in the form of manufacturing drawings. Performance specifications for these components would be quite extensive, and the performance tests that would be required are difficult and require very costly test facilities. All other aspects of the sampler would be described by performance-based specifications. Sample air flow rate would have to be carefully controlled and accurately measured. Ambient temperature and barometric pressure sensors would be required for accurate measurement of actual volumetric sample flow rate and to provide archival documentation of these conditions associated with the $PM_{2.5}$ measurements. Loss of semi-volatile components of $PM_{2.5}$ would be reduced by temperature control of the sample filter. The allowable rise of the temperature of the filter above ambient temperature is proposed to be limited to 3 degrees C above ambient temperature during sampling as well as after sample collection while the sample is retained in the sampler awaiting retrieval.

The sampler would be required to have a variety of other timing, control, and diagnostic functions and to report any abnormal operational conditions to the sampler operator. Flow rate, sample volume, sample time, and other sample, site, and diagnostic information would also be downloadable to a portable data retrieval device through an electronic port connection for fast and accurate documentation of the sample parameters and site conditions. A built-in sampler leak-check capability would allow frequent checking of this potentially important source of measurement error. Filters would be mounted in filter cassettes to facilitate protected installation and retrieval from the sampler, and sampler manufacturers would be free to develop innovative filter holder opening/closing mechanisms to make filter changing fast and reliable.

VI. Implementation Program

Recognizing that potential adoption of new or revised NAAQS for PM and O_3, as well as potential new regulations for regional haze, could have profound implications for existing State implementation programs, EPA established a subcommittee under the Clean Air Act Advisory Committee (CAAAC) in 1995 to consider how such actions might be implemented. The Subcommittee, comprised of some 58 members representing environmental organizations, State and local air pollution control agencies, Federal agencies, academia, industry, and other public interests, was asked to provide advice and recommendations to EPA on developing new, integrated approaches for implementing potential new NAAQS for PM and O_3, as well as a potential new regional haze reduction program. The Subcommittee, through several work groups made up of Subcommittee members and other designees recommended by the Subcommittee, is examining key aspects of the existing implementation programs for PM and O_3, to provide for more effective implementation of the potential new NAAQS, as well as to provide new approaches to better integrate broad regional and national control strategies with more localized efforts.

Upon completion of its work, the Subcommittee will present its findings and recommendations to the CAAAC. These recommendations will then assist EPA's development of appropriate policies and regulations for implementing the potential new PM and O_3 NAAQS and regional haze regulations in the most efficient and environmentally effective manner. These policies and regulations will then be published in the Federal Register for further input from the public.

As discussed in the advance notice of proposed rulemaking, EPA also intends to release an interim implementation policy that would take effect at the time the new or revised NAAQS for PM and O_3 are promulgated. The interim implementation policy is intended to provide for an effective transition from the existing implementation requirements and control strategies for PM and O_3 to new ones that are under development. Among other things, the policy will address such issues as the continuation of existing control requirements during the transition period, continued classification of areas, substitution of progress requirements, as well as the timing of the applicability of certain provisions of new source review requirements.

VII. Regulatory and Environmental Impact Analyses

The EPA has judged this proposal to be a significant action, and has prepared a draft Regulatory Impact Analysis (RIA) for it as discussed below. Neither the draft RIA nor the associated contractor reports have been considered in issuing this proposal. Judicial decisions make clear that the economic and technological feasibility of attaining ambient standards are not to be considered in setting them, although such factors may be considered to a degree in the development of State plans to implement the standards.

As discussed above, EPA has established a Subcommittee of the CAAAC to examine the existing implementation programs for PM and O_3, and provide advice and recommendations to assist EPA in developing new, integrated approaches for implementing potential new or revised NAAQS for PM and O_3, as well as a potential new regional haze reduction program. Because the work of the Subcommittee is still in progress, the draft RIA and associated regulatory flexibility assessment that accompany this notice do not reflect its advice and recommendations or any resulting implementation strategies for PM. The EPA anticipates that such strategies will be more efficient and environmentally effective than the ones analyzed. While the draft RIA and flexibility assessment should be useful in generally informing the public about potential costs and benefits associated with implementation of the proposed revisions, they do not reflect any new implementation requirements or policies that may be proposed after consideration of the Subcommittee's advice and recommendations. As EPA develops and elaborates such requirements or policies, it will continue to consult with the Subcommittee and will prepare further regulatory analyses as appropriate.

A. Executive Order 12866

Under Executive Order 12866, the Agency must determine whether a regulatory action is ''significant'' and, therefore, subject to Office of Management and Budget (OMB) review and other requirements of the Executive Order. The order defines ''significant regulatory action'' as one 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 obligations or 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.

In view of its important policy implications, this proposal has been judged to be a ''significant regulatory action'' within the meaning of the Executive Order, and EPA has submitted it to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public docket and made available for public inspection at EPA's Air and Radiation Docket Information Center (Docket No. A–95–54).

The EPA has prepared and entered into the docket a draft RIA entitled ''Regulatory Impact Analysis for Proposed Particulate Matter National Ambient Air Quality Standard (November 1996).'' This draft RIA assesses the costs, economic impacts, and benefits associated with the implementation of the current and several alternative NAAQS for PM as discussed above. As discussed in the draft RIA, there are an unusually large number of limitations and uncertainties associated with the analyses and resulting cost impacts and benefit estimates. Below are the estimated costs and benefits associated with partial attainment of the alternative levels in 2007. Because judicial decisions make clear that cost can not be considered in setting NAAQS, the results of the draft RIA have not been considered in developing this proposal.

COMPARISON OF ANNUAL BENEFITS AND COSTS OF $PM_{2.5}$ ALTERNATIVES IN 2007 [a] (BILLIONS 1990$)

$PM_{2.5}$ alternative (μg/m³)	Monetized annual benefits of partial attainment[b c]	Annual costs of partial attainment
*20/65	22–44	2
15/50[d]	58–119	6
12.5/50	94–192	14

*Does not include the reductions in costs and benefits associated with revised PM_{10} studies. This alternative requires less reductions than current PM_{10} standards.

[a] All estimates are measured incremental to the baseline PM_{10} alternative (PM_{10} μg/m³ annual/150 μg/m³ daily, 1 expected exceedance per year).

[b] Lower and upper end of benefit range reflects benefits of including the short-term and long-term mortality risk reduction measure, respectively.

[c] Partial attainment benefits based upon post-control air quality as defined in the control cost analysis.

[d] Proposed $PM_{2.5}$ alternative.

As discussed in the RIA itself, there are a large number of limitations and uncertainties inherent in estimating these national costs and benefits over extended periods of time. Results are limited by the inability to monetize certain health or welfare benefits for comparison with projections of control costs that are usually more complete, but are sometimes overstated due to an inability to forecast advances in pollution prevention and control. The approaches used for the RIA did not attempt to take advantage of flexibilities and savings possible in consideration of combined air quality management programs for PM and O_3. Further, they were limited by availability of emissions, air quality monitoring, and related information. Indeed, the suite of control measures available to be considered in the cost analysis was not sufficient to achieve full attainment in 2007. It is for this reason we have only presented the costs and benefits for this ''partial attainment'' scenario. In the partial attainment scenario, there would be 57 residual nonattainment counties representing 29 million people in 2007 for the proposed level. One implication of this scenario is that more time will be needed to attain the standards in the areas remaining in nonattainment. Moreover, based on past experience, improvements in technologies and creative implementation programs are likely to result in more effective programs than can now be forecasted. The EPA is planning to improve and expand its analysis of the integrated costs and benefits of attaining both the PM and ozone standards in association with developing implementation guidance.

B. Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601 et seq., provides that, whenever an agency is required to publish a general notice of rulemaking for a proposed rule, the agency must prepare regulatory flexibility analyses for the proposed and final rule unless the head of the agency certifies that it will not have a significant economic impact on a substantial number of small entities. In judging what kinds of economic impacts are relevant for this determination, it is appropriate to consider the purposes and requirements of the RFA. *Mid-Tex Electrical Co-op v. FERC*, 773 F.2d 327, 341–42 (D.C. Cir. 1985).

Review of the findings and purposes section of the RFA makes clear that Congress enacted the RFA to address the economic impact of rules on small entities *subject to the rule's requirements.* Pub. L. 96–354, section 2 (1980); *see also* 126 Cong. Rec. 21,452, 21,453 (1980). In explaining the need for the RFA, Congress generally expressed concern about the problematic consequences of applying regulations uniformly to large and small entities. Specifically, Congress stated that ''laws and regulations designed for application to large scale entities have been applied uniformly to small [entities] even though the problems that gave rise to government action may not have been caused by those small entities,'' that ''uniform Federal regulatory and reporting requirements have in numerous instances imposed unnecessary and disproportionately burdensome demands . . . upon small [entities] with limited resources,'' that ''the failure to recognize differences in the scale and resources of regulated entities has in numerous instances adversely affected competition in the marketplace,'' and that ''the practice of treating all regulated [entities] as equivalent may lead to inefficient use of regulatory agency resources.'' *Id.* To address these concerns, Congress enacted the RFA ''to establish as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the [entity] *subject to regulation*'' (emphasis added). *Id.*

The statutory requirements for regulatory flexibility analyses confirm that the economic impact to be analyzed is the impact of the rule on small entities that will have to comply with the rule's requirements. In both initial

and final regulatory flexibility analyses, for example, the agency issuing the rule is required to describe and (where feasible) estimate the number of small entities ''to which the proposed rule will apply''; describe the reporting, recordkeeping and other ''compliance requirements'' of the proposed rule; and estimate the classes of small entities that ''will be subject to the requirement.'' *See* RFA sections 603 and 604. The agency must also discuss and address significant regulatory alternatives that are consistent with the applicable statutes and would minimize any significant economic impact on small entities. Among the possible alternatives listed by the RFA are the establishment of differing compliance and reporting requirements that take into account the resources available to small entities and partial or total exemptions from the rule for small entities. *See* RFA section 603(c). The RFA's requirements for regulatory flexibility analyses thus establish that the focus of such analyses are the regulatory requirements small entities will be required to meet as a result of the rule and ways to tailor those requirements to reduce the burden on small entities. *Mid-Tex Electrical Co-op,* 773 F.2d at 342 (''[I]t is clear that Congress envisioned that the relevant 'economic impact' was the impact of compliance with the proposed rule on regulated small entities'').

The scope of regulatory flexibility analyses in turn informs the scope of the analysis necessary to support a certification that a rule will not have ''a significant economic impact on a substantial number of small entities.'' Thus, ''an agency may properly certify that no regulatory flexibility analysis is necessary when it determines that the rule will not have a significant economic impact on a substantial number of small entities *that are subject to the requirements of the rule.'' Id.* (emphasis added); *see also United Distribution Companies* v. *FERC,* 88 F.3d 1105, 1170 (D.C. Cir. 1996).

In view of the RFA's purposes and the requirements it establishes for regulatory flexibility analyses, EPA believes that today's proposal to revise the PM NAAQS will not have a significant economic impact on small entities within the meaning of the RFA. The proposed rule, if promulgated, will not establish requirements applicable to small entities. Instead, it will establish a standard of air quality that other Clean Air Act provisions will call on states (or in case of state default, the federal government) to achieve by adopting implementation plans containing specific control measures for that purpose. In other words, state (or federal) regulations implementing the NAAQS might establish requirements applicable to small entities, but the NAAQS itself would not.[38]

For these reasons, the Administrator certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities.

While the statutory requirements for regulatory flexibility analyses are thus inapplicable to NAAQS standard-setting, EPA is nonetheless interested in assessing to the extent possible the potential impact on small entities of implementing a revised PM NAAQS. EPA has accordingly conducted a more general analysis of the potential cost impacts on small entities of control measures that states might adopt to attain and maintain a revised NAAQS, and has included that analysis in the RIA cited above.

That analysis examines industry-wide cost and economic impacts for those sectors likely to be affected when the proposed revisions to the PM NAAQS are implemented by States. As part of the draft RIA, the EPA has analyzed various industries for the existence of small entities to ascertain whether small entities within a given industry category are likely to be differentially affected when compared to the industry category as a whole. This information will serve to inform potentially affected small entities, thus enabling them to participate more effectively in EPA's review and potential revision of existing implementation requirements and policies and in development of any necessary State implementation plan revisions. As indicated previously, EPA will prepare further analyses as appropriate as it develops new implementation requirements or policies.

EPA's finding that today's proposal will not have a significant economic impact on small entities also entails that the new small-entity provisions in Section 244 of the Small Business Regulatory Enforcement Fairness Act (SBREFA) do not apply. Nevertheless, EPA intends to fulfill the spirit of SBREFA on a voluntary basis. To accomplish this, following the proposal of new air quality standards for O_3 and PM, EPA intends to work with the Small Business Administration (SBA) to hold two separate panel exercises to collect comments, advice and recommendations from representatives of small businesses, small governments, and other small organizations. The first panel, soliciting comments on the new standards themselves, will be held shortly after proposal. The second panel, covering implementation of the standards, will be held a few months later. Both panel exercises will be carried out using a panel process modeled on the ''Small Business Advocacy Review Panel'' provisions in Section 244 of SBREFA. We are also adding a number of small-entity representatives to our Federal advisory committee focusing on NAAQS implementation; we expect the small-entity advice from this committee will help the aforementioned implementation panel accomplish its purpose.

C. Impact on Reporting Requirements

There are no reporting requirements directly associated with an ambient air quality standard proposed under section 109 of the Act (42 U.S.C. 7400). There are, however, reporting requirements associated with related sections of the Act, particularly sections 107, 110, 160, and 317 (42 U.S.C. 7407, 7410, 7460, and 7617). In EPA's proposed revisions to the air quality surveillance requirements (40 CFR part 58) for PM, the associated RIA addresses the Paperwork Reduction Act requirements through an Information Collection Request.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 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. This requirement does not apply if EPA is prohibited by law from considering section 202 estimates and analyses in adopting the rule in question. 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. These requirements 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,

[38] Because the proposed rule would not establish requirements applicable to small entities, EPA cannot in fact perform the analyses contemplated by the RFA.

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.

As indicated previously, EPA cannot consider in setting a NAAQS the economic or technological feasibility of attaining ambient air quality standards, although such factors may be considered to a degree in the development of State plans to implement the standards. Moreover, the proposed revisions to the PM NAAQS, if adopted, will not in themselves impose any new expenditures on governments or on the private sector, or establish any new regulatory requirements affecting small governments. Accordingly, EPA has determined that the provisions of sections 202, 203, and 205 of the UMRA do not apply to this proposed decision. The EPA acknowledges, however, that any corresponding revisions to associated State implementation plan requirements and air quality surveillance requirements, 40 CFR part 51 and 40 CFR part 58, respectively, might result in such effects. Accordingly, EPA has addressed unfunded mandates in the notice that announces the proposed revisions to 40 CFR part 58, and will, as appropriate, when it proposes any revisions to 40 CFR part 51.

E. Environmental Justice

Executive Order 12848 requires that each Federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minorities and low-income populations. These requirements have been addressed to the extent practicable in the draft RIA cited above.

List of Subjects in 40 CFR Part 50

Environmental protection, Air pollution control, Carbon monoxide, Lead, Nitrogen dioxide, Ozone, Particulate matter, Sulfur oxides.

Dated: November 27, 1996.

Carol M. Browner,

Administrator.

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For the reasons set forth in the preamble, Part 50 of Chapter I of Title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 50—NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS

1. The authority citation for Part 50 continues to read as follows:

Authority: Secs. 109 and 301(a), Clean Air Act, as amended (42 U.S.C. 7409, 7801(a)).

2. Section 50.3 is revised to read as follows:

§ 50.3 Reference conditions.

All measurements of air quality that are expressed as mass per unit volume (e.g., micrograms per cubic meter) other than for particulate matter (PM_{10} and $PM_{2.5}$) shall be corrected to a reference temperature of 25 °C and a reference pressure of 760 millimeters of mercury (1,013.2 millibars). Measurements of PM_{10} and $PM_{2.5}$ shall be reported based on actual air volume measured at the actual temperature and pressure at the monitoring site during the measurement period.

3. Section 50.6 is revised to read as follows:

§ 50.6 National primary and secondary ambient air quality standards for particulate matter.

(a) The national primary and secondary ambient air quality standards for particulate matter are:

(1) 15.0 micrograms per cubic meter ($\mu g/m^3$) annual arithmetic mean concentration, and 50 $\mu g/m^3$ 24-hour average concentration measured in the ambient air as $PM_{2.5}$ (particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers) by:

(i) A reference method based on Appendix L and designated in accordance with Part 53 of this chapter, or

(ii) An equivalent method designated in accordance with Part 53 of this chapter.

(2) 50 micrograms per cubic meter (μg/m³) annual arithmetic mean concentration, and 150 μg/m³ 24-hour average concentration measured in the ambient air as PM_{10} (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) by:

(i) A reference method based on Appendix J and designated in accordance with Part 53 of this chapter, or

(ii) An equivalent method designated in accordance with Part 53 of this chapter.

(b) The annual primary and secondary $PM_{2.5}$ standards are met when the annual arithmetic mean concentration, as determined in accordance with Appendix K to this part, is less than or equal to 15.0 micrograms per cubic meter.

(c) The 24-hour primary and secondary $PM_{2.5}$ standards are met when the 98th percentile 24-hour concentration, as determined in accordance with Appendix K to this part, is less than or equal to 50 micrograms per cubic meter.

(d) The annual primary and secondary PM_{10} standards are met when the annual arithmetic mean concentration, as determined in accordance with Appendix K of this part, is less than or equal to 50 micrograms per cubic meter.

(e) The 24-hour primary and secondary PM_{10} standards are met when the 98th percentile 24-hour concentration, as determined in accordance with Appendix K of this part, is less than or equal to 150 micrograms per cubic meter.

4. Appendix J is amended as follows:

a. Section 2.2 is revised.

b. The last sentence of Section 3.1 is revised.

c. The first sentence of Section 7.3 is revised.

d. The last sentence of Section 8.1.2 is removed.

e. Section 8.2.1 is revised.

f. The first sentence of Section 8.2.2 is revised.

g. Section 11.1 is revised.

h. Section 11.2 is revised.

i. Section 11.3 is removed.

Appendix J to Part 50—Reference Method for the Determination of Particulate Matter as PM_{10} in the Atmosphere

* * * * *

2.2 Each filter is weighed (after moisture equilibration) before and after use to determine the net weight (mass) gain due to collected PM_{10}. The total volume of air sampled, measured at the actual ambient temperature and pressure, is determined from the measured flow rate and the sampling time. The mass concentration of PM_{10} in the ambient air is computed as the total mass of collected particles in the PM_{10} size range divided by the volume of air sampled, and is expressed in micrograms per actual cubic meter (μg/m³).

* * * * *

3.1 * * * Nevertheless, all samplers should be capable of measuring 24-hour PM_{10} mass concentrations of at least 300 μg/m³ while maintaining the operating flow rate within the specified limits.

* * * * *

7.3 *Flow Rate Transfer Standard.* The flow rate transfer standard must be suitable for the sampler's operating flow rate and must be calibrated against a primary flow or volume standard that is traceable to the National Institute of Standards and Technology (NIST).

* * * * *

8.2.1 PM_{10} samplers employ various types of flow control and flow measurement devices. The specific procedure used for flow rate calibration or verification will vary depending on the type of flow controller and flow rate indicator employed. Calibration is in terms of actual volumetric flow rates (Q_a) to meet the requirements of section 8.1. The general procedure given here serves to illustrate the steps involved in the calibration. Consult the sampler manufacturer's instruction manual and Reference 2 for specific guidance on calibration. Reference 14 provides additional information on various other measures of flow rate and their interrelationships.

8.2.2 Calibrate the flow rate transfer standard against a primary flow or volume standard traceable to NIST.

* * * * *

11.1 Calculate the total volume of air sampled as:

$$V=Q_a \times t$$

Where:

V=total air sampled, at ambient temperature and pressure, m³,

Q_a=average sample flow rate at ambient temperature and pressure, m³/min, and

t=sampling time, min.

11.2 Calculate the PM_{10} concentration as:

$$PM_{10}=(W_f - W_i) \times 10^6/V$$

Where:

PM_{10}=mass concentration of PM_{10}, μg/m³,

W_f, W_i=final and initial weights of filter collecting PM_{10} particles, g, and

10^6 = conversion of g to μg.

Note: If more than one size fraction in the PM_{10} size range is collected by the sampler, the sum of the net weight gain by each collection filter [$\sum S(W_f - W_i)$] is used to calculate the PM_{10} mass concentration.

* * * * *

5. Appendix K is revised in its entirety to read as follows:

Appendix K to Part 50—Interpretation of the National Ambient Air Quality Standards for Particulate Matter

1.0 General

This appendix explains the data handling conventions and computations necessary for determining whether the annual and 24-hour primary and secondary national ambient air quality standards for particulate matter specified in part 50.6 of this chapter are met. Particulate matter is measured in the ambient air as PM_{10} and $PM_{2.5}$ (particles with an aerodynamic diameter less than or equal to a nominal 10 and 2.5 micrometers, respectively) by a reference method based on appendix J of this part for PM_{10} and on appendix L for $PM_{2.5}$, as applicable, and designated in accordance with part 53 of this chapter, or by an equivalent method designated in accordance with part 53 of this chapter. Data reporting, data handling, and computation procedures to be used in making comparisons between reported PM_{10} and $PM_{2.5}$ concentrations and the levels of the PM standards are specified in the following sections.

Several terms used throughout this appendix are defined here. A ''daily value'' for PM refers to the 24-hour average concentration of PM calculated or measured from midnight to midnight (local time) for PM_{10} or $PM_{2.5}$. The term ''98th percentile'' means the daily value out of a year of monitoring data below which 98% of all values in the group fall. The terms ''average'' and ''mean'' refer to an arithmetic mean. All particulate matter standards are expressed in terms of 3-year averages of annual values: the 3-year average of the annual means for the annual standards, and the 3-year average of the 98th percentile values for each year for the 24-hour standards. The term ''year'' refers to a calendar year. ''Designated monitors'' are those monitoring sites designated in a State monitoring plan for spatial averaging in areas designated for spatial averaging in accordance with part 58 of this chapter.

2.0 Comparisons With the $PM_{2.5}$ Standards

2.1 Annual $PM_{2.5}$ Standard

The annual $PM_{2.5}$ standard is met when the 3-year average of the spatially averaged annual means is less than or equal to 15.0 μg/m³. The 3-year average of the spatially averaged annual means is determined by averaging quarterly means at each monitor to obtain the annual mean $PM_{2.5}$ concentrations at each monitor, then averaging across all designated monitors, and finally averaging for three consecutive years.

The steps can be summarized as follows:

(a) Average 24-hour measurements to obtain quarterly means at each monitor,

(b) Average quarterly means to obtain annual means at each monitor,

(c) Average across designated monitoring sites to obtain an annual spatial mean for an area, and

(d) Average 3 years of annual spatial means to obtain a 3-year average of spatially averaged annual means.

For the annual $PM_{2.5}$ standard, a year meets data completeness requirements when at

least 75 percent of the scheduled sampling days for each quarter have valid data. Three years of spatial averages are required to demonstrate that the standard has been met. Sites with less than 3 years of data shall be included in spatial averages for those years that data completeness requirements are met. The formulas for calculating the 3-year average annual mean of the $PM_{2.5}$ standard are given in Section 2.5.

Although 3 complete years of data are required to demonstrate that the standard has been met, years with high concentrations shall not be ignored just because they have less than complete data. Thus, in computing annual spatially averaged means, sites with less than 75 percent data completeness for each quarter in a year shall be included in the computation if the resulting annual mean concentration is greater than the level of the standard.

2.2 24–Hour $PM_{2.5}$ Standard

The 24-hour $PM_{2.5}$ standard for is met when the 3-year average of the 98th percentile values at each monitoring site is less than or equal to 50 μg/m³. This comparison shall be based on three consecutive, complete years of air quality data. A year meets data completeness criteria when at least 75 percent of the scheduled sampling days have valid data for each quarter. The formula for calculating the 3-year average of the annual 98th percentile values is given in Section 2.6.

Although three complete years of data are required to demonstrate that the standard has been met, years with high concentrations shall not be ignored just because they have less than complete data. Thus, in computing the 3-year average 98th percentile value, years with less than 75 percent data completeness shall be included in the computation if the annual 98th percentile value is greater than the level of the standard.

2.3 Rounding Conventions

For the purposes of comparing calculated values to the applicable level of the standard, it is necessary to round the final results of the calculations described in sections 2.5 and 2.6. For the annual $PM_{2.5}$ standard, the 3-year average of the spatially averaged annual means shall be rounded to the nearest 0.1 g/m³ (decimals 0.05 and greater are rounded up to the next 0.1, and any decimal lower than 0.05 is rounded down to the nearest 0.1). For the 24-hour $PM_{2.5}$ standard, the 3-year average of the annual 98th percentile values shall be rounded to the nearest 1 μg/m³ (decimals 0.5 and greater are rounded up to nearest whole number, and any decimal lower than 0.5 is rounded down to the nearest whole number).

2.4 Monitoring Considerations

Part 58.13 of this chapter specifies the required minimum frequency of sampling for $PM_{2.5}$. Part 58 also specifies which monitors shall be used in making comparisons with the particulate matter standards.

For the annual $PM_{2.5}$ standard, when designated monitors are located at the same site and are reporting $PM_{2.5}$ values for the same time periods, their concentrations shall be averaged before an area-wide spatial average is calculated, and such monitors will then be considered as one monitor.

2.5 Formulas for the Annual $PM_{2.5}$ Standard

(a) An annual mean value for $PM_{2.5}$ is determined by first averaging the daily values of a calendar quarter.

$$\overline{X}_{q,y,s} = \frac{1}{n_q}\sum_{i=1}^{n_q} X_{i,q,y,s} \quad [1]$$

Where:

$x_{q,\,y,\,s}$=the mean for quarter q of year y for site s,

n_q=the number of monitored values in the quarter, and

$x_{i,\,q,\,y,\,s}$=the ith value in quarter q for year y for site s.

(b) The following formula is then to be used for calculation of the annual mean:

$$\overline{X}_{y,s} = \frac{1}{4}\sum_{q=1}^{4} \overline{X}_{q,y,s} \quad [2]$$

Where:

$x_{y,\,s}$=the annual mean concentration for year y (y=1, 2, or 3) and for site s, and

$x_{q,\,y,\,s}$=the mean for quarter q of year y for site s.

(c) The spatially averaged annual mean for year y is computed by first calculating the annual mean for each site designated to be included in a spatial average, $x_{y,s}$ and then computing the average of these values across sites:

$$\overline{x}_y = \frac{1}{n_s}\sum_{s=1}^{n_s} \overline{x}_{y,s} \quad [3]$$

Where:

x_y=the spatially averaged mean for year y,

$x_{y,s}$=the annual mean for year y and site s, and

n_s=the number of sites designated to be averaged.

In the event that an area designated for spatial averaging has one or more sites at the same location producing data for the same time periods, the sites are averaged together before using formula [3] by:

$$\overline{x}_{y,s*} = \frac{1}{n_c}\sum_{s=1}^{n_c} \overline{x}_{y,s} \quad [4]$$

Where:

$x^{y,s*}$=the annual mean for year y for the sites at the same location (which will now be considered one site),

n_c=the number of sites at the same location designated to be included in the spatial average, and

$x_{y,s}$=the annual mean for year y and site s.

(d) The 3-year average of the spatially averaged annual means is calculated by using the following formula:

$$\overline{x} = \frac{1}{3}\sum_{y=1}^{3} \overline{x}_y \quad [5]$$

Where:

x=the 3-year average of the spatially averaged annual means, and

x_y=the spatially averaged annual mean for year y.

Example 1. Area designated for spatial averaging that meets the primary annual $PM_{2.5}$ standard.

In an area designated for spatial averaging, four designated monitors recorded data in at least 1 year of a particular 3-year period. Using formulas [1] and [2], the annual means for $PM_{2.5}$ at each site are calculated for each year. The following table can be created from the results. Data completeness percentages are also shown.

		Site #1	Site #2	Site #3	Site #4	Spatial mean
Year 1	Annual mean (μg/m³)	12.7				12.7
	% data completeness	80	0	0	0	
Year 2	Annual mean (μg/m³)	13.3	17.4	9.8		15.35
	% data completeness	90	63	40	0	
Year 3	Annual mean (μg/m³)	12.9	16.7	12.3	20.1	15.50
	% data completeness	90	80	85	50	
3-year mean						14.52

The data from these sites are averaged in the order described in section 2.1. Note that the annual mean from site #3 in year 2 does not enter in the spatial mean since the data completeness criteria are not met. However, the annual means from site #2 in year 2 and from site #4 in year 3 are included, even though the data completeness criteria are not met, since they are above the level of the standard. The 3-year mean is rounded to 14.5 μg/m³, indicating that this area meets the annual $PM_{2.5}$ standard.

Example 2. Area with two monitors at the same location that meets the primary annual $PM_{2.5}$ standard.

In an area designated for spatial monitoring, six designated monitors, with

two monitors at the same location (#5 and #6), recorded data in a particular 3-year period.

Using formulas [1] and [2], the annual means for PM2.5 at each site are calculated for each year. The following table can be created from the results.

Annual mean (μg/m³)	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Average of #5 and #6	Spatial mean
Year 1	14.2	11.5	8.7	10.9	16.9	14.5	15.70	12.21
Year 2	16.4	13.3	10.3	12.3	15.5	13.8	14.65	13.39
Year 3	12.9	12.4	9.5	11.2	15.1	13.3	14.20	12.04
3-Year mean								12.55

The annual means for sites #5 and #6 are averaged together using formula [4] before the spatial average is calculated using formula [3] since they are in the same location. The 3-year mean is rounded to 12.6 μg/m³, indicating that this area meets the annual $PM_{2.5}$ standard.

Example 3. Area with a single monitor that meets the primary annual $PM_{2.5}$ standard.

Given data from a single monitor in an area designated for spatial averaging, the calculations are as follows. Using formulas [1] and [2], the annual means for $PM_{2.5}$ are calculated for each year. If the annual means are 10.28, 17.38, and 12.25 μg/m³, then the 3-year mean is:

$X=(1/3)\times(10.28+17.38+12.25)=13.303$ μg/m³.

This value is rounded to 13.3, indicating that this area meets the annual $PM_{2.5}$ standard.

2.6 Formulas for the 24-Hour $PM_{2.5}$ Standard

When the data for a particular site and year meet the data completeness requirements in section 2.2, calculation of the 98th percentile is accomplished by the following steps. All the daily values from a particular site and year comprise a series of values (X_1, X_2, X_3, . . ., X_n), that can be sorted into a series where each number is equal to or larger than the preceding number ($X_{[1]}$, $X_{[2]}$, $X_{[3]}$, . . ., $X_{[n]}$). In this case, $X_{[1]}$ is the smallest number and $X_{[n]}$ is the largest value. The 98th percentile is found from the sorted series of daily values which is ordered from the lowest to the highest number. Compute (0.98)×(n) as the number ''i.d'', where ''i'' is the integer part of the result and ''d'' is the decimal part of the result. The 98th percentile value for year y, $P_{0.98,\,y}$, is given by formula [6]:

$$P_{0.98,y} = X_{[j+1]} \text{ if } d \neq 0 \text{ and}$$

$$P_{0.98,y} = \frac{X_{[j]} + X_{[j+1]}}{2} \text{ if } d = 0 \qquad [6]$$

where:

$P_{0.98,y}$=98th percentile for year y,

$X_{[j]}$=the jth number in the ordered series of numbers,

''i''=the integer part of the product of 0.98 and n (the number of values in the series), and

''d''=the decimal part of the product of 0.98 and n.

The 3-year average 98th percentile is then calculated by averaging the annual 98th percentiles:

$$P_{0.98} = \frac{\sum_{y=1}^{3} P_{0.98,y}}{3} \qquad [7]$$

The 3-year average 98th percentile is rounded according to the conventions in section 2.3 before a comparison with the standard is made.

Example 4. Ambient monitoring site with every-day sampling that meets the primary 24-hour $PM_{2.5}$ standard.

In each year of a particular 3 year period, varying numbers of daily $PM_{2.5}$ values (e.g., 278, 300, and 293) out of a possible 365 values were recorded at a particular site with the following ranked values (in μg/m³):

Year 1		Year 2		Year 3	
j rank	X_j value	j rank	X_j value	j rank	X_j value
* * *	* * *	* * *	* * *	* * *	* * *
272	44.1	293	41.4	287	50.3
273	45.0	294	43.5	288	52.1
274	47.4	295	48.0	289	53.2
* * *	* * *	* * *	* * *	* * *	* * *

Using formula [6], the 98th percentile values for each year are calculated as follows:

$$0.98*278 = 272.44 \Rightarrow P_{0.98,1} = X_{[273]} = 45.0\mu g/m^3$$

$$0.98*300 = 294 \Rightarrow P_{0.98,2} = \frac{X_{[294]} + X_{[295]}}{2} = \frac{(43.5+48.0)}{2} = 45.75$$

$$0.98*293 = 287.14 \Rightarrow P_{0.98,3} = X_{[288]} = 52.1\mu g/m^3.$$

Using formula [7], the 3-year average 98th percentile is calculated as follows:

$$P_{0.98} = \frac{45.0+45.75+52.7}{3} = 47.6\mu g/m^3, \text{ which rounds to } 48\mu g/m^3$$

Therefore, this site meets the 24-hour $PM_{2.5}$ standard.

3.0 Comparisons with the PM_{10} Standards

3.1 Annual PM_{10} Standard

The annual PM_{10} standard is met when the 3-year average of the annual mean PM_{10} concentrations at each monitoring site is less than or equal to 50 μg/m³. The 3-year average of the annual means is determined by averaging quarterly means to obtain annual mean PM_{10} concentrations for 3 consecutive, complete years at each monitoring site. The steps can be summarized as follows:

(a) Average 24-hour measurements to obtain a quarterly mean,

(b) Average quarterly means to obtain an annual mean, and

(c) Average annual means to obtain a 3-year mean.

For the annual PM_{10} standard, a year meets data completeness requirements when at least 75 percent of the scheduled sampling days for each quarter have valid data. The formulas for calculating the 3-year average annual mean of the PM_{10} standard are given in Section 3.5.

Although 3 complete years of data are required to demonstrate that the standard has been met, years with high concentrations shall not be ignored just because they have less than complete data. Thus, in computing the 3-year average annual mean concentration, years with less than 75 percent data completeness shall be included in the computation if the annual mean concentration is greater than the level of the standard.

3.2 24-Hour PM_{10} Standard

The 24-hour PM_{10} standard is met when the 3-year average of the annual 98th percentile values at each monitoring site is less than or equal to 150 μg/m³. This comparison shall be based on 3 consecutive, complete years of air quality data. A year meets data completeness criteria when at least 75 percent of the scheduled sampling days have valid data each quarter. The formula for calculating the 3-year average of the annual 98th percentile values is given in Section 3.6.

Although 3 complete years of data are required to demonstrate that the standard has been met, years with high concentrations shall not be ignored just because they have less than complete data. Thus, in computing the 3-year average of the annual 98th percentile values, years with less than 75 percent data completeness shall be included in the computation if the annual 98th percentile value is greater than the level of the standard.

3.3 Rounding Conventions

For the annual PM_{10} standard, the 3-year average of the annual PM_{10} means shall be rounded to the nearest 1 μg/m³ (decimals 0.5 and greater are rounded up to the next whole number, and any decimal less than 0.5 is rounded down to the nearest whole number). For the 24-hour PM_{10} standard, the 3-year average of the annual 98th percentile values of PM_{10} shall be rounded to the nearest 10 μg/m³ (155 μg/m³ and greater would be rounded to 160 μg/m³ and 154 μg/m³ and less would be rounded to 150 μg/m³).

3.4 Monitoring Considerations

Part 58.13 of this chapter specifies the required minimum frequency of sampling for PM_{10}. For making comparisons with the PM_{10} NAAQS, all sites meeting applicable requirements in part 58 of this chapter would be used.

3.5 Formulas for the Annual PM_{10} Standard

(a) An annual arithmetic mean value for PM_{10} is determined by first averaging the 24-hour values of a calendar quarter using the following formula:

$$\overline{X}_{q,y} = \frac{1}{n_q}\sum_{i=1}^{n_q} X_{i,q,y} \quad [9]$$

Where:

$\bar{X}_{q,y}$=the mean for quarter q of year y,

n_q=the number of monitored values in the quarter, and

$x_{i,q,y}$=the ith value in quarter q for year y.

(b) The following formula is then to be used for calculation of the annual mean:

$$\overline{X} = \frac{1}{4}\sum_{q=1}^{4} \overline{X}_{q,y} \quad [10]$$

Where:

X_y=the annual mean concentration for year y, (y=1, 2, or 3), and

$x_{q,y}$=the mean for a quarter q of year y.

(c) The 3-year average of the annual means is calculated by using the following formula:

$$\overline{x} = \frac{1}{3}\sum_{y=1}^{3} \overline{x}_y \quad [11]$$

Where:

$\tilde{x}$=the 3-year average of the annual means, and

$\tilde{x}_y$=the annual mean for calendar year y.

Example 5. Ambient monitoring site that does not meet the annual PM_{10} standard.

Given data from a PM_{10} monitor and using formulas [9] and [10], the annual means for PM_{10} are calculated for each year. If the annual means are 52.42, 82.17, and 63.23 μg/m³, then the 3-year average annual mean is

$\tilde{x}$=(⅓) • (52.42 + 82.17 + 63.23)=65.94 which is rounded to 66 μg/m³. Therefore, this site does not meet the annual PM_{10} standard.

3.6 Formula for the 24-Hour PM_{10} Standard

When the data for a particular site and year meet the data completeness requirements in section 3.2, calculation of the 98th percentile is accomplished by the following steps. All the daily values from a particular site and year comprise a series of values (X_1, X_2, X_3, . . ., X_n) that can be sorted into a series where each number is equal to or larger than the preceding number ($X_{[1]}$, $X_{[2]}$, $X_{[3]}$, . . ., $X_{[n]}$). In this case, $X_{[1]}$ is the smallest number and $X_{[n]}$ is the largest value. The 98th percentile is found from the sorted series of daily values which is ordered from the lowest to the highest number. Compute (0.98) × (n) as the number ''i.d'', where ''i'' is the integer part of the result and ''d'' is the decimal part of the result. The 98th percentile value for year y, $P_{0.98,y}$, is given by formula [12]:

$$P_{0.98,y} = X_{[j+1]} \text{ if } d \neq 0 \text{ and}$$

$$P_{0.98,y} = \frac{X_{[j]} + X_{[j+1]}}{2} \text{ if } d = 0 \quad [12]$$

Where:

$P_{0.098,y}$=the 98th percentile for year y,

$X_{[j]}$=the jth number in the ordered series of numbers,

''i''=the integer part of the product of 0.98 and n (the number of observations in the series), and

''d''=the decimal part of the product of 0.98 and n.

The 3-year average 98th percentile value is then calculated by averaging the annual 98th percentiles:

$$P_{0.98} = \frac{\sum_{y=1}^{3} P_{0.98,y}}{3} \quad [13]$$

The 3-year average 98th percentile is rounded according to the conventions in section 3.3 before a comparison with the standard is made.

Example 6. Ambient monitoring site with sampling every sixth day that meets the primary 24-hour PM_{10} standard.

In each year of a particular three year period, varying numbers of PM_{10} daily values (e.g., 55, 49, and 50) out of a possible 61 daily values were recorded at a particular site with the following ranked values (in μg/m³):

Year 1		Year 2		Year 3	
j rank	X_j value	j rank	X_j value	j rank	X_j value
* * *	* * *	* * *	* * *	* * *	* * *
53	120	47	143	48	140
54	128	48	148	49	144
55	130	49	150	50	147
* * *	* * *	* * *	* * *	* * *	* * *

Using formula [12], the 98th percentile values for each year are calculated as follows:

$$0.98 * 55 = 53.9 \Rightarrow P_{0.98,1} = X_{[54]} = 128 \mu g/m^3$$

$$0.98 * 49 = 48.02 \Rightarrow P_{0.98,2} = X_{[49]} = 150 \mu g/m^3$$

$$0.98 * 50 = 49 \Rightarrow P_{0.98,3} = \frac{X_{[49]} + X_{[50]}}{2} = \frac{144 + 147}{2} = 145.5 \mu g/m^3$$

Using formula [3], the 3-year average 98th percentile is calculated as follows:

$$\frac{128 + 150 + 145.5}{3} = 141.2 \mu g/m^3 \text{ rounds to } 140 \mu g/m^3.$$

Therefore, this site meets the 24-hour PM_{10} standard.

6. Appendix L is added to read as follows:

Appendix L—Reference Method for the Determination of Fine Particulate Matter as $PM_{2.5}$ in the Atmosphere

1.0 Applicability.

1.1 This method provides for the measurement of the mass concentration of fine particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 micrometers ($PM_{2.5}$) in ambient air over a 24-hour period for purposes of determining whether the primary and secondary national ambient air quality standards for fine particulate matter specified in Sec. 50.6 of this chapter are met. The measurement process is considered to be nondestructive, and physical or chemical analyses. Quality assessment procedures are provided in part 58, Appendices A and B, of this chapter and quality assurance procedures and guidance are provided in References 1 and 2.

1.2 This method will be considered a reference method for purposes of part 58 of this chapter only if:

(a) the associated sampler meets the requirements specified in this appendix and the applicable requirements in part 53 of this chapter,

(b) the method and associated sampler have been designated as a reference method in accordance with part 53 of this Chapter, and

(c) the national operating performance of the associated sampler, as determined in accordance with part 58, Appendix A, section 6 of this chapter, continue to meet the specifications set forth in part 58, Appendix A, section 6.3.3 of this chapter.

1.3 $PM_{2.5}$ samplers that meet all specifications set forth in this method but have minor deviations and/or modifications of the reference method sampler necessary to obtain sequential operation will be designated as ''Class I'' equivalent methods for $PM_{2.5}$ in accordance with part 53 of this Chapter.

2.0 Principle

2.1 An electrically powered air sampler draws ambient air at a constant volumetric flow rate into a specially shaped inlet and through an inertial particle size separator (impactor) where the suspended particulate matter in the $PM_{2.5}$ size range is separated for collection on a polytetrafluoroethylene (PTFE) filter over the specified sampling period. The air sampler and other aspects of this reference method are specified either explicitly in this appendix or generally with reference to other applicable regulations or quality assurance guidance.

2.2 Each filter is weighed (after moisture and temperature equilibration) before and after sample collection to determine the net weight (mass) gain due to collected $PM_{2.5}$. The total volume of air sampled is determined by the sampler from the measured flow rate at actual ambient temperature and pressure and the sampling time. The mass concentration of $PM_{2.5}$ in the ambient air is computed as the total mass of collected particles in the $PM_{2.5}$ size range divided by the actual volume of air sampled, and is expressed in micrograms per actual cubic meter of air ($\mu g/m^3$).

3.0 $PM_{2.5}$ Measurement Range

3.1 Lower concentration limit. The lower limit of the mass concentration range should be 1 $\mu g/m^3$ or less and is determined primarily by the repeatability (precision) of filter blanks, based on the 24 m^3 nominal total air sample volume specified for the 24-hour sample.

3.2 Upper concentration limit. The upper limit of the mass concentration range is determined by the filter mass loading beyond which the sampler can no longer maintain the operating flow rate within specified limits due to increased pressure drop across the loaded filter. This upper limit cannot be specified precisely because it is a complex function of the ambient particle size distribution and type, humidity, the individual filter used, the capacity of the sampler flow rate control system, and perhaps other factors. Nevertheless, all samplers should be capable of measuring 24-hour $PM_{2.5}$ mass concentrations of at least 200 $\mu g/m^3$ while maintaining the operating flow rate within the specified limits.

3.3 Sample period. The required sample period for $PM_{2.5}$ concentration measurements by this method shall be 1380 to 1500 minutes (23 to 25 hours). However, when a sample period is less than 1380 minutes, the measured concentration (as determined by the collected $PM_{2.5}$ mass divided by the actual sampled air volume), multiplied by the actual number of minutes in the sample period and divided by 1440, may be used as a valid concentration measurement for purposes of determining violations of the NAAQS. This number represents the minimum concentration that would have been measured for the full 24-hour sample period. When reported to AIRS, this data value should receive a special code.

4.0 Accuracy

4.1 Because the size and volatility of the particles making up ambient particulate matter vary over a wide range and the mass concentration of particles varies with particle size, it is difficult to define the accuracy of $PM_{2.5}$ samplers in an absolute sense. The accuracy of $PM_{2.5}$ measurements is therefore defined in a relative sense, referenced to measurements provided by this reference method. Accordingly, accuracy for other (equivalent) methods for $PM_{2.5}$ shall be defined as the degree of agreement between a subject field $PM_{2.5}$ sampler and a collocated $PM_{2.5}$ reference method audit sampler operating simultaneously at the monitoring site location of the subject sampler. This field sampler audit procedure is set forth in section 6 of part 58, Appendix A of this chapter.

4.2.1 Test of concordance (reproducibility). Annual assessment of reproducibility for each designated reference

method sampler is required under the provisions of Appendix A of Part 58 of this chapter. This assessment is based on the concordance correlation, using 6 measurements per year at regular intervals of each reference method sampler operated in a SLAMS network to a collocated audit reference sampler. The assessment audits may be performed by either the reporting agency itself or by a third party and must meet criteria specified in Appendix A of part 58 of this Chapter. A test procedure is described in section 6.1 of part 58, Appendix A that determines the bias in the primary sampler as compared to the reference method sampler under actual network operational sampling conditions. The lower 95 percent probability limit of the concordance correlation for $PM_{2.5}$ samplers, as determined by this procedure, must be equal to or greater than 0.94 for each designated reference method sampler to retain its designation.

4.2.2 Annual assessment of the bias of each designated reference method sampler is required under the provisions of part 58 of this chapter. This assessment is based on comparisons made six times per year at regular intervals of each reference method sampler operated in a SLAMS network to a collocated audit sampler. The assessment audits may be performed by either the reporting agency itself or by a third party and must meet criteria specified in Appendix A of part 58 of this chapter. A screening test procedure is described in section 6.2 of part 58, Appendix A that examines for bias between the primary sampler and the reference method sampler under actual network operational sampling conditions. The test uses a simple counting procedure and leads to a conclusion of bias only when the evidence is quite strong (p=0.01).

4.3 In addition, part 58, Appendix A of this chapter requires that the flow rate accuracy of $PM_{2.5}$ samplers used in SLAMS monitoring networks be assessed periodically via audits of the sampler's operational flow rate.

5.0 Precision.

5.1 Tests to establish initial operational precision for each reference method sampler are specified as a part of the requirements for designation as a reference method under part 53 of this chapter (§ 53.56).

5.2 Annual assessments of routine operational precision are also required.

5.2.1 Annual assessment of the pooled operational precision of each designated reference method sampler is required under the provisions of part 58 of this chapter. This assessment is based on comparisons made six times per year at regular intervals of each reference method sampler operated in a SLAMS network to a collocated audit sampler. The assessment audits may be performed by either the reporting agency itself or by a third party and must meet criteria specified in Appendix A of part 58 of this Chapter. A test procedure is described in section 6.1 of part 58, Appendix A that determines the variation in the $PM_{2.5}$ concentration measurements of reference method samplers under the actual network operational sampling conditions. The pooled operational precision of $PM_{2.5}$ samplers, as determined by this procedure, must meet the specification in section 6 of Appendix A, part 58 for each designated reference method sampler to retain its designation.

5.2.2 A screening test for bias and excessive imprecision is required under the provisions of part 58 of this chapter. This assessment is based on comparisons made six times per year at regular intervals of each reference method sampler operated in a SLAMS network to a collocated audit sampler. The assessment audit may be performed by either the reporting agency itself or by a third party and must meet criteria specified in Appendix A section 6.2 of part 58 of this Chapter. A screening test procedure is described in section 6 of part 58, Appendix A that examines for excessive imprecision (>15%) in one or both of the samplers. The test uses a simple counting procedure and leads to a conclusion of excessive imprecision only when evidence is quite strong ($p - 0.01$) under the actual network operational sampling conditions.

6.0 Filter for $PM_{2.5}$ Sample Collection

6.1 Size: Circular, 47 mm diameter.

6.2 Medium: Polytetrafluoroethylene (PTFE) with integral 0.38 ±0.04 mm thick polymethylpentene (PMP) or equivalent support ring.

6.3 Pore size: 2 µm as measured by ASTM F 316–80

6.4 Thickness: 20–60 µm

6.5 Maximum pressure drop: 30 cm H_2O column @ 16.67 L/min clean air flow.

6.6 Maximum moisture pickup: 0.0% weight increase after 24-hour exposure at 48% relative humidity at 23 °C.

6.7 Collection efficiency. Greater than 99.7 percent, as measured by the DOP test (ASTM D 2986–91) with 0.3 µm particles at the sampler's operating face velocity.

6.8 Filter weight stability. Filter weight loss ≤ 20 µg, measured as specified in the following two tests. Filter weight loss shall be the average difference between the initial and the final weights of a random sample of test filters selected from each lot prior to shipment. The number of filters tested shall be not less than 0.1% of the filters of each manufacturing lot, or 10 filters, whichever is greater. The filters shall be weighed under laboratory conditions and shall have had no air sample passed through them (i.e., filter blanks). Each test procedure must include initial equilibration and weighing, the test, and final equilibration and weighing. Equilibration and weighing shall be in accordance with section 8 and guidance provided in Reference 2.

6.8.1 Test for surface particle contamination. Install each test filter in a filter cassette (Drawing numbers L–25, L–26) and drop the cassette from a height of 25 cm to a flat hard surface, such as a particle-free wood bench. Repeat three times. Remove the test filter from the cassette and weigh the filter. The average change in weight must be less than 20 µg.

6.8.2 Test of temperature stability. Place randomly selected test filters in a drying oven set at 40°C ±2 °C for not less than 48 hours. Remove, equilibrate, and reweigh each test filter. The average change in weight must be less than 20 µg.

6.9 Alkalinity. Less than 25 microequivalents/gram of filter, as measured by the procedure given in Reference 2.

6.10 Supplemental Requirements. Although not required for determination of $PM_{2.5}$ mass concentration under this reference method, additional specifications for the filter must be developed by users who intend to subject $PM_{2.5}$ filter samples to subsequent chemical analysis. These supplemental specifications include background chemical contamination of the filter and any other filter parameters that may be required by the method of chemical analysis. All such supplemental filter specifications must be compatible with and secondary to the primary filter specifications given in this section 6.

7.0 $PM_{2.5}$ Sampler.

7.1 Configuration. The sampler shall consist of a sample air inlet, downtube, particle size separator (impactor), filter holder assembly, air pump and flow rate control system, flow rate measurement device, ambient and filter temperature monitoring system, timer, outdoor environmental enclosure, and suitable mechanical, electrical, or electronic control capability to provide the design and functional performance as specified in this section 7. The performance specifications require that the sampler:

(a) provide automatic control of sample flow rate and other operational parameters,

(b) monitor these operational parameters as well as ambient temperature and pressure, and

(c) provide this information to the sampler operator at the end of each sample period in digital form, either visually or as electronic data available for output through a data output port connection.

7.2 Nature of specifications. The $PM_{2.5}$ sampler is specified by a combination of design and performance requirements. The sample inlet, downtube, particle size discriminator, and the internal configuration of the filter holder assembly are specified explicitly by design drawings and associated mechanical dimensions, tolerances, materials, surface finishes, assembly instructions, and other necessary specifications. All other aspects of the sampler are specified by required operational function and performance, and the design of these other aspects (including the design of the lower portion of the filter holder assembly) is optional, subject to acceptable operational performance. Test procedures to demonstrate compliance with both the design and performance requirements are set forth in subpart E of part 53 of this Chapter.

7.3 Design specifications. These components must be manufactured or reproduced exactly as specified in an ISO 9001-registered facility, with registration initially approved and subsequently maintained.

7.3.1 Sample inlet assembly. The sample inlet assembly, consisting of the inlet, downtube, and impactor shall be assembled as indicated in drawing No. L–1 and shall meet all associated requirements. A portion of this assembly shall also be subject to the maximum overall sampler leak rate specification (see section 7.4.6).

7.3.2 Inlet. The sample inlet shall be fabricated as indicated in drawing Nos. L–2 through L–18 and shall meet all associated requirements.

7.3.3 Downtube. The downtube shall be fabricated as indicated in drawing No. L–19 and shall meet all associated requirements.

7.3.4 Impactor.

7.3.4.1 The impactor (particle size separator) shall be fabricated as indicated in drawing Nos. L–20 through L–24 and shall meet all associated requirements.

7.3.4.2 Impactor filter specifications:

(a) Size: Circular, 35 to 37 mm diameter

(b) Medium: Borosilicate glass fiber, without binder

(c) Pore size: 1 to 1.5 micrometer, as measured by ASTM F 316–80

(d) Thickness: 300 to 500 micrometers

7.3.4.3 Impactor oil specifications:

(a) Composition: Tetramethyltetraphenyltrisiloxane, single compound diffusion oil

(b) Vapor pressure: Maximum 2×10^{-8} mm Hg at 25 °C

(c) Viscosity: 36 to 40 centistokes at 25 °C

(d) Density: 1.06 to 1.07 g/cm^3 at 25 °C

(e) Quantity: 1 mL

7.3.5 Filter holder assembly. The sampler shall have a sample filter holder assembly to adapt and seal to the down tube and to hold and seal the specified filter (section 6) in the sample air stream in a horizontal position below the downtube such that the sample air passes downward through the filter at a uniform face velocity. The upper portion of this assembly shall be fabricated as indicated in drawing Nos. L–25 and L–26 and shall accept and seal with the filter cassette, which shall be fabricated as indicated in drawing Nos. L–27 through L–29.

(a) The lower portion of the filter holder assembly shall be of a design and construction that:

(1) mates with the upper portion of the assembly to complete the filter holder assembly,

(2) completes both the external air seal and the internal filter cassette seal such that all seals are reliable over repeated filter changings, and

(3) facilitates repeated changing of the filter cassette by the sampler operator.

(b) Leak-test performance requirements for the filter holder assembly are included in section 7.4.6 below.

7.3.6 Flow rate measurement adapter. A flow rate measurement adapter as specified in drawing No. L–30 shall be furnished with each sampler.

7.3.7 Surface finish. All internal surfaces exposed to sample air prior to the filter shall be treated electrolytically in a sulfuric acid bath to produce a clear, uniform anodized surface finish of not less than 1000 mg/ft^2 (1.08 mg/cm^2) in accordance with military standard specification (mil. spec.) 8625F, Type II, Class 1 (Reference 3). This anodic surface coating shall not be dyed or pigmented. Following anodization, the surfaces shall be sealed by immersion in boiling deionized water for 15 minutes.

7.4 Performance specifications.

7.4.1 Sample flow rate. Proper operation of the impactor requires that specific air velocities be maintained through the device. Therefore, the sample air flow rate through the inlet, downtube, impactor, and filter shall be 16.67 L/min (1.000 m^3/hour) ±5%, measured as actual volumetric flow rate at the temperature and pressure of the sample air entering the impactor.

7.4.2 Sample air flow rate control system. The sampler shall have a sample air flow rate control system which shall be capable of providing a sample air volumetric flow rate within the specified range (section 7.4.1) for the specified filter (section 6), at any atmospheric conditions specified (section 7.4.7), at a filter pressure drop equal to that of a clean filter plus up to 75 cm water column (55 mm Hg), and over the specified range of supply line voltage (section 7.4.15.1). This flow control system shall allow for operator adjustment of the operational flow rate of the sampler over a range of at least ±10 percent of the flow rate specified in section 7.4.1.

7.4.3 Sample flow rate regulation. The sample flow rate shall be regulated such that for the specified filter (section 6), at any atmospheric conditions specified (section 7.4.7), at a filter pressure drop equal to that of a clean filter plus up to 75 cm water column (55 mm Hg), and over the specified range of supply line voltage (section 7.4.15.1), the flow rate is regulated as follows:

7.4.3.1 The volumetric flow rate, measured or averaged over intervals of not more than 5 minutes over a 24-hour period, shall not vary more than ±5 percent from the specified 16.67 L/min flow rate over the entire sample period; and

7.4.3.2 The coefficient of variation (sample standard deviation divided by the average) of the flow rate, measured at intervals of not more than 5 minutes over a 24-hour period, shall not be greater than 4 percent.

7.4.4 Flow rate cut off. The sampler's sample air flow rate control system shall terminate sample collection and stop all sample flow for the remainder of the sample period in the event that the sample flow rate deviates by more than 10 percent from the nominal (or cumulative average) sampler flow rate specified in section 7.4.1 for more than 60 seconds. However, this sampler cut-off provision shall not apply during periods when the sampler is inoperative due to a temporary power interruption and the elapsed time of the inoperative period will not be included in the total sample time measured and reported by the sampler (see section 7.4.13).

7.4.5 Flow rate measurement.

7.4.5.1 The sampler shall provide a means to measure and indicate the instantaneous sample air flow rate, which shall be measured as volumetric flow rate at the temperature and pressure of the sample air entering the impactor, with an accuracy of ±2 percent. The sampler shall also provide a simple means by which the sampler operator can manually start the sample flow temporarily during non-sampling modes of operation, for the purpose of checking the sample flow rate or the flow rate measurement system.

7.4.5.2 During each sample period, the sampler's flow rate measurement system shall automatically monitor the sample volumetric flow rate, obtaining flow rate or average flow rate measurements at intervals of not greater than 5 minutes.

(a) Using these interval flow rate measurements, the sampler shall determine or calculate the following flow-related parameters, scaled in the specified engineering units:

(1) the instantaneous or interval-average flow rate, in L/min;

(2) the value of the average sample flow rate for the sample period, in L/min;

(3) the value of the coefficient of variation (sample standard deviation divided by the average) of the sample flow rate for the sample period, in percent;

(4) any time during the sample period in which the sample flow rate measured exceeds a range of ±5 percent of the average flow rate for the sample period for more than 5 minutes, in which case a warning flag indicator shall be set; and

(5) the value of the integrated total sample volume for the sample period, in m^3.

(b) Determination or calculation of these values shall properly exclude periods when the sampler is inoperative due to temporary interruption of electrical power (see section 7.4.13). These parameters shall be accessible to the sampler operator as specified in Table L–1, section 7.4.19.

7.4.6 Leak test capability.

7.4.6.1 External leakage: The sampler shall include components, accessory hardware, operator interface controls, a written procedure in the associated Operation/Instruction Manual (section 7.4.18), and all other necessary functional capability to permit and facilitate the sampler operator to conveniently carry out a leak test of the sampler at a field monitoring site without additional equipment.

(a) The suggested technique for this leak test is as follows: The operator:

(1) removes the sampler inlet and installs the flow rate measurement adapter supplied with the sampler (see section 7.3.6),

(2) closes the valve on the flow rate measurement adapter and uses the sampler air pump to draw a partial vacuum in the sampler, including (at least) the impactor, filter holder assembly (filter in place), flow measurement device, and interconnections between these devices, of at least 55 mm Hg (75 cm water column),

(3) plugs the flow system downstream of these components to isolate the components under vacuum from the pump, such as with a built-in valve,

(4) stops the pump,

(5) measures the trapped vacuum in the sampler with a built-in pressure measuring device, and

(6) measures the vacuum in the sampler with the built-in pressure measuring device again at a later time at least 10 minutes after the first pressure measurement, and

(7) removes the plugs and restores the sampler to the normal operating configuration.

(b) The associated leak test procedure shall require that for successful passage of this test, the difference between the two pressure measurements shall not be greater than either:

(1) 10 mm Hg or

(2) an alternative number of mm of Hg specified for the sampler by the manufacturer based on the actual internal volume of the sampler that indicates a leak of less than 80 mL/min.

(c) The specific proposed external leak test procedure, or particularly a proposed alternative leak test technique such as may be required for samplers whose design or configuration would make the suggested technique impractical, may be described and submitted for specific individual acceptability either as part of a reference or equivalent method application under part 53 of this chapter or in writing in advance of such application.

7.4.6.2 Internal (filter bypass) leakage: The sampler shall include components, accessory hardware, operator interface controls, a written procedure in the Operation/Instruction Manual, and all other necessary functional capability to permit and facilitate the sampler operator to conveniently carry out a test for internal filter bypass leakage in the sampler at a field monitoring site without additional equipment.

(a) The suggested technique for this leak test is as follows: The operator:

(1) Carries out an external leak test as provided under the paragraph 7.4.6.1 which indicates successful passage of the prescribed external leak test,

(2) Installs a flow-impervious membrane material in the filter cassette, either with or without a filter, as appropriate, which effectively prevents air flow through the filter holder,

(3) Uses the sampler air pump to draw a partial vacuum in the sampler, downstream of the filter holder assembly, of at least 55 mm Hg (75 cm water column),

(4) Plugs the flow system downstream of the filter holder to isolate the components under vacuum from the pump, such as with a built-in valve,

(5) Stops the pump,

(6) Measures the trapped vacuum in the sampler with a built-in pressure measuring device,

(7) Measures the vacuum in the sampler with the built-in pressure measuring device again at a later time at least 10 minutes after the first pressure measurement, and

(8) removes the membrane and plugs and restores the sampler to the normal operating configuration.

(b) The associated leak test procedure shall require that for successful passage of this test, the difference between the two pressure measurements shall not be greater than either 10 mm Hg or an alternative number of mm of Hg specified for the sampler by the manufacturer based on the actual internal volume of the portion of the sampler under vacuum that indicates a leak of less than 80 mL/min. The specific proposed internal leak test procedure, or particularly a proposed alternative internal leak test technique such as may be required for samplers whose design or configuration would make the suggested technique impractical, may be described and submitted for specific individual acceptability either as part of a reference or equivalent method application under part 53 of this chapter or in writing in advance of such application.

7.4.7 Range of Operational Conditions. The sampler is required to operate properly and meet all requirements specified herein over the following operational ranges:

7.4.7.1 Ambient temperature: −30 to +45 degrees Celsius (Note: Although for practical reasons, the temperature range over which samplers are required to be tested under part 53 of this chapter is −20 to +40 degrees Celsius, the sampler should be designed to operate properly over this wider temperature range.);

7.4.7.2 Ambient relative humidity: 0 to 100 percent;

7.4.7.3 Barometric pressure range: 600 to 800 mm Hg.

7.4.8 Ambient temperature sensor. The sampler shall have capability to measure the temperature of the ambient air surrounding the sampler over the range of −20 to +40 , with a resolution of 0.1 C and accuracy of ±2.0º C (referenced to National Weather Service (NWS) requirements; see part 53, subpart E), with or without maximum solar insolation. This ambient temperature measurement shall be updated at least every 5 minutes during both sampling and standby (non-sampling) modes of operation. A visual indication of the current (most recent) value of the ambient temperature measurement shall be available to the sampler operator during both sampling and standby (non-sampling) modes of operation, as specified in Table L–1. This ambient temperature measurement shall be used for the purpose of monitoring filter temperature deviation from ambient temperature, as required by section 7.4.11.4, and may be used for purposes of effecting filter temperature control (section 7.4.10) or computation of volumetric flow rate (sections 7.4.1 to 7.4.5). Following the end of each sample period, the sampler shall report the maximum, minimum, and average temperature for the sample period, as specified in Table L–1.

7.4.9 Ambient barometric sensor. The sampler shall have capability to measure the barometric pressure of the air surrounding the sampler over a range of 600 to 800 mm Hg (referenced to National Weather Service (NWS) requirements; see part 53, subpart E). (The barometric pressure of the air entering the impactor when sampling will be assumed to be the same as the barometric pressure of the air surrounding the sampler.) This barometric pressure measurement shall have a resolution of 5 mm Hg and an accuracy of ±10 mm Hg and shall be updated at least every 5 minutes. A visual indication of the value of the current (most recent) barometric pressure measurement shall be available to the sampler operator during both sampling and standby (non-sampling) modes of operation, as specified in Table L–1. This barometric pressure measurement may be used for purposes of computation of volumetric flow rate (sections 7.4.1 to 7.4.5), if appropriate. Following the end of a sample period, the sampler shall report the maximum, minimum, and average barometric pressures for the sample period, as specified in Table L–1.

7.4.10 Filter temperature control (sampling and post-sampling). The sampler shall provide a means to limit the temperature rise of the sample filter, from insolation and other sources, to no more than 3 °C above the temperature of the ambient air surrounding the sampler, during both sampling and post-sampling periods of operation. The post-sampling period is the non-sampling period between the end of the active sampling period and the time of retrieval of the sample filter by the sampler operator.

7.4.11 Filter temperature sensor. The sampler shall have the capability to monitor the sample filter temperature via a temperature sensor located within 1 cm of the center of the filter downstream of the filter and to provide a visual indication of the filter temperature to the operator, as specified in Table L–1. The sampler shall also provide a warning flag indicator following any occurrence in which the filter temperature exceeds the ambient temperature by more than 3 °C for more than 10 consecutive minutes during either the sampling or post-sampling periods of operation, as specified in Table L–1. It is further recommended (not required) that the sampler be capable of recording the maximum differential between the measured filter temperature and the ambient temperature and its time and date of occurrence during both sampling and post-sampling (non-sampling) modes of operation and providing those data to the sampler operator following the end of the sample period, as suggested in Table L–1.

7.4.12 Clock/Timer System. (a) The sampler shall have a programmable real-time clock timing/control system that:

(1) Is capable of maintaining local time and date, including year, month, day-of-month, hour, minute, and second to an accuracy of ±1.0 minute per month;

(2) Provides a visual indication of the current system time, including year, month, day-of-month, hour, and minute, updated at least each minute, for operator verification;

(3) Provides appropriate operator controls for setting the correct local time and date; and

(4) Is capable of starting the sample collection period and sample air flow at a specific, operator-settable time and date, and stopping the sample air flow and terminating the sampler collection period 24 hours (1440 minutes) later, or at a specific, operator-settable time and date.

(b) These start and stop times shall be readily settable by the sampler operator to within ±1.0 minute. The system shall provide a visual indication of the current start and stop time settings, readable to ±1.0 minute, for verification by the operator, and the start and stop times shall also be available via the data output port, as specified in Table L–1. Upon execution of a programmed sample period start, the sampler shall automatically reset all sample period information and warning indications pertaining to a previous sample period. Refer also to section 7.4.15.4 regarding retention of current date and time and programmed start and stop times during a temporary electrical power interruption.

7.4.13 Sampling sample time determination. The sampler shall be capable of determining the elapsed sample collection time for each $PM_{2.5}$ sample, accurate to

within ±1.0 minute, measured as the time between the start of the sampling period (sec. 7.4.12) and the termination of the sample period (sec. 7.4.12 or sec. 7.4.4). This elapsed sample time shall not include periods when the sampler is inoperative due to a temporary interruption of electrical power (section 7.4.15.4). In the event that the elapsed sample time determined for the sample period is not within the range specified for the required sample period in section 3.3, the sampler shall set a warning flag indicator. The date and time of the start of the sample period, the value of the elapsed sample time for the sample period, and the flag indicator status shall be available to the sampler operator following the end of the sample period, as specified in Table L–1.

7.4.14 Outdoor environmental enclosure. The sampler shall have an outdoor enclosure (or enclosures) suitable to protect the filter and other non-weatherproof components of the sampler from precipitation, wind, dust, extremes of temperature and humidity; to help maintain temperature control of the filter; and to provide reasonable security for sampler components and settings.

7.4.15 Electrical power supply.

7.4.15.1 The sampler shall be operable and function as specified herein when operated on an electrical power supply voltage of 105 to 125 volts AC (RMS) at a frequency of 59 to 61 Hz. Optional operation as specified at additional power supply voltages and/or frequencies shall not be precluded by this requirement.

7.4.15.2 The design and construction of the sampler shall comply with all applicable National Electrical Code and Underwriters Laboratories electrical safety requirements.

7.4.15.3 The design of all electrical and electronic controls shall be such as to provide reasonable resistance to interference or malfunction from ordinary or typical levels of stray electromagnetic fields (EMF) as may be found at various monitoring sites and from typical levels of electrical transients or electronic noise as may often or occasionally be present on various electrical power lines.

7.4.15.4 In the event of temporary loss of electrical supply power to the sampler, the sampler shall not be required to sample or provide other specified functions during such loss of power, except that the internal clock/timer system shall maintain its local time and date setting within ±1 minute per week, and the sampler shall retain all other time and programmable settings and all data required to be available to the sampler operator following each sample period for at least 7 days without electrical supply power. When electrical power is absent at the operator-set time for starting a sample period or is interrupted during a sample period, the sampler shall automatically start or resume sampling when electrical power is restored, if such restoration of power occurs before the operator-set stop time for the sample period.

7.4.15.5 The sampler shall have the capability to record and retain a record of the year, month, day-of-month, hour, and minute of the start of each power interruption of more than 1 minute duration, up to 10 such power interruptions per sample period. (More than 10 such power interruptions shall invalidate the sample, except where an exceedance is measured see section 3.3.) The sampler shall provide for these power interruption data to be available to the sampler operator following the end of the sample period, as specified in Table L–1.

7.4.16 Control devices and operator interface. The sampler shall have mechanical, electrical, or electronic controls, control devices, electrical or electronic circuits as necessary to provide the timing, flow rate measurement and control, temperature control, data storage and computation, operator interface, and other functions specified. Operator-accessible controls, data displays, and interface devices shall be designed to be simple, straightforward, reliable, and easy to learn, read, and operate under field conditions. The sampler shall have provision for operator input and storage of up to 64 characters of numeric (or alphanumeric) data for purposes of site, sampler, and sample identification. This information shall be available to the sampler operator for verification and change and for output via the data output port along with other data following the end of a sample period, as specified in Table L–1. All data required to be available to the operator following a sample collection period or obtained during standby mode in a post-sampling period shall be retained by the sampler until reset, either manually by the operator or automatically by the sampler upon initiation of a new sample collection period.

7.4.17 Data output port requirement. The sampler shall have a standard RS–232C data output connection through which digital data may be exported to an external data storage or transmission device. All information which is required to be available at the end of each sample period shall be accessible through this data output connection. The information that shall be accessible though this output port is summarized in Table L–1.

7.4.18 Operation/Instruction Manual. The sampler shall include an associated comprehensive operation or instruction manual, as required by part 53 of this chapter, which includes detailed operating instructions on the setup, operation, calibration, and maintenance of the sampler. This manual shall provide complete and detailed descriptions of the operational and calibration procedures prescribed for field use of the sampler and all instruments utilized as part of this reference method. The manual shall include adequate warning of potential safety hazards that may result from normal use or malfunction of the method and a description of necessary safety precautions. The manual shall also include a clear description of all procedures pertaining to installation, operation, periodic and corrective maintenance, and troubleshooting, and shall include parts identification diagrams.

TABLE L–1.—SUMMARY OF INFORMATION TO BE PROVIDED BY THE SAMPLER

Information to be provided	Appendix L section reference	Availability				Format	
		Anytime [1]	End of period [2]	Visual display [3]	Data output [4]	Digital reading [5]	Units
Flow rate, instantaneous.	7.4.5.1	✔		✔		XX.X	L/min
Flow rate, average for the sample period.	7.4.5.2	*	✔	*	✔	XX.X	L/min
Flow rate, CV, for sample period.	7.4.5.2	*	✔	*	✔■	XX.X	%
Flow rate, 5-min average out of spec. (FLAG [6]).	7.4.5.2	✔	✔	✔	✔■	On/Off	
Sample volume, total	7.4.5.2	*	✔	✔	✔■	XX.X	m^3
Temperature, ambient, instantaneous or 5-minute average.	7.4.8	✔		✔		XX.X	°C
Temperature, ambient, min., max., average for the sample period.	7.4.8	*	✔	✔	✔■	XX.X	°C

TABLE L–1.—SUMMARY OF INFORMATION TO BE PROVIDED BY THE SAMPLER

Information to be provided	Appendix L section reference	Availability				Format	
		Anytime [1]	End of period [2]	Visual display [3]	Data output [4]	Digital reading [5]	Units
Baro pressure, ambient, instantaneous or 5-minute average.	7.4.9	✔		✔		XXX	mm Hg
Baro pressure, ambient, min, max, average for the sample period.	7.4.9	*	✔	✔	✔■	XXX	mm Hg
Filter temperature, instantaneous.	7.4.11	✔		✔		XX.X	°C
Filter temperature, instantaneous differential out of spec. (FLAG [1]).	7.4.11	*	✔	✔	✔■	On/Off	
Filter temp, maximum differential from ambient, date, time of occurrence.	7.4.11	*	*	*	*	X.X, YY/MM/DD HH.mm.	°C, Yr/Mon/Day Hrs.min
Date and Time	7.4.12	✔		✔		YY/MM/DD HH.mm	Yr/Mon/Day Hrs.min
Sample start and stop time settings.	7.4.12	✔	✔	✔	✔	YY/MM/DD HH.mm	Yr/Mon/Day Hrs.min
Sample period start time.	7.4.12		✔	✔	✔■	YYYY/MM/DD HH.mm	Yr/Mon/Day Hrs.min
Elapsed sample time	7.4.13	*	✔	✔	✔■	HH.mm	Hrs.min
Elapsed sample time, out of spec. (FLAG[6]).	7.4.13		✔	✔	✔■	On/Off	
Power interruptions >1 min, start time of first 10.	7.4.15.5	*	✔	*	✔	1HH.mm 2HH.mm	Hrs.min
User-entered information, such as sampler and site identification.	7.4.16	✔	✔	✔	✔■	As entered	

[1] Information is required to be available to the operator at any time the sampler is operating, whether sampling or not.
[2] Information relates to the entire sampler period and must be provided following the end of the sample period until reset manually by the operator or automatically by the sampler upon the start of a new sample period.
[3] Information shall be available to the operator visually.
[4] Information is to be available as digital data at the sampler's data output port specified in section 7.4.16 following the end of the sample period until reset manually by the operator or automatically by the sampler upon the start of a new sample period.
[5] Digital readings, both visual and data output, shall have not less than the number of significant digits and resolution specified.
[6] Flag warnings may be displayed to the operator by a single flag indicator or each flag may be displayed individually. Only a set (on) flag warning must be indicated; an off (unset) flag may be indicated by the absence of a flag warning. The occurrence of a flag warning during a sample period shall not *necessarily* indicate an invalid sample but shall indicate the need for specific review of the QC data by a quality assurance officer to determine sample validity.
* Provision of this information is optional. If information related to the entire sample period is optionally provided prior to the end of the sample period, the value provided should be the value calculated for the portion of the sampler period completed up to the time the information is provided.
■ Indicates that this information is also required to be provided to the AIRS data bank; see § 58.26 and § 58.35 of part 58 of this Chapter.

7.4.19 Data reporting requirements. The various information that the sampler is required to provide and how it is to be provided is summarized in Table L–1.

8.0 Filter weighing.

See Reference 2 for additional, more detailed guidance.

8.1 Analytical balance. The analytical balance used to weigh filters must be suitable for weighing the type and size of filters specified (section 6) and have a readability of ±1 µg. The balance shall be calibrated as specified by the manufacturer at installation and recalibrated immediately prior to each weighing session, but not less often than once per year. See Reference 2 for additional guidance.

8.2 Filter conditioning/equilibration. All filters used are to be conditioned or equilibrated immediately before both the pre- and post-sampling weighings as specified below. See Reference 2 for additional guidance.

8.2.1 Mean temperature: 20–23 °C.

8.2.2 Temperature control: ±2 °C over 24 hours.

8.2.3 Mean humidity: 30–40 percent relative humidity.

8.2.4 Humidity control: ±5 relative humidity percent over 24 hours.

8.2.5 Conditioning time: not less than 24 hours.

8.3 Weighing procedure.

8.3.1 New filters should be placed in the conditioning environment immediately upon arrival and stored there until the pre-sampling weighing. See Reference 2 for additional guidance.

8.3.2 The analytical balance shall be located in the same environment in which the filters are conditioned or equilibrated, such that the filters can be weighed immediately following the conditioning period without intermediate or transient exposure to nonequilibration conditions.

8.3.3 Filters must be equilibrated at the same conditions before both the pre- and post-sampling weighings.

8.3.4 Both the pre- and post-sampling weighings should be carried out by the same analyst on the same analytical balance, using an effective technique to neutralize static charges on the filter.

8.3.5 The pre-sampling (tare) weighing shall be within 30 days of the sampling period.

8.3.6 The post-sampling equilibration and weighing shall be completed within 240 hours (10 days) after the end of the sample period.

8.3.7 New blank filters shall be weighed along with the pre-sampling (tare) weighing of each lot of $PM_{2.5}$ filters. These blank filters shall be transported to the sampling site, installed in the sampler, retrieved from the sampler without sampling, and reweighed as a quality control check.

8.3.8 Additional guidance for proper filter weighing is provided in Reference 2. See also section 10.17 concerning filter archiving.

9.0 Calibration

See Reference 2 for additional guidance.

9.1 General Requirements

9.1.1 Multipoint calibration and single-point verification of the sampler's flow rate measurement device must be performed periodically to establish traceability of subsequent flow measurements to a flow rate standard.

9.1.2 An authoritative flow rate standard shall be used for calibrating or verifying the sampler's flow rate measurement device with an accuracy of ±2 percent. The flow rate standard shall be a separate stand-alone device designed to connect to the flow rate measurement adapter, drawing L–30. This flow rate standard must have its own certification and be traceable to National Institute of Standards and Technology (NIST) primary standards for volume or flow rate. If adjustments to the sampler's flow calibration are to be made in conjunction with an audit of the sampler, such adjustments shall be made following the audit. See Reference 2 for additional guidance.

9.1.3 The sampler's flow rate measurement device shall be re-calibrated after electromechanical maintenance or transport of the sampler.

9.2 Flow Rate Calibration/Verification Procedure

9.2.1 $PM_{2.5}$ samplers may employ various types of flow control and flow measurement devices. The specific procedure used for calibration or verification of the flow rate measurement device will vary depending on the type of flow rate controller and flow rate measurement employed. Calibration shall be in terms of actual ambient volumetric flow rates (Q_a). The generic procedure given here serves to illustrate the general steps involved in the calibration of a $PM_{2.5}$ sampler. The sampler operation/instruction manual (required under section 7.4.18) and the Quality Assurance Handbook (Reference 2) provide more specific and detailed guidance for calibration.

9.2.2 The flow rate standard used for flow rate calibration shall have its own certification and be traceable to National Institute of Standards and Technology (NIST) primary standards for volume or flow rate. A calibration relationship for the flow rate standard (*e.g.*, an equation, curve, or family of curves) shall be established that is accurate to within 2 percent over the expected range of ambient temperatures and pressures at which the flow rate standard may be used. The flow rate standard must be re-calibrated or re-verified at least annually.

9.2.3 The sampler flow rate measurement device shall be calibrated or verified by removing the sampler inlet and connecting the flow rate standard to the sampler in accordance with the operation/instruction manual, such that the flow rate standard accurately measures the sampler's flow rate. The sampler operator shall verify that no leaks exist between the flow rate standard and the sampler.

9.2.4 The calibration relationship between the flow rate (in actual L/min) indicated by the flow rate standard and by the sampler's flow rate measurement device shall be established or verified in accordance with the sampler operation/instruction manual. Temperature and pressure corrections to the flow rate indicated by the flow rate standard may be required for certain types of flow rate standards. Calibration of the sampler's flow rate measurement device shall consist of at least three separate flow rate measurements (multipoint calibration) evenly spaced within the range of −10% to +10% of the sampler's operational flow rate (see section 7.4.1). Verification of the sampler's flow rate shall consist of one flow rate measurement at the sampler's operational flow rate. The sampler operation/instruction manual and Reference 2 provide additional guidance.

9.2.5 If during a flow rate verification the reading of the sampler's flow rate indicator or measurement device differs by ±4 percent or more from the flow rate measured by the flow rate standard, a new multipoint calibration shall be performed and the flow rate verification must then be repeated.

9.2.6 Following the calibration or verification, the flow rate standard shall be removed from the sampler and the sampler inlet shall be reinstalled. Then the sampler's normal operating flow rate (in L/min) shall be determined with a clean filter in place. If the sampler flow rate differs by ±2 percent or more from the required sampler flow rate, the sampler flow rate must be adjusted to the required flow rate (see section 7.4.1).

10.0 $PM_{2.5}$ Measurement Procedure

The detailed procedure for obtaining valid PM2.5 measurements with each specific sampler designated as part of a reference method for $PM_{2.5}$ under part 53 of this chapter shall be provided in the sampler-specific operation or instruction manual required by section 7.4.18. Supplemental guidance is provided in section 2.12 of the QA Handbook (Reference 2). The generic procedure given here serves to illustrate the general steps involved in the $PM_{2.5}$ sample collection and measurement, using a $PM_{2.5}$ reference method sampler.

10.1 The sampler shall be set up, calibrated, and operated in accordance with the specific, detailed guidance provided in the specific sampler's operation or instruction manual and in accordance with a specific quality assurance program developed and established by the user, based on applicable supplementary guidance provided in Reference 2.

10.2 Each new filter shall be inspected for correct type and size and for pinholes, particles, and other imperfections. A filter information record shall be established for, and an identification number assigned to, each filter.

10.3 Each filter shall be equilibrated in the conditioning environment in accordance with the requirements specified in section 8.2.

10.4 Following equilibration, each filter shall be weighed in accordance with the requirements specified in section 8 and the presampling weight recorded with the filter identification number.

10.5 A numbered and preweighed filter shall be installed in the sampler following the instructions provided in the sampler operation or instruction manual.

10.6 The sampler shall be checked and prepared for sample collection in accordance with instructions provided in the sampler operation or instruction manual and with the specific quality assurance program established for the sampler by the user.

10.7 The sampler's timer shall be set to start the sample collection at the beginning of the desired sample period and stop the sample collection 24 hours later.

10.8 Information related to the sample collection (site location or identification number, sample date, filter identification number, and sampler model and serial number) shall be recorded and, if appropriate, entered into the sampler.

10.9 The sampler shall be allowed to collect the $PM_{2.5}$ sample during the set 24-hour time period.

10.10 Within 96 hours of the end of the sample collection period, the filter, while still contained in the filter cassette, shall be carefully removed from the sampler, following the procedure provided in the sampler operation or instruction manual and the quality assurance program, and placed in a protective container. The protective container shall hold the filter cassette securely. The cover shall not come in contact with the filter's surfaces. The protective container shall be made of metal and contain no loose material that could be transferred to the filter. (See reference 2 for additional information.)

10.11 The total sample volume in actual m^3 for the sampling period and the elapsed sample time shall be obtained from the sampler and recorded in accordance with the instructions provided in the sampler operation or instruction manual. All sampler warning flag indications and other information required by the local quality assurance program shall also be recorded.

10.12 All factors related to the validity or representativeness of the sample, such as sampler tampering or malfunctions, unusual meteorological conditions, construction activity, fires or dust storms, etc. shall be recorded as required by the local quality assurance program.

10.13 After retrieval from the sampler, the exposed filter containing the $PM_{2.5}$ sample should be transported to the filter conditioning environment as soon as possible—ideally within 24 hours—for equilibration and subsequent weighing. During the period between filter retrieval

from the sampler and the start of the conditioning or equilibration, the filter shall not be exposed to temperatures over 32 °C.

10.14 The exposed filter containing the $PM_{2.5}$ sample shall be re-equilibrated in the conditioning environment in accordance with the requirements specified in section 8.2.

10.15 The filter shall be reweighed immediately after equilibration in accordance with the requirements specified in section 8, and the postsampling weight shall be recorded with the filter identification number.

10.16 The $PM_{2.5}$ concentration shall be calculated as specified in section 12.

10.17 Filter archiving. Following the post-sampling weighing or other non-destructive analysis, air pollution control agencies shall archive all routinely collected $PM_{2.5}$ filter samples from all SLAMS sites, as well as appropriate, associated laboratory and field blanks and other quality assurance replicate samples, for a period of not less than 1 year after collection. All $PM_{2.5}$ filters from core NAMS sites shall be archived for a period of not less than 5 years after collection. These archived filters shall be made available for supplemental analyses at the request of the EPA or to provide information to State and local agencies on the composition and trends for $PM_{2.5}$. Archived filter samples shall be stored in clean, dust-proof, covered containers at a temperature of 4 ±3 °C; see Reference 2 for additional guidance.

11.0 Sampler Maintenance

The sampler shall be maintained as described by the sampler's manufacturer in the sampler-specific operation or instruction manual required under section 7.4.18 and in accordance with the specific quality assurance program developed and established by the user based on applicable supplementary guidance provided in Reference 2.

12.0 Calculations.

12.1 The $PM_{2.5}$ concentration is calculated as:

$$PM_{2.5} = (W_f - W_i)/V_a$$

Where:

$PM_{2.5}$ = mass concentration of $PM_{2.5}$, $\mu g/m^3$;

W_f, W_i = final and initial weights, respectively, of the filter used to collect the $PM_{2.5}$ particle sample, µg;

V_a = total air volume sampled in actual volume units, as provided by the sampler, m^3.

Note: Total sample time must be between 1380 and 1500 minutes (23 and 25 hrs) for a fully valid $PM_{2.5}$ sample; however, see also section 3.3.

13.0 References

1. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I, Principles. EPA/600/R–94/038a, April 1994. Available from CERI, ORD Publications, U.S. Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268.

2. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Specific Methods (Interim Edition), section 2.12. EPA/600/R–94/038b, April 1994. Available from CERI, ORD Publications, U.S. Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268. [Section 2.12 is currently under development and will not be available from the previous address until it is published as an addition to EPA/600/R–94/038b. Prepublication draft copies of section 2.12 will be available from Department E (MD–77B), U. S. EPA, Research Triangle Park, NC 27711 or from the contact identified at the beginning of this proposed rule].

3. Military standard specification (mil. spec.) 8625F, Type II, Class 1 as listed in Department of Defense Index of Specifications and Standards (DODISS), available from DODSSP-Customer Service, Standardization Documents Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 1911–5094.

14.0 Figures

Figures L–1 through L–30 are included as part of this appendix L.

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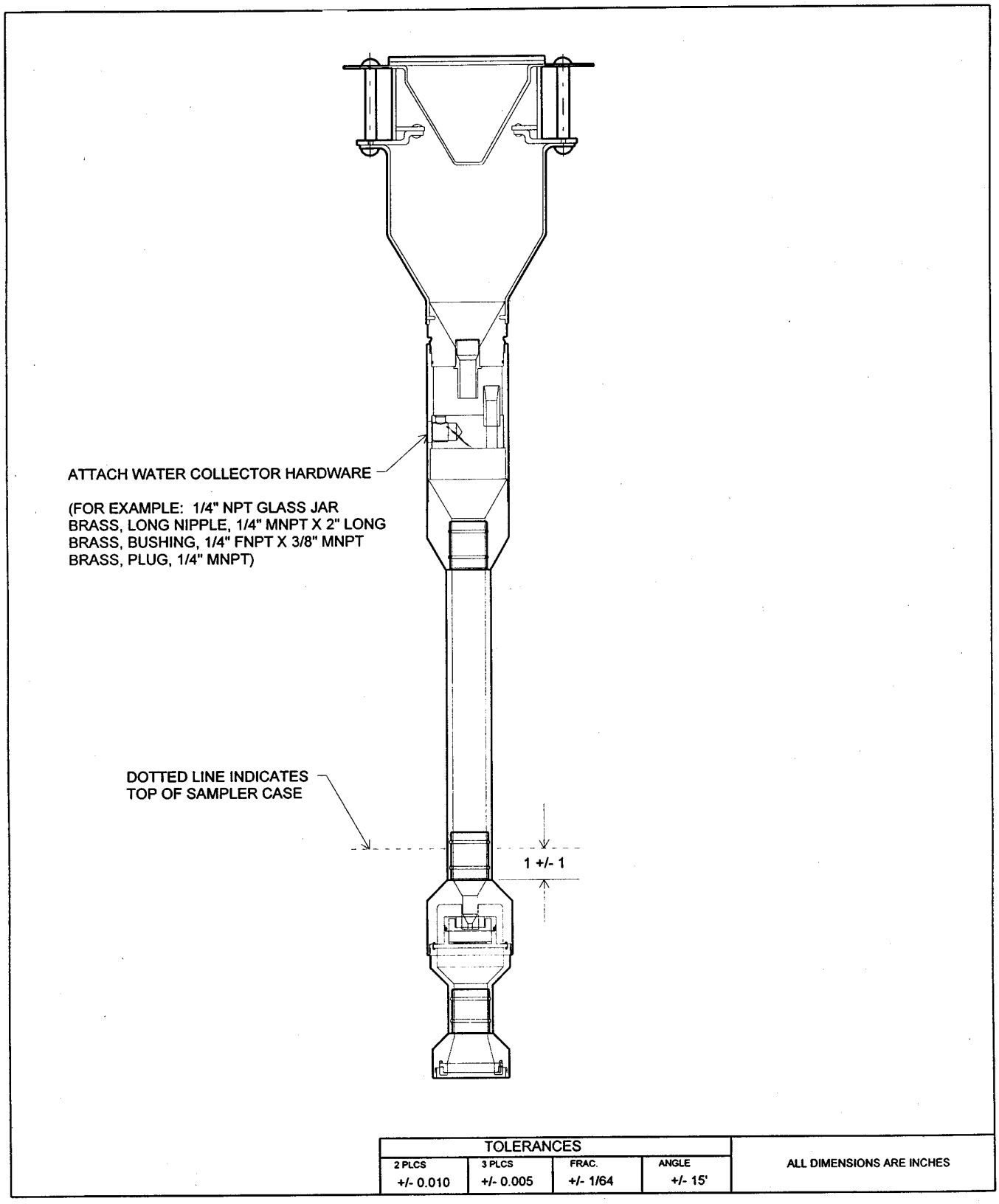

Figure L-1. PM2.5 Sampler, Assembly

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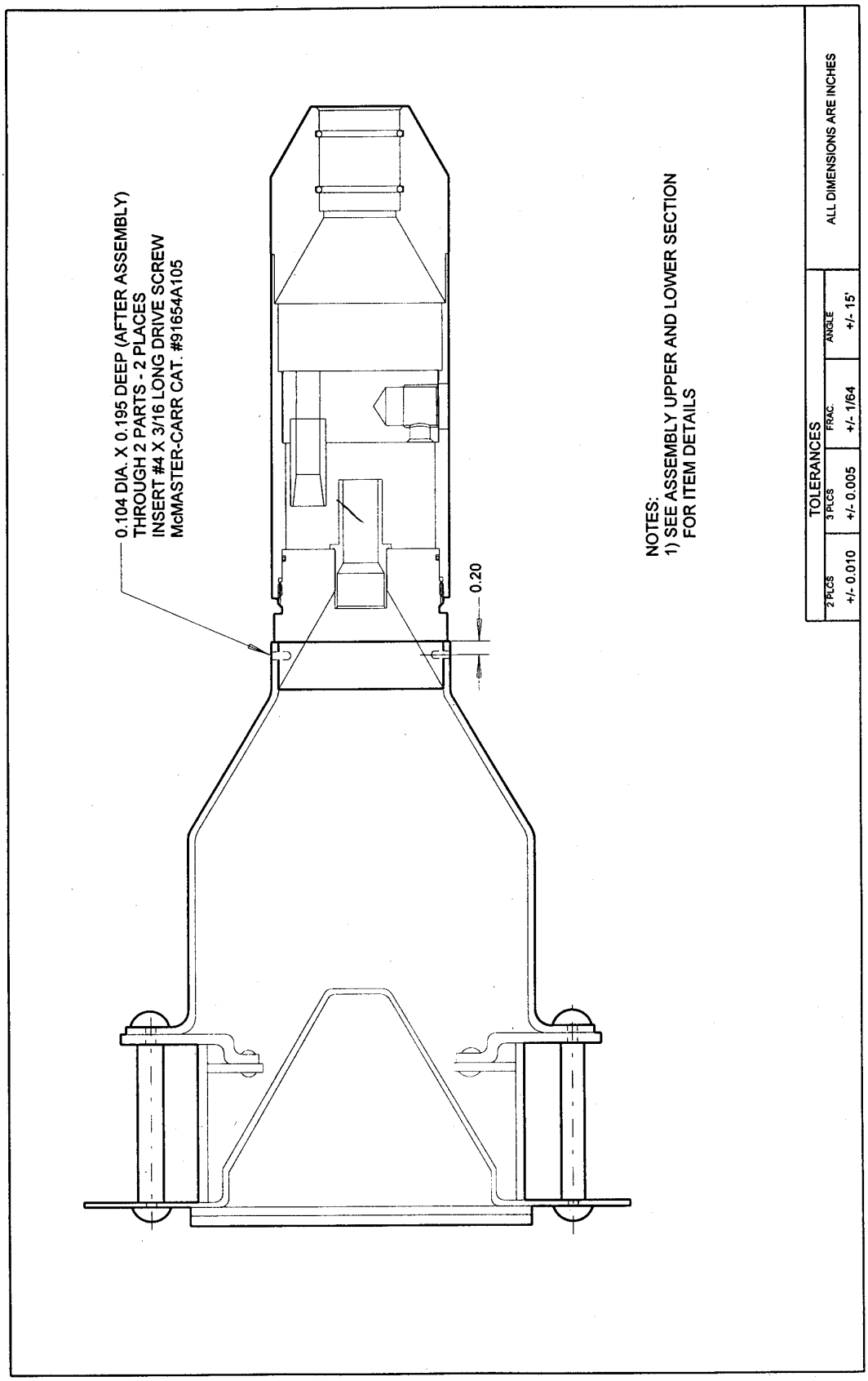

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Figure L-2. 10-Micron Inlet Assembly

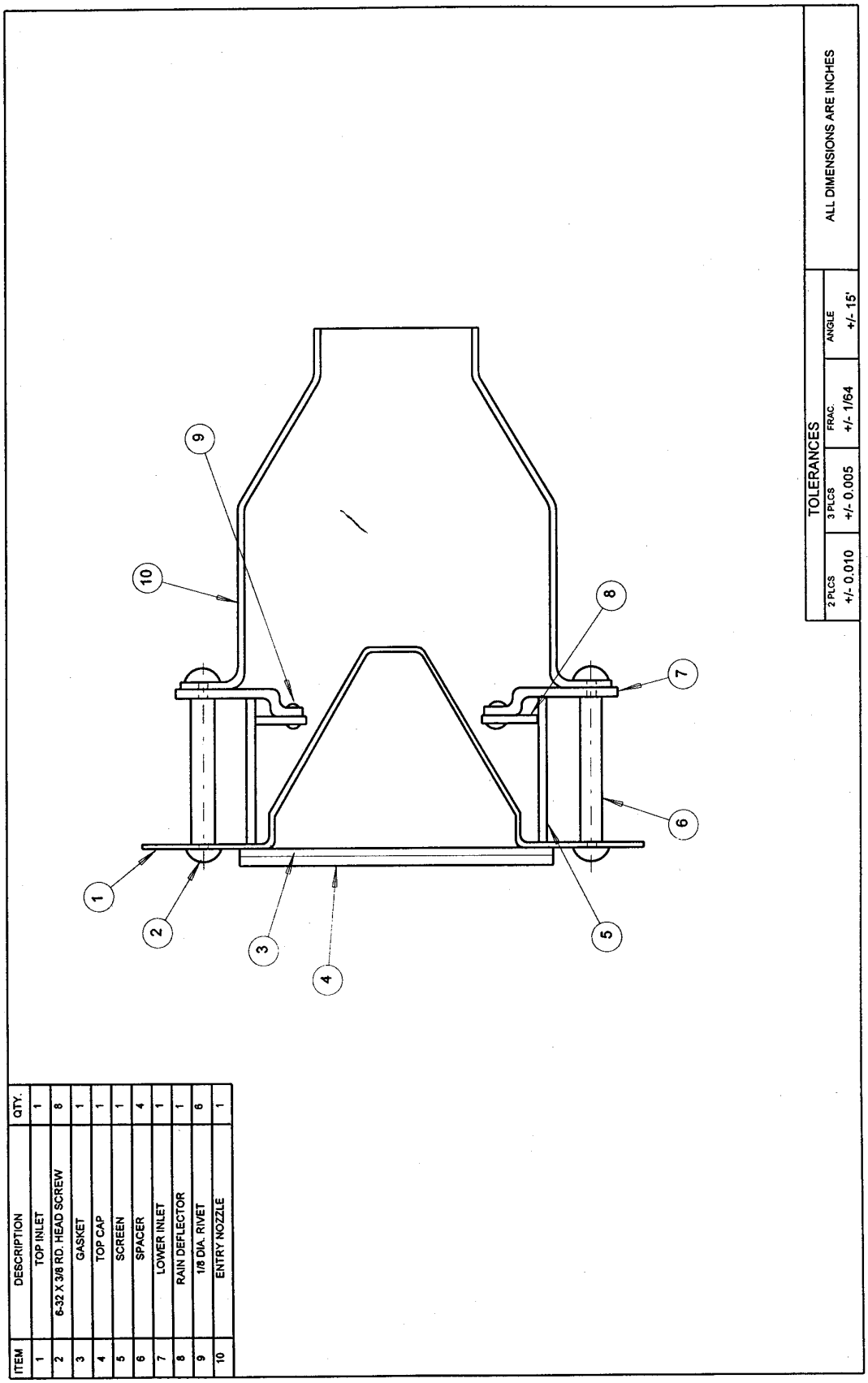

Figure L-3. 10-Micron Assembly, Upper Section

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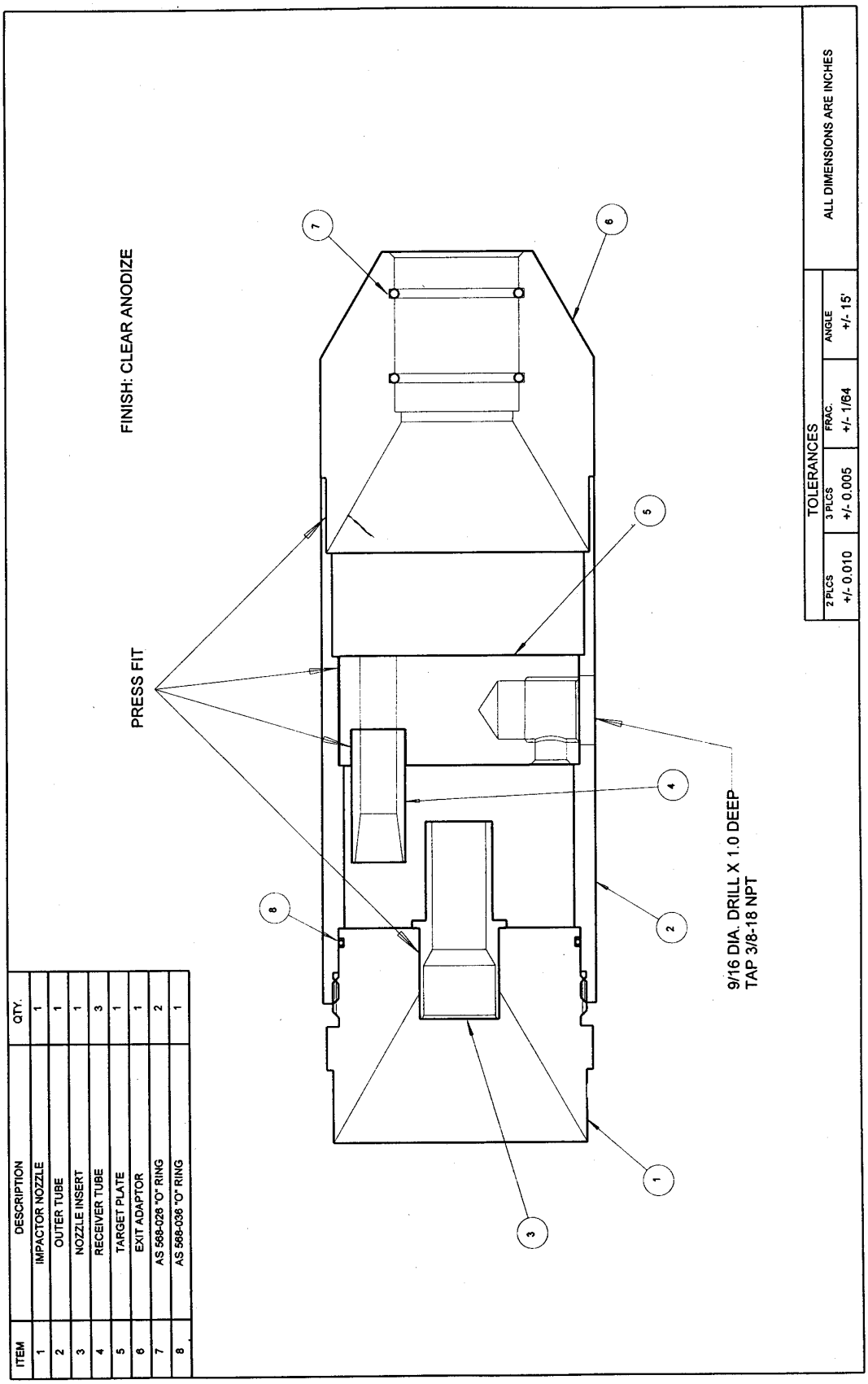

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Version 5

Figure L-4. 10-Micron Assembly, Lower Section

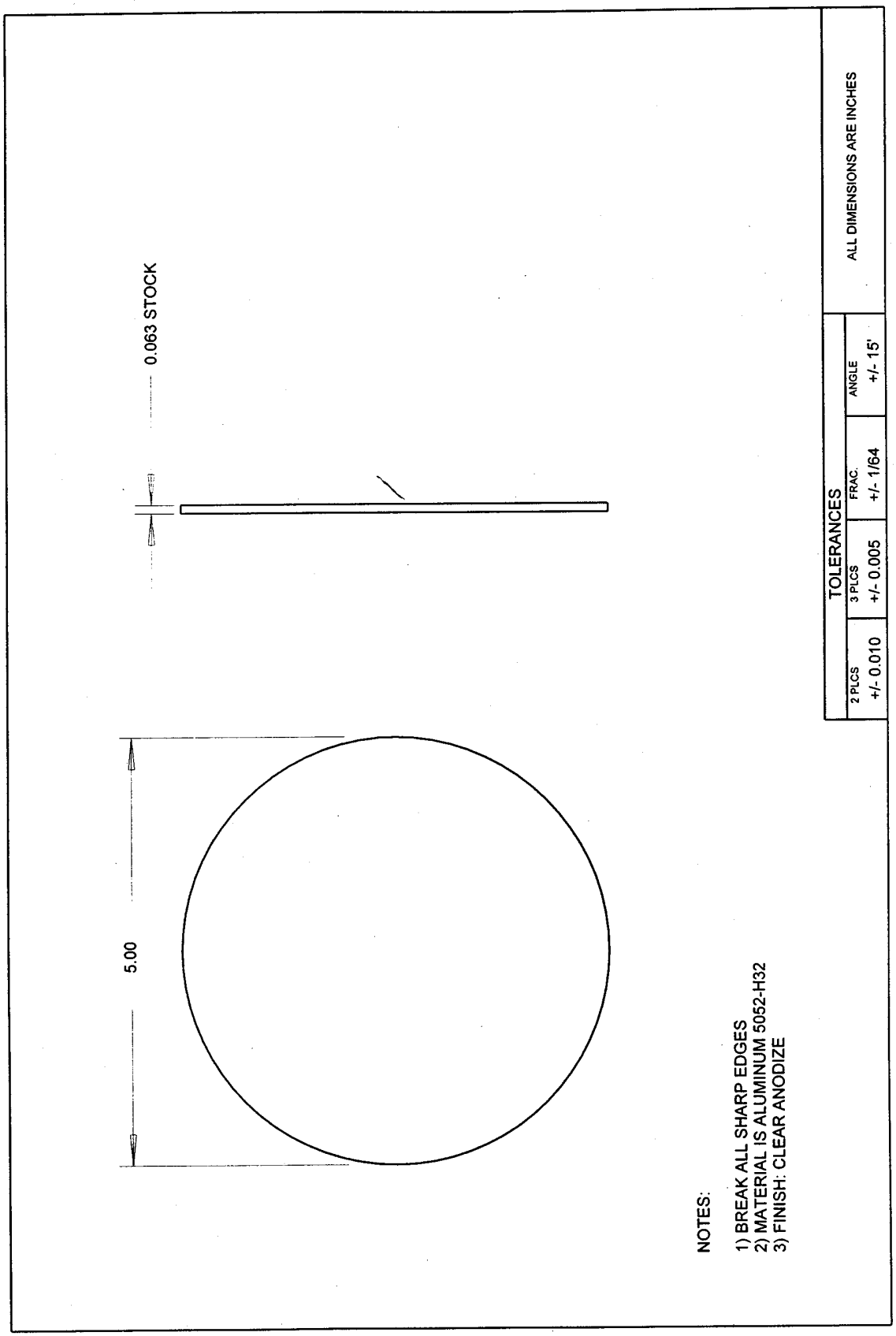

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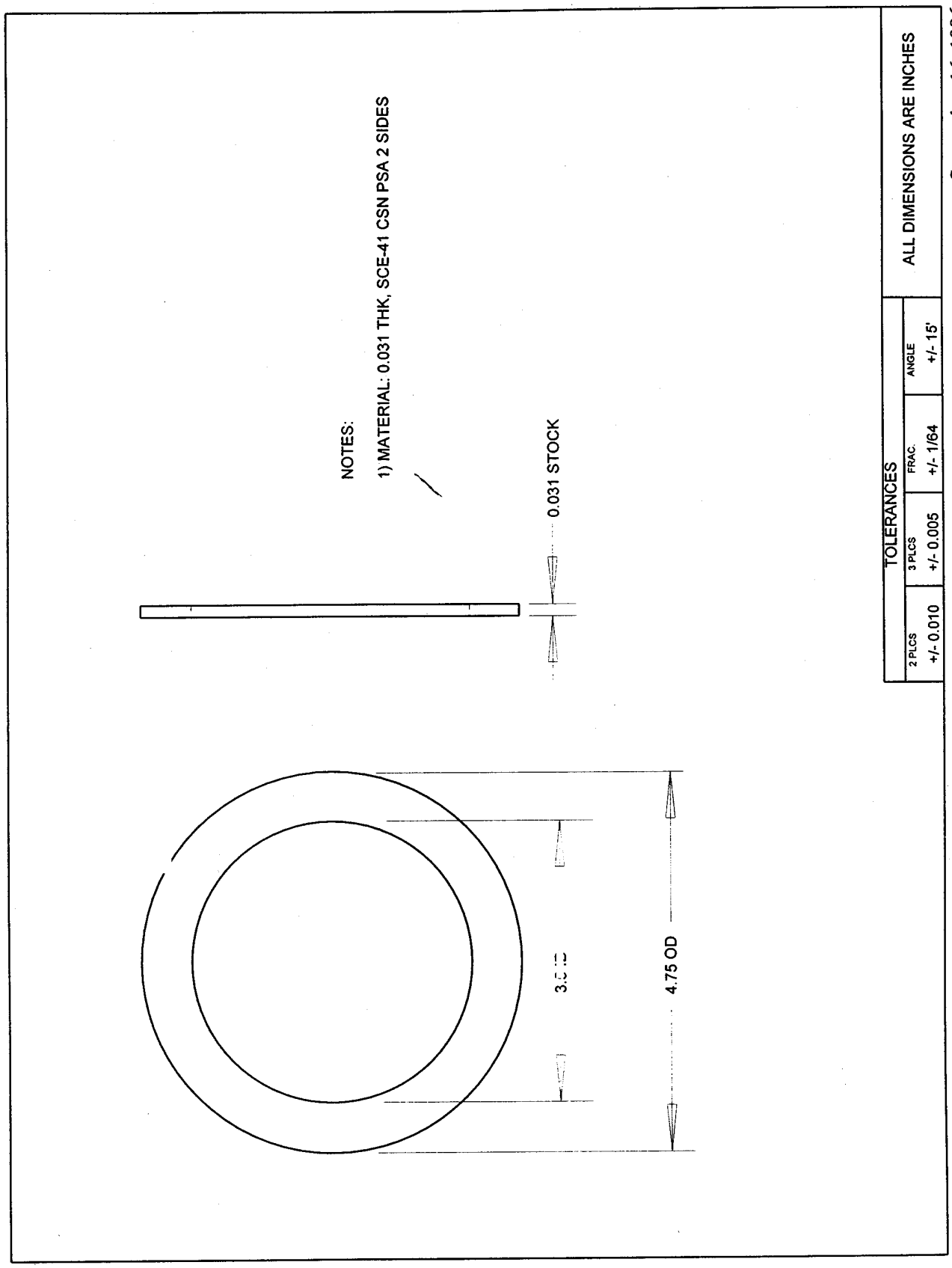
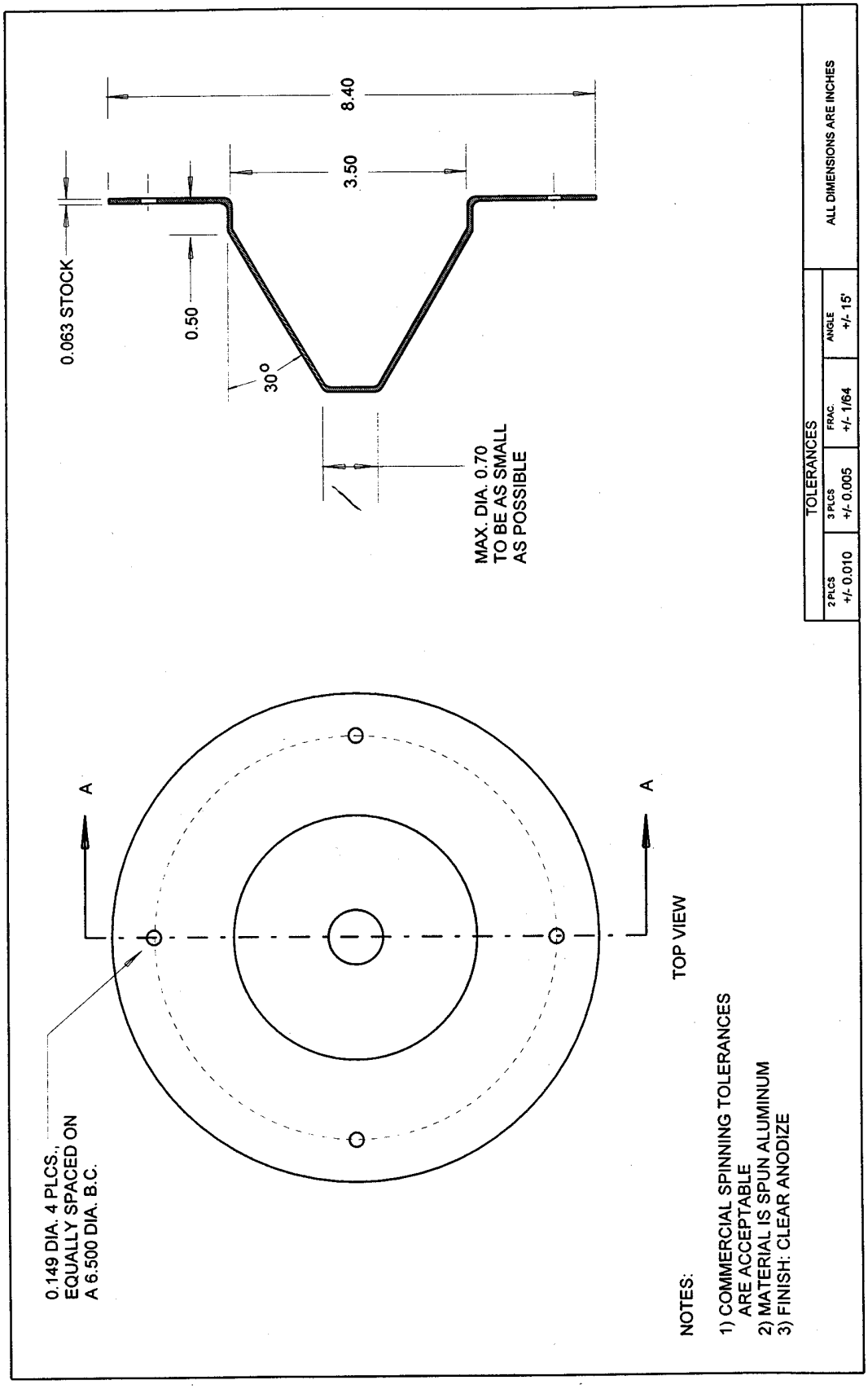
Figure L-5. 10-Micron Top Cap



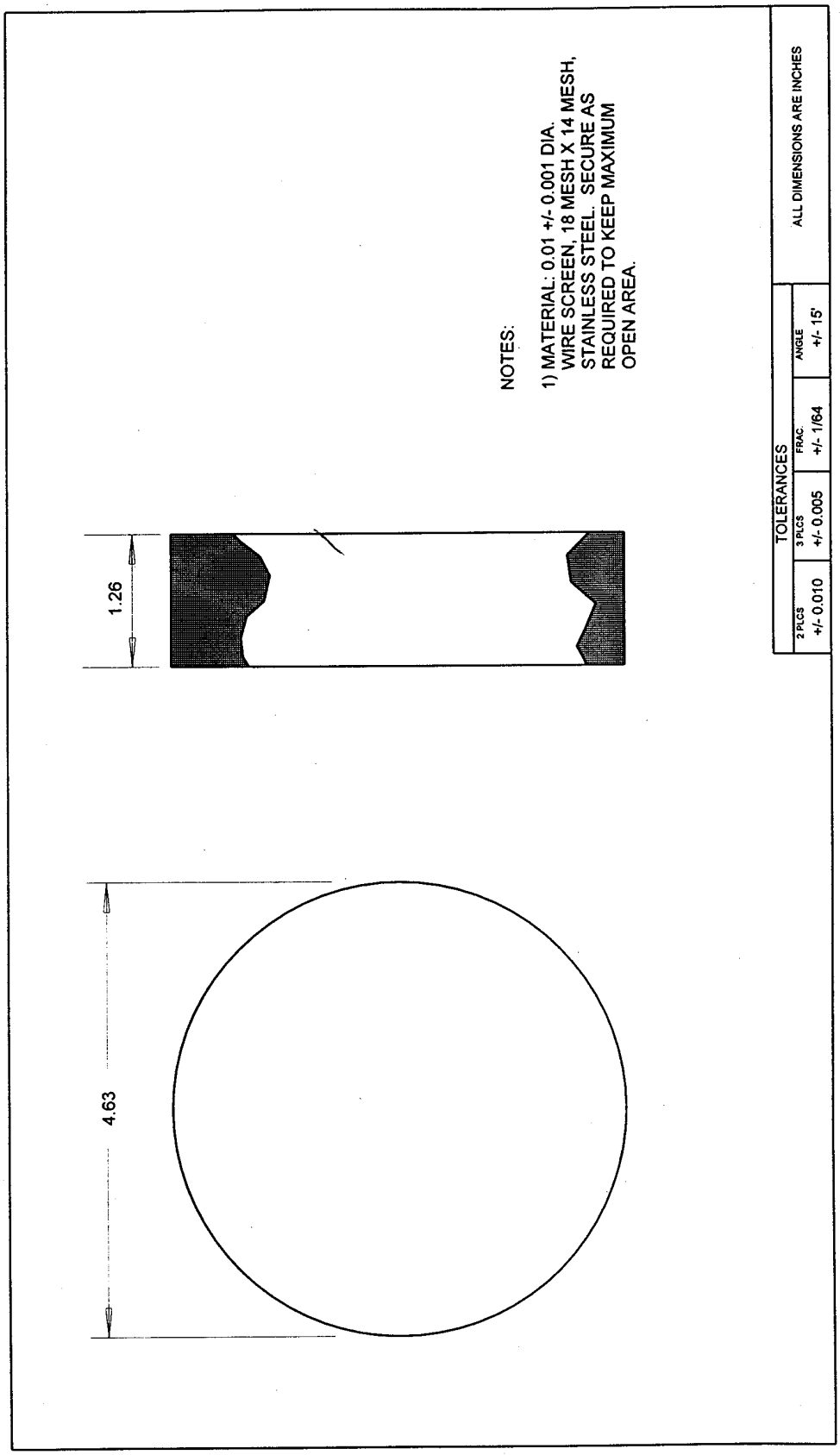
September 16, 1996
Version 4

Figure L-6. 10-Micron Gasket



November 4, 1996
Version 5

Figure L-7. 10-Micron Inlet, Top



September 16, 1996
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Figure L-8. 10-Micron Screen

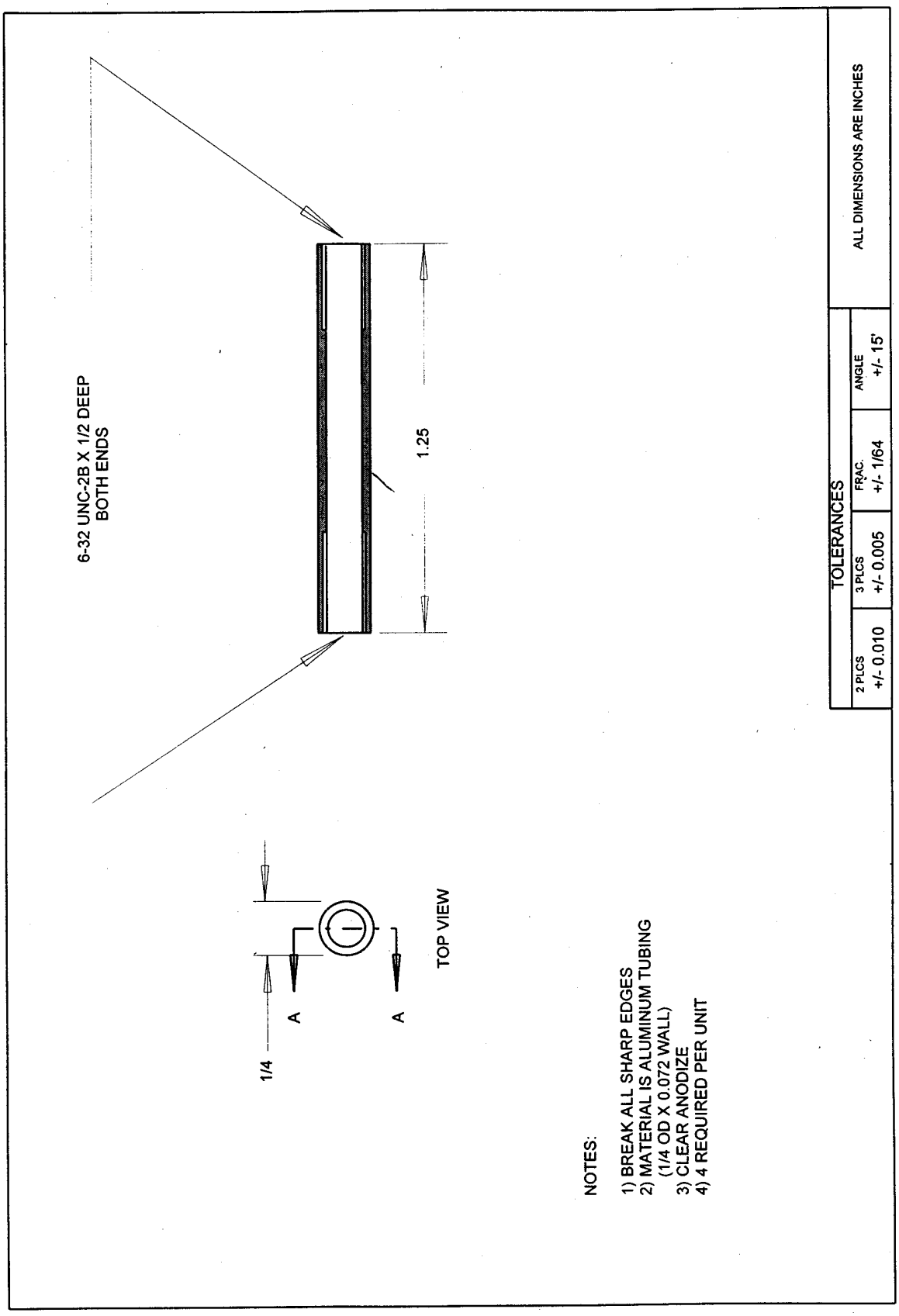

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Figure L-9. 10-Micron Spacer

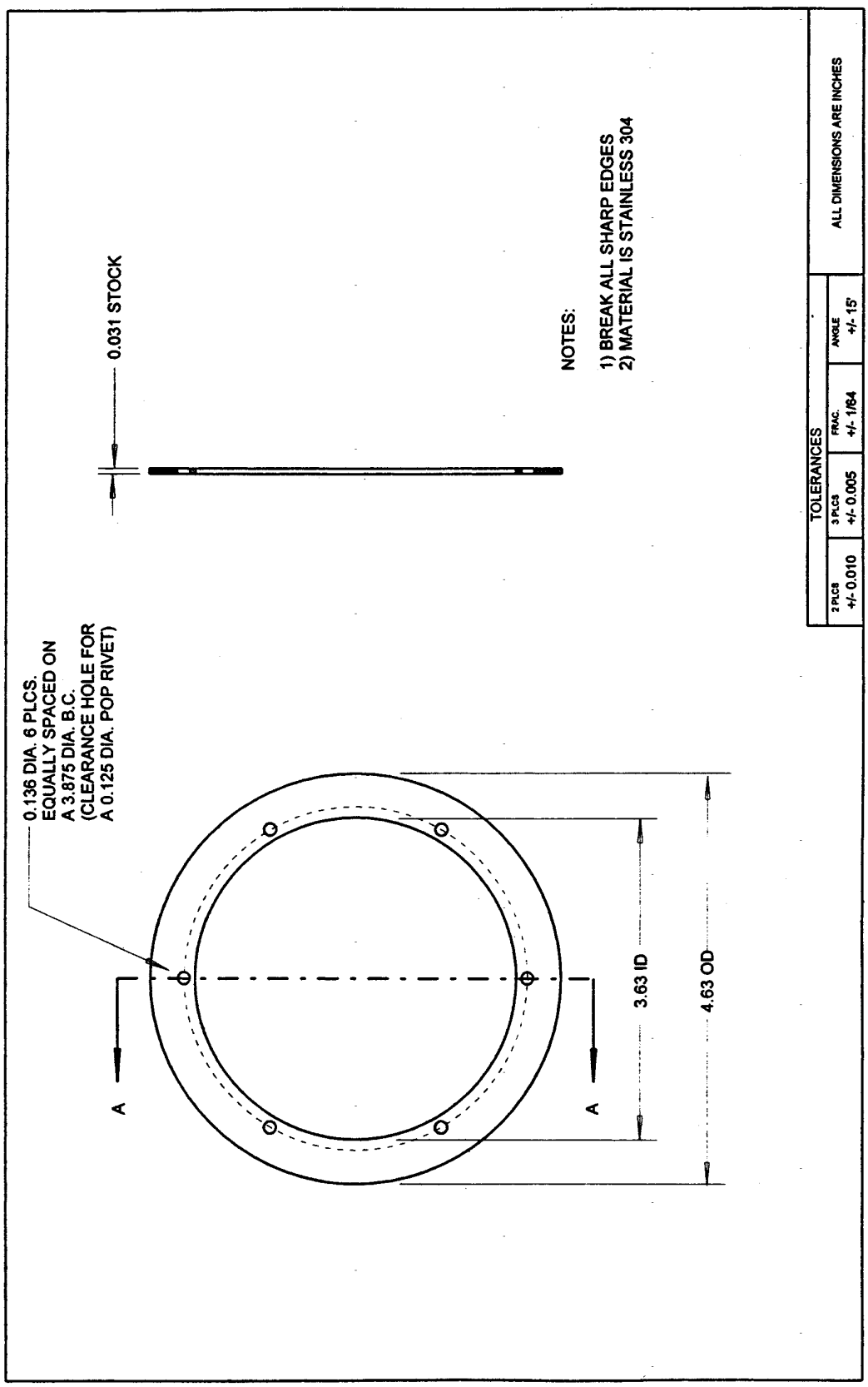

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Figure L-10. 10-Micron Rain Deflector

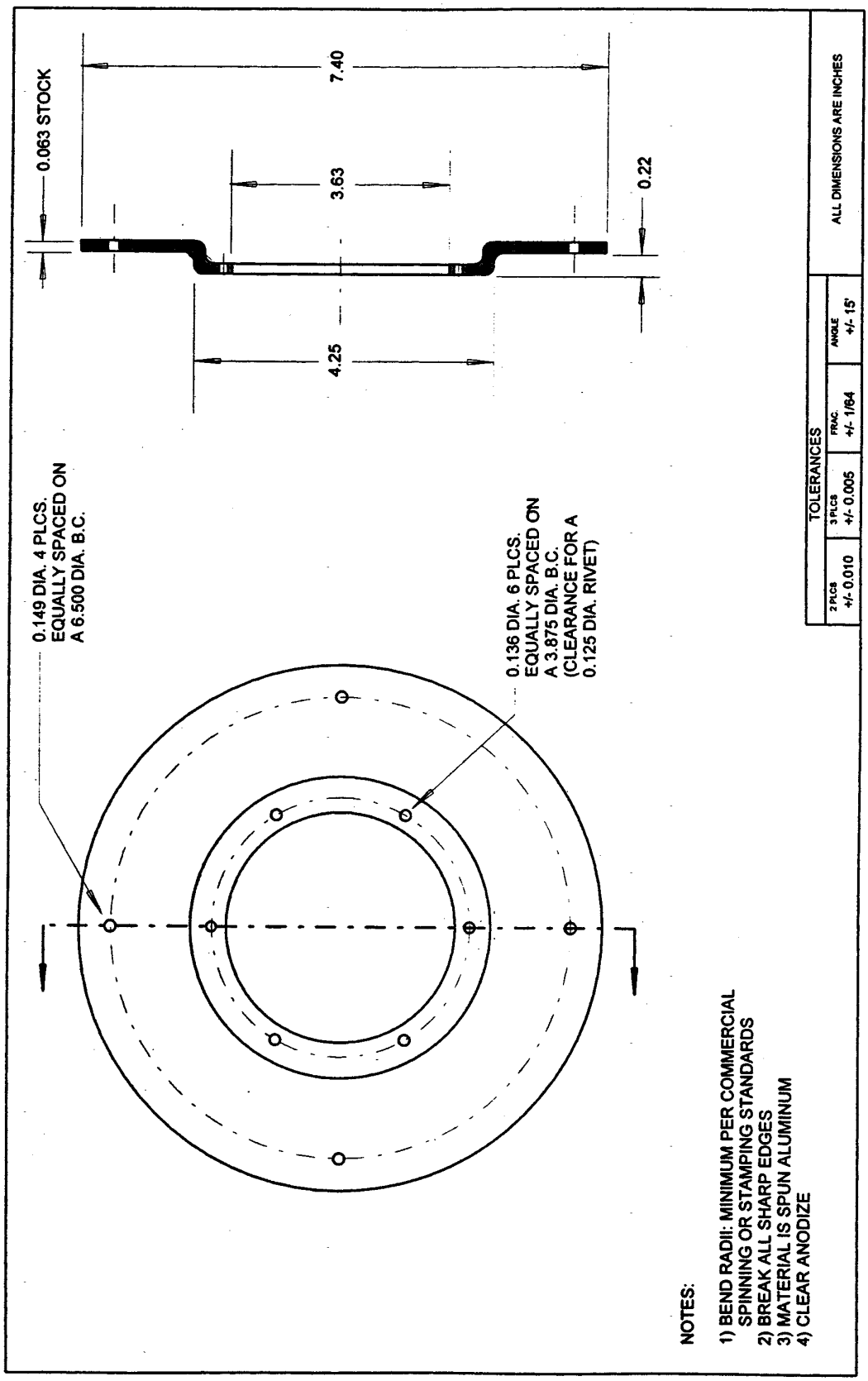

Figure L-11. 10-Micron Inlet, Lower

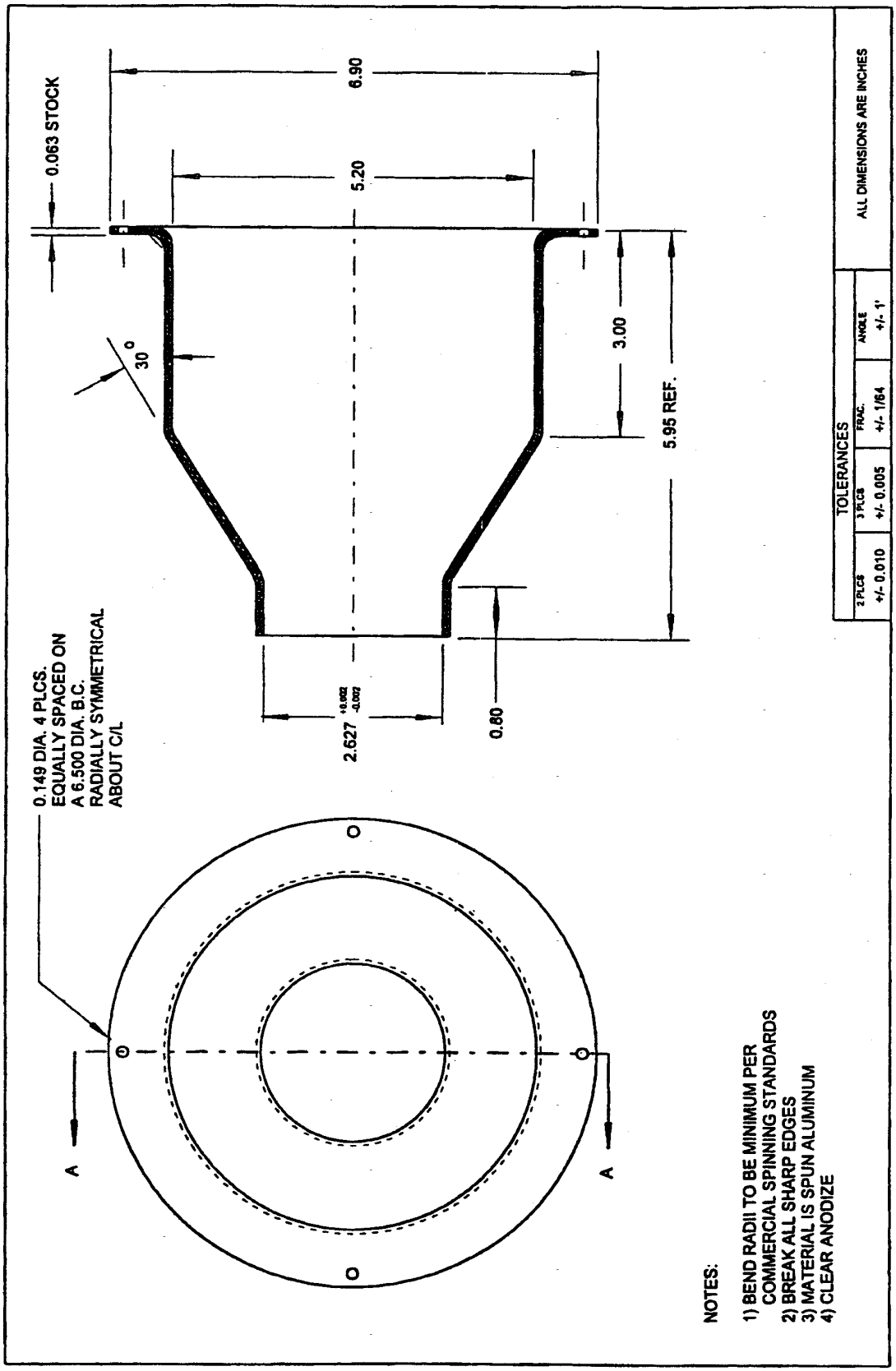

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Figure L-12. 10-Micron Nozzle Entry Section

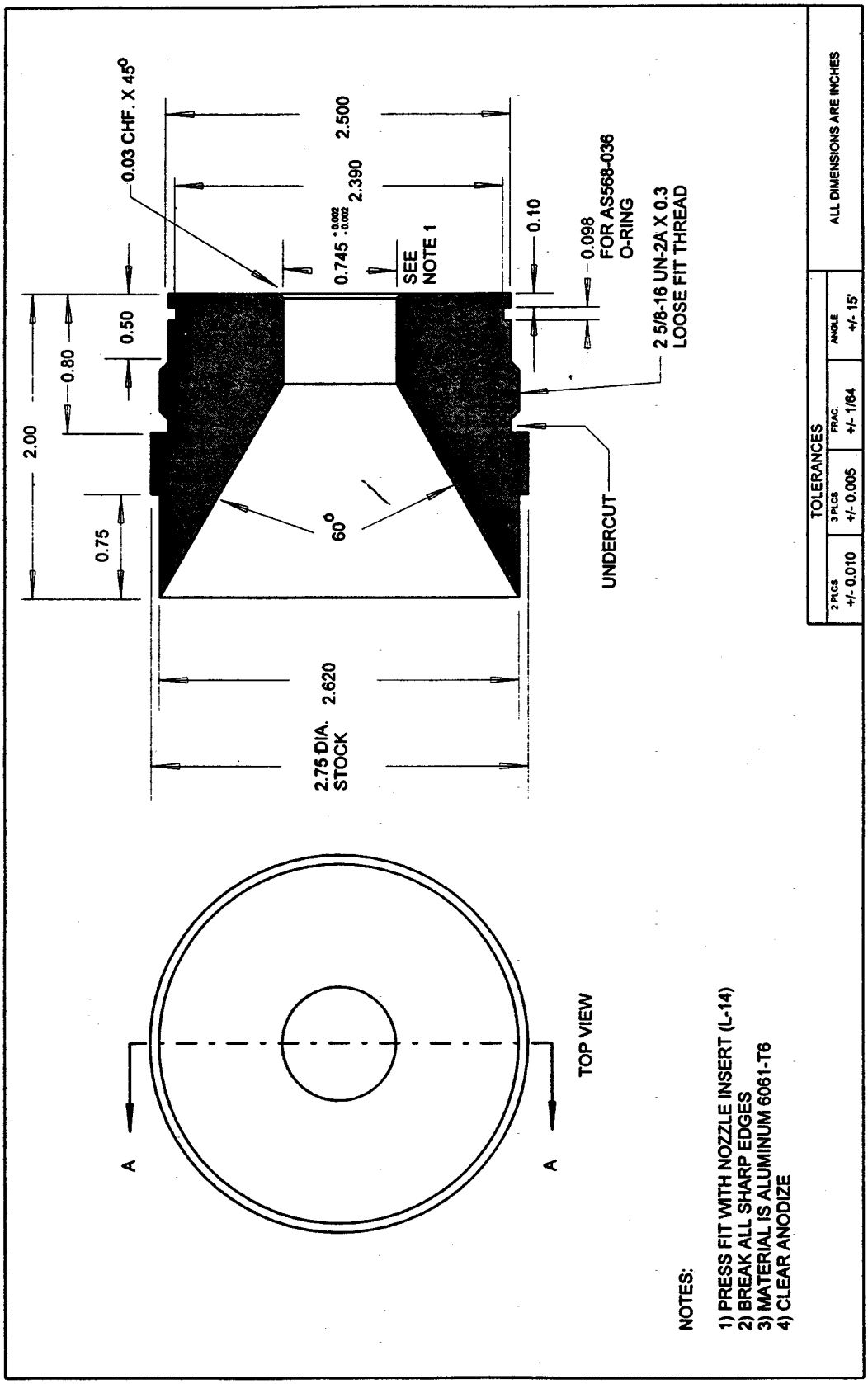
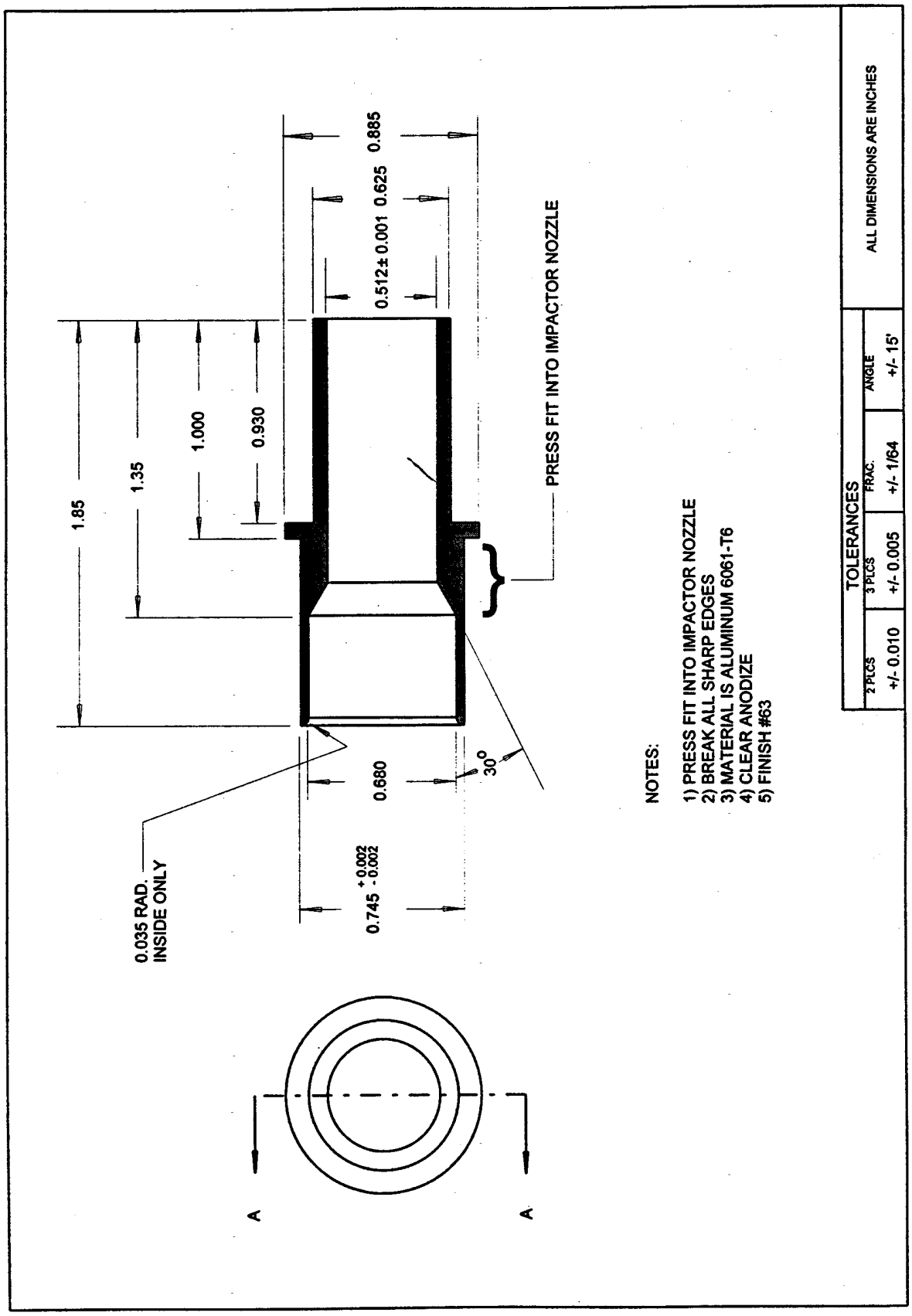


Figure L-13. 10-Micron Impactor Nozzle



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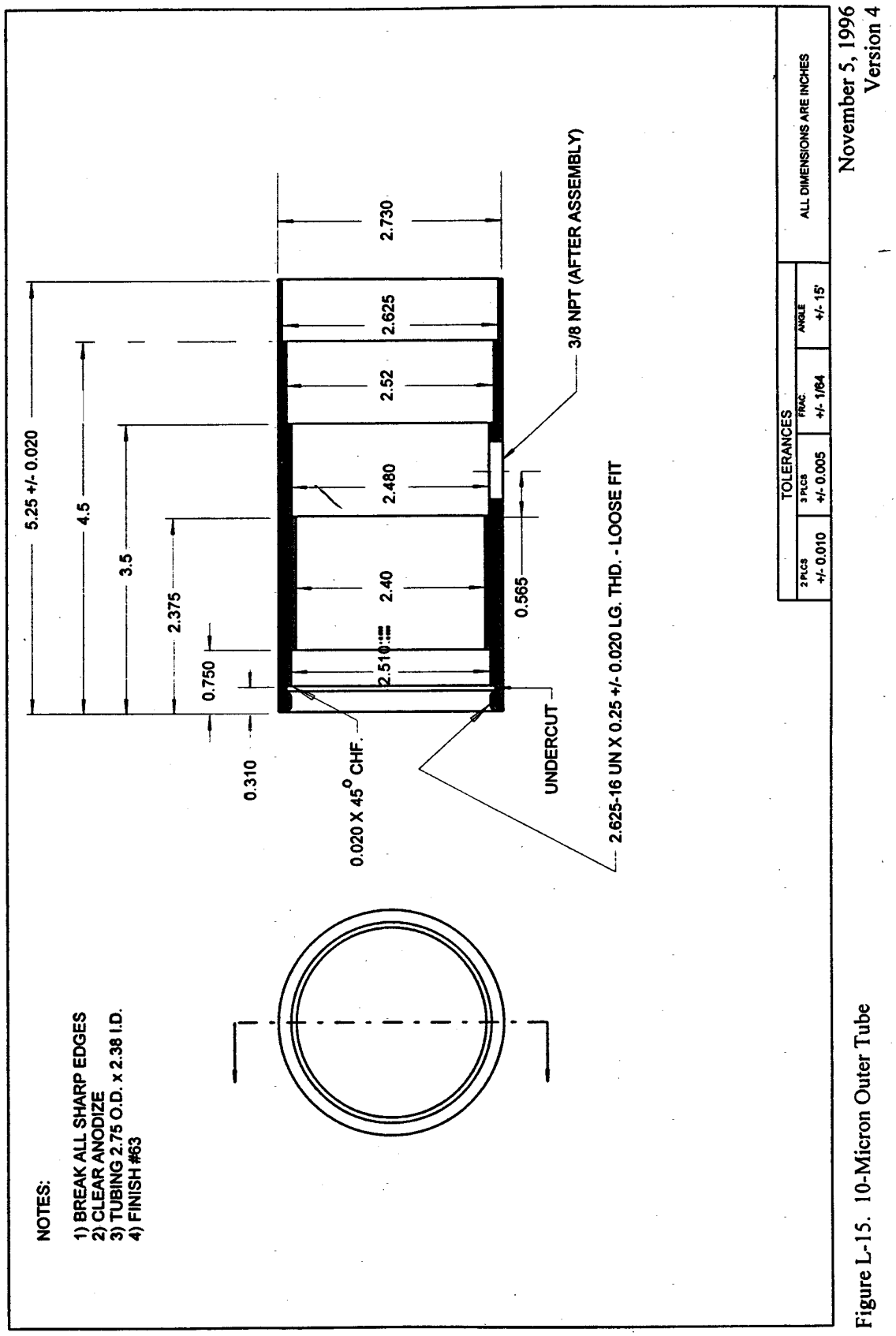

Figure L-15. 10-Micron Outer Tube

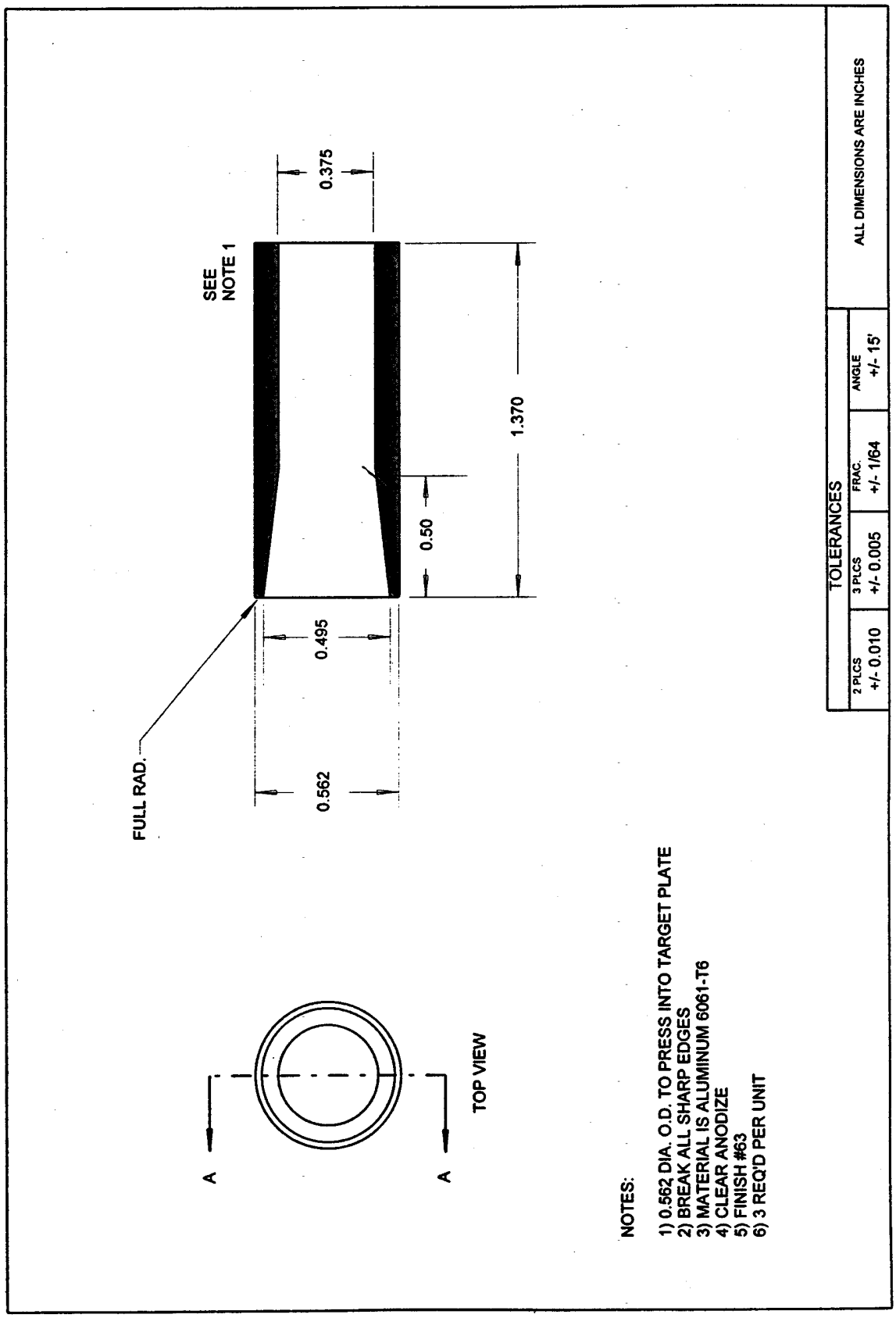

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Figure L-16. 10-Micron Receiver Tube

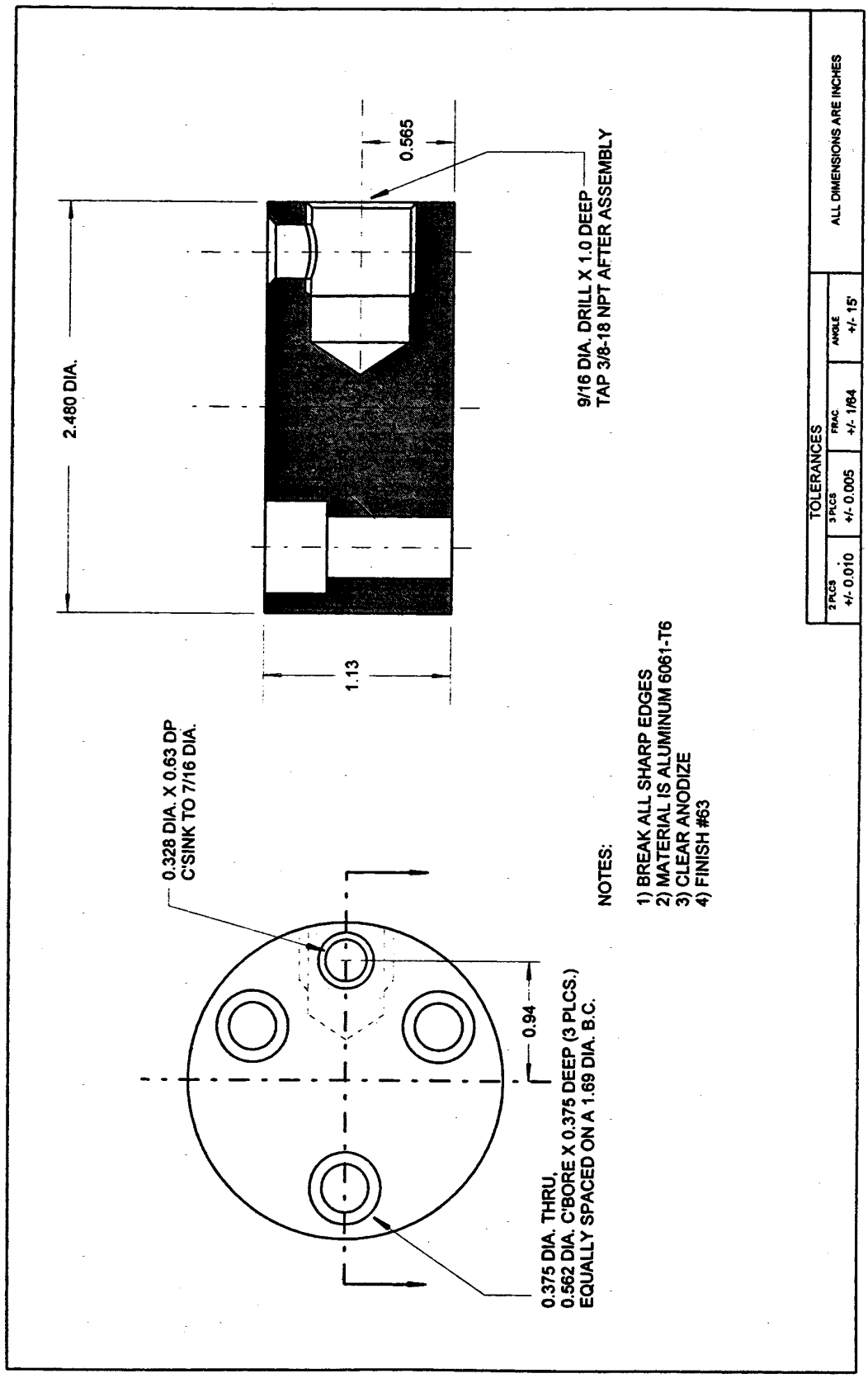

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Figure L-17. 10-Micron Target Plate

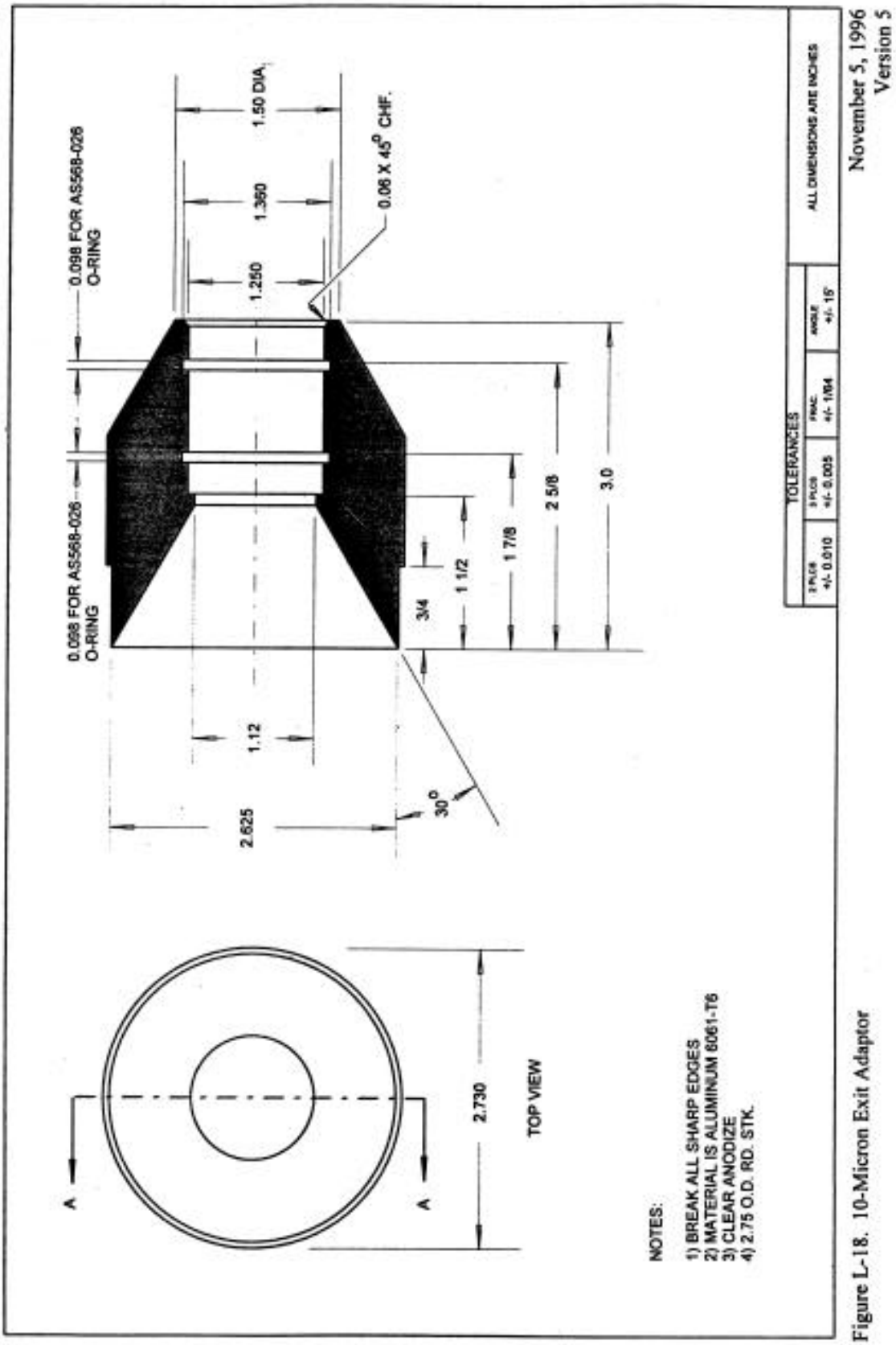

Figure L-18. 10-Micron Exit Adaptor

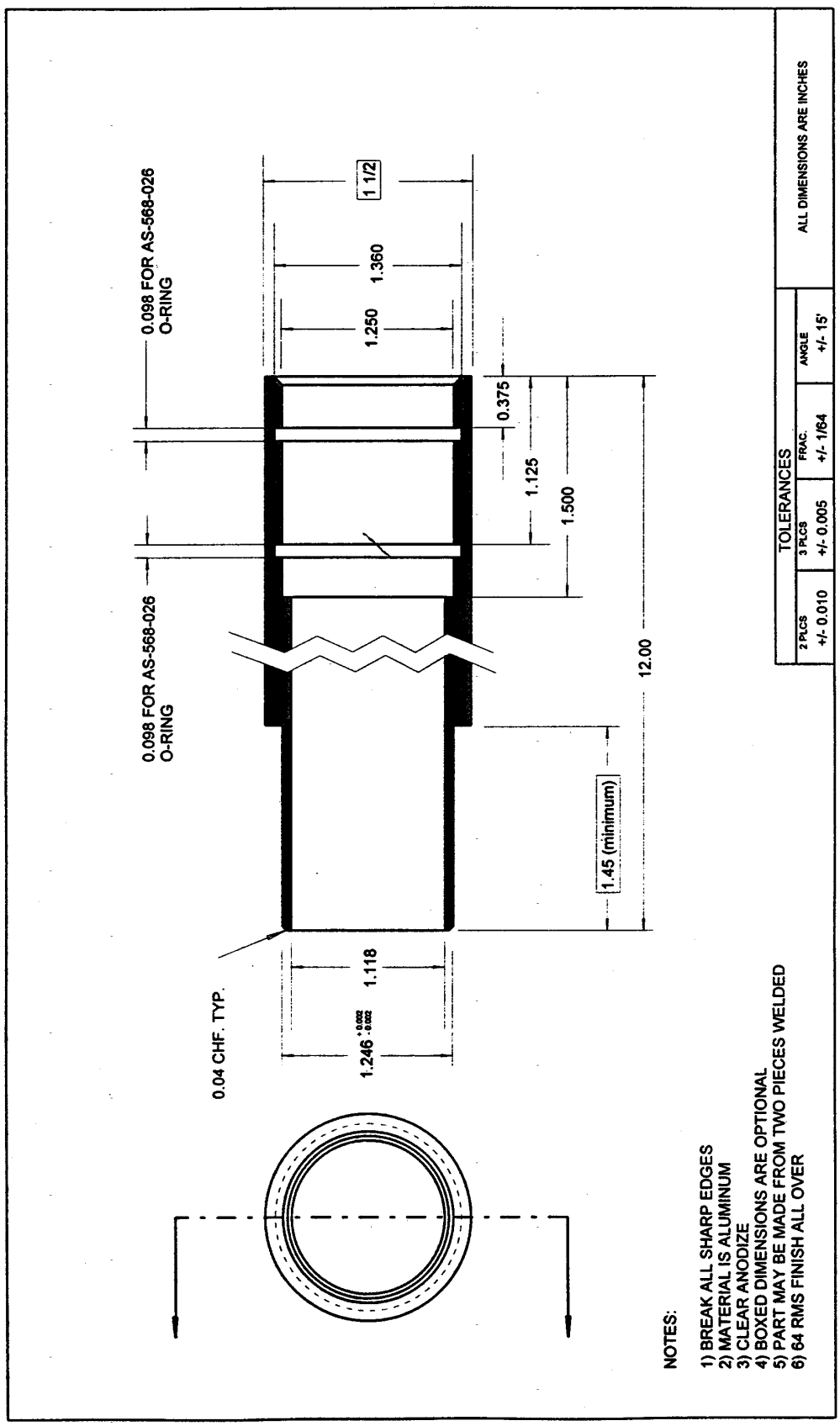

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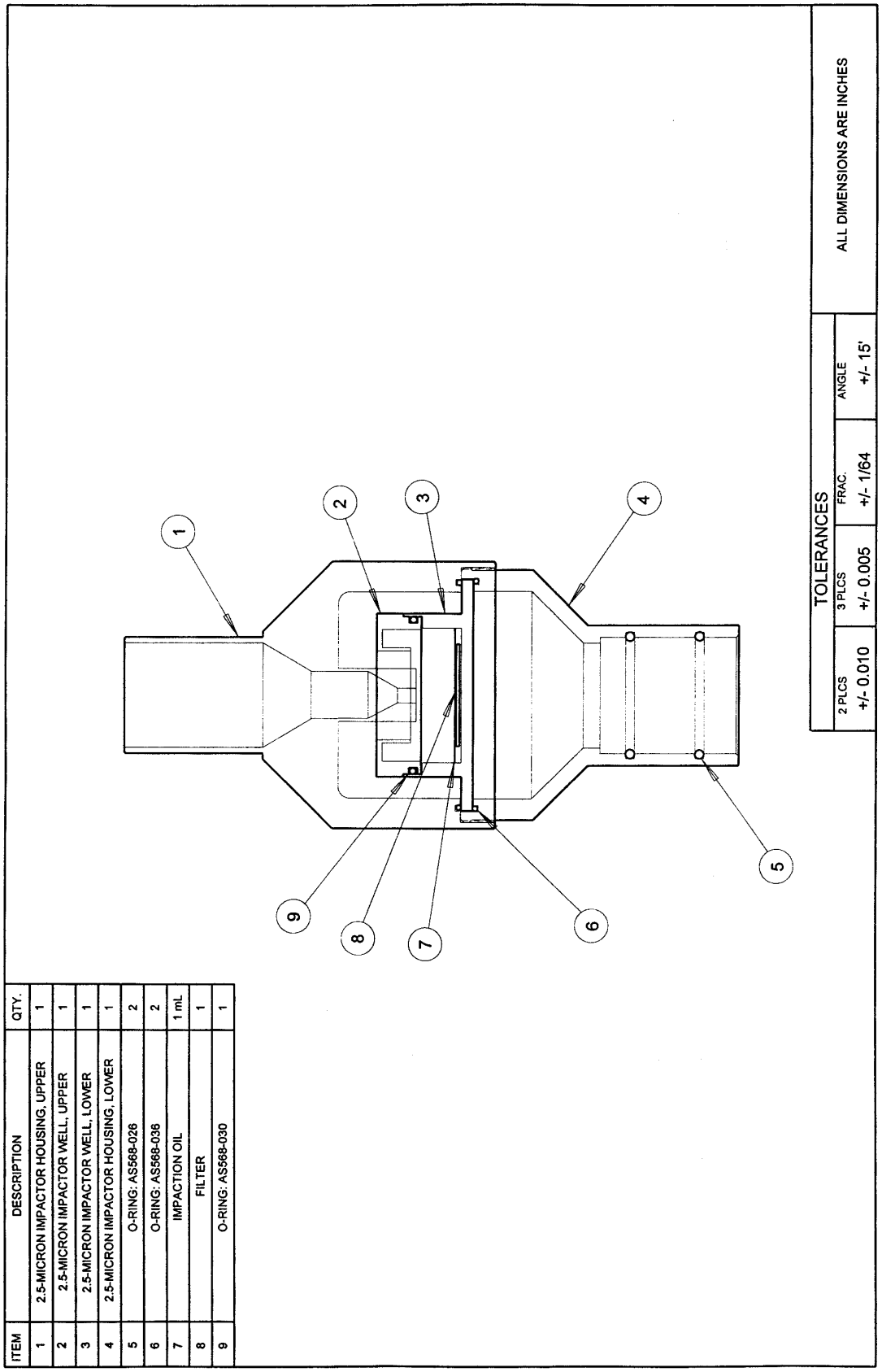
Figure L-19. 10-Micron Down Tube



ITEM	DESCRIPTION	QTY.
1	2.5-MICRON IMPACTOR HOUSING, UPPER	1
2	2.5-MICRON IMPACTOR WELL, UPPER	1
3	2.5-MICRON IMPACTOR WELL, LOWER	1
4	2.5-MICRON IMPACTOR HOUSING, LOWER	1
5	O-RING: AS568-026	2
6	O-RING: AS568-036	2
7	IMPACTION OIL	1 mL
8	FILTER	1
9	O-RING: AS568-030	1

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Figure L-20. 2.5-Micron Impactor Assembly

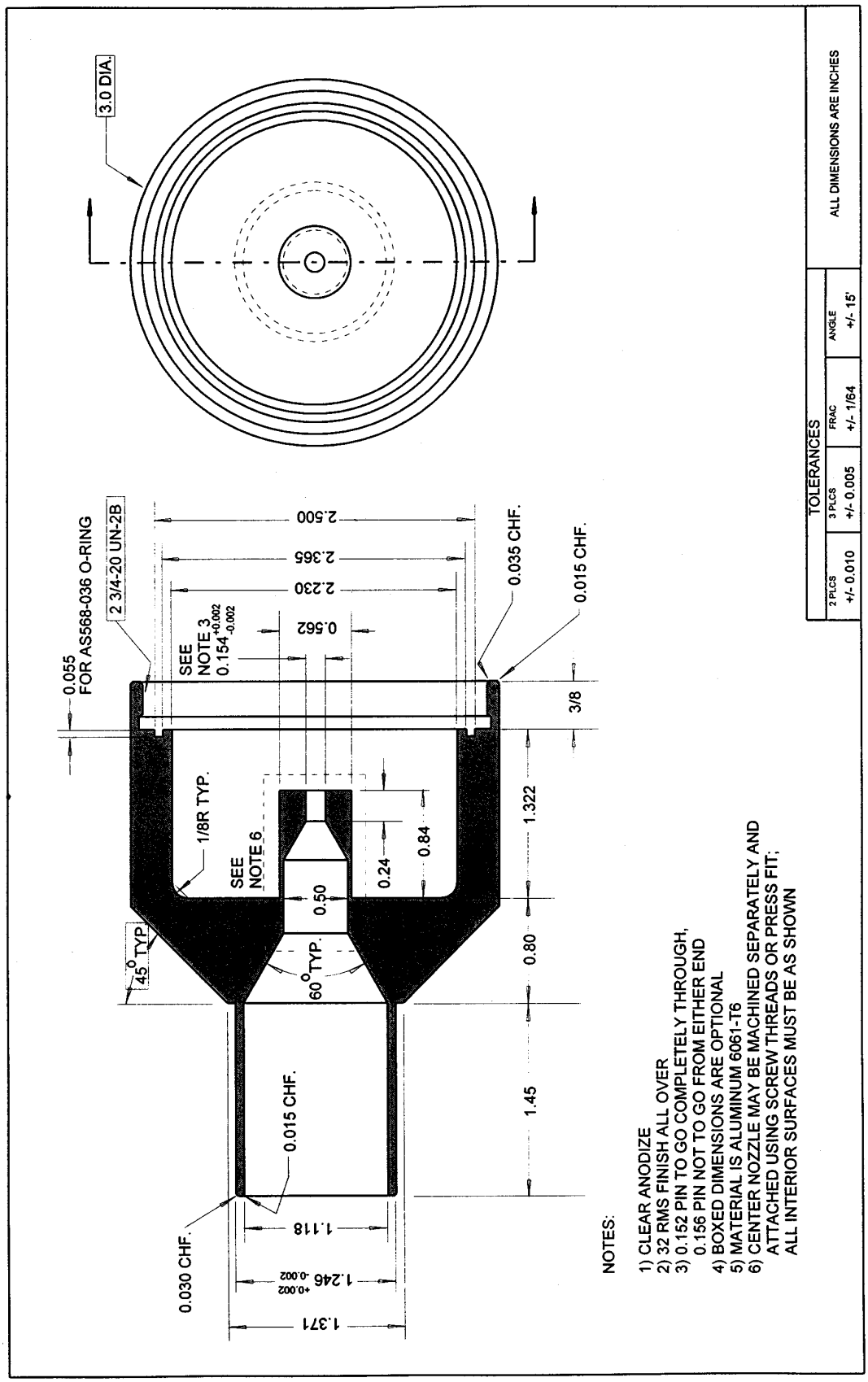

Figure L-21. 2.5-Micron Impactor Housing, Upper

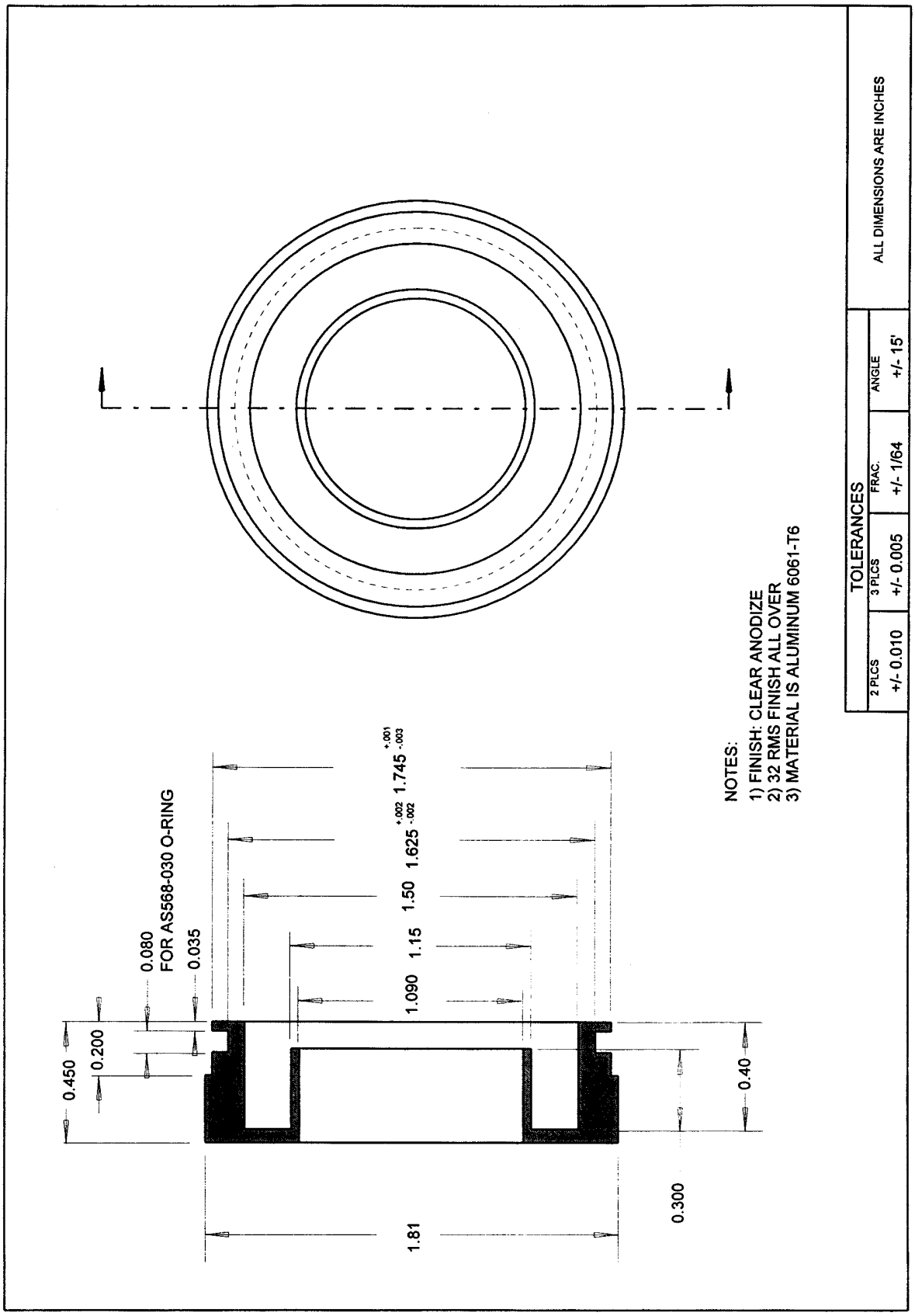

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Figure L-22. 2.5-Micron Impactor Well, Upper Section

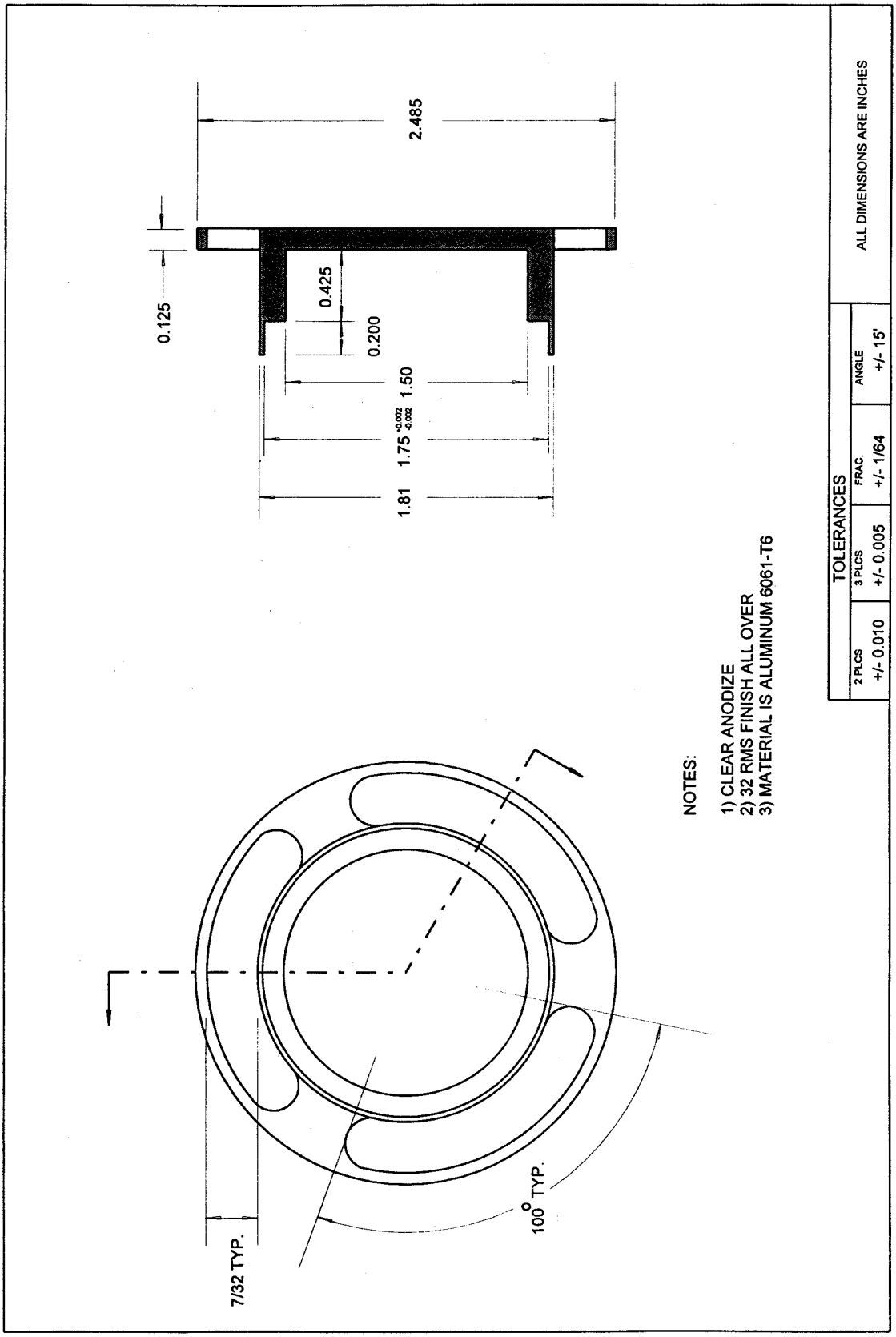

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Figure L-23. 2.5-Micron Impactor Well, Lower Section

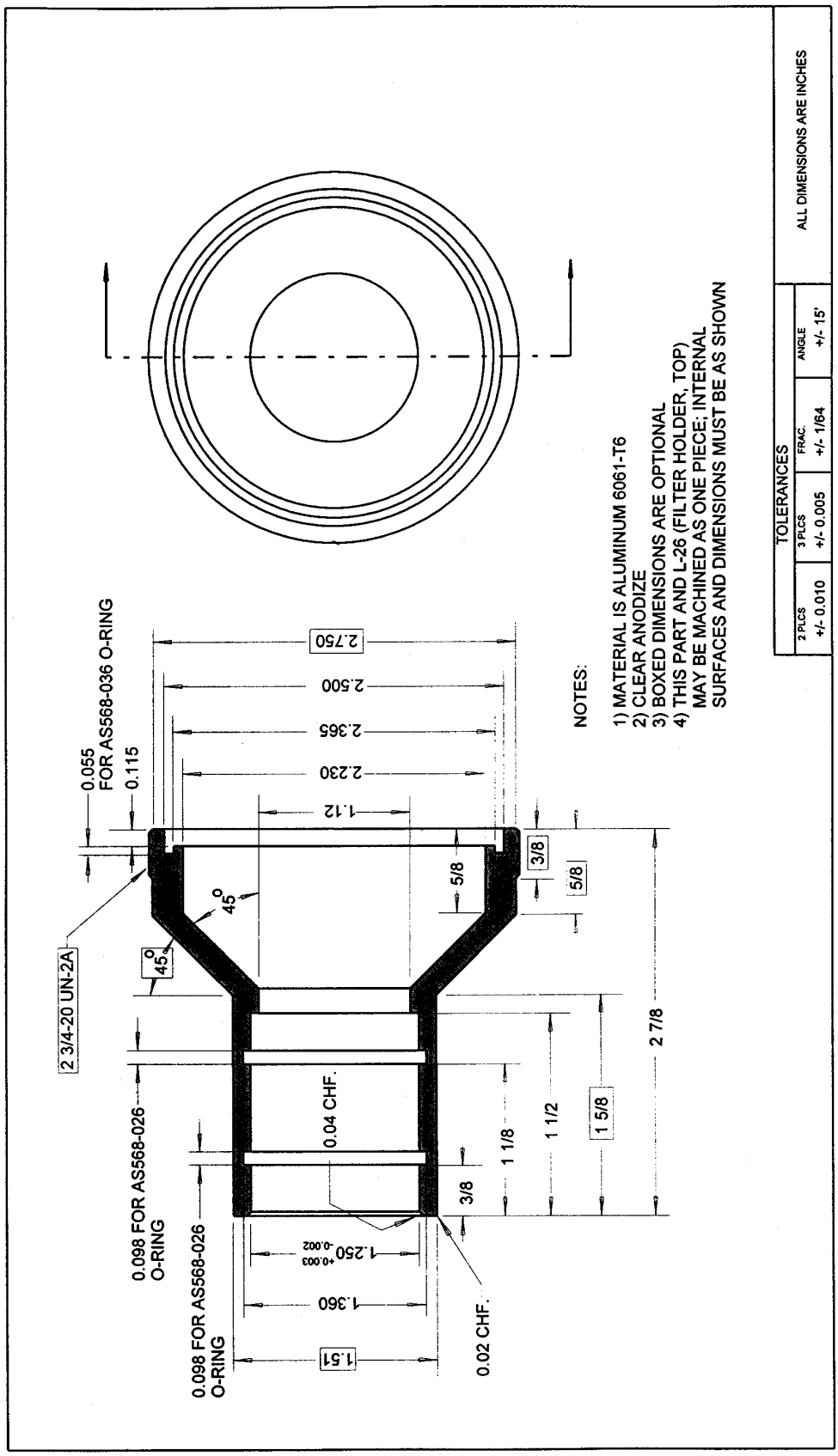

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Figure L-24. 2.5-Micron Impactor Housing, Lower

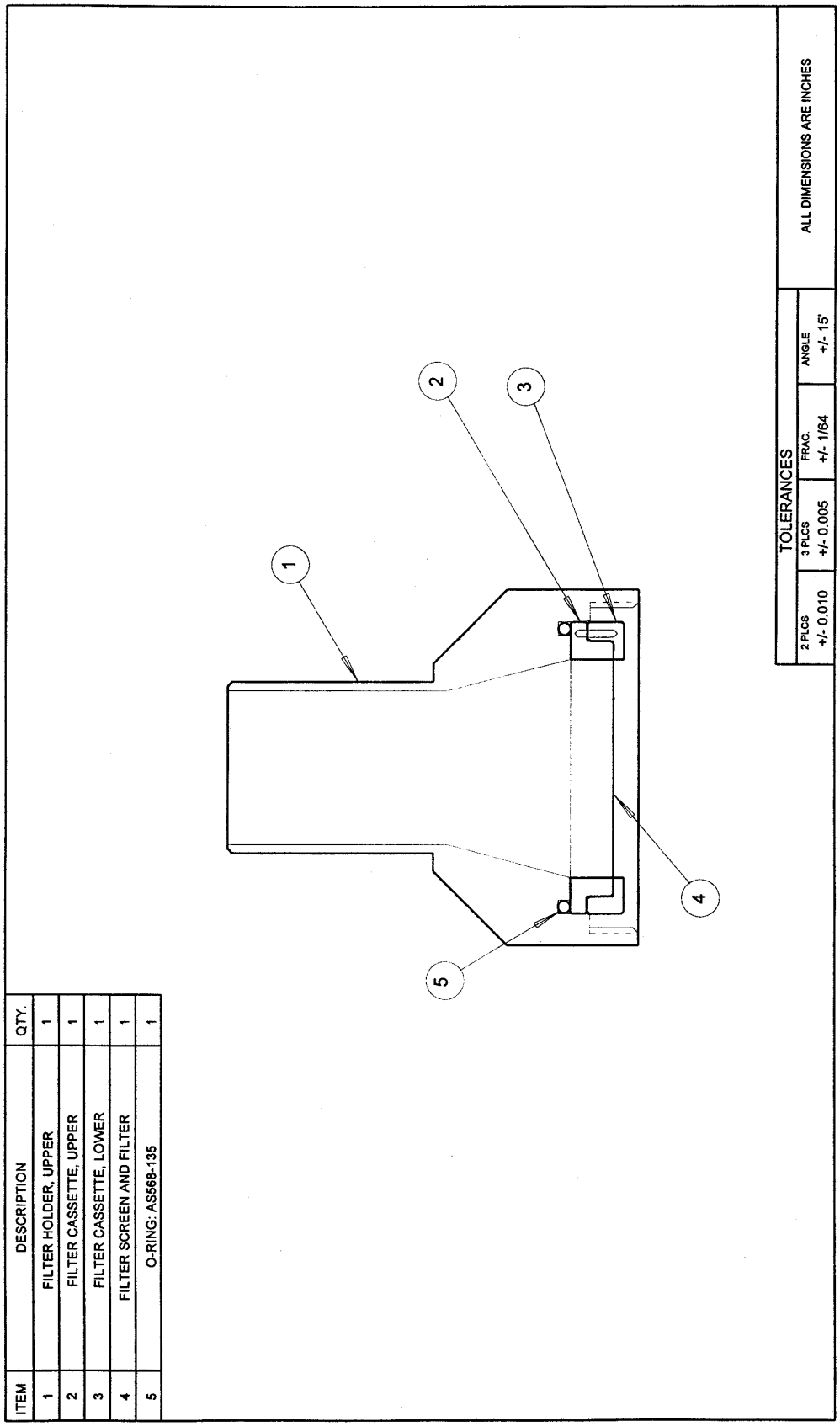

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Figure L-25. Filter Holder, Assembly

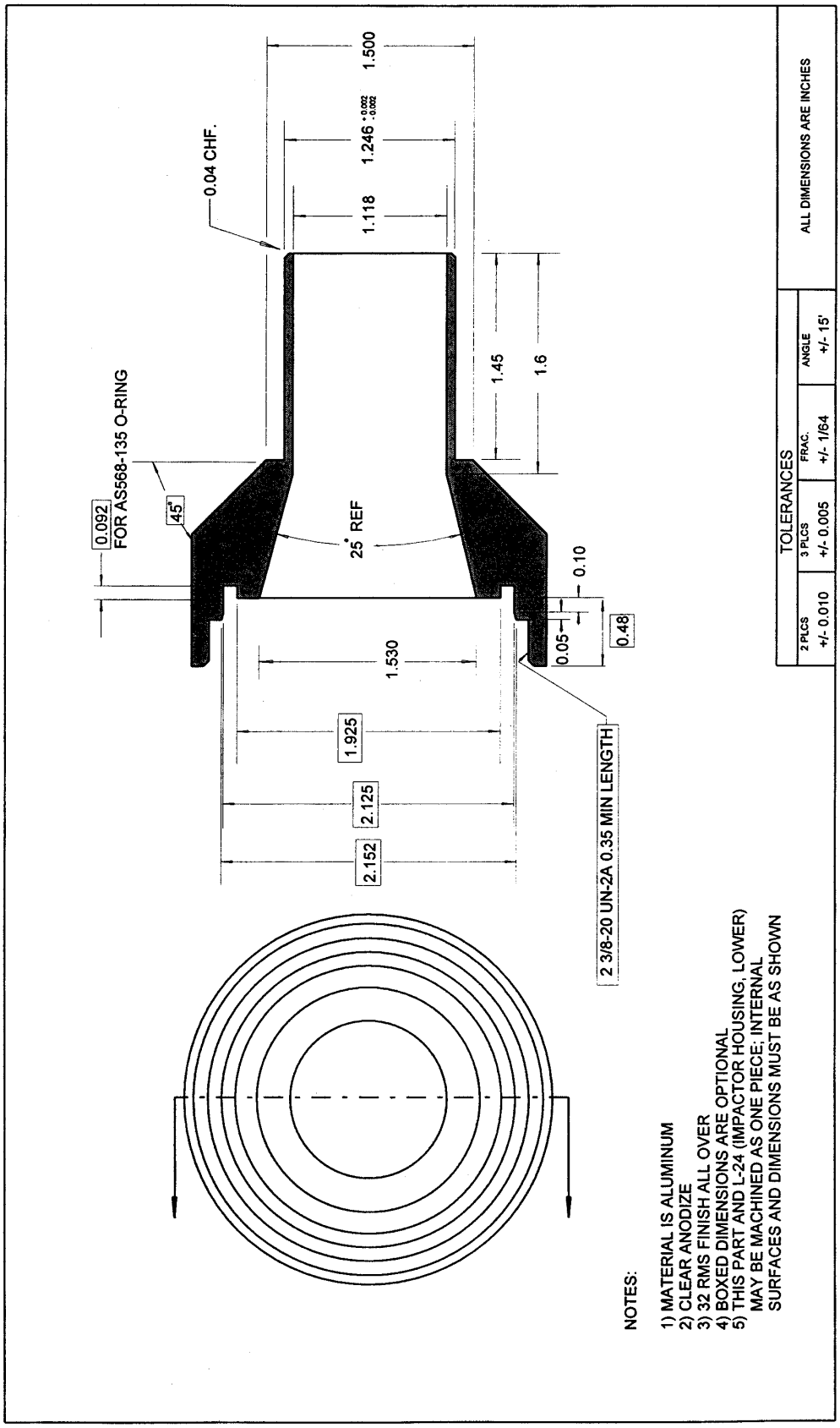

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Figure L-26. Filter Holder, Top

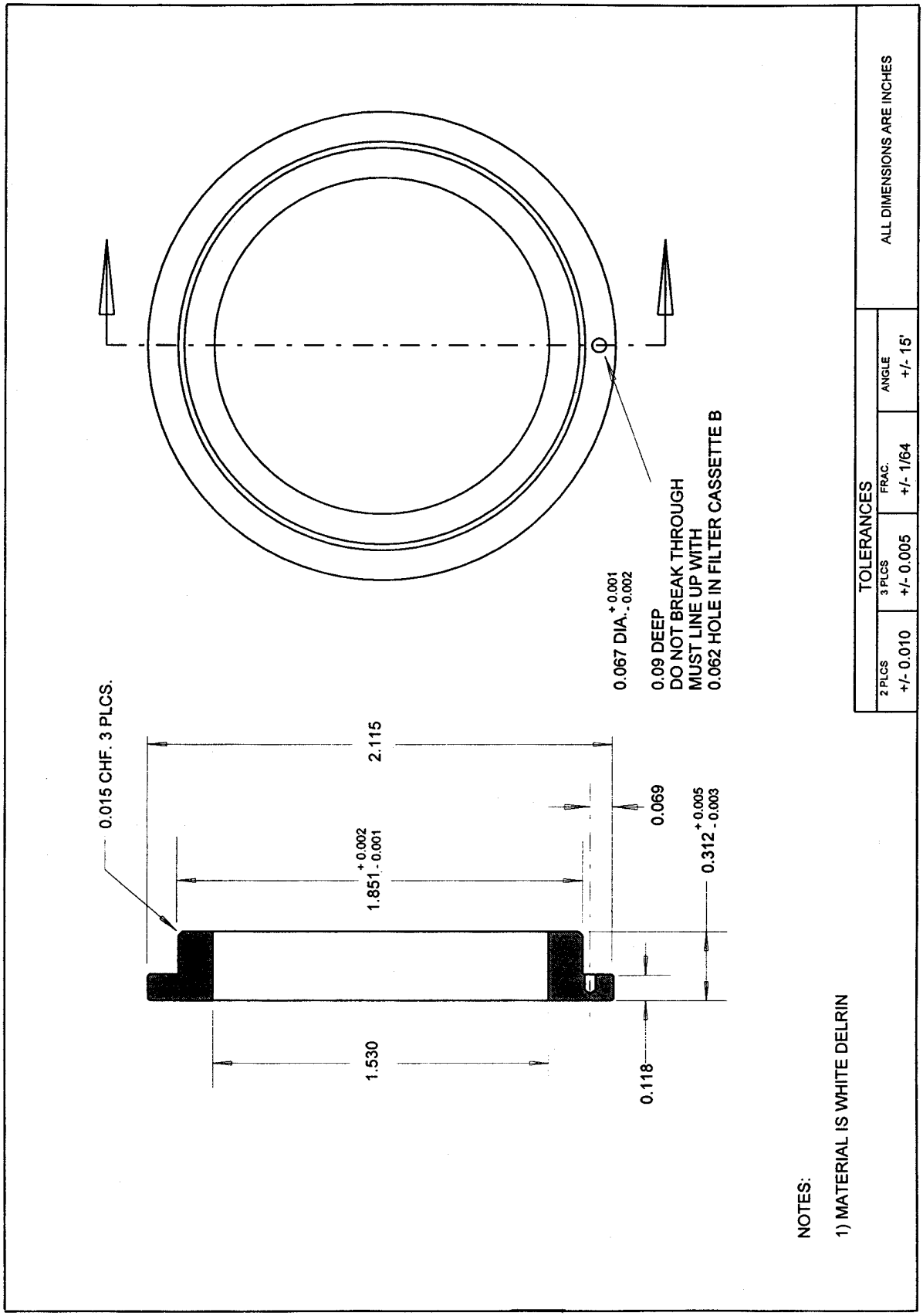

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Figure L-27. Filter Cassette, Upper Section

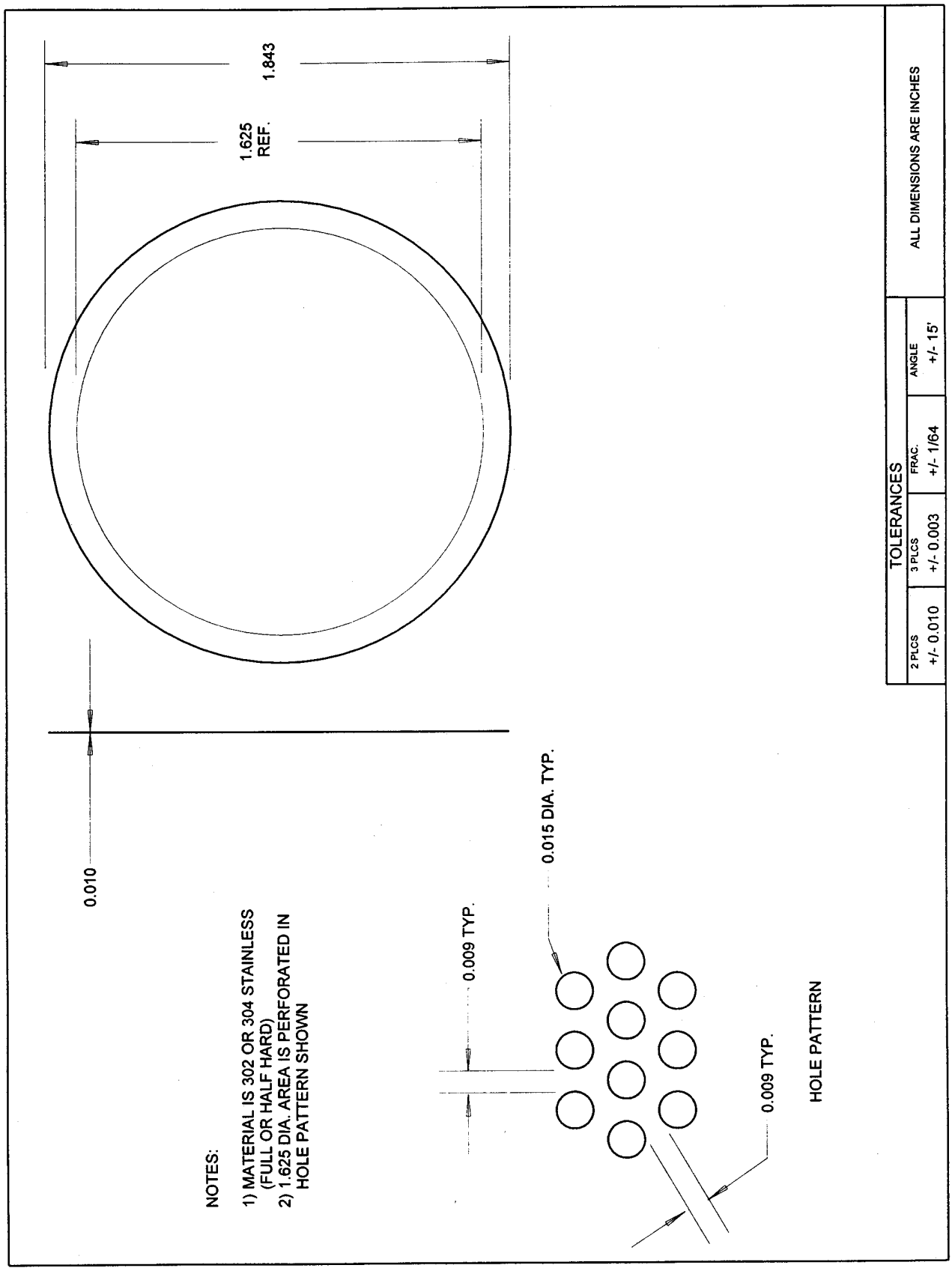

Figure L-28. Filter Screen

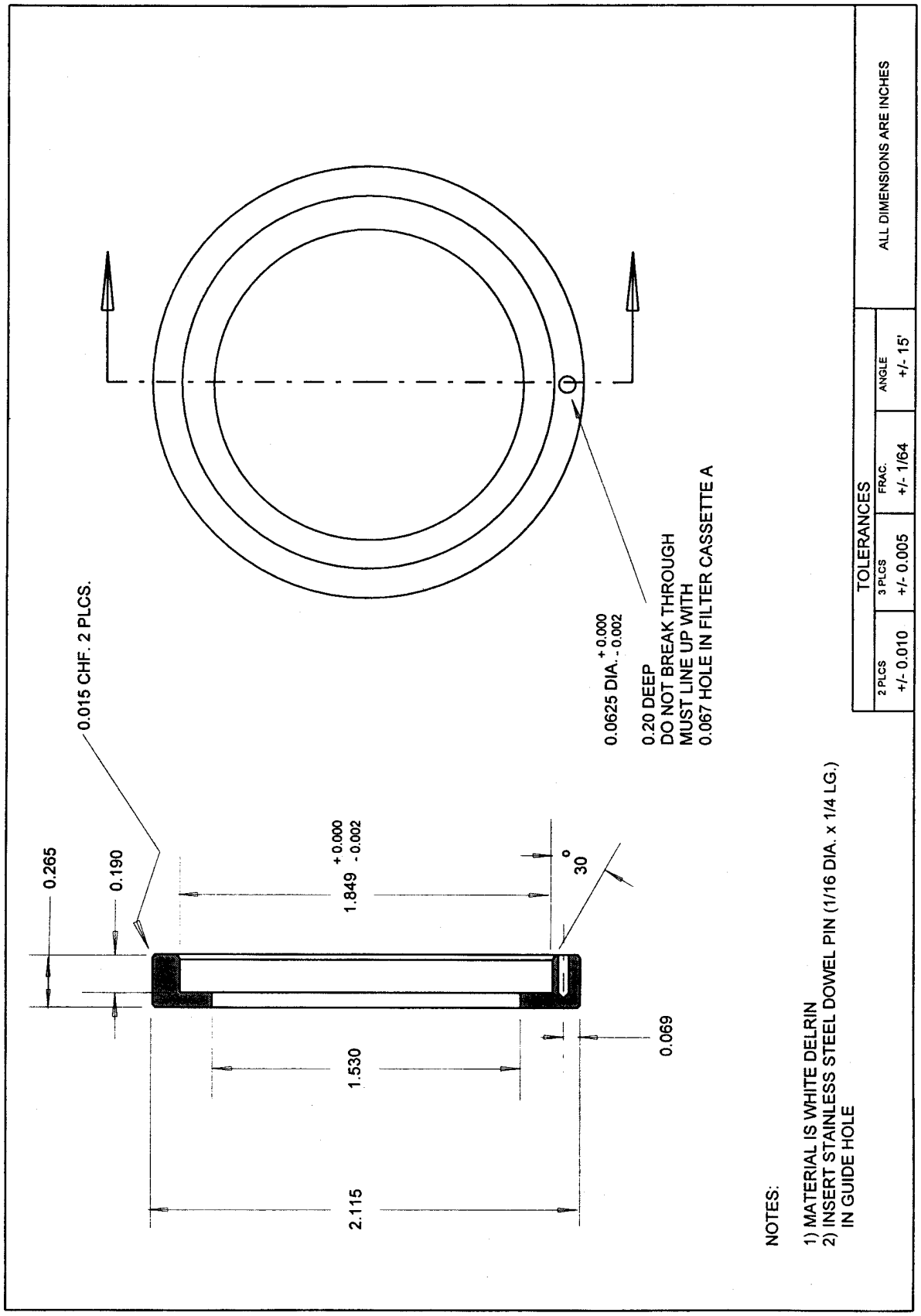

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Figure L-29. Filter Cassette, Lower Section

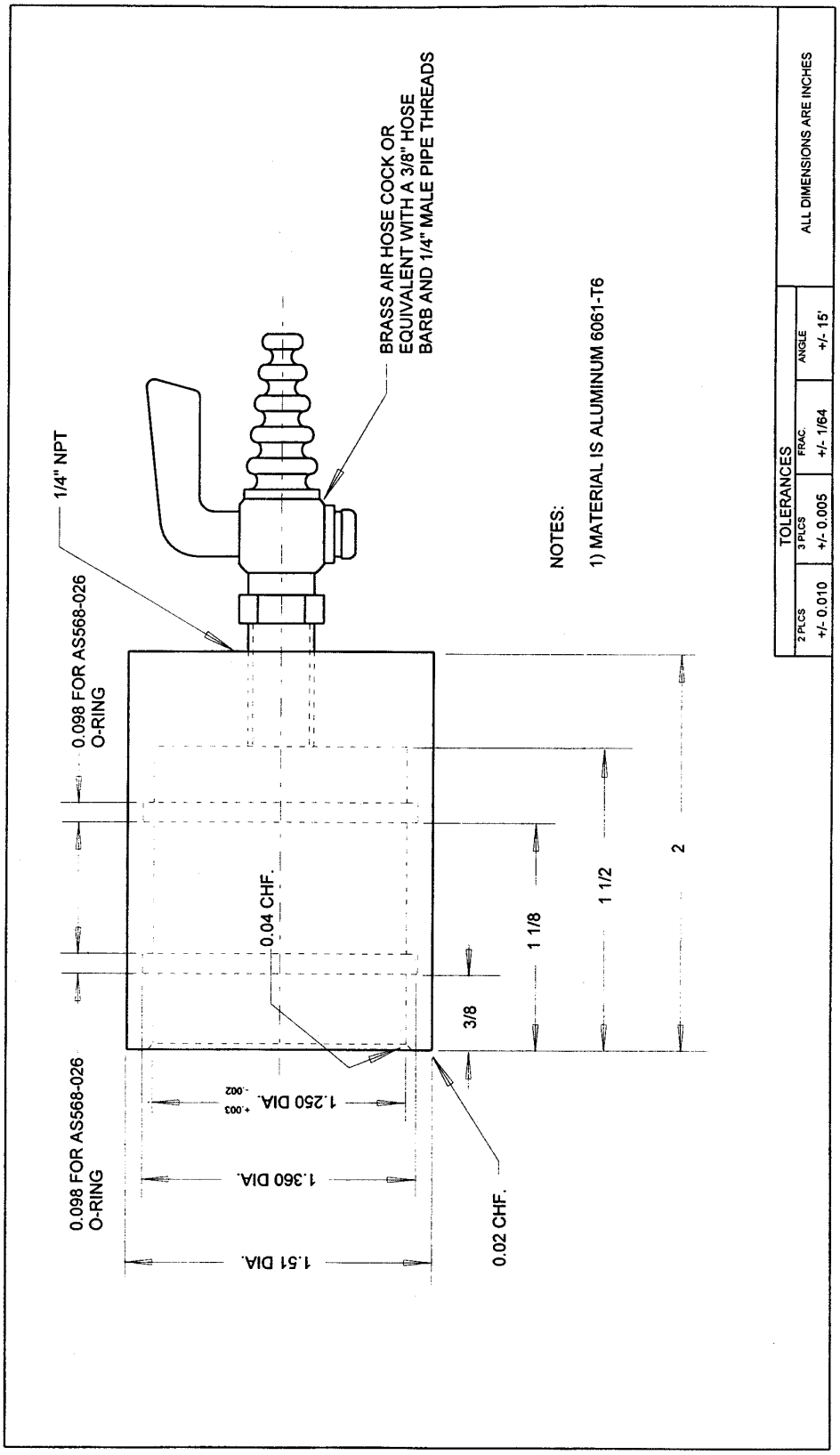

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Figure L-30. Flow Rate Measurement Adapter

[FR Doc. 96–30897 Filed 12–12–96; 8:45 am]
BILLING CODE 6560–50–C

federal register

Friday
December 13, 1996

Part III

Environmental Protection Agency

40 CFR Part 50

National Ambient Air Quality Standards for Ozone; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 50

[AD–FRL–5659–4]

RIN 2060–AE57

National Ambient Air Quality Standards for Ozone: Proposed Decision

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In accordance with sections 108 and 109 of the Clean Air Act (Act), EPA has reviewed the air quality criteria and national ambient air quality standards (NAAQS) for ozone (O_3) and particulate matter (PM). Based on these reviews, the EPA proposes to change the standards for both classes of pollutants.

This document describes EPA's proposed changes with respect to the NAAQS for O_3. The EPA's proposed actions with respect to PM are being proposed elsewhere in today's Federal Register. Nonetheless, EPA has concluded that the effects and control of each are in many instances linked and will be affected by the other. For this reason, EPA intends to review and, as appropriate, modify both standards on a similar schedule, with promulgation of revised O_3 standards in June of 1997, concurrent with promulgation of revised standards for PM. Doing so will permit States, localities and industry to address the control of these and related pollutants on a more consistent basis.

Ozone and related pollutants have long been recognized, in both clinical and epidemiological research, to affect public health. The proposed revised standard would provide protection for children and other at-risk populations against a wide range of O_3-induced health effects, including decreased lung function (primarily in children active outdoors), increased respiratory symptoms (particularly in highly sensitive individuals), hospital admissions and emergency room visits for respiratory causes (among children and adults with pre-existing respiratory disease such as asthma), inflammation of the lung, and possible long-term damage to the lungs.

With respect to O_3, EPA proposes to change the current primary standard (last modified in 1979) in several respects:

1. Since longer exposure periods are of greater concern at lower O_3 concentrations, attainment of the standard would no longer be based upon 1-hour averages, but instead on 8-hour averages. This improvement was unanimously recommended by EPA's Clean Air Scientific Advisory Committee (CASAC).

2. As a result of this change in averaging time, the level of the standard would be lowered from the present 0.12 parts per million (ppm). The EPA solicits comment on alternative levels of 0.09 ppm, which generally represents the continuation of the present level of protection, and 0.08 ppm, an increased level of protection. Based upon its review, EPA is proposing the 0.08 ppm standard to provide increased protection for children and asthmatics. The EPA also solicits comment on retaining the current primary standard and on an alternative 8-hour standard at a level of 0.07 ppm.

3. In addition, EPA proposes to change the test for attainment (i.e., the form) of the new standard. Currently, the test of attainment is whether a site exceeds the 1-hour standard on an average of no more than once per year, averaged over three years. Given the natural variation in hourly O_3 levels, this ''one expected exceedance'' test can result in relatively unstable attainment/nonattainment designations. The CASAC recommended a change to a more stable form; consistent with this recommendation, EPA proposes a form based on a 3-year average of 8-hour O_3 concentrations. The EPA solicits comment on a range of such concentration-based forms.

The EPA proposes to replace the current secondary standard with one of two alternative standards: one set identical to the proposed new primary standard or, alternatively, a new seasonal standard expressed as a sum of hourly O_3 concentrations greater than or equal to 0.06 ppm, cumulated over 12 hours per day during the consecutive 3-month period of maximum concentrations during the O_3 monitoring season, set at a level of 25 ppm-hour. Either of the proposed alternative secondary standards would provide increased protection against O_3-induced effects, such as agricultural crop loss, damage to forests and ecosystems, and visible foliar injury to sensitive species.

DATES: Written comments on this proposed rule must be received by February 18, 1997.

ADDRESSES: Submit comments (in duplicate if possible) on the proposed rule to: Office of Air and Radiation Docket and Information Center (6102) Attn: Docket No. A–95–58, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

Public Hearing: The EPA will announce in a separate Federal Register document the date, time, and address of the public hearing on this proposed rule.

FOR FURTHER INFORMATION CONTACT: Dr. David McKee, MD–15, Air Quality Standards and Strategies Division, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, Telephone: (919) 541–5288.

SUPPLEMENTARY INFORMATION:

Docket

Docket No. A–95–58 incorporates by reference Docket No. A–92–17, and the docket established for the air quality criteria document (Docket No. ECAO–CD–92–0786). The docket may be inspected between 8:00 a.m. and 5:30 p.m. on weekdays, and a reasonable fee may be charged for copying.

Availability of Related Information

Certain documents are available from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. Available documents include: Air Quality Criteria for O_3 and Other Photochemical Oxidants (''Criteria Document'') (three volumes, EPA/600/P–93–004aF through EPA/600/P–93–004cF, July 1996, NTIS # PB–96–185574, $169.50 paper copy, $58.00 microfiche); and the Review of the National Ambient Air Quality Standards for O_3: Assessment of Scientific and Technical Information (''Staff Paper'')(EPA–452/R–96–007, June 1996, NTIS #PB–96–203435, $67.00 paper copy and $21.50 microfiche). (Add a $3.00 handling charge per order.) A limited number of copies of other documents generated in connection with this standard review, such as documents pertaining to human exposure and health risk assessments, and vegetation exposure, risk, and benefits analyses can be obtained from: U.S. Environmental Protection Agency Library (MD–35), Research Triangle Park, NC 27711, telephone (919) 541–2777. These and other related documents are also available for inspection and copying in the EPA docket identified above.

The Staff Paper and human exposure and health risk assessment support documents are now available on the Agency's Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network (TTN) Bulletin Board System (BBS) in the Clean Air Act Amendments area, under Title I, Policy/Guidance Documents. To access the bulletin board, a modem and communications software are necessary.

To dial up, set your communications software to 8 data bits, no parity and one stop bit. Dial (919) 541–5742 and follow the on-screen instructions to register for access. After registering, proceed to choice ''<T> Gateway to TTN Technical Areas'', then choose ''<E> CAAA BBS''. From the main menu, choose ''<1> Title I: Attain/Maint of NAAQS'', then ''<P> Policy Guidance Documents''. To access these documents through the World Wide Web, click on ''TTN BBSWeb'', then proceed to the Gateway to TTN Technical areas, as above. If assistance is needed in accessing the system, call the help desk at (919) 541–5384 in Research Triangle Park, NC.

Implementation Activities

When the proposed revisions to the primary and secondary standards are implemented by the States, utility, automobile, petroleum, and chemical industries are likely to be affected, as well as other manufacturing concerns that emit volatile organic compounds or nitrogen oxides. The extent of such effects will depend on implementation policies and control strategies adopted by States to assure attainment and maintenance of the proposed standards.

The EPA is developing appropriate policies and control strategies to assist States in the implementation of the proposed revisions to both the primary and secondary O_3 NAAQS. The resulting implementation strategies will then be published for public comment in the future.

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I. Background

A. Legislative Requirements

Two sections of the Act govern the establishment, review, and revision of NAAQS. Section 108 (42 U.S.C. 7408) directs the Administrator to identify pollutants which ''may reasonably be anticipated to endanger public health and welfare'' and to issue air quality criteria for them. These air quality criteria are to ''accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of [a] pollutant in the ambient air * * *.''

Section 109 (42 U.S.C. 7409) directs the Administrator to propose and promulgate ''primary'' and ''secondary'' NAAQS for pollutants identified under section 108. Section 109(b)(1) defines a primary standard as one ''the attainment and maintenance of which, in the judgment of the Administrator, based on the criteria and allowing an adequate margin of safety, [are] requisite to protect the public health.'' The margin of safety requirement was intended to address uncertainties associated with inconclusive scientific and technical information available at the time of standard setting, as well as to provide a reasonable degree of protection against hazards that research has not yet identified. Both kinds of uncertainties are components of the risk associated with pollution at levels below those at which human health effects can be said to occur with reasonable scientific certainty. Thus, by selecting primary standards that provide an adequate margin of safety, the Administrator is seeking not only to prevent pollution levels that have been demonstrated to be harmful but also to prevent lower pollutant levels that she finds may pose an unacceptable risk of harm, even if the risk is not precisely identified as to nature or degree. The Act does not require the Administrator to establish a primary NAAQS at a zero-risk level but rather at a level that reduces risk sufficiently so as to protect public health with an adequate margin of safety.

A secondary standard, as defined in section 109(b)(2), must ''specify a level of air quality the attainment and maintenance of which, in the judgment of the Administrator, based on [the] criteria, [are] requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of [the] pollutant in the ambient air.'' Welfare effects as defined in section 302(h) (42 U.S.C. 7602(h)) include, but are not limited to, ''effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.''

Section 109(d)(1) of the Act requires periodic review and, if appropriate, revision of existing air quality criteria and NAAQS. Section 109(d)(2) requires appointment of an independent scientific review committee to review criteria and standards and recommend new standards or revisions of existing criteria and standards, as appropriate. The committee established under section 109(d)(2) is known as the Clean Air Scientific Advisory Committee (CASAC), a standing committee of EPA's Science Advisory Board.

B. Related Control Requirements

States are primarily responsible for ensuring attainment and maintenance of ambient air quality standards once EPA has established them. Under section 110 of the Act (42 U.S.C. 7410) and related provisions, States are to submit, for EPA approval, State implementation plans (SIP's) that provide for the attainment and maintenance of such standards through control programs directed to sources of the pollutants involved. The States, in conjunction with EPA, also administer the prevention of significant deterioration program (42 U.S.C. 7470–7479) for these pollutants. In addition, Federal programs provide for nationwide reductions in emissions of these and other air pollutants through the Federal Motor Vehicle Control Program under title II of the Act (42 U.S.C. 7521–7574), which involves controls for automobile, truck, bus, motorcycle, and aircraft emissions; the new source performance standards under section 111 (42 U.S.C. 7411); and the national emission standards for hazardous air pollutants under section 112 (42 U.S.C. 7412).

C. Review of Air Quality Criteria and Standards for O_3

The last review of O_3 air quality criteria and standards was completed in March 1993 with notice of a final decision not to revise the existing primary and secondary standards (58 FR 13008). The existing primary and secondary standards are each set at a level of 0.12 ppm, with a 1-hour averaging time and a 1-expected-exceedance form, such that the standards are attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is equal to or less than 1, averaged over 3 years (as determined by 40 CFR Part 50, Appendix H).[1]

The EPA initiated this current review in August 1992 with the development of a revised Air Quality Criteria Document for O_3 and Other Photochemical Oxidants (henceforth the ''Criteria Document''). Several workshops were held by EPA's National Center for Environmental Assessment (NCEA) to discuss health and welfare effects information during the summer and fall of 1993. An external review draft of the Criteria Document made available to the public and to the CASAC in the spring of 1994 was reviewed at a public CASAC meeting held on July 30–31, 1994. Based on comments made at the meeting, NCEA staff prepared a second external review draft, which was reviewed at a public CASAC meeting on March 20–21, 1995. At the same meeting, the CASAC also reviewed draft portions of a staff paper prepared by the Office of Air Quality Planning and Standards (OAQPS), Review of National Ambient Air Quality Standards for Ozone: Assessment of Scientific and Technical Information (henceforth, the ''Staff Paper''), focusing on health effects and the primary NAAQS. Taking into account CASAC and public comments, staff revised both documents and made new drafts available for public and CASAC review during the summer of 1995. The OAQPS staff also prepared and made available draft portions of the Staff Paper focusing on welfare effects and the secondary standard.

A public CASAC meeting was held on September 19–20, 1995, at which time CASAC came to closure in its review of the draft Criteria Document and the primary standard sections of the draft Staff Paper. In a November 28, 1995 letter from the CASAC chair to the Administrator, CASAC advised that the final draft Criteria Document ''provides an adequate review of the available scientific data and relevant studies of O_3 and related photochemical oxidants'' (Wolff, 1995a). Further, in a November 30, 1995 letter, CASAC advised the Administrator that the primary standard portion of the draft Staff Paper ''provides an adequate scientific basis for making regulatory decisions concerning a primary O_3 standard'' (Wolff, 1995b). The final Criteria Document (U.S. EPA, 1996a) reflects CASAC and public comments received at and subsequent to the September 1995 CASAC meeting.

Based on comments on the Staff Paper from the September 1995 CASAC meeting, revisions were made to the secondary standard sections of the Staff Paper, which were reviewed at a public CASAC meeting held on March 21, 1996. At that meeting and in a subsequent letter to the Administrator, CASAC concluded that the secondary standard sections of the draft Staff Paper ''provide an appropriate scientific basis for making regulatory decisions concerning a secondary O_3 standard'' (Wolff, 1996).

The focus of this current review of the air quality criteria and standards for O_3 and related photochemical oxidants is on public health and welfare effects associated with exposure to ambient levels of tropospheric O_3. *Tropospheric* O_3 is chemically identical to *stratospheric* O_3, which is produced miles above the earth's surface and provides a protective shield from excess ultraviolet radiation. In contrast, tropospheric O_3 at sufficient concentrations has been associated with harmful effects due to its oxidative properties and its presence in the air that people and plants take up during respiratory processes. Ozone is not emitted directly from mobile or stationary sources but, like other photochemical oxidants, commonly exists in the ambient air as an atmospheric transformation product. Ozone formation is the result of chemical reactions of volatile organic compounds (VOC), nitrogen oxides (NO_X), and oxygen in the presence of sunlight and generally at elevated temperatures. A detailed discussion of atmospheric formation, ambient concentrations, and health and welfare effects associated with exposure to O_3 can be found in the final Criteria Document (U.S. EPA, 1996a) and in the final Staff Paper (U.S. EPA, 1996b).

This review of the scientific criteria for O_3 has occurred simultaneously with the review of the criteria for particulate matter (PM). These criteria reviews, as well as related implementation strategy activities to date, have brought out important linkages between PM and O_3. A number of community epidemiological studies have found similar health effects to be associated with exposure to PM and O_3, including, for example, aggravation of respiratory disease (e.g., asthma), increased respiratory symptoms, and increased hospital admissions and emergency room visits for respiratory causes. Laboratory studies have suggested potential interactions between O_3 and various constituents of PM. Other key similarities relating to exposure patterns and implementation strategies exist between PM, specifically fine particles, and O_3. These similarities include: (1) Atmospheric residence times of several days, leading to large urban and regional-scale transport of the pollutants; (2) similar gaseous precursors, including NO_X and VOC, which contribute to the formation of both O_3 and fine particles in the atmosphere; (3) similar combustion-related source categories, such as coal and oil-fired power generation and industrial boilers and mobile sources, which emit particles directly as well as gaseous precursors of particles (e.g., sulfur oxides (SO_X), NO_X, VOC) and O_3 (e.g., NO_X, VOC); and (4) similar atmospheric chemistry driven by the same chemical reactions and intermediate chemical species that form both high fine particle and O_3 levels. High fine particle levels are also associated with significant impairment of visibility on a regional scale.

These similarities provide opportunities for optimizing technical analysis tools (i.e., monitoring networks, emission inventories, air quality models) and integrated emission reduction strategies to yield important co-benefits across various air quality management programs. These co-benefits could result in a net reduction of the regulatory burden on some source category sectors that would otherwise be impacted by separate O_3, PM, and visibility protection control strategies.

In recognition of the multiple linkages and similarities in effects and the potential benefits of integrating the Agency's approaches to providing for appropriate protection of public health and welfare from exposure to PM and O_3, EPA is conducting the reviews of the NAAQS for both pollutants on the same schedule. Accordingly, today's Federal Register contains a separate notice announcing proposed revisions to the PM NAAQS. Linking the PM and O_3 review schedules provides an important

[1] A more complete history of the O_3 NAAQS is presented in section II.B of the Office of Air Quality Planning and Standards Staff Paper, Review of National Ambient Air Quality Standards for O_3: Assessment of Scientific and Technical Information (U.S. EPA, 1996b).

opportunity for more effective and efficient air quality management—both in terms of communicating a more complete description of the health and welfare effects associated with the major components of urban and regional air pollution, and by helping the States and local areas to plan jointly to address both PM and O_3 air pollution at the same time with one process, and to work jointly with industry to address common sources of air pollution. The EPA believes this integrated approach will lead to more effective and efficient protection of public health and the environment.

II. Rationale for Proposed Decision on the Primary Standard

This notice presents the Administrator's proposed decision to replace the existing 1-hour O_3 primary NAAQS with a new 8-hour standard, based on a thorough review, in the Criteria Document, of the latest scientific information on human health effects associated with exposure to ambient levels of O_3, including evaluation of key studies published through 1995. This decision also takes into account and is consistent with: (1) Staff assessments of the most policy-relevant information in the Criteria Document and staff analyses of human exposure and risk, presented in the Staff Paper, upon which staff recommendations for a new O_3 primary standard are based; (2) CASAC advice and recommendations, as reflected in discussion of drafts of the Criteria Document and Staff Paper at public meetings, in separate written comments, and in CASAC's letters to the Administrator; and (3) public comments received during the development of these documents, either in connection with CASAC meetings or separately.

The rationale for the proposed revisions of the O_3 primary NAAQS includes consideration of: (1) Health effects information to inform judgments as to the likelihood that exposures to ambient O_3 result in adverse health effects for exposed individuals; (2) insights gained from human exposure and risk assessments to provide a broader perspective for judgments about protecting public health from the risks associated with O_3 exposure; (3) specific conclusions with regard to the elements of a standard (i.e., averaging time, level, and form) that, taken together, would be appropriate to protect public health with an adequate margin of safety; and (4) alternative views of the significance of the effects and factors to be considered in policy judgments about the appropriate level of the standard.

A. Health Effects Information

The following summary of human health effects associated with exposure to ambient levels of O_3 is based on integrative information from human clinical, epidemiological, and animal toxicological studies, as presented in the Criteria Document and Staff Paper. Based on this information, an array of health effects has been attributed to short-term (1 to 3 hours), prolonged (6 to 8 hours), and long-term (months to years) exposures to O_3. Acute health effects [2] induced by short-term exposures to O_3, generally while individuals were engaged in heavy exertion, include transient pulmonary function responses, transient respiratory symptoms, and effects on exercise performance. The current O_3 primary NAAQS is generally based on these acute effects associated with heavy exercise and short-term exposures. Other health effects associated with short-term or prolonged O_3 exposures include increased airway responsiveness, susceptibility to respiratory infection, increased hospital admissions and emergency room visits, and transient pulmonary inflammation.

Since the last review of the air quality criteria for O_3 was completed, available information has increased substantially on effects associated with prolonged and long-term exposures. Based on this new information, similar acute health effects have been observed following prolonged exposures at concentrations of O_3 as low as 0.08 ppm and at moderate levels of exertion.[2] Although chronic effects [3] such as structural damage to pulmonary tissue and carcinogenicity have been investigated in a substantial number of laboratory animal studies, these effects have not been adequately established in human studies to draw any conclusions at this time.

This array of effects is briefly summarized below for short-term and prolonged O_3 exposures, and for long-term O_3 exposures. Further, judgments are presented with respect to when these physiological effects become so significant that they should be regarded as adverse to the health of individuals experiencing the effects.

[2] ''Acute health'' effects of O_3 are defined as those effects induced by short-term and prolonged exposures to O_3. Examples of these effects are functional, symptomatic, biochemical, and physiologic changes.

[3] ''Chronic health'' effects of O_3 are defined as those effects induced by long-term exposures to O_3. Examples of these effects are structural damage to lung tissue and accelerated decline in baseline lung function.

1. Effects of Short-term and Prolonged O_3 Exposures

a. Pulmonary Function Responses

Transient reductions in pulmonary function have been observed in healthy individuals and those with impaired respiratory symptoms (e.g., asthmatic individuals) as a result of both short-term and prolonged exposures to O_3. The strongest and most quantifiable exposure-response information on such pulmonary function responses to O_3 has come from controlled human exposure studies. The evidence from such studies clearly shows that reductions in lung function are enhanced by increased levels of activity involving exertion, typically reported as ''exercise'' in clinical studies, and by increased O_3 concentrations. Pulmonary function decrements generally tend to return to baseline levels shortly after short-term exposure, and effects are typically attenuated upon repeated short-term exposures over several days.

As discussed in section V.C.1 of the Staff Paper, numerous experimental studies of exercising adults have demonstrated decrements in lung function both for exposures of 1–3 hours at ≥0.12 ppm O_3 and for exposures of 6.6 hours at ≥0.08 ppm O_3. These studies provide conclusive evidence that O_3 levels commonly monitored in the ambient air induce lung function decrements in exercising adults. The extent of lung function decrements varies considerably among individuals. Further, numerous summer camp studies provide an extensive and reliable database on lung function responses to ambient O_3 and other pollutants in children and adolescents living in the Northeastern U.S., southern California, and Southern Canada. Lung function changes reported at ambient O_3 concentrations in these studies are comparable to those reported in children and adults exposed under controlled experimental conditions, although direct comparisons are difficult to make because of differences in experimental design and analytical approach.

b. Respiratory Symptoms and Effects on Exercise Performance

As discussed in section V.C.2 of the Staff Paper, various transient human respiratory symptoms, including cough, throat irritation, chest pain on deep inspiration, nausea, and shortness of breath, have been induced by O_3 exposures of both healthy individuals and those with impaired respiratory systems. Increasing O_3 exposure durations and levels have been shown to elicit increasingly more severe

symptoms that persist for longer periods in increasingly larger numbers of individuals. Symptomatic and pulmonary function responses follow a similar time course during an acute exposure and the subsequent recovery, as well as over the course of several days during repeated exposures. As with pulmonary function responses, the severity of symptomatic responses varies considerably among subjects. For some outdoor workers or active people who are highly responsive to ambient O_3, respiratory symptoms may cause reduced productivity or may curb the ability or desire to engage in normal activities. Furthermore, O_3-induced interference with exercise performance, either by reducing maximal sustainable levels of activity or reducing the duration of activity that can be tolerated at a particular work level, is likely related to such symptomatic responses.

c. Increased Airway Responsiveness

Increased airway responsiveness is an indication that the airways are predisposed to bronchoconstriction which can be induced by a wide variety of external stimuli (e.g., pollens, dust, cold air, sulfur dioxide (SO_2), etc.). A high level of bronchial responsiveness is characteristic of asthma. Ozone exposure causes increased responsiveness of the pulmonary airways to subsequent challenge with bronchoconstrictor drugs such as histamine or methacholine. Changes in airway responsiveness tend to resolve somewhat more slowly than pulmonary function changes, typically disappearing after 24 hours, and appear to be less likely to attenuate with repeated exposure.

As a result of increased airway responsiveness induced by O_3 exposure, human airways may be more susceptible to a variety of stimuli, including antigens, chemicals, and particles. For example, as cited in section V.C.3 of the Staff Paper, healthy subjects after being exposed to O_3 concentrations as low as 0.20 ppm for 1 hour and 0.08 ppm for 6.6 hours have experienced small increases in nonspecific bronchial responsiveness, which usually resolve within 24 hours. Asthmatic subjects typically have increased airway responsiveness at baseline. Whereas the differences in baseline nonspecific bronchial responsiveness between healthy individuals and sensitive asthmatics may be as much as 100-fold, changes induced by O_3 exposure are usually only 2- to 4-fold. With regard to O_3-induced increases in airway responsiveness (e.g., to specific inhaled antigens, cold air, and SO_2) ongoing studies will need to be completed and evaluated before conclusions can be drawn. Because enhanced response to antigens in asthmatics could lead to increased morbidity (i.e., medical treatment, emergency room visits, hospital admissions) or to more persistent alterations in airway responsiveness, these health endpoints raise concern for public health, particularly for individuals with impaired respiratory systems.

d. Increased Susceptibility to Respiratory Infection

When functioning normally, the human respiratory tract, like that of other mammals, has numerous closely integrated defense mechanisms that provide protection from the adverse effects of a wide variety of inhaled particles and microbes. To the extent that these defense mechanisms can be broken down or impaired by the inhalation of O_3, as discussed in section V.C.4 of the Staff Paper, O_3 exposures can result in increased susceptibility to respiratory infection and related respiratory dysfunction. Evidence of such effects has come primarily from a very large number of laboratory animal studies with generally consistent results. One of the few studies of moderately exercising human subjects exposed to 0.08 ppm O_3 for 6.6 hours reported decrements in alveolar macrophage function, the first line of defense against inhaled microorganisms and particles in the lower airways and air sacs.

No single experimental human study or group of animal studies conclusively demonstrates that human susceptibility to respiratory infection is increased by exposure to O_3. However, taken as a whole, the data suggest that acute O_3 exposures can impair the host defense capability of both humans and animals, possibly by depressing alveolar macrophage function and perhaps also by decreasing mucociliary clearance of inhaled particles and microorganisms. This suggests that humans exposed to O_3 may be predisposed to bacterial infections in the lower respiratory tract. The seriousness of such infections may depend on how quickly bacteria develop virulence factors and how rapidly mechanisms are mobilized to compensate for depressed alveolar macrophage function.

e. Hospital Admissions and Emergency Room Visits

Increased summertime hospital admissions and emergency room visits for respiratory causes have been associated with ambient exposures to O_3 and other environmental factors. As cited in section V.C.5 of the Staff Paper, numerous studies conducted in various locations in the Eastern United States (U.S.) and Canada consistently have shown a relationship between ambient O_3 levels and increased incidence of emergency room visits and hospital admissions for respiratory causes, even after controlling for modifying factors, as well as when considering only concentrations <0.12 ppm O_3. Such associations between elevated ambient O_3 during summer months and increased hospital admissions have a plausible biological basis in the human and animal evidence of functional, symptomatic, and physiologic effects discussed above and in the increased susceptibility to respiratory infections observed in laboratory animals.

Individuals with preexisting respiratory disease (e.g., asthma, chronic obstructive pulmonary disease) may generally be at increased risk of such effects, and some individuals with respiratory disease may have an inherently greater sensitivity to O_3. On the other hand, individuals with more severe respiratory disease are less likely to engage in the level of exertion associated with provoking responses to O_3 exposures in healthy humans. On balance, it is reasonable to conclude that evidence of O_3-induced increased airway resistance, nonspecific bronchial responsiveness, susceptibility to respiratory infection, increased airway permeability, airway inflammation, and incidence of asthma attacks suggests that ambient O_3 exposure could be a cause of increased hospital admissions, particularly for asthmatics.

f. Pulmonary Inflammation

Respiratory inflammation can be considered to be a host response to injury and indicators of inflammation as evidence that respiratory cell damage has occurred. Inflammation induced by exposure of humans to O_3 may have several potential outcomes: (1) Inflammation induced by a single exposure (or even several exposures over the course of a season) could resolve entirely; (2) repeated acute inflammation could develop into a chronic inflammatory state; (3) continued inflammation could alter the structure and function of other pulmonary tissue, leading to disease processes such as fibrosis; (4) inflammation could interfere with the body's host defense response to particles and inhaled microorganisms, particularly in potentially vulnerable populations such as children and older individuals; and (5) inflammation could amplify the lung's response to other agents such as allergens or toxins. For humans, only the first of these potential

outcomes has been demonstrated in the laboratory. However, this is expected because regulations concerning human experimental studies require that long-term damage be avoided. Hence, study protocols only involved brief exposures.

Exposures of laboratory animals to O_3 for periods ≤8 hours have been shown to result in cell damage, inflammation, and increased leakage of proteins from blood into the air spaces of the respiratory tract. In general, higher O_3 concentrations are required to elicit a response equivalent to that of humans. This may partly result from study design differences, in which humans were exposed while exercising, whereas most animal studies were done at rest, resulting in differences in effective ventilation rates. Laboratory animals studies done at night, during the animals' active period, or in which ventilation rates were increased with coexposure to carbon dioxide (CO_2) tend to support this view. The extent and course of inflammation and its constitutive elements has been evaluated by using bronchoalveolar lavage (BAL) to sample cells and fluid from the lung and lower airways of humans exposed to O_3. Several such studies cited in section V.C.7 of the Staff Paper have shown that exercising humans exposed (1 to 4 hours) to 0.2 to 0.6 ppm O_3 had O_3-induced markers of inflammation and cell damage. The lowest concentration of prolonged O_3 exposure tested in humans, 0.08 ppm for 6.6 hours with moderate exercise, also induced small but statistically significant increases in these endpoints.

Thus, it is reasonable to conclude that repeated acute inflammatory response and cellular damage discussed above is potentially a matter of public health concern; however, it is also recognized that most, if not all, of these effects begin to resolve in most individuals within 24 hours if the exposure to O_3 is not repeated. Of possibly greater public health concern is the potential for chronic respiratory damage which could be the result of repeated O_3 exposures occurring over a season or a lifetime. Evidence for these chronic effects is discussed below.

2. Potential Effects of Long-term O_3 Exposures

Epidemiologic studies that have investigated potential associations between long-term O_3 exposures and chronic respiratory effects in humans thus far have provided only suggestive evidence of such a relationship. Most studies investigating this association have been cross-sectional in design and have been compromised by incomplete control of confounding variables and inadequate exposure information. Other studies have attempted to follow variably exposed groups prospectively. As cited in Section V.C.8 of the Staff Paper, studies conducted in southern California and Canada have compared lung function changes over several years between populations living in communities with high and low ambient O_3 levels. The findings suggest small, but consistent, decrements in lung function among inhabitants of the more highly polluted communities; however, associations between O_3 and other copollutants and problems with study population loss have reduced the level of confidence in these conclusions.

In a large number of animal toxicology studies, ''lesions''[4] in the centriacinar regions of the lung (i.e., the portion of the lung where the region that conducts air and the region that exchanges gas are joined) are well established as one of the hallmarks of O_3 toxicity. Studies have been conducted using rats, mice, and primates. In one study in which rats were exposed to an urban pattern of O_3 exposure, changes indicative of cell and tissue damage were reported, although post-exposure damage was mainly reversible. A similar study of identically exposed groups of rats found: (1) Increases in expiratory resistance suggesting central airway narrowing after 78 weeks of exposure, (2) reduced tidal volumes at all evaluation times during the exposure, and (3) generally reduced breathing frequency, although no single evaluation time was statistically significant. Another related study with a similar protocol reported reduced lung volume, which is consistent with a ''stiffer'' lung (i.e., restrictive lung disease). A recent multicenter chronic study illustrates some of the complex interrelationships among the structural, functional, and biochemical effects. The three types of health endpoints mentioned above were evaluated in a collaborative project using rats exposed for 20 months. Lung biochemistry and structure were affected at 0.5 ppm and 1.00 ppm O_3, but not at 0.12 ppm O_3, although no effects on pulmonary function were observed at any exposure level.

In summary, the collective data on long-term exposure to O_3 garnered in studies of laboratory animals and human populations have many ambiguities. It is clear from toxicology data that the distribution of O_3 ''lesions'' is roughly similar across species (including monkeys, rats, mice) with responses that are concentration dependent (and perhaps time or exposure-pattern dependent). Under certain conditions, some of these structural changes may become irreversible. It is unclear, however, whether ambient exposure scenarios encountered by humans result in similar ''lesions'' or whether there are resultant functional or impaired health outcomes in humans chronically exposed to O_3. The epidemiologic lung function studies generally parallel those of the animal studies, but these studies lack good information on individual O_3 exposure history and are frequently confounded by personal or copollutant variables. Thus, the Administrator recognizes that there is a lack of a clear understanding of the significance of repeated, long-term inflammatory responses, and that there is a need for continued research in this important area. Nevertheless, the currently available information provides at least a biologically plausible basis for considering the possibility that repeated inflammation associated with exposure to O_3 over a lifetime may result in sufficient damage to respiratory tissue such that individuals later in life may experience a reduced quality of life, although such relationships remain highly uncertain.

Studies of laboratory animals exposed to O_3 have been relatively inconclusive with regard to genotoxicity and carcinogenicity, particularly at lower O_3 concentrations. Only long-term exposure of laboratory animals to a high concentration of O_3 (1.0 ppm) has been shown to evoke a limited degree of carcinogenic activity in one strain of female mice, whereas rats were unaffected. Furthermore, there was no concentration response relationship established, perhaps due to the limited scope of the studies, and there is inadequate information from other research to provide mechanistic support for the finding in mice. (For further discussion, see section V.C.9 in the Staff Paper.)

Several epidemiologic studies cited in Section V.C.6 of the Staff Paper have attempted to find associations between daily mortality and O_3 concentrations in various cities around the U.S. Although an association between ambient O_3 exposure in areas with very high O_3 levels and daily mortality has been suggested by these studies, the data are limited.

3. Adversity of Effects for Individuals

Some population groups have been identified as being sensitive to effects

[4] Differing views have been expressed by CASAC panel members regarding the use of the term ''lesion'' to describe the O_3-induced morphological (i.e., structural) abnormalities observed in toxicological studies. Section V.C.8 of the Staff Paper describes and discusses these degenerative changes in more detail.

associated with exposures to ambient O_3 levels, such that individuals within these groups are at increased risk of experiencing the above effects. Such groups at increased risk include active children and outdoor workers who regularly engage in outdoor activities that involve heavy levels of exertion during short-term periods of elevated ambient O_3 levels or moderate levels of exertion during prolonged periods of elevated ambient O_3 levels. Exertion increases the amount of O_3 entering the airways and can cause O_3 to penetrate to peripheral regions of the lung where lung tissue is more likely to be damaged. Secondly, individuals characterized as having preexisting respiratory disease (e.g., asthma or chronic obstructive lung disease), while not necessarily more responsive than healthy individuals in terms of the magnitude of pulmonary function decrements or symptomatic responses, may be at increased risk. That is, the impact of O_3-induced responses on already-compromised respiratory systems may more noticeably impair an individual's ability to engage in normal activity or may be more likely to result in increased self-medication or medical treatment. It is recognized that limitations on using such individuals in experimental studies have prevented a more complete assessment of the full range of potential responses to O_3 or their health significance in such individuals. Finally, some individuals are unusually responsive to O_3 relative to other individuals with similar levels of activity or with a similar health status and may experience much greater functional and symptomatic effects from exposure to O_3 than the average individual response. The mechanisms and characteristics responsible for increased sensitivity to O_3 exposure have not been defined; thus, it is not clear whether these ''hyperresponders'' constitute a population subgroup with a specific risk factor or simply represent the upper end of the O_3 response distributions within the general and at-risk populations.

In making judgments as to when the effects discussed above become significant enough that they should be regarded as adverse to the health of individuals in these sensitive populations, the Administrator has looked to guidelines published by the American Thoracic Society (ATS) and the advice of CASAC. While recognizing that perceptions of ''medical significance'' and ''normal activity'' may differ among physicians, lung physiologists, and experimental subjects, the ATS (1985) defined adverse respiratory health effects as ''medically significant physiologic or pathologic changes generally evidenced by one or more of the following: (1) Interference with the normal activity of the affected person or persons, (2) episodic respiratory illness, (3) incapacitating illness, (4) permanent respiratory injury, and/or (5) progressive respiratory dysfunction.'' Human health effects for which clear, causal relationships with exposure to O_3 have been demonstrated (e.g., functional and symptomatic responses) fall into the first category listed in the ATS definition. Human health effects for which statistically significant associations have been reported in epidemiology studies fall into the second and third categories. These more serious effects include respiratory illness that may require medication (e.g., asthma), but not necessarily hospitalization, as well as emergency room visits and hospital admissions for acute occurrences of respiratory morbidity. Human health effects for which associations have been suggested but not conclusively demonstrated fall primarily into the last two categories. Evidence of these most serious health endpoints for O_3 comes from studies of effects in laboratory animals, which can be extrapolated to humans only with a significant degree of uncertainty, and from human epidemiological studies.

Application of these guidelines, in particular to the least serious category of effects related to ambient O_3 exposures, involves judgments about which medical experts on the CASAC panel and public commenters have expressed a diversity of views. To help frame such judgments, the EPA staff defined gradations of individual functional responses (e.g., decrements in forced expiratory volume (FEV_1), increased airway responsiveness) and symptomatic responses (e.g., cough, chest pain, wheeze), together with judgments as to the potential impact on individuals experiencing varying degrees of severity of these responses. These gradations and impacts, summarized below, are discussed in the Criteria Document (Chapter 9) and Staff Paper (section V.F, Table V–4a, 4b, 4c for individuals with impaired respiratory systems and Table V–5a, 5b, 5c for healthy individuals) and incorporate significant input from the CASAC panel of medical experts. The CASAC panel expressed a consensus view that these ''criteria for the determination of an adverse physiological response was reasonable'' (Wolff, 1995b).

For individuals with impaired respiratory systems, small functional responses (e.g., FEV_1 decrements of 3% to ≤10%, increased nonspecific bronchial responsiveness <100%, lasting less than 4 hours) and/or mild symptomatic responses (e.g., cough with deep breath, discomfort just noticeable on exercise or deep breath, lasting less than 4 hours) would likely interfere with normal activity (and, therefore, be considered adverse under the ATS guidelines) for relatively few such individuals and would likely result in the use of normal medication as needed. Moderate functional responses (e.g., FEV_1 decrements ≤10% but <20%, increased nonspecific bronchial responsiveness ≤300%, lasting up to 24 hours) and/or moderate symptomatic responses (frequent spontaneous cough, marked discomfort on exercise or deep breath, wheeze accompanied by shortness of breath, lasting up to 24 hours) would likely interfere with normal activity for many such individuals and would likely result in additional or more frequent use of medication. Large functional responses (e.g., FEV_1 decrements ≥20%, increased nonspecific bronchial responsiveness >300%, lasting longer than 24 hours) and/or severe symptomatic responses (e.g., persistent uncontrollable cough, severe discomfort on exercise or deep breath, persistent wheeze accompanied by shortness of breath, lasting longer than 24 hours) would likely interfere with normal activity for most such individuals and would likely increase the likelihood of seeking medical treatment or visiting an emergency room.

For active healthy individuals, it is judged that moderate levels of functional responses (e.g., FEV_1 decrements >10% but <20% lasting up to 24 hours) and/or moderate symptomatic responses (e.g., frequent spontaneous cough, marked discomfort on exercise or deep breath, lasting up to 24 hours) would likely interfere with normal activity (and, therefore, be considered adverse under the ATS guidelines) for relatively few sensitive individuals in the at-risk populations of concern (active children and outdoor workers). Further, it is judged that large functional responses (e.g., FEV_1 decrements >20% lasting longer than 24 hours) and/or severe symptomatic responses (e.g., persistent uncontrollable cough, severe discomfort on exercise or deep breath, lasting longer than 24 hours) would likely interfere with normal activity for many sensitive individuals.

In judging the extent to which such impacts represent effects that should be regarded as adverse to the health status of individuals, an additional factor that

the Administrator has considered is whether such effects are experienced repeatedly by an individual during the course of a year or only on a single occasion. While some experts would judge single occurrences of moderate responses to be a ''nuisance,'' especially for healthy individuals, a more general consensus view of the adversity of such moderate responses emerges as the frequency of occurrence increases. Thus, the Administrator agrees with the judgments presented in the Staff Paper that repeated occurrences of moderate responses, even in otherwise healthy individuals, may be considered to be adverse since they could well set the stage for more serious illness.

B. Human Exposure and Risk Assessments

To put judgments about health effects that are adverse for individuals into a broader public health context, the Administrator has taken into account the results of human exposure and risk assessments. This broader context includes consideration, to the extent possible, of the size of particular population groups at risk for various effects, the likelihood that exposures of concern will occur for individuals in such groups under varying air quality scenarios, and the kind and degree of uncertainties inherent in assessing the risks involved. Such considerations provide a basis for judgments about the various levels of risk and the adequacy of public health protection afforded by the current NAAQS and alternative standards.

1. Exposure Analyses

The EPA conducted exposure analyses to estimate O_3 exposures for the general population and two at-risk populations, ''outdoor children'' and ''outdoor workers,'' living in nine representative U.S. urban areas. The areas include a significant fraction of the U.S. urban population, 41.7 million people, the largest areas with major O_3 nonattainment problems, and areas that are in attainment with the current NAAQS. Exposure estimates were developed for a recent year, as well as for modeled air quality that simulated conditions associated with attainment of the current NAAQS and various alternative standards. The exposure analyses provide estimates of the size of at-risk populations exposed to various concentrations under different regulatory scenarios, as presented in section V.G of the Staff Paper and summarized below. These estimates are an important input to the risk assessment summarized in the next section.

The probabilistic NAAQS exposure model for O_3 (pNEM/O_3) used in these analyses builds on earlier deterministic versions of NEM by modeling random processes within the exposure simulation. The pNEM/O_3 model takes into account the most significant factors contributing to total human O_3 exposure, including the temporal and spatial distribution of people and O_3 concentrations throughout an urban area, the variation of O_3 levels within each microenvironment, and the effects of exertion (which is represented by ventilation rate) on O_3 uptake in exposed individuals. A more detailed description of pNEM/O_3 and its application is presented in section V.G of the Staff Paper and associated technical support documents (Johnson et al., 1994; Johnson et al., 1996 a,b; McCurdy, 1994a).

The regulatory scenarios examined in the exposure analyses include 1-hour O_3 standards of 0.12 ppm (the current NAAQS) and 0.10 ppm, and 8-hour standards of 0.07, 0.08, and 0.09 ppm, the range of alternative 8-hour standards recommended in the Staff Paper and supported by CASAC as the appropriate range for consideration in this review. These analyses used 1- and 5-expected-exceedance forms of the standards and are based on use of a single year of data. These estimates were also used to roughly bound exposure estimates for other concentration-based forms of the standard under consideration (e.g., the second- and fifth-highest daily maximum 8-hour average O_3 concentration, averaged over a 3-year period) by using air quality analyses that compare alternative forms of the standard, as presented in Section IV and Appendix A of the Staff Paper. The estimated exposures reflect what would be expected in a typical or average year in an area just attaining a given standard over a 3-year compliance period. Additional air quality and exposure analyses were done to estimate the exposures that would be expected in the worst year of a 3-year compliance period.

The exposure estimates were done in terms of both ''people exposed'' (i.e., the number of people who experience a given level of air pollution, or higher, at least one time during the time period of analysis) and ''occurrences of exposure'' (i.e., the number of times a given level of pollution is experienced by the population of interest). Individual exposures were estimated in terms of dose, where dose is defined as the product of O_3 concentration and ventilation rate over a defined period. Distributions of exposure estimates over the entire range of actual or simulated ambient O_3 concentrations were developed as important input to the risk analysis, although results also were developed in terms of the frequency of exposures to ambient O_3 concentrations above the lowest O_3 concentrations at which health effects have been clearly associated with exposure to O_3 in controlled human exposure studies (i.e., 0.12 ppm, 1-hour average, and 0.08 ppm, 8-hour average, respectively).

Key observations important in comparing estimated exposures associated with attainment of the current NAAQS and alternative standards under consideration include:

(1) Children who are active outdoors (representing approximately 7% of the population in the study areas) appear to be the at-risk population group examined with the highest percentage and number of individuals exposed to O_3 concentrations at and above which there is evidence of health effects, particularly for 8-hour average exposures at moderate exertion to O_3 concentrations ≥0.08 ppm.

(2) On both an absolute number and a percentage basis, exposure estimates are higher for the 8-hour average effects level of 0.08 ppm at moderate exertion than for the 1-hour average effects level of 0.12 ppm at heavy exertion.

(3) Estimated exposures above these effects cutpoints, even on a percentage basis, vary significantly across the urban areas examined in this analysis. However, general patterns of exposure can be seen in comparing the current NAAQS and alternative standards, particularly in looking at the seven current nonattainment areas examined. For example, for estimates of the mean percent of outdoor children exposed to 8-hour average O_3 concentrations ≥0.08 ppm while at moderate exertion, the following patterns are seen: the range of estimates associated with the current 1-hour NAAQS is approximately 1–21%, dropping to approximately <3% for a 0.10 ppm 1-hour standard. For alternative 8-hour standards (of the same 1-expected-exceedance form as the current NAAQS), the estimated ranges of mean percentages of outdoor children exposed are approximately 3–7% for a 0.09 ppm standard, 0–1.3% for a 0.08 ppm standard, and from essentially 0 in most areas to <0.1% for a 0.07 ppm standard.

(4) In general, there are relatively small differences in comparing the distributions of 8-hour exposure estimates for outdoor children associated with 1- and 5-expected exceedance forms of any given alternative standard, although at particular cutpoints on the distribution,

differences between these two forms can appear to be significant in some areas.

(5) Based on comparisons of air quality distributions, estimated exposures are generally comparable for 8-hour standards with 5-expected-exceedance and fifth highest daily maximum concentration forms. In either case, exposure estimates for the worst year of a 3-year compliance period would be higher than for the average or typical year, with the magnitude of the difference varying across areas. For example, for an 8-hour, 0.08 ppm standard of either form, about 95% of current nonattainment areas would have 10 or fewer exceedances of the 0.08 ppm level in the worst year, compared to an average of less than 5 exceedances in the typical year. Exposures estimated for a year in which there were 10 exceedances of the 0.08 ppm level would be roughly comparable to the exposures estimated to occur upon attainment in a typical year of a 0.09 ppm, 8-hour standard, with 1- to 5-expected-exceedance forms.

In taking these observations into account, the Administrator and CASAC recognize the uncertainties and limitations associated with such analyses, including the considerable, but unquantifiable, degree of uncertainty associated with a number of important inputs to the exposure model. A key uncertainty in model inputs results from the availability of only a limited human activity database, with regard to both the number of subjects who contributed daily activity diary data and the short time periods over which subjects recorded their daily activity patterns. These limitations may not adequately account for day-to-day repetition of activities common to children, such that the number of people who experience multiple occurrences of high exposure levels may be underestimated. Small sample size also limits the extent to which ventilation rates associated with various activities may be representative of the population group to which they are applied in the model. In addition, the air quality adjustment procedure used to simulate air quality distributions associated with attaining alternative standards, while based on statistical analyses of empirical data, incorporates significant uncertainty, especially when applied to areas requiring very large reductions in air quality to attain the alternative standards examined or to areas that are now in attainment with the current NAAQS. A more complete discussion of these uncertainties and limitations is presented in the Staff Paper and the technical support documents (Johnson et al., 1996a,b).

2. Risk Assessment

The EPA conducted an assessment of health risks for several categories of respiratory effects associated with attainment of alternative 1- and 8-hour O_3 NAAQS and under a recent year of air quality (''as is'' air quality). The O_3 health risk assessment considers the same alternative air quality scenarios and the same nine urban areas that were examined in the human exposure analyses described above.

The objective of the risk assessment was to estimate the magnitude of risks to population groups believed by EPA and CASAC to be at greatest risk either due to increased exposures (i.e., outdoor children and outdoor workers) or increased susceptibility (e.g., asthmatics) while characterizing, as explicitly as possible, the range and implications of uncertainties in the existing scientific database. While the risk estimates are subject to uncertainties as discussed below and should not be viewed as demonstrated health impacts, EPA believes they do represent reasonable estimates as to the possible extent of risk for these effects given the available information. Although it does not cover all health effects caused by O_3, the risk assessment was intended as a tool, together with other information presented in the Staff Paper and in the revised Criteria Document, to aid the Administrator in judging which alternative O_3 NAAQS would reduce risks sufficiently to protect public health with an adequate margin of safety.

The health risk assessment builds upon the earlier O_3 NAAQS health risk assessment work developed during the previous review of the standard. The health risk model takes into account (1) concentration-response or exposure-response relationships used to characterize various respiratory effects of O_3 exposure, (2) distributions of O_3 1-hour and 8-hour daily maximum concentrations upon attainment of alternative NAAQS obtained from the pNEM/O_3 analyses described above, and (3) distributions of population exposure, in terms of both the number of individuals in the general population, outdoor workers, and outdoor children exposed and the number of occurrences of exposure, upon attainment of alternative O_3 NAAQS, obtained from the O_3 exposure analyses. A more detailed description of the risk assessment methodology and its application is presented in Section V.H of the Staff Paper and associated technical support document (Whitfield et al., 1996).

a. Adverse Lung Function and Respiratory Symptom Responses

Risk estimates have been developed for several of the respiratory effects observed in controlled human exposure studies to be associated with O_3 exposure. These include lung function decrements (measured as changes in FEV_1) and moderate or severe pain on deep inspiration (PDI). Each of the effects is associated with a particular averaging time and, for most of the acute (1- to 8-hour) responses, effects also are estimated separately for specific ventilation ranges [measured as equivalent ventilation rate (EVR)] that correspond to the EVR ranges observed in the health studies used to derive exposure-response relationships.

An effect, or endpoint, can be defined in terms of a measure of biological response and the amount of change in that measure thought to be of concern. For lung function decrements, estimates are provided for the lower end, midpoint, and upper end of the range of response that might be considered an adverse health effect (i.e., ≥10, 15, or 20% FEV_1 decrements) as discussed in II.A.3 above. For acute symptomatic effects, estimates are provided for responses that EPA considers to be of most concern (e.g., moderate and severe PDI). Due to limitations in the available data, the risk assessment provides estimates only for each individual health endpoint rather than various combinations of functional and symptomatic responses.

The acute exposure-response relationships developed were based on the clinical studies and were applied to ''outdoor children,'' ''outdoor workers,'' and the general population. While these specific clinical studies only included adults aged 18–35, findings from other clinical studies and summer camp field studies in at least six different locations in the northeast United States, Canada, and Southern California indicate changes in lung function in healthy children similar to those observed in healthy adults exposed to O_3 under controlled chamber conditions.

While different risk measures are provided by the O_3 health risk assessment, EPA has focused on ''headcount risk'' estimates. Headcount risk provides estimates of both the number of people affected and the number of incidences of a given health effect, considering individuals' personal exposures as they go about their daily activities (e.g., from indoors to outdoors, moving from place to place, and engaging in activities at different exertion levels).

A major input to the headcount risk model is the series of population exposure distributions for the alternative NAAQS analyzed. Using available exposure estimates, risk estimates were calculated for the nine urban areas examined in the exposure analysis. For 8-hour exposures under moderate exertion, outdoor children represent the population group experiencing the greatest exposure, and, therefore, this population also has the highest risk estimates in terms of the percent of the population estimated to respond. Therefore, this summary of results focuses on the risk estimates for outdoor children. Whitfield et al. (1996) presents results of the headcount risk estimates for each of the nine urban areas for outdoor children and outdoor workers.

Table 1 presents a summary of risk estimates for 8-hour and 1-hour health endpoints for outdoor children upon attainment of alternative 8-hour, 1- and 5-expected exceedance standards and the current 0.12 ppm, 1-hour standard. The risk estimates in Table 1 are for effects associated with exposure under moderate exertion. These risk estimates represent an aggregate estimate for the nine urban areas examined; an aggregate estimate is presented since there is significant variability in this risk measure across the areas. The uncertainty in these risk estimates associated with sample size considerations is characterized by the 90 percentile credible intervals shown.

TABLE 1.—PERCENT OF OUTDOOR CHILDREN ESTIMATED TO EXPERIENCE VARIOUS HEALTH EFFECTS 1 OR MORE TIMES PER YEAR ASSOCIATED WITH 8- AND 1-HOUR OZONE EXPOSURES UPON ATTAINING ALTERNATIVE STANDARDS*

Alternative standards		Pulmonary function decrements, FEV_1 ≥15% associated with 8-hour exposures	Pulmonary function decrements, FEV_1 ≥20% associated with 8-hour exposures	Moderate or severe pain on deep inspiration associated with 1-hour exposures
Level	Averaging time and form			
0.07 ppm	8-hour, 1 expected exceedance	3.0 **(1.0–6.6)	0.4 (0.1–1.8)	0.3 (0.01–1.9)
0.08 ppm	8-hour, 1 expected exceedance	5.1 (2.2–9.6)	1.4 (0.5–3.7)	0.6 (0.05–2.7)
	8-hour, 5 expected exceedances	6.7 (3.3–11.9)	2.3 (0.8–5.3)	0.8 (0.1–3.2)
0.09 ppm	8-hour, 1 expected exceedance	7.7 (3.3–13.3)	2.7 (1.0–6.1)	0.9 (0.1–3.5)
	8-hour, 5 expected exceedances	9.5 (5.1–15.9)	3.8 (1.5–7.9)	1.3 (0.2–4.2)
0.12 ppm	1-hour, 1 expected exceedance	8.3 (8.2–14.2)	3.0 (1.1–6.6)	1.0 (0.1–3.6)

* Estimates represent aggregate results for 9 urban areas examined. The total number of outdoor children residing in the 9 urban areas was 3.1 million.
** 90% credible interval.

Key observations important in comparing estimated health risks associated with attainment of the current NAAQS and alternative standards under consideration include:

(1) On both an absolute number and a percentage basis, risk estimates are higher for effects associated with 8-hour exposures under moderate exertion than for effects associated with 1-hour exposures under heavy exertion.

(2) Reflecting a continuum of risk, there is a decreasing trend in the median estimates of the population estimated to experience the lung function and symptomatic responses as one moves along the range of alternative 8-hour average, 1-expected exceedance standards under consideration. For example, based on the aggregate risk estimates summarized in Table 1, the median percent of outdoor children estimated to experience FEV_1 decrements greater than 15% is reduced from about 7.7% for a 0.09 ppm, 8-hour standard to about 5.1% for a 0.08 ppm, 8-hour standard. Attaining a 0.07 ppm, 8-hour standard results in a further reduction to about 3.0% of outdoor children estimated to experience this effect.

(3) In general, the differences in risk estimates for outdoor children associated with 1- and 5-expected exceedance standards set at the same standard level are relatively modest within the continuum of risk. For example, the risk estimates for lung function decrements ≥15% associated with a 5-expected exceedance standard set at 0.08 ppm fall between the risk estimates for the 0.08 and 0.09 ppm, 1-expected exceedance, 8-hour standards. Similarly, the risk estimates for a 5-expected exceedance standard set at 0.09 ppm fall between the risk estimates for the 0.09 and 0.10 ppm, 1-expected exceedance, 8-hour standards. The risk estimates for the current 0.12 ppm, 1-hour standard fall between the risk estimates for the 0.09 ppm, 1- and 5-expected exceedance standards.

(4) Multiple occurrences of lung function decrements ≥15% and ≥20% associated with 8-hour exposures under moderate exertion are estimated to occur for outdoor children upon attainment of any of the alternative 1- or 8-hour standards analyzed. The average seasonal numbers of occurrences per responder across the urban areas included in the analysis range from four to about nine for lung function decrements ≥15% and from two to about five for lung function decrements >20%, such that some individuals will experience more frequent occurrences of effects during the O_3 season, whereas others will experience fewer occurrences than the average in any given area.

(5) Based on comparisons of air quality distributions, risk estimates are generally comparable between 8-hour standards with 5-expected exceedances or fifth-highest daily maximum concentration forms. As noted in the previous discussion of the exposure estimates, for either form the worst year of a 3-year compliance period would be higher than for the average or typical year. For example, about 95% of current nonattainment areas meeting either form of an 8-hour, 0.08 ppm standard would have 10 or fewer exceedances in the worst year, compared to an average of less than five exceedances in a typical year. Risk estimates for a year in which there were 10 exceedances of 0.08 ppm, 8-hour average vary from urban area to urban area but fall between the risk estimates for a 5-expected exceedance standard of 0.08 ppm and a 5-expected exceedance standard set at 0.09 ppm.

The EPA believes, and CASAC concurred, that the models selected to estimate exposure and risk are appropriate and that the methods used to conduct the health risk assessment represent the state of the art. Nevertheless, the Administrator and CASAC recognize that there are many uncertainties inherent in such analyses. The resulting ranges of quantitative risk

estimates do not reflect all of the uncertainties associated with the numerous assumptions inherent in such analyses (Wolff, 1995b). Some of the most important caveats and limitations concerning the health risk assessment for lung function and respiratory symptom endpoints include: (1) The uncertainties and limitations associated with the exposure analyses discussed above, (2) the extrapolation of exposure-response functions below the lowest-observed-effects levels to an estimated background level of 0.04 ppm, and (3) the inability to account for some factors which are known to affect the exposure-response relationships (e.g., assigning children the same symptomatic response rates as observed for adults and not adjusting response rates to reflect the increase and attenuation of responses that have been observed in studies of lung function and symptoms upon repeated exposures). A more complete discussion of assumptions and uncertainties is contained in the Staff Paper and in the technical support document (Whitfield et al., 1996).

b. Excess Respiratory-Related Hospital Admissions

As discussed earlier in this notice, several epidemiology studies, mainly conducted in the northeastern portion of the U.S. and southeastern Canada, have reported excess daily respiratory-related hospital admissions associated with elevated O_3 levels during the O_3 season. To gain insight into the possible impact of just attaining alternative 1- and 8-hour O_3 standards, EPA has developed a risk model for this endpoint. The model is based on the regression coefficient (and the corresponding standard error) developed by Thurston et al. (1992) for New York City and estimated daily maximum hourly average O_3 levels over an entire season at various monitors in New York City upon attainment of alternative standards (as developed for the pNEM/O_3 analysis). The regression coefficient (11.7 admissions/ppm O_3/10^6 people) and its standard error (4.7 admissions/ppm O_3/10^6 people) were used to define a probabilistic concentration-response relationship. The model is described in more detail in Whitfield et al. (1996). One-hour daily maximum O_3 concentrations for one O_3 season under various alternative air quality standards were used to estimate the number of excess respiratory-related admissions of asthmatics (i.e., those attributable to O_3 concentrations higher than background). The O_3 concentration-response relationship developed by Thurston et al. (1992) was based on air quality data from the Queens monitor. Therefore, the risk estimates based on the Queens County monitor most closely represent the air quality index used in the original study and are summarized below. In each analysis, the air quality was adjusted to just attaining a particular standard at the monitor with the highest O_3 levels for the New York area, and the O_3 levels were adjusted at the other monitors using the procedures described in Johnson et al. (1996a).

Based on Table V–20 in the Staff Paper, the hospital admissions model results in a median estimate of excess respiratory-related admissions for asthmatic individuals attributable to O_3 exposure of approximately 390 (with a 90% credible interval of approximately 130–640) per year for the New York City area based on ''as is'' air quality using 1991 data. Just attaining the current 0.12 ppm, 1-hour standard is estimated to reduce excess hospital admissions to about 210 (with a 90% credible interval of 70–340), which is approximately a 50% decrease in O_3-induced admissions due to concentrations in excess of the estimated 0.04 ppm estimated background level. Upon attaining the 0.08 ppm, 8-hour, 1 expected exceedance standard, for example, the median estimate for excess respiratory-related hospital admissions attributable to O_3 exposure is further reduced to approximately 115 (with a 90% credible interval of approximately of 40–190). This represents a 70% decrease in O_3-induced hospital admissions from the ''as is'' scenario and about a 45% decrease from the current 1-hour standard.

It should be recognized that the O_3-induced excess hospital admissions represent a relatively small fraction of the overall respiratory-related hospital admissions for asthmatics over the seven month O_3 season. Based on an estimated 15,000 admissions per year during the O_3 season, the reduction in hospital admissions for asthmatics for any respiratory-related reason in going from ''as is'' air quality to attaining a 0.08 ppm, 8-hour, 1-expected exceedance standard is about 2%. Similarly, the reduction from attaining the current 1-hour standard to attaining a 0.08 ppm, 8-hour, 1-expected exceedance standard represents about a 0.6% decrease in total respiratory admissions for asthmatics due to all causes.

Key observations important in comparing hospital admission risk estimates associated with attainment of the current NAAQS and alternative standards under consideration include:

(1) Risk estimates for excess hospital admissions for asthmatics attributable to O_3 exposures in excess of an estimated background level of 0.04 ppm are projected to be significantly reduced (about 45%) under a 0.08 ppm, 8-hour, 1-expected exceedance standard compared to the current 1-hour NAAQS.

(2) The excess hospital admissions risk estimates associated with 1- and 5-expected exceedance standards set at 0.08 ppm are very similar.

(3) When viewed from the perspective of respiratory-related admissions for asthmatics due to all causes, the excess hospital admissions attributable to O_3 exposures in excess of an estimated background concentration of 0.04 ppm constitute a relatively small portion of total admissions. For example, comparing the risk estimates associated with the current 1-hour NAAQS and a 0.08 ppm, 8-hour, 1-expected exceedance standard results in only about a 0.6% reduction in respiratory hospital admissions for asthmatics due to all causes.

In taking these observations into account, the Administrator recognizes the uncertainties and limitations associated with the hospital admission risk assessment. These include: (1) The inability at this time to quantitatively extrapolate the risk estimates for the New York City area to other urban areas, (2) uncertainty associated with the underlying epidemiological study that served as the basis for developing the concentration-response relationship used in the analysis, and (3) uncertainties associated with the air quality adjustment procedure used to simulate attainment of alternative standards for the New York City area. A more complete discussion of these uncertainties and limitations is presented in the Staff Paper and technical support document (Whitfield et al., 1996).

c. Conclusions on the Elements of the Primary Standard

In selecting a primary standard for O_3, the Administrator must specify: (1) Averaging time, (2) O_3 concentration (i.e., level), and (3) form (i.e., the air quality statistic to be used as a basis for determining compliance with the standard).[5] All three of these elements are necessary to define a standard. Based on the assessment of relevant scientific and technical information in the Criteria Document, section VI of the Staff Paper outlines a number of key factors to be considered in specifying each of these elements, as well as recommendations to focus consideration on a discrete range of options for each

[5] This review focused only on a standard for O_3, as the most appropriate surrogate for photochemical oxidants.

element. The factors reflect an integration of information on acute and chronic health effects associated with exposure to ambient O_3; expert judgments on the adversity of such effects for individuals; and policy judgments, informed by air quality analyses and quantitative risk assessment when possible, as to the point at which risks would be reduced sufficiently to achieve protection of public health with an adequate margin of safety.

This approach to selecting a proposed primary standard was endorsed by members of CASAC (Wolff, 1995b), particularly through their advice to the Administrator that ''EPA's risk assessments must play a central role in identifying an appropriate level'' and their recognition that the selection of a specific concentration and form ''is a policy judgment.'' Further, it was the consensus view of CASAC that the ranges of levels (0.07 to 0.09 ppm) and forms (1 to 5 exceedances) recommended in the Staff Paper were appropriate.

Thus, the Administrator has focused her consideration on the recommended options and key factors outlined in the Staff Paper. The considerations that were most influential in the Administrator's selection of each specific element of the proposed standard are outlined below.

1. Averaging Time

The Administrator concurs with the unanimous recommendation of CASAC (Wolff, 1995b) ''that the present 1-hr standard be eliminated and replaced with an 8-hr standard,'' and that more research is needed to resolve uncertainties about potential chronic effects before appropriate consideration can be given to establishing a long-term (e.g., seasonal or annual) standard. These judgments are supported by the following key observations and conclusions:

(1) The 1-hour averaging time specified in the current NAAQS was originally selected primarily on the basis of health effects associated with short-term (i.e., 1- to 3-hour) exposures, with qualitative consideration given to preliminary information on potential associations with longer exposure periods.

(2) Substantial new health effects information available for consideration in this review demonstrates associations between a wide range of health effects and prolonged (i.e., 6– to 8-hours) exposures below the level of the current 1-hour NAAQS.

(3) Results from the quantitative risk analyses show that attaining a standard with a 1-hour averaging time reduces the risk of experiencing health effects associated with both 1-hour and 8-hour exposures. Likewise, attaining an 8-hour standard reduces the risk of experiencing health effects associated with both 8-hour and 1-hour exposures. Thus, reductions in risks from both short-term and prolonged exposures can be achieved through a primary standard with an averaging time of either 1 or 8 hours. As a result, establishment of both 1-hour and 8-hour standards would not be necessary to reduce risks associated with the full range of observed acute health effects.

(4) The 8-hour averaging time is more directly associated with health effects of concern at lower O_3 concentrations than is the 1-hour averaging time. It was thus the consensus of CASAC ''that an 8-hr standard was more appropriate for a human health-based standard than a 1-hr standard.'' (Wolff, 1995b)

(5) While there is a large animal toxicology database providing clear evidence of associations between long-term (e.g., from several months to years) exposures and lung tissue damage, with additional evidence of reduced lung elasticity and accelerated loss of lung function, there is not corresponding evidence for humans. Moreover, the state of the science has not progressed sufficiently to permit quantitative extrapolation of the animal-study findings to humans. Thus, the Administrator concludes that consideration of a separate long-term O_3 standard is not appropriate at this time. As discussed below, however, the Administrator has considered the possibility of long-term effects in selecting the level of the standard, which will provide protection against such effects to the extent they may occur in humans, by lowering overall air quality distributions and, thus, reducing cumulative long-term exposures.

2. Level

The Administrator's consideration of an appropriate level for an 8-hour standard to protect public health with an adequate margin of safety necessarily reflects a recognition, as emphasized by CASAC, that it is likely that ''O_3 may elicit a continuum of biological responses down to background concentrations'' (Wolff, 1995b). Thus, in the absence of any discernible threshold, it is not possible to select a level below which absolutely no effects are likely to occur. Nor does it seem possible, in the Administrator's judgment, to identify a level at which it can be concluded with confidence that no ''adverse'' effects are likely to occur. In such a case, as CASAC has advised, the traditional paradigm for standard-setting cannot be applied in the usual way, and assessments of risk ''must play a central role in identifying an appropriate level'' (Wolff, 1995b). Thus, the Administrator's task becomes one of attempting to select a standard level that will reduce risks sufficiently to protect public health with an adequate margin of safety, since a zero-risk standard is neither possible nor required by the Act. Consequently, as CASAC recognized, ''the selection of a specific level * * * is a policy judgment'' (Wolff, 1995b). The Administrator's policy judgment on the level of the proposed standard is framed by the above considerations and informed by the following key observations and conclusions:

(1) During the last review of the O_3 criteria and standards, the CASAC concluded that the existing 1-hour standard set at 0.12 ppm O_3 provided ''little, if any, margin of safety,'' and the upper end of the range of consideration for a 1-hour standard should be 0.12 ppm (McClellan, 1989). In addition, several members of the CASAC panel recommended that consideration should be given to a lower 1-hour level of 0.10 ppm to offer some protection against effects for which there was preliminary information at that time of associations with 8-hour exposures to O_3.

Regarding currently available evidence of O_3-related effects:

(2) Based on a significant body of information available since the last review, there is now clear evidence from human clinical studies that O_3 effects of concern are associated with the 8-hour exposures tested. Studies were done at 8-hour exposure levels of 0.12, 0.10, and 0.08 ppm). This includes evidence of the following statistically significant responses at 6- to 8-hour exposures to the lowest concentration evaluated, 0.08 ppm O_3, at moderate exertion: lung function decrements, respiratory symptoms (e.g., cough, pain on deep inspiration), nonspecific bronchial responsiveness, and biochemical indicators of pulmonary inflammation. Field studies provide evidence of similar functional and symptomatic effects at ambient O_3 exposures that are consistent with the clinical findings. Laboratory animal studies provide supporting evidence of O_3-induced biochemical indicators of inflammation and functional changes.

(3) Numerous epidemiological studies have reported excess hospital admissions and emergency department visits for respiratory causes (for asthmatic individuals and the general population) attributed primarily to ambient O_3 exposures, including O_3

concentrations below the level of the current standard, with no discernible threshold at or below this level. The biological plausibility of attributing such effects to ambient O_3 exposures is supported by human studies showing increased nonspecific bronchial responsiveness, laboratory animal studies showing pulmonary changes that decrease the effectiveness of the lung's defenses against bacterial respiratory infections, and the reasonable anticipation that O_3 exposures also increase the risk of respiratory infections in humans, based on the many similarities between animal and human defense mechanisms.

(4) Long-term laboratory animal studies suggest that changes in lung biochemistry and structure may, under certain circumstances, become irreversible, although it is unclear whether long-term exposures to ambient O_3 levels result in similar chronic health effects in humans.

Regarding the types and severity of O_3-induced physiological effects that are considered to be adverse to the health status of individuals experiencing such effects:

(5) With regard to lung function decrements and respiratory symptoms, the Administrator recognizes that these O_3-induced effects are transient and reversible, and concludes that the extent to which such effects are adverse to the health status of an individual depends upon the severity, duration, and frequency with which an individual experiences such effects throughout the O_3 season. While group mean responses in clinical studies at the lowest exposure level tested of 0.08 ppm are typically small or mild in nature, responses of some extremely sensitive individuals are sufficiently severe and extended in duration to be considered adverse. This would especially be true to the extent that those individuals likely to experience such effects would, on average, experience them several times a year.

(6) With regard to increased hospital admissions and emergency room visits, the Administrator judges that such effects are clearly adverse to individuals.

(7) With regard to pulmonary inflammation, the Administrator recognizes that singular occurrences of inflammation are likely reversible and potentially of little health significance. On the other hand, repeated inflammatory responses associated with exposure to O_3 over a lifetime have the potential to result in damage to respiratory tissue such that individuals later in life may experience a reduced quality of life. Furthermore, there is the possibility that repeated pulmonary inflammatory responses could adversely affect asthmatic individuals by resulting in increased medication use, medical treatment, and/or emergency room visits and hospital admission.

Accordingly, the Administrator judges that repeated exposures to O_3 levels that produce inflammation of the lungs are adverse to individuals likely to experience such exposures over long periods of time.

The Administrator has considered the results of the exposure and risk analyses and the following key observations and conclusions from these analyses in putting effects considered to be adverse to individuals into a broader public health perspective and making judgments about the level of a standard that would reduce risk sufficiently to protect public health with an adequate margin of safety:

(8) The median risk estimates for functional and symptomatic effects, as well as for excess hospital admissions and emergency room visits due to respiratory causes, are approximately the same or only marginally smaller for some of the 0.09 ppm 8-hour standard options evaluated (including those with forms ranging from 1- to 3-expected-exceedances [6]) as compared to the current 0.12 ppm 1-hour NAAQS (risk estimates are somewhat larger for a 0.09 ppm 8-hour 5-expected-exceedance form as compared to the current NAAQS).

(9) Within any given urban area, statistically significant reductions in exposure and risk associated with functional and symptomatic effects result from alternative 8-hour standards as the level changes from 0.09 ppm to 0.08 ppm to 0.07 ppm. These reductions represent differences of hundreds of thousands of times that children would likely experience such effects under the range of alternative standards considered relative to the current standard.[7] There are significant uncertainties in such quantitative estimates, however, and there is no break point or bright line that differentiates between acceptable and unacceptable risks within this range.

(10) Similarly, reductions in hospital admissions and emergency room visits for asthmatic individuals are estimated to occur with each change in the level of the standard from 0.09 ppm to 0.08 ppm to 0.07 ppm. However, hospital admissions for asthmatic individuals associated with ambient O_3 exposures within the range of standard levels under consideration represent a relatively small fraction of the total respiratory-related hospital admissions for asthmatics over the O_3 season.

(11) Estimated exposures to O_3 concentrations ≥0.08 ppm (at which increased nonspecific bronchial responsiveness, decreased pulmonary defense mechanisms, and indicators of pulmonary inflammation have been observed in humans) are essentially zero at the 0.07 ppm standard level for most areas evaluated in the exposure analyses for the at-risk population of outdoor children. Such exposures of outdoor children increase to approximately 0 to 1.3% at the 0.08 ppm level, while the estimated range at the 0.09 ppm level rises to 3–7% for the areas evaluated.

(12) While recognizing that extremely sensitive individuals may experience adverse but transient effects with a standard set at 0.08 ppm, no CASAC panel member supported selection of 0.07 ppm as the level of a primary standard. Of the members who expressed their personal views, three indicated a preference for a level of 0.08 ppm, one for a range of 0.08 to 0.09 ppm, three for a level of 0.09 ppm (with one of the three expressing a preference for selecting a form that would result in equivalent protection to the current standard), and one for a range of 0.09 to 0.10 ppm, associated with public advisories for O_3 levels at and above 0.07 ppm. Other CASAC panel members also expressed support for such public notices or advisories reflecting potential effects for extremely sensitive individuals associated with O_3 levels as low as 0.07 ppm.

[6] Based on air quality comparisons, since risk estimates are only currently available for the 1- and 5-expected-exceedance forms of a 0.09 ppm standard.

[7] With regard to these risk analyses, CASAC concluded ''that there is no 'bright line' which distinguishes any of the proposed standards (either the level or the number of allowable exceedances) as being significantly more protective of public health,'' and noted that the differences in percent of outdoor children responding between the present standard and the most stringent standard ''are small and their ranges overlap for all health endpoints.'' (Wolff, 1995b) To address any apparent differences between EPA's and CASAC's conclusions, it is important to note that EPA's risk analysis report (Whitfield et al., 1996) makes clear that there are *statistically significant* differences in estimated risk for alternative standard levels; whether one judges the differences to be *significant* or *small* can depend on whether one focuses on *percentages*, as CASAC's letter did, or on *total numbers* of times that children or other at-risk individuals experience such effects. The overlap in the ranges of risk referred to in the CASAC letter reflect *differences among* cities used in EPA's risk analysis (e.g., air quality, esposure patterns, environmental factors), not *random uncertainties in risk estimates within any given city*. Thus, the fact that the ranges overlap does not mean that there are no real or statistically significant differences in protection among alternative standards.

After carefully assessing the key observations and conclusions drawn from the available scientific evidence and analyses, and taking into account the advice of CASAC and comments from the public, the Administrator focused her consideration on two policy options for the level of the primary O_3 standard: 0.08 ppm and 0.09 ppm. A standard set at a level of 0.09 ppm (within the middle of the range of forms discussed below) would result in approximately equivalent public health protection as that afforded by the current standard; a 0.08 ppm level would provide greater protection. In her judgment, the selection of either level could properly take into account the available scientific and technical information and would be consistent with the views expressed by her scientific advisors, since none of the CASAC panel members expressed the view that the standard level should be set below 0.08 ppm. On the other hand, the Administrator is aware of alternative views that place great weight on margin of safety considerations, leading to support by some commentors for a standard level option of 0.07 ppm, as discussed further below.

In deciding between the 0.08 ppm and 0.09 ppm alternatives, the Administrator took into account several factors including: (1) Estimates of risk, in terms of the percentage of children likely to experience respiratory symptoms and decreases in lung function of concern; (2) estimates of exposures to the lowest concentration at which other, more uncertain effects have been observed; and (3) the body of health effects evidence as a whole.

In considering risk estimates, she noted that there is a continuum of increasing risk reduction in going from the upper end of the range of consideration (0.09 ppm, with a 5-expected-exceedance form) down to the lower end of this range (0.08 ppm, with a 1-expected-exceedance form) and below, and that the current 1-hour standard provides a level of protection within but near the top of this range. These quantitative risk estimates are summarized in Table 1 above, showing the varying percentages of children estimated to experience these symptomatic and functional effects of concern for the alternative 0.08 and 0.09 ppm 8-hour standards. Quantitative risks could be estimated for these effects because studies are available that allow for a determination of how the percentages of individuals likely to experience such effects vary as a function of the O_3 concentrations to which they are exposed.

With respect to exposure estimates, she noted that these alternative standards provide differing degrees of protection from exposures to O_3 concentrations that have been associated with other potentially adverse, but more uncertain effects, including nonspecific bronchial responsiveness (related, for example to aggravation of asthma) and inflammation of the lungs (related to potential chronic aggravation of bronchitis or long-term damage to the lungs). For these effects, the evidence is not sufficient to conduct a quantitative risk assessment, but the relative protection of the alternative standards can be considered in terms of the percentages of outdoor children who would be exposed one or more times to the lowest concentration at which evidence of these effects has been observed (i.e., 0.08 ppm). As noted above, in summarizing key observations from the exposure assessment, the percentages of outdoor children likely to be exposed to the level are approximately 3 to 7% for a 0.09 ppm standard (with a 1-expected-exceedance form) and approximately 0 to 1.3% for a 0.08 ppm standard with the same form. For comparison, these exposures range from approximately 1 to 21% for the current 1-hour standard of 0.12 ppm,[8] dropping to essentially 0% for a 0.07 ppm 8-hour standard. While the public health risks associated with these effects are uncertain and cannot be assessed definitively, the Administrator finds these different exposures to be an important factor in making this policy choice.

Both the quantitative risk estimates for respiratory symptoms and decreased lung function and the exposure estimates associated with bronchial responsiveness and inflammation of the lung provide an important perspective in assessing the public health implications of effects observed in individuals exposed to various O_3 concentrations. Nonetheless, the Administrator believes that these estimates alone do not provide a clear basis for making a policy choice between the 0.09 and 0.08 ppm levels for an 8-hour standard.

Finally, the Administrator noted that in a number of clinical studies examining all of the effects discussed above in human subjects, various researchers have consistently reported statistically significant effects at an exposure level of 0.08 ppm. This exposure level reflects the lowest level that researchers have chosen to conduct the relevant studies, and it does provide a strong point of consistency in the currently available scientific evidence. Effects at this level observed in clinical studies are also consistent with the results of epidemiological and summer camp studies reporting similar symptomatic and functional effects associated with exposures to ambient levels of O_3 that broadly span this clinical lowest-observed-effects level.

The Administrator has weighed the importance of increased protection for those extremely sensitive individuals who may experience symptomatic and functional effects at lower O_3 concentrations than the population as a whole, the uncertainties in considering the potentially more serious but as yet uncertain chronic effects. For all these reasons, the Administrator is proposing to set the level of an 8-hour O_3 standard at 0.08 ppm.

However, as noted above, in making this judgment, the Administrator is mindful that a range of views has been expressed as to the appropriate policy choice between 0.08 ppm and 0.09 ppm for an 8-hour standard level. For example, while some CASAC members supported the choice of the proposed 0.08 ppm, fully half or more of the CASAC panel members expressing views on a specific level supported a specific level or range of levels that include 0.09 ppm.

Those that favored a 0.09 ppm standard did so on the basis of several kinds of judgments. As the CASAC noted, it is unclear whether there is a threshold level for the various health effects discussed above. For this reason, some CASAC members and others have suggested that it is difficult to determine if a margin of safety exists for any particular level and therefore, in their opinion the differences in health protection may not be significant enough to justify a change from the current standard.

Others may support a 0.09 ppm standard on the basis of uncertainties about: (1) The medical significance of the reported effects of O_3 exposure at these levels for individuals experiencing such effects; (2) the public health significance of the degree of exposure and risk reduction likely to be achieved by moving from 0.09 ppm O_3 to 0.08 ppm O_3; (3) the appropriate weight to be given to the health endpoints that could not be addressed in the quantitative risk assessment; and 4) how to address the various uncertainties in the scientific evidence on health effects and in the exposure and risk estimates in making a policy decision on a standard level

[8] The wide range of exposures for this 1-hour standard (compared to the narrower ranges for the 8-hour standards) reflects much greater variability across cities in the extent to which a 1-hour standard limits 8-hour exposures.

that will protect public health with an adequate margin of safety.

A policy decision to set a 0.09 ppm 8-hour standard would place more weight on the transient and reversible nature of reported decrements in lung function, increased respiratory symptoms, and lung inflammation, and would call into question the medical significance of moderate levels of such effects, particularly for healthy individuals. This view would also emphasize the relatively small fraction of the overall respiratory-related hospital admissions for asthmatics that are estimated to be linked to O_3 exposures over the O_3 season. Thus, it could be reasonable to judge that any incremental reduction in such risk achieved by levels below 0.09 ppm O_3 would be of little consequence when viewed from a broader public health perspective. Further, this view would note the lack of evidence linking O_3-induced markers of inflammation and cell damage with chronic respiratory damage in humans. In this view, while the potential for O_3-induced chronic respiratory damage would be a matter of public health concern, additional research would be needed before such concerns should be reflected in margin of safety considerations. These interpretations of the evidence and judgments as to the nature and significance of the reported O_3-induced health effects, could justify a judgement that an 8-hour standard set at 0.09 ppm O_3 protects public health with an adequate margin of safety. Thus, the Administrator solicits public comment on this alternative of a 0.09 ppm level for an 8-hour standard.

In sharp contrast, the Administrator also notes that others would make a different set of judgments as to the significance of O_3-induced health effects and the appropriate public health policy response. To reflect these views, the Administrator is also requesting comment on the alternative of establishing the level of an 8-hour standard at 0.07 ppm. A standard set at this level, within a range of forms (as discussed in the next section), would be highly precautionary in nature. A policy decision to select such a standard would reflect an emphasis on (1) The many studies that have reported observed effects in humans at moderate levels of exercise at an exposure level of 0.08 ppm; (2) judgments that the reported decrements in lung function, increased respiratory symptoms, and indicators of inflammation, even when transient and reversible at moderate levels, are adverse effects; and (3) judgments that even the most sensitive responders should be afforded protection against the occurrence of such effects through national ambient air quality standards. This view would judge that even a relatively small number of O_3-induced excess hospital admissions do pose a significant public health problem, especially considering that for every hospital admission, there are likely many more patients visiting physicians and an increasing use of medication. Further, even though no clear linkage has been established between the O_3-induced markers of inflammation, cell damage, and chronic respiratory damage shown in animal toxicological studies and similar effects in humans, this view would hold that the possibility of such a link suggests the need for a wide margin of safety.

Based on these judgments as to the nature and significance of the reported O_3-induced health effects, some commentors would reach the policy judgment that an 8-hour standard should be set at 0.07 ppm to protect public health with an adequate margin of safety. In recognition of this view, the Administrator also solicits public comment on an 0.07 ppm level for an 8-hour standard.

Based on the comments received and the accompanying rationale, the Administrator may choose at the time of final promulgation to adopt a standard from within the range of alternatives on which she is requesting comment, with further specification of the form of such a standard (as discussed in the next section), in lieu of the 0.08 ppm level of the 8-hour O_3 standard she is proposing today.

3. Form

The current primary NAAQS is expressed in a ''1-expected-exceedance'' form. That is, the standard is formulated on the basis of the expected number of days per year, on average, on which the level of the standard will be exceeded. More specifically, the test for determining attainment of the standard specifies that the expected number of days per year on which the level is exceeded is to be less than or equal to 1.0 (values equal to or greater than 1.05 round up), averaged over a three year period, and that specific adjustments are to be made for missing data. The current NAAQS is applied on a site-by-site basis; data from multiple air quality monitoring sites are not combined.

Since promulgation of the current NAAQS in 1979, a number of concerns have been raised about the 1-expected-exceedance form. These include, in particular, the year-to-year stability of the number of exceedances, the stability of attainment status of an area, the data handling conventions, including the procedures for adjusting for missing data, and the evaluation of air quality on a site-by-site basis rather than some form of averaging across monitoring sites. These issues are discussed in some detail in section V.I of the Staff Paper, and alternative forms that would address such issues are recommended for consideration.

In evaluating alternative forms for the primary standard, the adequacy of the public health protection provided is of foremost consideration. However, consistent with the advice of CASAC, the Administrator is also interested in considering alternative forms that provide increased stability and thereby reduce the likelihood of areas ''flip-flopping'' in and out of attainment simply as a result of natural variability in meteorological conditions that are conducive to O_3 formation. Such instability can have the effect of reducing public health protection by disrupting ongoing implementation plans and associated control programs.

Based on information presented in sections IV and V.I of the Staff Paper and the advice of CASAC, the Administrator has focused her consideration on the following alternatives:

(1) Revising the current 1-expected-exceedance form of the standard to allow for multiple (up to five) expected exceedances per year, averaged over three years. A multiple-exceedance form would be based on a less extreme air quality statistic and, thus, would increase the stability of the expected-exceedance form.

(2) Adopting a concentration-based statistic, such as the three-year average of the nth-highest daily maximum 8-hour average O_3 concentration, as an alternative to an expected exceedance statistic. Air quality analyses presented in the Staff Paper indicate that, for example, the 3-year average of the annual third highest daily maximum 8-hour concentration provides approximately the same health protection as the 3-expected-exceedance form averaged over the same period. Similarly, the 3-year average of the annual fifth-highest daily maximum 8-hour average concentration approximately corresponds to an expected-exceedance form that allows five expected exceedances averaged over three years.

The CASAC acknowledged that selecting from this range of alternative forms is a policy judgment, especially given the nature of the health effects and the absence of a ''bright line'' that clearly differentiates between acceptable and unacceptable risks within this range. However, CASAC did

recommend that a more robust, concentration-based form (one that would allow for multiple exceedances) be adopted to provide additional stability in control programs, and thus in public health protection, by insulating an area from the impacts of extreme meteorological events (Wolff, 1995b).

In reaching her proposed decision on the form of the standard, the Administrator first assessed the degree of health protection that would be provided by alternative expected-exceedance forms of the standard. Having decided to propose a level of 0.08 ppm for an 8-hour primary standard, as discussed above, the Administrator focused on the degree of risk reduction that would be achieved by a 1-expected-exceedance form as compared to a 5-expected-exceedance form. Examination of the quantitative risk assessment results discussed above revealed that, within the range of one to five expected exceedances, the dominant factor in determining the degree of risk reduction achieved is the level of the standard, with the number of expected exceedances being associated with smaller differences in risk estimates within a continuum of risk.

In considering possible forms within the range of one to five expected exceedances, the Administrator took into account as the foremost consideration the adequacy of public health protection provided. This includes consideration of (1) aggregate risk for those health effects for which quantitative risk analyses have been done; (2) consideration of exposures associated with those effects for which no quantitative risk estimates could be developed; and (3) the magnitude of peak measurements of 8-hour average O_3 concentrations, and the number of days on which the level of the standard would likely be exceeded, based on an analysis of historical air quality data (Freas, 1996). Based on these considerations, the Administrator judges that the middle of the range, three expected exceedances, would represent a reasonable policy choice. Relative to a standard set at the upper end of the range (i.e., a 5-expected-exceedance standard), a 3-expected-exceedance standard would serve to better limit the number of days in which the level of the standard would be exceeded in areas that just attain the standard [9], as well as limiting the magnitude of peak measurements of 8-hour average O_3 concentrations that would occur in such areas.[10] A 3-expected-exceedance standard would also provide significantly increased stability relative to a standard set at the lower end of the range (i.e., the current 1-expected-exceedance form [11]). The Administrator believes that such a policy choice would appropriately reflect the advice of CASAC.

The Administrator also considered whether the form should be expressed in terms of expected exceedances or generally equivalent concentration-based statistics. As discussed in the Staff Paper, a concentration-based statistic has certain advantages over the expected-exceedance form. The principal advantage is that a concentration-based form is more directly related to the ambient O_3 concentrations that are associated with health effects. That is, given that there is a continuum of effects associated with exposures to varying levels of O_3, the extent to which public health is affected by exposure to ambient O_3 is related to the actual magnitude of the O_3 concentration, not just whether the concentration is above a specified level. With an exceedance-based form, days on which the ambient O_3 concentration is well above the level of the standard are given equal weight to those days on which the O_3 concentration is just above the standard (i.e., each day is counted as 1 exceedance), even though the public health impact on the two days is significantly different. With a concentration-based form, days on which higher O_3 concentrations occur would weigh proportionally more than days with lower O_3 concentrations, since the actual concentrations are used directly in determining whether the standard is attained. Further, based on analyses of historical air quality data (Freas, 1996), concentration-based forms control peak measures of O_3 concentrations somewhat better than the corresponding exceedance-based forms [12], although exceedance-based forms tend to limit the numbers of days on which the level of the standard is exceeded somewhat better than concentration-based forms [13]. A concentration-based form also has greater temporal stability than the expected-exceedance form and, thus, would facilitate the development of more stable implementation programs by the States.

Taking the factors discussed above into account, as well as the advice of CASAC and the observations and conclusions discussed in the Staff Paper, the Administrator believes that the primary standard should be expressed in terms of concentrations rather than expected exceedances. As indicated above, the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration would provide approximately the same degree of health protection as the 3-expected-exceedance form averaged over the same period. Accordingly, the Administrator proposes to express an 8-hour primary standard of 0.08 ppm as the 3-year average of the annual third-highest maximum 8-hour average O_3 concentration, so as to reduce risk sufficiently to protect at-risk populations, including outdoor children, outdoor workers, and persons with preexisting respiratory disease, against adverse health effects with an adequate margin of safety. Such a standard would also provide a more stable basis upon which the States can design and implement their O_3 control programs. Given the range of views discussed in the above section on level of the standard, however, the Administrator also solicits comment on other concentration-based forms within the range of the second- to the fifth-highest daily maximum 8-hour average O_3 concentrations.

[9] Areas that ''just attain the standard'' are defined as those whose design value falls between 0.075 and 0.084 ppm. Based on 1993–1995 air quality data, 95% of monitoring sites that just attain a 0.08 ppm standard with a 3-expected-exceedance form would have 6 or fewer days on which the standard would be exceeded, in the worst of the three years, as compared to 10 days or fewer days with a 5-expected-exceedance form (Freas, 1996).

[10] Based on 1993–1995 air quality data, 4% of monitoring sites that just attain a 0.08 ppm standard with a 3-expected-exceedance form would have 8-hour peak O_3 concentrations (in terms of the 4th highest daily maximum concentration in three years) above a benchmark level of 0.09 ppm, as compared to 22% of such sites with a 5-expected exceedance form (Freas, 1996).

[11] In comparing alternative 8-hour standards to the current standard (0.12 ppm, 1-hour average) with a 1-expected-exceedance form, 77% of monitoring sites that just attain the current standard would have 8-hour peak O_3 concentrations (in terms of the 4th highest daily maximum concentration in three years) above a benchmark level of 0.09 ppm.

[12] For example, whereas 4% of monitoring sites that just attain a 0.08 ppm standard with a 3-expected-exceedance form would have 8-hour peak O_3 concentrations above the benchmark of 0.09 ppm, only 1% of such sites with a 3rd (or 2nd) highest daily maximum concentration form would do so. Similarly, whereas 22% of just-attain sites with a 5-expected-exceedance form would have peak concentrations above the 0.09 ppm benchmark, 17% of such sites with a 5th highest daily maximum concentration form would do so.

[13] For example, whereas 95% of monitoring sites that just attain a 0.08 ppm standard with a 3-expected-exceedance form would have 6 or fewer days on which the standard would be exceeded, in the worst of the three years, with a 3rd highest concentration form 95% of such sites would have 7 or fewer such days. Similarly, with a 5-expected-exceedance form, 95% of such sites would have 10 or fewer such days, as compared to 11 or fewer days with a 5th highest concentration forms (Freas, 1996).

The Administrator has also considered whether the above conclusions on the form of a standard would be affected if she selected one of the alternative levels of a standard discussed in the previous section. During the last review of the O_3 criteria and standards the CASAC concluded that the existing 1-hour standard of 0.12 ppm O_3 provides little, if any, margin of safety, and during this review the new evidence focuses on effects below the level of the current NAAQS. In general, the risks projected (based on air quality analyses) for a 3-expected-exceedance form of a 0.09 ppm standard are only marginally below those estimated to occur upon attainment of the current NAAQS. Taking these factors into account, the Administrator judges that consideration of a form for an alternative 0.09 ppm 8-hour standard should be limited to the third-highest daily maximum 8-hour average O_3 concentration, averaged over 3 years, so as not to relax the level of protection afforded by the current standard. With regard to the alternative of a possible 0.07 ppm 8-hour standard, the Administrator judges that the conclusions discussed above with respect to the 0.08 ppm level are applicable, such that consideration of the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration is appropriate, with comment solicited on forms within the range of the second to the fifth highest.

The Administrator recognizes that none of the levels and forms under consideration would provide a risk-free standard, due to the continuum of risk likely posed by exposures to ambient O_3 potentially down to background levels. Accordingly, the Administrator believes, consistent with the advice of CASAC, that it would be appropriate to provide additional information to the public about the nature of risks associated with exposures to ambient O_3. Such information could be particularly useful to extremely sensitive individuals in making personal decisions about avoiding exposures with the potential to cause transient adverse effects on days when 8-hour average O_3 concentrations are predicted to be at or near the level of the proposed standard. As discussed in Section III below, one way to provide such information might be in conjunction with the Pollutant Standards Index already in use in many metropolitan areas.

A number of commentors have raised the issue of whether data from multiple monitoring sites, rather than data from the highest monitor might be used to determine when the primary standards for O_3 are attained.[14] These commentors have suggested that some form of averaging across monitors might be appropriate in order to increase the degree to which monitoring data used in determining attainment of the standard reflects population exposure and aggregate population health risk. Averaging data from multiple monitors in an area would produce a more stable measure of air quality, and could take into account broader population exposure patterns across an area than would the current approach of considering data from each monitor independently. When considering averaging approaches for O_3, it should be recognized that the bulk of the human health effects evidence supporting the decision on an appropriate O_3 standard is based on controlled human exposure studies that relate known O_3 exposures directly to responses in individuals.[15] Moreover, as discussed previously in this notice, the O_3 exposure analysis and the lung function and respiratory symptoms components of the health risk assessments, which were considered in developing this proposal, reflect the movement of people through time and space within an urban area and incorporate air quality data from the various monitors within each urban area in estimating population exposure and health risk for various population groups. For these reasons, it would be considerably more difficult to determine an appropriate level for a spatially averaged primary standard.

In any case, the Administrator does not believe it would be appropriate to consider averaging monitors across broad areas [e.g., a Consolidated Metropolitan Statistical Area (CMSA) or a Metropolitan Statistical Area (MSA)] because such averaging would not be reflective of the variability of O_3 concentrations across larger metropolitan areas. However, it may be appropriate to consider averaging monitors across smaller geographic areas within a CMSA/MSA if zones can be defined that better reflect the gradient of O_3 concentrations and associated population exposure. Any approach to averaging across monitors within an urban area must take into account not only the desirability of providing better characterizations of overall population exposure, where possible, but also concerns about whether adequate health protection would be provided to individuals within the populations that live or work in areas within a CMSA that routinely experience higher O_3 concentration levels.

In defining smaller geographic areas within which EPA might permit spatially averaged O_3 data (hereafter referred to as ''spatial averaging zones'), it would be necessary to consider the variability of O_3 concentrations across the broader metropolitan area as reflected in the monitoring data. Ozone air quality concentrations vary significantly across most urban areas; the lowest concentrations typically occur in the urban center and in locations near O_3 precursor sources, mid-range concentrations in neighborhoods and areas surrounding the urban center, and peak concentrations are typically measured downwind along the outermost suburban regions of the urban area. Also, the location of residences, schools, parks, and other areas where individuals might be exposed more frequently to ambient O_3 concentrations of concern should be considered. In order for a spatially averaged value to represent potential individual exposures within the spatial averaging zone, the O_3 pollution concentration gradients within each of these spatial averaging zones would need to be relatively homogeneous. Otherwise, there may be significant numbers of sensitive individuals exposed to high O_3 concentrations in areas where the spatial average indicates that the overall air quality is acceptable.

Spatial averaging would also have implications for the existing O_3 monitoring infrastructure. Although a number of larger metropolitan areas have extensive O_3 monitoring networks, more than half of the 234 MSA's with O_3 monitoring networks have only 1 or 2 O_3 monitoring sites. If a spatially averaged form of the O_3 NAAQS were to be adopted, EPA expects that the density of most O_3 monitoring networks would have to be increased, and/or that relocation of some O_3 monitoring sites might be necessary.

To help State and local governments devise different O_3 monitoring networks, the EPA would revise the 40

[14] Spatial averaging of monitoring data is also discussed in the notice of a proposed decision on the PM NAAQS published today, specifically with regard to an annual $PM_{2.5}$ standard. Different considerations apply in the two cases principally because of differences between (1) the nature of the health effects evidence for O_3 and $PM_{2.5}$; (2) a single proposed O_3 standard, in contrast to the proposed suite of annual and 24-hour $PM_{2.5}$ standards; and (3) the existence of an established, extensive O_3 monitoring network, in contrast to the absence at present of such a network for $PM_{2.5}$.

[15] In contrast, estimates of excess hospital admissions associated with O_3 and all of the human health effects evidence relating particulate matter to various responses are based on relationships between responses in population groups and pollutant concentrations observed at ambient fixed site monitors.

CFR Part 58 Ambient Air Quality Surveillance regulation and associated guidelines. In so doing, EPA would most likely define general criteria for monitoring network design, siting, and spatial averaging zones in nationally implementable terms; however, because of the variability of the O_3 pollution problem across the nation, a locally conducted case-by-case evaluation of each O_3 monitoring network, and the identification of appropriate zones for spatial averaging, would be necessary. This activity would place additional burdens on State and local air quality management agencies.

The Administrator believes that before such an averaging approach could be given appropriate consideration, the above concerns would need to be addressed. Thus, the Administrator solicits comment on whether it would be desirable to adopt some form of spatial air quality averaging for O_3 and on specific alternative approaches that might be adopted. In particular, the Administrator is interested in analyses that inform questions about monitoring network design, siting requirements, and approaches for specification of spatial averaging zones; the distribution of public health protection that would result from alternative approaches; and the extent to which the level of the standard would need to be adjusted, if any, to provide public health protection consistent with the level of protection contemplated in this proposal.

D. Proposed Decision on the Primary Standard

After carefully considering the information presented in the Criteria Document and the Staff Paper, the advice and recommendations of CASAC, and for the reasons discussed above, the Administrator proposes to replace the existing 1-hour primary standard with a new 8-hour, 0.08 ppm primary standard. The new 8-hour standard would become effective 30 days after the date of promulgation. To facilitate continuity in public health protection during the transition to a new standard (see memorandum from John S. Seitz to Mary D. Nichols, November 20, 1996; Docket No. A–95–58, item II–B–3), the Administrator also proposes except for two limited purposes (attainment demonstrations and reclassifications) that the revocation of the existing 1-hour standard would become effective at the time EPA determines that an area's State implementation plan provides for the achievement of the proposed new 8-hour standard. The EPA's plans for assuring an effective transition from the existing 1-hour standard to the proposed new 8-hour standard are proposed in the Interim Implementation Policy notice published elsewhere in today's Federal Register.

The proposed 0.08 ppm, 8-hour primary standard would be met at an ambient air quality monitoring site when the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration is less than or equal to 0.08 ppm. Data handling conventions are specified in proposed revisions to Appendix H, as discussed in Section V below.

The EPA solicits comments on alternative levels of 0.09 ppm, which generally represents the continuation of the present level of protection, as well as its proposed level of 0.08 ppm, an increased level of protection. The EPA also solicits comment on an alternative 8-hour standard at a level of 0.07 ppm and on retaining the current primary standard.

III. Communication of Public Health Information

Information on the public health implications of ambient concentrations of criteria pollutants is currently made available primarily through two EPA programs. Under section 303 of the Act, EPA identifies exposure levels that constitute ''an imminent and substantial endangerment to the health of persons.'' The EPA regulations (40 CFR 51.16) require the States to adopt contingency plans to prevent ambient pollutant concentrations from reaching these significant harm levels (SHLs). The SHL for O_3 is that level of O_3 at which serious and widespread health effects occur among the general population. With respect to the existing 1-hour O_3 NAAQS of 0.12 ppm, the SHL is 0.60 ppm, averaged over 2 hours. In developing strategies for implementing the proposed revision of the existing NAAQS, EPA will consider corresponding changes in the SHL and propose revisions as appropriate in conjunction with other proposed revisions to the 40 CFR Part 51.

Another program, known as the Pollutant Standards Index (PSI) has long been in use to provide accurate, timely, and easily understandable information about daily levels of pollution (40 CFR 58.50). The PSI establishes a uniform system of indexing pollution levels for O_3, carbon monoxide, nitrogen dioxide, particulate matter and sulfur dioxide. Reported PSI values [16] enable the public to know whether air pollution levels in a particular location are characterized by EPA as good, moderate, unhealthful, or worse. The PSI converts pollutant concentrations in a community's air to a number on a scale of 0 to 500. On that scale, the number 100 corresponds to the NAAQS for each particular pollutant. For the current O_3 NAAQS, a 1-hour average reading of 0.12 ppm is translated into a PSI value of 100. A PSI value in excess of 100 has meant that a pollutant is in the ''unhealthful'' (or worse) range on a given day; a PSI value at or below 100 has meant that a pollutant reading is in the satisfactory (moderate or good) range. Should the current 1-hour O_3 NAAQS be replaced by an 8-hour NAAQS as proposed, the PSI index would likely be revised to reflect 8-hour average concentrations.

In addition, EPA and local officials use the PSI as a public information tool to advise the public about the general health effects associated with different pollution levels and to describe whatever precautionary steps may need to be taken if air pollution levels rise into the unhealthful range. By notifying the public when a PSI value exceeds 100, citizens are given the opportunity to take appropriate steps to avoid exposures of concern. This use of the PSI could be expanded to provide more specific health information for O_3 concentrations close to the level of the primary standard. Given the continuum of risks associated with exposure to O_3, this information, while perhaps of interest to all citizens, would be particularly useful to those individuals who are extremely sensitive to relatively low O_3 concentrations. More specifically, the PSI could be expanded to include two new descriptive categories in the Index, one including concentrations within a range somewhat below the level of the new primary standard, the other including concentrations within a range somewhat above the level of the standard. Such an approach could better reflect the increased understanding of health effects associated with O_3 exposure developed during this review, and would be consistent with the recommendation of a number of CASAC panel members ''that an expanded air pollution warning system be initiated so that sensitive individuals can take appropriate 'exposure avoidance' behavior'' (Wolff, 1995b).

For example, for concentrations somewhat below the level of the proposed standard, a new PSI category could be created with a descriptor such as ''moderately good.'' This category could be defined to correspond to 8-hour O_3 levels such as 0.07 to 0.08 ppm. Eight-hour average O_3 concentrations in this range potentially induce functional

[16] PSI values are reported in all metropolitan areas of the U.S. with populations ≥200,000.

and symptomatic responses that are small and mild, respectively, for most individuals, but could limit activity for a very small number of individuals within the subpopulation of those with impaired respiratory systems or who are otherwise extremely sensitive to O_3 exposure. An expanded warning system thus could include a caution to such individuals to consider reducing prolonged moderate to heavy exertion outdoors on days with O_3 concentrations in this range.

Further, at concentrations somewhat above the level of the proposed standard, for example, a new PSI category could be created with a descriptor such as ''moderately unhealthful.'' This category could be defined to correspond to 8-hour O_3 levels such as 0.09 to 0.10 ppm. Exposures to 8-hour average $_{O3}$ concentrations in this range are associated with an increase in the number of individuals who could potentially experience effects, including moderate or greater functional (e.g., 10 to 20% or greater decrements in FEV_1) and symptomatic (e.g., cough, chest discomfort) responses. An expanded warning system thus could include a stronger caution, of interest to all citizens and, in particular, to individuals with impaired respiratory systems and especially sensitive individuals in the at-risk populations of active outdoor children and workers to consider limiting prolonged moderate to heavy exertion outdoors on such days.

For a health advisory system to be effective, citizens need to be notified as early as possible to be able to avoid exposures of concern. Should the current 1-hour primary NAAQS for $_{O3}$ be replaced with an 8-hour standard, there would clearly be increased value in using forecasted O_3 concentrations in providing cautionary statements to the public. When a health advisory indicates that the current 1-hour O_3 PSI value of 100 has been exceeded, citizens generally have time to avoid exposures of concern because O_3 levels tend to remain elevated for several hours during the day. With an 8-hour standard, however, this may not be the case, since by the time a PSI value is reported, the potential for prolonged exposures of concern would likely have passed for that day. Forecasting 8-hour maximum O_3 concentrations would facilitate the risk-reduction function of the PSI by giving citizens more time to limit or avoid exposures of concern.

Several State and local air pollution control agencies are already issuing health advisories based on forecasted O_3 concentrations. Methodologies currently used for forecasting 1-hour maximum O_3 concentrations include both the use of sophisticated empirical meteorological models as well as photochemical models that combine emissions inventory data and predicted meteorological conditions. These two modeling approaches could be adapted for use in estimating the expected 8-hour average maximum O_3 concentration value for the same or next day.

By using historical O_3 monitoring data and meteorological data, empirical meteorological models using various statistical regression techniques could be constructed that would provide an estimate of the expected same or next day's maximum 8-hour average O_3 concentration, given current and projected conditions. Input model parameters could be defined in the course of the construction of such a statistical model, and would involve those parameters providing the most predictive capability, such as current and expected mixing depth, current and expected boundary layer wind speeds and temperatures, and O_3 monitoring data for the last several days.

Alternatively, by using an existing photochemical modeling emissions inventory, current and projected meteorological conditions could be used to simulate the next day's (or several days') O_3 concentrations. Cities and areas already experiencing high O_3 concentrations would likely have the needed emissions inventory data and experience with relevant photochemical models. New capabilities are rapidly advancing in providing meso-scale [17] meteorological forecasts that might prove useful in augmenting or supporting the development of either of these modeling approaches. For instance, the National Oceanic Atmospheric Administration is currently refining its ability to provide operational meso-scale forecasts of meteorological conditions on a 48 kilometer grid that covers all of the United States.[18]

Another possible approach to enhance forecasting relates to the development of a program to facilitate the sharing of real-time O_3 data among neighboring States. Further, data from O_3 air quality monitoring networks show that O_3 concentrations across large urban areas can be highly variable. Thus, issuing geographically-targeted forecasts, to reflect these spatial variations in O_3 concentrations, could more appropriately limit the focus of a health advisory to locations in which individuals are likely to be at risk. Such programmatic enhancements to the PSI could better reflect both a change to an 8-hour averaging time and the temporal and spatial variations in air quality that occur across urban areas.

The EPA is not formally proposing to revise the PSI at this time. However, the Administrator requests comment on the potential usefulness of health effects information of the type discussed above, and the appropriateness of using the PSI as a mechanism to convey such information to the public, as well as comment on potential new PSI categories and associated descriptors, levels, and cautionary statements. Comment is also requested on related issues such as the practicality of adopting forecasting methods and geographically-targeted forecasts. The EPA may propose such revisions to the PSI in conjunction with future proposals associated with the implementation of a revised NAAQS.

IV. Rationale for Proposed Decision on the Secondary Standard

This notice presents the Administrator's proposed decision to replace the existing 1-hour O_3 secondary NAAQS with one of two alternative new standards: a standard that is identical to the proposed 0.08 ppm, 8-hour primary standard or, alternatively, a new seasonal standard expressed as a sum of hourly concentrations greater than or equal to 0.06 ppm, cumulated over 12 hours per day during the maximum 3-month period during the O_3 monitoring season, set at a level of 25 ppm-hour.

As noted in the Background section of this notice, this Act defines public welfare effects as including but not limited to ''effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility and climate, as well as *effects on economic values* and on personal comfort and well-being.'' (Emphasis added) The explicit inclusion of economic values in the list of potential public welfare effects of the presence of criteria pollutants in the ambient air has led to the suggestion by some that EPA may consider a broad array of economic values, including both the potential disbenefit as well as the benefits associated with reducing air pollution in making decisions with regard to secondary standards.

A broad construction of disbenefits might include costs of control. EPA's longstanding view of the Clean Air Act is that the statute precludes the Agency from considering costs in making such decisions. Section 109 directs that any secondary standard specify a level of air

[17] Meso-scale is a scale larger than the largest thunderstorm clusters (3 kilometers) and smaller than roughly 3000 kilometers.

[18] See Internet web page, http://nic.fb4.noaa.gov:8000/research/mesoscale2.html.

quality that, ''based on [the air quality] criteria [provided for under section 108], is requisite to protect the public welfare from *any* known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air.'' Section 108, in turn, states that those criteria must ''accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health *or welfare* * * *.'' (Emphasis added.) Nothing in this language provides any indication that EPA may base its decision on the secondary standards on factors other than the effects of the pollutant at issue on welfare. This contrasts with other provisions of the Act, in which Congress explicitly directed the Administrator to consider costs in making her decision (e.g., section 111). Beyond that, the parallel structure of section 109's provisions on primary and secondary standards, combined with the exclusive emphasis on the effects of the pollutant itself in both of those provisions, suggests that Congress did not intend a different treatment of cost in relation to setting secondary standards from what would apply for primary standards.

The relevant case law confirms this. In *Lead Industries Assn.* v. *EPA*, 647 F.2d 1130 (D.C. Cir. 1980), which involved a challenge to EPA's failure to consider costs in setting the primary standard for lead, the Court rejected industry's claim that EPA must consider costs in setting primary standards. The court's rationale applied equally to secondary standards. Specifically, the Court held that:

> [T]he statute and its legislative history make clear that *economic considerations play no part in the promulgation of ambient air quality standards* under Section 109.

647 F.2d at 1148. (Emphasis added.) The Court later declared:

> Where Congress intended the Administrator to be concerned about economic and technological feasibility, it expressly so provided. [Citation to Section 111 as an example.] In contrast, Section 109(b) speaks only of protecting the public health *and welfare.*

Id. See also, Natural Resources Defense Council v. *Administrator,* 902 F.2d 962 (D.C. Cir. 1990).

A closely related issue is whether and how EPA may consider, in setting secondary standards, any alleged negative effect that reducing ambient concentrations of the relevant pollutant or its precursors may have on public welfare. For example, it has been suggested that reductions of NO_x, a precursor of O_3, could result in both positive and negative benefits. Lower NO_x emissions would reduce the adverse effects of nitrogen deposition on sensitive aquatic and terrestrial systems, but in some localities such reductions could result in a possible disbenefit of reduced fertilization of nitrogen deficient soils. Notwithstanding EPA's view of the law, or any particular finding as to the potential disbenefits outlined above, EPA solicits comment on the view that economic values be broadly construed to include the possible disbenefits and benefits resulting from implementation of standards for the purpose of establishing secondary standards.

The proposal is based on a thorough review of the latest scientific information, as assessed in the Criteria Document, on vegetation effects associated with exposure to ambient levels of O_3. It also takes into account and is consistent with: (1) Staff assessments of the most policy-relevant information in the Criteria Document and staff analyses of air quality, vegetation exposure and risk, and economic values presented in the Staff Paper, upon which staff recommendations for a new O_3 secondary standard are based; (2) consideration of the degree of protection to vegetation potentially afforded by the proposed new 0.08 ppm, 8-hour primary standard; (3) CASAC advice and recommendations as reflected in discussion of drafts of the Criteria Document and Staff Paper at public meetings, in separate written comments, and in CASAC's letter to the Administrator (Wolff, 1996); and (4) public comments received during development of these documents either in conjunction with CASAC meetings or separately.

All CASAC panel members agreed that ''damage is occurring to vegetation and natural resources at concentrations below the present 1-hour national ambient air quality standard (NAAQS) of 0.12 ppm,'' and the vegetation experts agreed that ''plants appear to be more sensitive to ozone than humans'' (Wolff, 1996). Further, the CASAC panel agreed ''that a secondary NAAQS, more stringent than the present primary standard, was necessary to protect vegetation from ozone,'' although ''agreement on the level and form of such a standard is still elusive'' (Wolff, 1996).

This review has focused on O_3 effects on vegetation, including agricultural crops, since these effects are of most concern at O_3 concentrations typically occurring in the United States. By affecting crops and native vegetation, O_3 may also indirectly affect natural ecosystem components such as soils, water, animals, and wildlife, although such impacts are not quantifiable at this time. Based on the scientific literature assessed in the Criteria Document, the Administrator believes it is reasonable to conclude that a secondary standard protecting the public welfare categories of crops and vegetation from known or anticipated adverse effects would also afford increased protection to the other related public welfare categories. With regard to O_3 effects on manmade materials and deterioration of property, the scientific literature assessed in the Criteria Document contains little new information since the last review. Accordingly, EPA again concludes for the reasons set forth in 1993 (58 FR 13008, March 9, 1993) that O_3 effects on materials do not provide a basis for selecting an averaging time and level for a secondary standard. In addition, since the effects of O_3 on personal comfort and well-being (e.g., nose and throat irritation, chest discomfort, and cough) have been accounted for in the review of the primary standard, these effects are not considered in the review of the secondary standard.

The rationale for proposing to revise the O_3 secondary NAAQS, presented below, includes consideration of: (1) vegetation effects information to inform judgments as to the likelihood that exposures to ambient O_3 result in adverse public welfare effects, (2) information on biologically relevant measures of exposure, (3) insights gained from air quality, exposure, risk, and economic benefits assessments that provide a broader perspective for judgments about protecting public welfare from any known or anticipated adverse effects, and (4) specific conclusions with regard to the elements of a standard (i.e., averaging time, form, and level) that, taken together, would be appropriate to protect public welfare.

A. Effects on Vegetation

Exposures to O_3 have been associated quantitatively and qualitatively with a wide range of vegetation effects including: (1) visible foliar injury, (2) growth reductions and yield loss in annual crops, (3) growth reductions in tree seedlings and mature trees, and (4) effects that can have impacts at the forest stand and ecosystem level. Since the last review, new information has been published in the scientific literature and assessed in the Criteria Document on the effects of O_3, particularly with respect to forest tree species, both seedlings and mature trees, as well as with respect to the dynamics of exposure. Discussed below are key findings for each of the above

effects categories drawn from section VII.D of the Staff Paper.

1. Visible Foliar Injury

Visible foliar injury can be an effect of concern either when it directly represents loss of the intended use of the plant, ranging from reduced yield and marketability to impairment of the aesthetic value of individual plants and natural landscapes, or when it serves as an indicator of the presence of concentrations of O_3 in the ambient air that are associated with more serious effects. Visible foliar injury cannot serve as a reliable surrogate measure for other O_3-related vegetation effects because other effects have been reported with or without visible injury.

Both the concentration and the duration of O_3 exposures are important factors in eliciting visible foliar injury. For example, as cited in the Staff Paper, to protect public welfare from visible foliar symptoms for crops, O_3 concentrations in the range 0.10 to 0.25 ppm for a duration of 1 hour were identified as a limiting value, which decreased to 0.04 ppm to 0.09 ppm when duration of exposure was increased to 4 hours. For trees, the ranges of concentrations were slightly higher, including 0.06 to 0.17 ppm at the 4-hour duration. Flower size was significantly reduced in three species of flowering ornamentals when exposed to O_3 for 6 hours/day for periods of days to weeks, at concentrations from 0.10 to 0.12 ppm, and flower color was reduced at the same or lower concentration without visible injury to plant leaves. Ozone concentrations of 0.10 ppm for 3.5 hours/day for 5 days or 0.20 ppm for 2 hours were high enough to elicit injury in most turf grasses.

On a larger scale, foliar injury is occurring on native vegetation in natural parks, forests, and wilderness areas, and may be degrading the aesthetic quality of the natural landscape, a resource important to public welfare. For example, in the east, injury to white pine has been observed in the Jefferson and George Washington National Forests and throughout the Blue Ridge, including areas of the Shenandoah National Park, that experienced an average of five episodes (i.e., any day with a 1-hour concentration > 0.08 ppm) during the growing season, with episodes lasting from 1 to 3 consecutive days. In the Great Smoky Mountains National Park, surveys in the summers of 1987 to 1990 found that 95 plant species exhibited foliar injury symptoms consistent with O_3 damage. During this period, O_3 monitoring data indicated both elevated concentrations and prolonged exposures to O_3, especially at the higher elevation sites.

At western sites, in the Sierra Nevada and Sequoia National Forests, appearance of chlorotic mottle of pines increased from approximately 20% in 1977 to 55% in the high O_3 year of 1988. Sequoia National Forest and Sequoia-Kings Canyon National Park experience high O_3 levels of concern, with mean hourly averages ranging from 0.018 to 0.076 ppm, and annual hourly maxima of 0.11 to 0.17 ppm for 1987. Since 1991, there has been an annual survey of the amount of crown injury by O_3 to the same trees in approximately 33 sample plots located in several National Parks and Forests in the Sierra Nevada Mountains. Injury symptoms are still being observed in ponderosa and Jeffrey pine as well as the less sensitive big cone Douglas fir.

2. Growth/Yield Reductions in Annual Crops

Ozone can interfere with carbon gain (photosynthesis) and allocation of carbon with or without the presence of visible foliar injury. As a result of decreased carbohydrate availability, remaining carbohydrates may be allocated to sites of injured tissue or employed in other repair or compensatory processes, thus reducing the carbohydrates available for plant growth and/or yield. Growth reductions can indicate that plant vigor is being compromised which can lead to yield reductions in commercial crops.

As discussed in the Staff Paper, the National Crop Loss Assessment Network (NCLAN) studies undertaken in the early to mid-1980's provide the largest, most uniform database on the effects of O_3 on agricultural crop species. The NCLAN protocol was designed to produce crop exposure-response data representative of the areas in the U.S. where the crops were typically grown. In total, 15 species accounting for greater than 85% of U.S. agricultural acreage planted were studied. Of these 15 species, 13 species including 38 different cultivars were combined in 54 cases representing unique combinations of cultivars, sites, water regimes, and exposure conditions.

Crops were grown under typical farm conditions and exposed in open-top chambers to ambient O_3 and increased O_3 above ambient (i.e., modified ambient). The modified ambient treatments contained numerous high peaks (hourly O_3 concentrations above 0.10 ppm), occurring more frequently than in typical ambient air quality distributions. Such exposure patterns have raised questions among some researchers as to the relative importance of large numbers of high O_3 peaks versus cumulative mid-level exposures in associations between reported effects and various measures of O_3 exposures. Exposure durations in these studies were species dependent but typically went from stand establishment to harvest (an average 28 days) and some crops were grown in more than one geographical region and repeated over years. In addition, baseline controls were exposed to approximately 0.025 ppm O_3, which is lower than typical background levels in some crop areas. These aspects of the NCLAN protocols contribute to the uncertainty inherent in extrapolating controlled field study results of percentage yield reductions to non-chambered ambient field conditions and crop regions having different O_3 air quality distributions. Despite these uncertainties, a major advantage of the NCLAN approach compared to other study designs is that it allows for the use of regression analyses to develop exposure-response functions, allowing for prediction of yield loss as a function of O_3 exposure levels across the range of treatment levels, cultivars, and growing conditions used in the studies.

Based on regression of NCLAN analyses, at least 50% of the species/cultivars tested exhibited a 10% yield loss (relative to a 0.025 ppm baseline concentration) at a 7-hour seasonal mean O_3 concentration of 0.05 ppm or more. These findings have also been reported in terms of various cumulative exposure indices that address better the varying patterns of exposure. Using one particular exposure index, the 3-month, 12-hour SUM06 index [19], 50% of species/cultivars tested were predicted to exhibit between 10 and 20% yield loss (relative to a baseline SUM06 concentration of 0 ppm-hour) across the range of 25 to 38 ppm-hour.

Other studies cited in the Staff Paper examined effects of O_3 on agricultural crops using different methodologies. One methodology used ethylene diurea (EDU) as a control to study O_3 effects under ambient conditions. These studies indicate that yields were reduced by 18 to 41% relative to the chemically protected controls when ambient O_3 concentrations exceeded 0.08 ppm during the day for 5–18 days over the growing season.

3. Growth Reductions in Tree Seedlings and Mature Trees

Since preparation of the 1986 Criteria Document, a number of new studies

[19] The SUM06 exposure index cumulates over a given time period and diurnal window all hourly O_3 concentrations greater than or equal to 0.06 ppm.

have been published relating O_3 exposure to effects on deciduous and evergreen seedlings and mature trees. These studies help to address a significant gap in O_3 effects data identified by EPA in the last review.

The relationship between the responses of seedlings and those of mature trees to O_3 exposure is not well understood. Several studies cited in the Staff Paper describe a number of differences between seedlings and mature trees including stomata number on the leaves, photosynthetic rate, water use efficiency, nutritional needs, recycling capacities, and canopy effects (e.g., sun vs. shade, wind speed, CO2 concentrations) that may explain the varying sensitivities of seedling and mature trees to O_3 exposures. As a result, data from tree seedling studies cannot, at this time, be extrapolated to quantify responses to O_3 in mature trees.

A study, cited in the Staff Paper, conducted in Shenandoah National Park compared the growth of seedlings and productivity of herbaceous vegetation grown in charcoal-filtered air in open-top chambers to that in open plots and found that tulip poplar, green ash, sweet gum, black locust, several evergreen species (e.g., Eastern hemlock, Table mountain pine, pitch pine and Virginia pine), common milkweed, and common blackberry all demonstrated growth suppression. Except for the last two species, almost no visible injury symptoms accompanied the growth reduction.

The EPA's National Health and Environmental Effects Research Laboratory—Western Ecology Division initiated a research program to address the effects of O_3 on forest tree seedlings. Using the same open-top chamber methodology as NCLAN, this program developed exposure-response functions for six deciduous species, including aspen, red alder, black cherry, red maple, sugar maple, and tulip poplar and five evergreen species, including douglas fir, ponderosa pine, loblolly pine, eastern white pine, and Virginia pine. Similar to crops, these studies showed that sensitivity to O_3 varied significantly between tree type and growth strategy and between species and types within species.

When the distribution of the relative biomass losses for various percentiles of the deciduous and evergreen studies are aggregated (see Table VII–3 of the Staff Paper), a 12-hour SUM06 exposure of 33.3 ppm-hours over 92 days is associated with less than 10% biomass reduction (relative to a baseline SUM06 concentration of 0 ppm-hour) in 50% of the seedling cases studied. When evaluated separately, deciduous seedlings exhibited somewhat greater sensitivity than evergreen seedlings, on average.

When compared to the yield reductions in NCLAN studies, the seedlings show less biomass loss, on average, than the yield reductions exhibited by crops at any given exposure level. Such comparisons (e.g., yield loss in annuals vs. biomass loss in perennials) should be viewed with caution given the absence of more complete information on other aspects of plant response. Moreover, other studies cited in the Staff Paper report that very sensitive black cherry seedlings and aspen clones experienced 10% biomass loss (relative to a baseline SUM06 concentration of 0 ppm-hour) when exposed to much lower SUM06 exposures regimes (9 to 13 ppm-hour). These data suggest that, given the mean 3-month SUM06 value at monitored sites over the 10 year period 1982–1991 of 29.5 ppm-hour (shown in Table VII–1 of the Staff Paper), the potential for biomass loss in such sensitive seedling species could be significant.

In assessing the seedling studies, it should be further recognized that the influence of multiple environmental factors (e.g., drought, nutrient level, site factors, pest/pathogen interactions) were not taken into account because the seedlings were grown under optimal growing conditions and the genomes studied may not represent the complete range of sensitivities within a given species. These factors make it problematic when trying to predict effects on perennial species growing in an ecosystem context.

Long-term observational studies of mature trees have also been conducted. In both the Cumberland Plateau in Tennessee and San Bernardino National Forest, significant reductions in growth in white pine individuals and ponderosa pine respectively have been reported. While these growth reductions are not attributed to O_3 alone, it is reported that O_3 was a significant contributor that potentially exacerbated the effects of other environmental stresses.

Several other field studies cited in the Staff Paper reported growth reduction in mature eastern white pine. A comparison of growth rates of mature eastern white pine in the Blue Ridge Mountains of Virginia from periods 1955–1959 with those in 1974–1978 indicates decreases of 26, 37, and 51% for trees characterized as O_3 tolerant, intermediate, and sensitive, respectively. Because no significant change in seasonal precipitation occurred over the same time period, the effects on growth were attributed to O_3, which during the later period reached peaks frequently in excess of 0.12 ppm and monthly averages of 0.05—0.07 ppm on a recurring basis. Monitoring in the same area revealed peak hourly averages > 0.08 ppm for the months April-September in 1979 and 1980. As early as 1979, it was concluded by researchers that the most sensitive eastern white pine were so severely injured by O_3 exposure that they were probably being removed from the population.

Growth rate changes in O_3-stressed ponderosa and Jeffrey pine have been evaluated in the western United States. Major decreases in growth were reported to have occurred for both symptomatic (i.e., visible O_3 injury) and asymptomatic trees during the 1950's and 1960's. The percentage of trees exhibiting growth decreases at any given site never exceeded 25% in a given decade, and mean annual radial increment in trees with visible symptoms of O_3 injury was 11% less than at sites where trees showed no O_3 injury. Larger trees and trees older than 100 years showed greater decreases in growth than smaller and younger trees.

The responses of a number of fruit and nut trees to O_3 exposure were also reported in the Staff Paper. Almond has been identified as the most sensitive, but peach, apricot, pear, and plums have also been affected. Growth reductions were observed in almond, peach, and apricot when exposed once weekly for four months to 0.25 ppm-hour O_3 for 4 hours (a high level of exposure generally experienced only in fruit and nut tree growing areas in California). Other studies examined O_3 effects on citrus and avocado. Valencia orange trees (during a production year) exposed to a seasonal 12-hour mean of 0.04 and 0.075 ppm O_3 had 11 and 31% lower yield respectively than trees grown in filtered air with a very low O_3 seasonal 12-hour mean concentration of 0.012 ppm. Avocado growth was reported to be reduced by 20 or 60% by exposure to 12-hour seasonal means of 0.068 and 0.096 ppm O_3, respectively, during two growing seasons.

4. Forest and Ecosystem Effects

Plant populations can be affected by O_3 exposures, particularly when they contain many sensitive individuals. Changes within sensitive populations, or stands, if they are severe enough, ultimately can change community and ecosystem structure. Structural changes that alter the ecosystem functions of energy flow and nutrient cycling can arrest or reverse ecosystem development.

The San Bernardino forest ecosystem, which has experienced chronic O_3 exposures over a period of 50 or more years, is the only known example of the above sequence of events in which O_3 exposures have been determined to be a fundamental stressor. From 1968 to 1972, the average daily maximum for total oxidants for each month was measured at Rim Forest (5,640 ft.), in the San Bernardino Region, where the highest concentrations are usually recorded. For the months of May through August, the average daily maximum for total oxidants went from a low of 0.14 ppm in 1969 to approximately 0.28 ppm in 1971, with concentrations rarely going below 0.05 ppm at night at this elevation. Ozone concentrations exhibited a cyclic diurnal pattern, with the monthly average of hourly values ranging from 0.07 to 0.10 ppm at 10:00 am and from 0.15 to 0.22 ppm at 4:00 pm. The primary effect of O_3 at these high levels was that the most susceptible members of the forest community, ponderosa and Jeffrey pine, could no longer compete effectively for essential nutrients, water, light and space. As a consequence, there was a decline in the sensitive species and an increase in more tolerant ones.[20]

Beginning with injury to the ponderosa and Jeffrey pine, other major changes in the San Bernardino ecosystem were observed in surveys during the period 1973 and 1978. Foliar injury, premature senescence, and needle fall decreased the photosynthetic capacity of stressed pines and reduced the production of carbohydrates resulting in a decrease in radial growth and in the height of stressed trees. Numerous other organisms and processes were also affected either directly or indirectly, including successional patterns of fungal microflora and relationship to the decomposer community. Nutrient availability was influenced by the heavy litter and thick needle layer under stands with the most severe needle injury and defoliation. The composition of lichens was significantly reduced.

For the period 1974 to 1988 there was an improvement shown in the injury index used to describe chronic injury to crowns of ponderosa and Jeffrey pines attributable to lower O_3 levels in the San Bernardino region. It was observed, however, that ponderosa and Jeffrey pines with slight to severe crown injury lost basal area in relation to competing species that are more tolerant to O_3. In effect, stand development was reversed and the development of the normal fire climax mixture dominated by ponderosa and Jeffrey pines was altered.

Ozone has also been reported to be a selective pressure among sensitive tree species (e.g., eastern white pine) in the east. The nature of community dynamics in eastern forests is different, however, than in the west, consisting of a wider diversity of species and uneven aged stands, and the O_3 levels are less severe. Therefore, lower level chronic O_3 stress in the east is more likely to produce subtle long-term forest responses such as shifts in species composition, rather than wide-spread community degradation. Dieback of the spruce-fir forests has occurred in the Appalachian mountains. Though these high elevation forests are exposed to a broad range of air pollution stresses including O_3, the loss of spruce-fir has been attributed principally to insect attack. It has not been determined whether there is a link between the insect damage cited as the cause of the tree death and the role of O_3 in predisposing trees to insect attack.

B. Biologically Relevant Exposure Indices

The specification of an exposure index for vegetation must include an appropriate averaging time, diurnal window (i.e., the hours during the day), and form. Key observations, based on the information presented in section VII of the Staff Paper, regarding each aspect of an exposure index for vegetation are summarized below.

An appropriate averaging time to protect against vegetation effects of O_3 should take into account the cumulative impact of repeated peak and mid-level O_3 exposures over the entire growing season. There is, however, significant variability in growth patterns and lengths of growing seasons among the wide range of vegetation species that may experience adverse effects associated with O_3 exposure. Because of this, the selection of any single averaging time for a national standard will of necessity be a compromise relative to the range of growing seasons for all vegetation species of concern. Based on an assessment of the available information in the Staff Paper, the Administrator believes that the consecutive 3-month period with maximum O_3 concentrations in the O_3 season is a reasonable surrogate for the various periods of plant sensitivity to O_3 identified in vegetation effects research and most likely covers adequately the periods of greatest plant sensitivity.

The second aspect related to specifying an appropriate exposure index is the diurnal window over which O_3 concentrations are cumulated in computing a seasonal average. While studies assessed in the Staff Paper have reported that increasing the diurnal window from 7 to 12 to 24 hours captures more of the peak and mid-level O_3 concentrations that occur in some environments, the associated reductions in growth or yield and increases in foliar injury have not been observed to increase proportionally with the increasing diurnal period. This observation is consistent with other findings that growth and yield reductions are in large part the result of decreases in carbohydrate production through photosynthesis, which only occurs in daylight hours, and that the majority of plants, although not all, have significantly reduced stomatal conductance at night. As a result, the Administrator judges that the potential for significant impacts from night time O_3 exposures is very low.

Based on the above considerations, the Administrator judges that an exposure index that is based on the consecutive 3-months with maximum O_3 concentrations in the O_3 season with a 12-hour diurnal window, including the daylight hours from 8:00 am to 8:00 pm, would capture biologically relevant exposures for the wide range of vegetation growing in environmental conditions found across the United States. The Administrator recognizes, however, the differing views among the experts on the CASAC panel on these characteristics of an appropriate index.

Specifying the form of a seasonal exposure index intended to correspond to the relationship between vegetation response and O_3 exposure is complicated by the many biological variables that influence the uptake of O_3 by the plant and plant responses to such uptake. In spite of the large number of studies that have been conducted to evaluate the effects of O_3 on vegetation, only a few studies assessed in the Staff Paper can be used directly to evaluate the differential effects of specific ranges or patterns of O_3 concentrations on plant responses.

Based on an assessment of these key studies as well as other biological effects information reported in the Criteria Document and Section VII of the Staff Paper, the Administrator concurs with the unanimous view of CASAC that the current standard of 0.12 ppm, 1-hour average, does not provide adequate protection, based on the following observations: (1) Peak O_3 concentrations ≥ 0.10 ppm can be phytotoxic to a large number of plant species, and can produce acute foliar injury responses, reduced crop yield and biomass production, and (2) mid-range O_3

[20] Subsequent to this time period, based on data from 1976 to 1991, O_3 levels in this area have declined from these high concentrations.

concentrations (0.05 to 0.09 ppm) have potential over a longer duration of creating chronic stress on vegetation that can result in reduced plant growth and yield, shifts in competitive advantages in mixed populations, decreased vigor leading to diminished resistance to pest and pathogens, and injury from other environmental stresses. Some sensitive species can experience foliar injury and growth and yield effects even when concentrations never exceed the upper end of the mid-range concentrations. Because the relative importance of peak concentrations and mid-range concentrations in predicting plant response depends on numerous factors controlling stomatal conductance and other regulators of plant sensitivity, the Administrator believes, consistent with CASAC's views, that no one concentration-weighted exposure index can be characterized as best accounting for the complex relationship between O_3 concentrations and plant responses across a wide range of species.

With this limitation in mind, the EPA focused its assessments on two particular concentration-weighted indices, the SUM06 and W126,[21] that have been reported to perform about equally well as exposure measures to predict the exposure-response relationships observed in the NCLAN crop studies. In the absence of other effects studies designed to examine the differences in predictive power between these two forms under different exposure regimes and plant growing conditions, the Administrator recognizes that the available science alone cannot provide an adequate basis for selecting between these cumulative concentration-weighted indices. The Administrator, therefore, took into account policy considerations in comparing the relative advantages of these indices for use in establishing a national air quality standard to address seasonal effects of O_3 on vegetation.

The W126 exposure index incorporates a weighting function that gives increasing value to all concentrations between 0.00 ppm and 0.10 ppm, with a weight of 1 applied to all concentrations > 0.10 ppm. In assessing this form, the Administrator notes that there is insufficient scientific information at this time to judge the biological relevance of this weighting function, especially at concentrations below 0.05 ppm that are within the estimated range of background O_3 concentrations.[22] In contrast, the SUM06 form does not include O_3 concentrations below the cut-point of 0.06 ppm, such that it would not be influenced by background concentrations under typical air quality distributions.

In selecting between these two alternatives, in the absence of biological evidence to distinguish between the forms, the Administrator, as a matter of policy, judges that a SUM06 index would be the more appropriate index for a seasonal secondary standard. In reaching this judgment, the Administrator recognizes that there is no biological evidence of an effects threshold, and that the effects studies we see do not establish that the SUM06 index best accounts for all of the biologically relevant exposures. The adoption of a SUM06 index would, in the Administrator's judgment, provide an appropriate complement to the proposed 0.08 ppm, 8-hour primary standard by better accounting for the vegetation effects associated with exposures within the mid-range concentrations. Because it would not be unduly influenced by background concentrations, it would also provide a more appropriate target for air quality management programs designed to reduce emissions from anthropogenic sources contributing to O_3 formation.

C. Vegetation Exposure and Risk Analyses

In reaching judgments as to the requisite degree of protection needed to protect crops and vegetation against the effects of O_3, the Administrator has taken into account several additional considerations, including the extent of exposure of O_3-sensitive species, potential risks to such species, and monetized and nonmonetized benefits associated with reductions in O_3 exposures. Such considerations help inform judgments as to the degree of protection that a secondary NAAQS should provide, and, thus, an appropriate level and form for a secondary standard that would provide such protection.

In considering the change in risk to vegetation and potential welfare benefits associated with reductions in O_3 exposure, the Administrator recognizes that significant reductions in O_3 exposures would result from attainment of the proposed primary standard discussed above in Section II. Thus, as a matter of policy, she believes it is appropriate to evaluate welfare benefits estimated to accrue, respectively, from attainment of the 0.08 ppm, 8-hour primary standard (as well as alternative 0.09 ppm and 0.07 ppm primary standards) as a baseline for the estimation of *incremental* benefits from attainment of alternative seasonal secondary standards.

1. Exposure Characterization

Though numerous effects of O_3 on vegetation have been documented as discussed above, it is important in considering risk to examine O_3 air quality patterns in the U.S. relative to the location of O_3 sensitive species in order to predict whether or not effects are occurring and whether they are likely to occur under alternative standards. To address these questions, the EPA assessed the available air quality data and conducted national modeling analyses since insufficient monitoring data are available for such assessments at a national level.

Because the national air quality surveillance network for O_3 was designed principally to monitor O_3 exposure in populated areas, there is very limited measured data available to characterize O_3 air quality in rural and remote sites. For the West, Bohm (1992) presents data for the years 1980 through 1988 for all O_3 monitoring sites near Western forests and includes examples of the dominant patterns in daily O_3 concentrations. Sites located far from urban or point source areas experience O_3 patterns with little hourly variation and few hourly concentrations above 0.06 ppm. However, sites on the fringe of urbanized centers or valleys experience patterns with some variation in hourly concentrations and typically higher O_3 concentrations (> 0.10 ppm). In California, for example, Yosemite and Sequoia National Parks, which receive pollutants transported from highly urbanized areas, had 24-hour means ranging from 0.036 to 0.085 ppm on 75% of summer days. Lake Gregory, a forested area in the western section of the San Bernardino Mountains and situated on the eastern fringe of the Los Angeles Basin, California, had diurnal means ranging from 0.085 to 0.10 ppm during 49% of summer days. Means decreased with altitude and distance from the source. Urban sites have fluctuating diurnal patterns, with high afternoon concentrations. Marked scavenging of O_3 at night contributes to lower diurnal means. Outside of California, the patterns are similar, with the frequency of occurrence of high O_3 levels relating to the size of the city and the air pollution potential of the area. The observed O_3 concentrations

[21] The W126 exposure index cumulates over a given time period and diurnal window all hourly O_3 concentrations weighted by a specific sigmoidal weighting function.

[22] At sea level, annual average background values are estimated to be between 0.02 and 0.035 ppm O_3. Persistent and episodic natural sources contribute to background hourly O_3 concentrations in the range of 0.03–0.05 ppm (U.S. EPA, 1996b, p. 21).

discussed here are within the ranges associated with vegetation injury.

In the Eastern United States, studies have been undertaken to relate O_3 exposure patterns to elevation. As reported in the Staff Paper, several sites were monitored in western Virginia from May to December 1982 ranging in elevation from 457 m to 1067 m. In general, the high elevation site, Big Meadows, in the Shenandoah National Park, had higher monthly O_3 concentrations than the lower elevation sites, yet the number of peak O_3 occurrences (≥ 0.10 ppm) did not necessarily increase with altitude, suggesting that higher monthly averages were associated more with the lack of night time scavenging than with a large number of peak hourly concentrations. Another study cited in the Staff Paper compared sites for the period 1988–1992 located in West Virginia, Virginia and Pennsylvania, and found the 6 sites with the highest exposures were also the highest elevation sites (> 500m). The highest elevation sites were also observed to have large numbers of O_3 episodes, with a number of hourly peaks ≥ 0.10 ppm ranging from only a few in 1992 (a more typical O_3 year) to over 100 in 1988 (a high O_3 year). In 1988, all 11 sites exceeded the 3-month W126 level (21.0 ppm-hours) estimated to result in greater than 10% biomass loss in 50% of the tree seedling cases. In other years, except for 1992, more than half the sites exceeded this level. While these studies were conducted using a W126 exposure indicator rather than the SUM06 form discussed above, EPA believes the result would not be substantially different if a SUM06 indicator had been used. Similar exposure patterns have also been reported in the Great Smokies National Park.

Because of the lack of monitoring data, national air quality typical of agricultural crop growing areas has not been characterized. Since agricultural sites typically occur at relatively flat, low elevation areas, often downwind of large urban areas, they would be expected, unlike the high elevation sites discussed above, to experience a fluctuating diurnal O_3 pattern with O_3 levels starting low in the early morning and building to a peak in the early to late afternoon, before falling to almost background levels at night if scavenging agents are present. To characterize exposure patterns nationally, EPA conducted analyses using geographic information systems (GIS) and data from existing air quality monitoring sites to estimate seasonal O_3 air quality for the year 1990. The year 1990 was selected because it was a typical O_3 year (not extremely high or low). The estimated seasonal air quality, in terms of the 3-month, 12-hour, SUM06 exposure index, was used to estimate the potential risk to vegetation under 1990 air quality conditions, as well as that predicted to occur under alternative standards.

In taking the results from such analyses into account, the Administrator recognizes that there are many sources of uncertainties inherent in such analyses. Some of the most important caveats and uncertainties concerning the GIS exposure and risk assessments for crop yield and biomass loss in seedlings include: (1) Extrapolating from exposure-response functions generated in open-top chambers to ambient conditions, (2) the lack of a performance evaluation of the national air quality extrapolation, (3) the methodology to adjust modeled air quality to reflect attainment of various alternative standard options, and (4) inherent uncertainties in models to estimate economic values associated with attainment of alternative standards. A description of the GIS and air quality adjustment methodologies used, as well as the associated uncertainties, are discussed in the Staff Paper and related technical support documents (Horst and Duff, 1995a,b; Lee and Hogsett, 1996; Rodecap et al., 1995).

The regulatory scenarios examined include just attaining the existing 1-hour secondary standard, as well as alternative 8-hour primary standards, including standards set at 0.08 ppm, with 1- and 5-expected-exceedance forms, based on a single year of data (1990). These estimates of protection provided by the alternative 8-hour, primary standards were also used to roughly bound exposure estimates for other concentration-based forms under consideration (e.g., the second- and fifth-daily maximum 8-hour average O_3 concentrations, averaged over a 3-year period) by using air quality analyses that compare alternative forms of the standard.

Key observations important in comparing estimated 3-month, 12-hour SUM06 exposures under 1990 conditions, with just attaining the existing 0.12 ppm, 1-hour standard, and the 0.08 ppm, 8-hour alternatives include:

(1) Under 1990 air quality, a large portion of California and a few localized areas in North Carolina and Georgia are projected to have seasonal O_3 levels above those reported to produce greater than 20% yield loss in 50% of NCLAN crops and 17% biomass loss in seedlings. At least a third of the country, again mostly in the Eastern U.S., would most likely have seasonal exposures levels which could allow up to 10% yield loss in 50% of NCLAN crops and studied seedlings.

(2) When 1990 air quality is adjusted to simulate attaining the current 0.12 ppm, 1-hour secondary standard, the overall seasonal 12-hour SUM06 exposures improve, but not dramatically. Under this attainment scenario, there are still areas of the country judged to have seasonal O_3 levels sufficient to cause greater than (California) or equal to (multistate region in East) 20% and 17% yield or biomass loss in crops and trees seedlings, respectively.

(3) Just attaining the 0.08 ppm, 8-hour, 1- and 5-expected exceedance alternatives results in markedly improved air quality when compared to just attaining the existing secondary standard, with only slight improvements associated with going from a 5- to 1-expected-exceedance form. The only area projected to exhibit seasonal exposures high enough to result in 20% yield loss for crops is a portion of southern California, while seasonal exposures in the majority of the southeast would be estimated to drop to levels that could allow up to 10% yield and biomass loss in 50% of NCLAN crops, and studied tree seedlings, respectively.

These results suggest that the proposed 0.08 ppm, 8-hour primary standard would provide significantly improved protection of vegetation from seasonal O_3 exposures of concern. The Administrator recognizes, however, that some areas may continue to have elevated seasonal exposures, including forested park lands and other natural areas, and Class I areas which are federally mandated to preserve certain air quality related values.

To further bound these analyses, EPA also examined 8-hour daily maximum and 3-month, 12-hour SUM06 design values for 581 counties (those having sufficient monitoring data for the period 1991–1993). As discussed in the Staff Paper, this analysis revealed that almost all areas that are within or above a SUM06 range of 25–38 ppm-hours would also have an 8-hour daily maximum value of greater than 0.08 ppm. Thus, in those areas in which air quality monitoring is being conducted, areas that would likely be of most concern for effects on vegetation would also be addressed by an 8-hour primary standard set at a 0.08 ppm level.

While these analyses indicate that the adoption of an 8-hour, 0.08 ppm primary standard would provide increased protection, it remains uncertain as to the extent to which air

quality improvements designed to reduce 8-hour O_3 concentrations would reduce O_3 exposures measured by a SUM06 index. The Administrator judges this to be an important consideration because: (1) The biological database stresses the importance of cumulative, seasonal exposures in determining plant response; (2) plants have not been specifically tested for the importance of daily maximum 8-hour O_3 concentrations in relation to plant response; and (3) the effects of attainment of a 8-hour standard in upwind urban areas on rural air quality distributions cannot be characterized with confidence due to the lack of monitoring data in rural and remote areas. These factors are important considerations in determining whether a separate seasonal secondary standard should be adopted.

2. Assessment of Risk to Vegetation

The EPA has undertaken both quantitative and qualitative assessments of O_3 risk to vegetation. As discussed in the Staff Paper, these assessments predicted that crop loss, under 1990 air quality conditions, of greater than 10% (relative to the baseline of yield at O_3 levels of 0.025 ppm used in the NCLAN studies) would occur in some production areas for soybean, kidney bean, wheat, cotton, and peanut, with lower yield losses estimated for barley, corn, and sorghum. Economic benefits were estimated for the quantifiable effects associated with reductions in O_3 exposures through attainment of alternative standards for agricultural crops as well as California fruit and vegetation, as summarized below.

The persistence of O_3 in crop growing regions may also result in currently nonquantifiable effects such as reduction in the genetic diversity of crop cultivars available, as well as the loss of other beneficial traits that may be linked genetically with O_3 sensitivity as a result of breeding programs designed to increase yield. Such indirect effects may also occur in plants used in urban landscapes and gardens.

Examination of tree seedlings revealed significant variability in projected seedling biomass loss, under 1990 air quality conditions. For the most sensitive species studied, black cherry seedling biomass loss is projected to be greater than 30% for over half its geographic range. The less sensitive white pine and aspen seedlings biomass losses have been projected to be up to 10% for 10% of the growing region, but only 2–3% losses are projected over 50% of their geographic range. Less sensitive species studied are projected to have less than 2% seedling biomass loss in all areas. Given the uncertainties associated with such projections, as discussed in the Staff Paper, these estimates of biomass loss represent a potential risk that species may experience at least for seedling establishment, reforestation, or natural regeneration.

While it is not possible at this time to scale biomass loss effects in seedlings to mature trees, field observations of seedling health and mortality can provide information relevant to assessing risk to mature trees and forests. Studies cited in the Staff Paper suggest that O_3 can stress seedlings sufficiently to reduce root growth, thus affecting the seedlings' growth, competitiveness, and survivability both immediately after germination and in subsequent years.

The importance of below-ground effects on trees, forests, and ecosystems is often overlooked when evaluating responses to O_3 exposure. As discussed in Section VII.B of the Staff Paper, O_3 stress inhibits photosynthesis and reduces the amounts of sugars available for transfer to the roots that can alter mycorrhizal colonization and compatibility, reducing mycorrhizal formation and root growth. Significant reduction and deterioration in feeder roots have been observed in O_3 damaged white pine and ponderosa pine.

Beyond biomass loss and impact on root systems, other risks to vegetation associated with O_3 include shifts in the relationship between tree species and insect or pathogens, which can result in imbalances within communities that may have long-term effects such as those observed in the San Bernardino forests. Ozone effects can also reduce biodiversity by selectively impacting particularly sensitive O_3 species/individuals and by reducing the ability of affected areas to provide habitats for other plants or animal species. Moreover, O_3-sensitive vegetation exists over much of the U.S. including National Parks and other Class I areas. The National Park Service has reported that sensitive vegetation is being injured by O_3 transported into the parks, affecting not only vegetation of ecological importance but also aesthetic and existence values.

3. Economic Benefits Assessment

As discussed in Section VII.F of the Staff Paper, EPA developed estimates of monetized benefits associated with several standard alternatives. The analyses focused on commodity crops studied in the NCLAN project, representing approximately 75% of the U.S. sales of agricultural crops, and California fruits and vegetables that constitute approximately 50% of the Nation's fruits and vegetable markets. Monetized benefits could not be estimated for other important categories such as urban ornamentals, Class I areas, and commercial forests because of the lack of concentration response functions and appropriate economic valuation models. The available data suggest that reductions in ambient O_3 levels obtained by the alternative standards would confer benefits to these categories as well by reducing biomass loss, protecting functional, aesthetic, and existence values, and by preserving biodiversity and native habitat.

Benefits associated with attaining the current NAAQS and a new 8-hour, 0.08 ppm primary standard, as well as the incremental benefits associated with the lowest seasonal secondary standard under consideration were estimated. The combined benefits for commodity crops and California fruits and vegetables for attaining a new 8-hour, 0.08 ppm primary standard were reported in terms of a 1-expected-exceedance form.[23] The key findings from these analyses are:

(1) Total estimated annual benefits associated with attaining the current NAAQS include approximately $160–$340 M in monetized benefits from the commodity crops and California fruits and vegetables analyzed, as well as some level of benefits from the other benefits categories for which no quantitative estimates could be made.

(2) Total estimated annual benefits associated with attaining a new 8-hour primary standard of 0.08 ppm, 1-expected-exceedance, include approximately $490–$1,420 M in monetized benefits from the commodity crops and California fruits and vegetables analyzed, as well as some level of benefits from the other benefits categories for which no quantitative estimates could be made, although directionally these benefits would be expected to be greater than those associated with attaining the current NAAQS.

(3) *Incremental* annual benefits associated with attaining the lowest seasonal secondary standards analyzed include approximately $300–$580 M in monetized benefits relative to the current NAAQS, compared to approximately $40–$80 M relative to a new 8-hour, 0.08 ppm, 1-expected-exceedance standard. Additional incremental benefits would be obtained for the other benefits categories shown,

[23] As noted in the Staff Paper, there were small differences in the forms of the alternative standards analyzed.

although no quantitative estimates of these additional benefits could be made.

To project monetized benefits nationwide, the above reported estimates were scaled upward, by proportionately scaling the monetized estimates to the entire market, since the commodity crops included in the analyses account for only 75% of the U.S. sales of all agricultural crops and the California fruits and vegetables include only approximately 50% of the nation's fruit and vegetable markets. The EPA recognizes, however, that factors such as the sensitivity to O_3 of crops and fruits and vegetables not formally analyzed, regional air quality, and regional economics introduce considerably uncertainty to any such approach to developing a national estimate. Application of the scaling approach to the ranges given above results in the following rough approximations to national monetized benefits associated with the categories of commodity crops and fruits and vegetables:

(1) National approximation of annual monetized benefits associated with attaining the current NAAQS: $270–$530 M.

(2) National approximation of annual monetized benefits associated with attaining a new 8-hour primary standard of 0.08 ppm, 1-expected-exceedance: $970–$2,270 M.

(3) National approximation of *incremental* annual monetized benefits associated with attaining the lowest seasonal secondary standards analyzed: $490–$910 M relative to the current NAAQS, compared to approximately $70–$130 M relative to a new 8-hour, 0.08 ppm, 1-expected-exceedance standard.

An examination of the monetized benefits reported above indicates that most of the estimated benefits accrue from attainment of the 8-hour, 0.08 ppm primary standard with a smaller incremental improvement obtained by the addition of a seasonal secondary standard. The projected national approximations for commodity crops and fruits and vegetables suggest that benefits on the order of 1 to more than 2 billion dollars would result from the proposed 8-hour, 0.08 ppm primary standard, alone or in combination with a seasonal secondary standard. The EPA also examined the monetized benefits estimates that would result from the attainment of either a 0.07 ppm or a 0.09 ppm, 8-hour primary standard.[24] These estimates suggest that if a 0.07 ppm 8-hour primary standard were to be attained, only a very small incremental improvement in monetized benefits ($40–$80 M) would be realized by the addition of the lowest seasonal secondary standard analyzed. In contrast, if a 0.09 ppm, 8-hour primary standard were to be attained, the incremental benefits to be obtained from the addition of the lowest seasonal secondary standard analyzed would be considerably more significant ($230–$430 M). The qualitative information summarized above also suggests that the monetized benefits alone do not fully reflect the public welfare benefits that would be obtained from the adoption of the alternative primary standards alone or in combination with a new seasonal secondary standard.

D. Conclusions on Elements of the Secondary Standard

Based on the assessments of relevant scientific and technical information in the Criteria Document, sections VII and VIII of the Staff Paper, the views of CASAC, and for the reasons discussed above, the Administrator has made the following observations and judgments:

(1) The existing 1-hour, 0.12 ppm secondary standard does not adequately protect vegetation against the adverse effects of O_3. Peak O_3 concentrations >0.10 ppm, but less than the existing standard, can be phytotoxic to a large number of plant species, and can produce acute foliar injury responses, crop yield loss and reduced biomass production. The available scientific information also indicates that mid-range concentrations (0.05 to 0.09 ppm) have the potential to produce chronic stress on vegetation, resulting in reduced plant growth and yield, shifts in competitive advantages in mixed populations, decreased vigor leading to diminished resistance to pests, pathogens, injury from other environmental stresses, and foliar injury in some sensitive species. The quantitative exposure and benefits analysis indicate that the risk of such adverse effects would persist even upon attainment of the existing standard. The CASAC is unanimously in agreement with this conclusion (Wolff, 1996).

(2) Based on the results of the quantitative exposure and benefits analyses, the attainment of the proposed 0.08 ppm, 8-hour primary standard would provide substantially improved protection against adverse effects of O_3 on vegetation. The Administrator recognizes that these analyses contain substantial uncertainties, resulting in only rough estimates of the benefits associated with alternative standards. Nonetheless, the Administrator believes, consistent with advice from CASAC (Wolff, 1996), that these analyses can be of use in identifying the relative incremental benefits associated with the alternative standards. Based on these analyses, a reasonable policy choice would be to set the secondary standard identical to the proposed 0.08 ppm, 8-hour primary standard.

(3) The Administrator also recognizes, however, that the available scientific information on exposure dynamics and their role in producing plant response clearly supports the conclusion that a cumulative seasonal exposure index is more biologically relevant than a single event or mean index. Therefore, for the reasons discussed in section B above, the Administrator believes that consideration should also be given to establishing a new seasonal secondary standard.

Having reached these conclusions, the Administrator is proposing two alternatives for public comment: (1) Setting the revised secondary standard identical to the proposed 0.08 ppm, 8-hour primary standard, or (2) establishing a new seasonal secondary standard. These alternatives are consistent with the range of views expressed by CASAC panel members (Wolff, 1996). The Administrator and CASAC (Wolff, 1996) recognize that choosing between these alternatives, as well as selecting a specific seasonal exposure index, are policy decisions, and that such decisions cannot be based solely on science.

In specifying the averaging time, form, and level of a new seasonal secondary standard, as outlined below, the Administrator has focused her consideration on the recommended ranges and key factors outlined in the Staff Paper. Such an approach was generally supported by most CASAC panel members.

1. Averaging Time

The Administrator believes that an averaging time for a proposed seasonal secondary should be specified as the consecutive 3-month period of maximum concentrations in the O_3 season with a 12-hour diurnal window, including the daylight hours from 8:00 a.m. to 8:00 p.m local standard time. In her judgment, such an averaging time will adequately address the most biologically relevant periods of exposure for both annual and perennial vegetation.

[24] The national approximation of annual monetized benefits associated with attaining a 8-hour, 0.07 ppm primary standard alone would be $1,120–$3,100 M. This contrasts to $970–$2,270 M for a 0.08 ppm, 8-hour primary standard alone, and $530–$1,220 M for a 0.09 ppm, 8-hour primary standard alone.

2. Form

The Administrator believes that a SUM06 exposure index is a reasonable policy choice for a seasonal secondary standard to protect against the effects of O_3 on vegetation. In reaching this determination, the Administrator is particularly mindful that the protection provided by the secondary standard should supplement the protection provided by the primary standard. A SUM06 form would, in her judgement, provide such supplemental protection by cumulating exposure over a season reflective of the cumulative nature of O_3 effects on plants and giving relatively more weight to mid-range exposures of concern than to the peak exposures addressed by the proposed 0.08 ppm, 8-hour primary standard, without being influenced by estimated background concentrations that are beyond the scope of control intended by a NAAQS.

3. Level

The level at which a seasonal secondary standard should be set depends on policy judgments by the Administrator as to the level of air quality the attainment and maintenance of which is requisite to protect the public welfare from any known or anticipated adverse effects associated with the pollutant in the ambient air. As discussed above and in Section VII of the Staff Paper, the EPA undertook a series of analyses to examine the incremental improvements in terms of modelled exposure potential, monitored air quality, and quantifiable economic and other benefits that would accrue from a seasonal secondary standard. These analyses indicate that, beyond those achieved by 0.08 ppm, 8-hour, 1- to 5-expected-exceedance primary standard alternatives, relatively smaller incremental improvements would result from the adoption of a SUM06 seasonal standard within the range of levels under consideration, 38–25 ppm-hour.[25] Again, the Administrator acknowledges the significant uncertainties in the analyses and recognizes that these benefits should be regarded as rough approximations.

Based on these observations, it is the Administrator's judgment, taking into account the protection provided by both primary and secondary standards, that in the selection of the level for a seasonal secondary standard the focus should be on the lower end of the SUM06 (38–25 ppm-hours) range where a greater degree of incremental protection would more likely be expected. Although it was judged that this degree of incremental protection may be relatively small at the national level, such incremental improvement could be potentially significant at regional and local levels where it would be expected to provide additional protection for the most sensitive commercial crops and tree species, while directionally providing increased protection against the more subtle impacts of O_3 on vegetation and ecosystem resources in Class I and other regions. Thus, the Administrator decided to propose a level of 25 ppm-hour for a SUM06 secondary standard.

E. Proposed Decision on the Secondary Standard

As discussed more fully above, the Administrator took into account several factors in reaching her proposed decision on the secondary standard. First, she concluded based on information presented in the Criteria Document and Staff Paper and discussed above, that the existing secondary standard does not provide adequate protection for vegetation against the effects of O_3. Having reached this conclusion, the Administrator next considered: (1) The degree of protection afforded by the proposed 8-hour, 0.08 ppm primary standard; (2) the incremental protection associated with a SUM06, 25 ppm-hour secondary standard; and (3) the value of establishing a seasonal form for the secondary standard that is more representative of biologically relevant exposures. In weighing these factors, the Administrator recognized, as did CASAC, that reaching a decision on revising the secondary standard requires a blend of scientific and policy considerations.

Based on the quantitative analyses discussed above and presented in detail in Section VII of the Staff Paper, a reasonable policy choice could be to set the revised secondary standard identical to the proposed 8-hour, 0.08 ppm primary standard. Attainment of such a secondary standard would, in the Administrator's judgment, provide substantial protection against the effects of O_3 on vegetation. The Administrator also recognizes, however, that a SUM06 seasonal secondary standard would have a stronger scientific basis in that it would better account for cumulative, seasonal exposure. The Administrator also notes the growing body of evidence, assessed in the Criteria Document and Staff Paper, that suggests more subtle impacts of O_3 acting in synergy with other natural and man-made stressors on individual plants, populations and whole systems. While both the Staff Paper and CASAC concluded that there is insufficient information as yet to estimate the severity of these impacts quantitatively, the Administrator is concerned that the available information be given proper weight in considering the extent to which a secondary standard should be precautionary as to such effects. Given the potential significance of the effects, particularly at the regional scale and in Class I areas, coupled with the views of many in the scientific community that a SUM06 seasonal standard would be more representative of biologically relevant exposures, the Administrator believes it is important to air these issues fully. Therefore, the Administrator is proposing two alternatives for public comment: (1) Setting the revised secondary standard identical to the proposed 0.08 ppm, 8-hour primary standard in all respects; or (2) establishing a 3 month, 12-hour, SUM06 seasonal secondary standard, set at the level of 25 ppm-hour.

As discussed previously, the Administrator has also requested comment on two alternative levels for the 8-hour primary standard. Accordingly, she has examined the implications for her decision on the secondary standard of adopting either of the alternative levels for the primary standard. Based on the economic benefits assessment and other factors discussed above, adoption of a secondary standard identical to a 0.09 ppm, 8-hour standard would provide appreciably less protection against vegetation effects than would an 0.08 ppm, 8-hour secondary standard. For that reason, the Administrator would be more inclined to set a 25 ppm-hour SUM06 seasonal secondary standard if a 0.09 ppm, 8-hour primary standard were to be selected. On the other hand, if a 0.07 ppm, 8-hour primary standard were to be selected, appreciably more benefits would result as compared to those associated with attainment of the proposed 0.08 ppm, 8-hour primary standard. In such a case, the Administrator would most likely establish a secondary standard identical to a 0.07 ppm, 8-hour primary standard. The EPA solicits comments on the implications that the possible selection of one of the alternative 8-hour primary standards (i.e., 0.09 or 0.07 ppm) would have on the selection of an appropriate secondary standard.

The Administrator also recognizes the importance of enhancing the existing O_3 monitoring network to provide better coverage in rural areas of agricultural or ecological importance irrespective of the final alternative chosen. Because expanding the O_3 monitoring network

[25] Roughly corresponding to the 20 percent and 10 percent yield loss protection levels for 50 percent of the NCLAN crops, respectively.

would impose additional cost burdens, EPA specifically requests public comment on the appropriate spatial scale for an enhanced monitoring network intended to provide adequate air quality surveillance in more rural areas in a cost-effective manner. Such comments will serve to inform EPA's development of revised air quality surveillance requirements (40 CFR Part 58) that will be proposed at a later date.

With respect to the proposed seasonal secondary standard, EPA is also seeking comment on whether O_3 concentrations from several monitors should be spatially integrated when determining compliance with the standard. Such an approach could provide a more representative indication of vegetation exposures over a given area than O_3 concentrations measured at a single monitor. To help inform consideration of this approach, EPA specifically requests comment on the spatial scale that should be considered for such integration (e.g., averaging) and the number of monitors that would be needed to determine representative vegetation exposures for a given spatial scale.

V. Revisions to Appendix H—Interpretation of the NAAQS for Ozone

The EPA is proposing to revise Appendix H to 40 CFR part 50 to reflect the proposed revisions to the primary and secondary standards discussed above. The proposed revisions to Appendix H would explain the computations necessary for determining when the proposed primary and secondary standards are met. More specifically, the proposed revisions address data completeness requirements, data reporting, handling, and rounding conventions, and example calculations. Because two alternative secondary standards are proposed, the proposed changes to Appendix H address both alternatives: (1) A secondary standard set identical to the proposed 0.08 ppm, 8-hour primary standard; or (2) a seasonal secondary standard expressed in the SUM06 form. Depending on the final decision on the secondary standard, the proposed revisions to Appendix H will be modified accordingly.

Key elements of the proposed revisions to Appendix H are outlined below.

A. Data Completeness

One key change to Appendix H is that the data completeness requirements for the proposed 0.08 ppm, 8-hour primary standard (and the secondary standard if it is set identical to the primary standard) would not include an adjustment to the concentration statistic to account for missing data. Instead, the proposal would require 90% data completeness, on average, during the 3-year period, with no single year within the period having less than 75% data completeness. This data completeness requirement would have to be satisfied in order to determine that the standard(s) have been met at a monitoring site. A site could be found not to have met the standard(s) with less than complete data.

Based on its analysis of available air quality data, the EPA believes that the proposed data completeness requirement is reasonable given that 90% of all monitoring sites that are operated on a continuous basis routinely meet this objective. The EPA is seeking comment, however, on whether meteorological data would provide an objective basis for determining, on a day for which there is missing data, that the meteorological conditions were not conducive to high O_3 concentrations, and therefore, that the day could be assumed to have an O_3 concentration less than 0.08 ppm. The EPA specifically requests comment on the appropriateness of permitting adjustments for missing data based on meteorological conditions, as well as on information that would permit better definition of those necessary conditions likely to result in peak 8-hour O_3 concentrations in the ranges of concern.

For a secondary standard expressed in a 3-month, 12-hour, SUM06 form, a site would be required to have 75% data completeness in a given year and adjustments would be made for missing data. Because this alternative is a seasonal cumulative index, representing a distribution of O_3 values under a range of meteorological conditions, rather than a peak statistic, the EPA is proposing a missing data procedure that would multiply the unadjusted SUM06 value by the ratio of the number of possible daylight hours (8:00 am to 8:00 pm) during the O_3 monitoring season to the number of hours with valid ambient hourly concentrations.

B. Data Handling and Rounding Conventions

Almost all State agencies now report hourly O_3 concentrations to three decimal places, in ppm, since the typical incremental sensitivity of currently used O_3 monitors is 0.001 ppm. In calculating 8-hour average O_3 concentrations from such hourly data, and in calculating 3-year averages of the third highest maximum 8-hour average concentrations, the calculated fourth decimal place digit would be rounded (with 0.0005 rounded up) to preserve the number of significant digits in the reported data.

To determine whether the proposed standard is met, the calculated value of the third highest maximum 8-hour average concentrations, averaged over three years, would be compared to the level of the standard. The proposed standard of 0.08 ppm is expressed to the second decimal place, reflective of the quantitative uncertainties in the health effects evidence upon which the proposed standard is based. More specifically, these uncertainties include the measurement uncertainty inherent in the reported ambient O_3 concentrations used in field and epidemiological studies and in the exposure estimates upon which quantitative risk assessments have been based. The EPA believes that expressing the proposed standard to the second decimal place is consistent with the quality assurance guidelines that indicate the precision [26] for such O_3 measurements shall be within ±15%.

To compare the calculated 3-year average O_3 concentration to the level of the standard, the third decimal place of the calculated value is rounded. The current rounding convention is to round up digits equal to or greater than 5. Rounding has the effects of reducing the probability of misclassifying an attainment area as nonattainment and of producing a more stable attainment test. Taking into account measurement uncertainty and the desirability of these resulting effects, EPA has historically deemed the current rounding convention to be appropriate.

On the other hand, EPA recognizes that this current rounding convention directionally results in less public health protection than that which would be associated with a convention that defined the smallest increment of 0.001 ppm to be above the level of the standard for the purposes of determining whether the standard has been met.[27] Thus, EPA solicits comment on the use of an alternative rounding convention defined as low as 0.001 ppm, with regard to potential increased public health protection as well as to potential effects on the probability of

[26] The term precision is used to denote both the reproducibility of a measurement under a constant set of conditions, as well as other components of measurement uncertainty such as instrument drift and relative bias.

[27] Based on 1993–1995 air quality data, approximately 13 million more people would live in areas for which the alternative rounding convention would result in improvements in air quality as compared to the current rounding convention. This population difference corresponds to an increase of 66 counties that would not meet the proposed primary standard based on the alternative rounding convention.

attainment misclassifications and on the stability of the standard.

VI. Technical Changes to Appendices D and E

A. Appendix D to Part 50—Measurement Principle and Calibration Procedure for the Measurement of O_3 in the Atmosphere

Minor revisions to the references listed within Appendix D are proposed to provide the reader with the most recent information on obtaining reference materials to support the O_3 monitoring methodology. Specifically, these changes include updating the EPA addresses and adding EPA document reference numbers.

Appendix D also contains information on the ''Temporary Alternative Calibration Procedure—(Boric Acid-Potassium Iodide)'' for the O_3 federal reference method. This alternative calibration procedure was considered to be a valid alternative to the ultraviolet photometry procedure for direct calibration of O_3 analyzers for a period between the promulgation of the original O_3 federal reference method and 18 months after promulgation (from February 1979 through August 1980). Since this period has expired, it is no longer necessary to include the alternative calibration procedure in Appendix D; therefore, EPA proposes to remove it.

B. Appendix E to Part 50—Reference Method for Determination of Hydrocarbons Corrected for Methane

Appendix E specifies a reference method that was used when EPA established a total hydrocarbon National Ambient Air Quality Standard. The total hydrocarbon NAAQS was revoked on January 5, 1983 (48 FR 628), and the inclusion of a total hydrocarbon reference method within Appendix E is no longer appropriate. Accordingly, the EPA proposes to remove it.

Several sources of information on the current techniques used for the measurement of hydrocarbons are available. Two that are widely used are the ''Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Method TO–12, Method for the Determination of Non-Methane Organic Compounds (NMOC) in Ambient Air Using Cryogenic Preconcentration and Direct Flame Ionization Detection (PDFID),'' EPA–600/4–89–017, National Exposure Research Laboratory, U.S. EPA; and ''Photochemical Assessment Monitoring Stations Implementation Manual,'' Appendix N, EPA–454/B–93–051, March 1994, available through the National Technical Information Services (NTIS publication number PB 94 187 382), 5825 Port Royal Road, Springfield, VA 22161.

VII. Implementation Program

Recognizing that adoption of new NAAQS for O_3, together with new particulate matter (PM) NAAQS, as well as potential new regulations for regional haze, could have profound implications for existing State implementation programs, EPA established a subcommittee under the Clean Air Act Advisory Committee (CAAAC) in 1995. The Subcommittee, comprised of some 58 members representing environmental organizations, State and local air pollution control agencies, Federal agencies, academia, industry, and other public interests, is to provide advice and recommendations to EPA on developing new, integrated approaches for implementing the potential new NAAQS for O_3 and PM, as well as a potential new regional haze reduction program. The Subcommittee, through several work groups made up of Subcommittee members and other designees recommended by the Subcommittee, is in the process of examining key aspects of the existing implementation programs for O_3 and PM, to provide for more effective implementation of the potential new NAAQS, as well as to provide new approaches to better integrate broad regional and national control strategies with more localized efforts.

Upon completion of its work, the Subcommittee will present its findings and recommendations to the CAAAC. These recommendations will then assist EPA's development of appropriate policies and regulations for implementing the potential new O_3 and PM NAAQS and regional haze regulations in the most efficient and environmentally effective manner. These policies and regulations will then be published in the Federal Register for further input from the public.

VIII. Regulatory Impacts

The EPA has judged this proposal to be a significant action, and has prepared a draft Regulatory Impact Analysis (RIA) for it as discussed below. Neither the draft RIA nor the associated contractor reports have been considered in issuing this proposal. Judicial decisions make clear that the economic and technological feasibility of attaining ambient standards are not to be considered in setting them, although such factors may be considered to a degree in the development of State plans to implement the standards.

As discussed above, EPA has established a Subcommittee of the CAAAC to examine the existing implementation programs for O_3 and PM, and provide advice and recommendations to assist EPA in developing new, integrated approaches for implementing potential new or revised NAAQS for O_3 and PM, as well as a potential new regional haze reduction program. Because the work of the Subcommittee is still in progress, the draft RIA and associated regulatory flexibility assessment that accompany this notice do not reflect its advice and recommendations or any resulting implementation strategies for O_3. The EPA anticipates that such strategies will be more efficient and environmentally effective than the ones analyzed. While the draft RIA and flexibility assessment should be useful in generally informing the public about potential costs and benefits associated with implementation of the proposed revisions, they do not reflect any new implementation or monitoring requirements or policies that may be proposed after consideration of the Subcommittee's advice and recommendations. As EPA develops and elaborates such requirements or policies, it will continue to consult with the Subcommittee and will prepare further regulatory analyses as appropriate.

A. Executive Order 12866

Under Executive Order 12866, the Agency must determine whether a regulatory action is ''significant'' and, therefore, subject to Office of Management and Budget (OMB) review and other requirements of the Executive Order. The order defines ''significant regulatory action'' as one 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 obligations or 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.

In view of its important policy implications, this proposal has been judged to be a ''significant regulatory action'' within the meaning of the Executive Order, and EPA has

submitted it to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public docket and made available for public inspection at EPA's Air and Radiation Docket Information Center (Docket No. A–95–58).

The EPA has prepared and entered into the docket a draft regulatory impact analysis (RIA) entitled ''Regulatory Impact Analysis for Proposed Ozone National Ambient Air Quality Standard (November 1996)''. This draft RIA assesses the costs, economic impacts, and benefits associated with the implementation of the current and several alternative NAAQS for ozone. As discussed in the draft RIA, there are an unusually large number of limitations and uncertainties associated with the analyses and resulting cost impacts and benefit estimates. Because judicial decisions make clear that cost can not be considered in setting NAAQS, the results of the draft RIA have not been considered in developing this proposal.

COMPARISON OF BENEFITS AND COSTS—REGIONAL CONTROL STRATEGY BASELINE (BILLIONS OF 1990$)

[Estimates are incremental from the current standard]

Alternative ozone NAAQS	Monetized annual benefits of partial attainment	Annual costs of partial attainment
80 ppb, 8 hour, 4 AX	$0–0.6	$0.6
80 ppm, 8 hour, 1 AX	0.1–1.5	2.5

As discussed in the RIA itself, there are a large number of limitations and uncertainties inherent in estimating these national costs and benefits over extended periods of time. Results are limited by the inability to monetize certain health or welfare benefits for comparison with projections of control costs that are usually more complete, but are sometimes overstated due to an inability to forecast advances in pollution prevention and control. The approaches used for the RIA did not attempt to take advantage of flexibilities and savings possible in consideration of combined air quality management program for the PM and O_3. Further, they were limited by availability of emissions, air quality monitoring, and related information. Indeed, the suite of control measures available to be considered in the cost analysis was not sufficient to achieve full attainment in 2007. It is for this reason we have only presented the costs and benefits for this ''partial attainment'' scenario. In the partial attainment scenario, there would be 8 to 20 residual nonattainment areas representing 14 to 32 million people, respectively, in 2007. These areas would need approximately 120,000 to 750,000 additional tons of emission reductions in order to attain the standards. One implication of this scenario is that more time will be needed to attain the standards in the areas remaining in nonattainment. Moreover, based on past experience, improvements in technologies and creative implementation programs are likely to result in more effective programs than can now be forecasted. The EPA is planning to improve and expand its analysis of the integrated costs and benefits of attaining both the PM and ozone standards in association with developing implementation guidance.

B. Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601 et seq., provides that, whenever an agency is required to publish a general notice of rulemaking for a proposed rule, the agency must prepare regulatory flexibility analyses for the proposed and final rule unless the head of the agency certifies that it will not have a significant economic impact on a substantial number of small entities. In judging what kinds of economic impacts are relevant for this determination, it is appropriate to consider the purposes and requirements of the RFA. *Mid-Tex Electrical Co-op* v. *FERC*, 773 F.2d 327, 341–42 (D.C. Cir. 1985).

Review of the findings and purposes section of the RFA makes clear that Congress enacted the RFA to address the economic impact of rules on small entities *subject to the rule's requirements.* Pub. L. 96–354, section 2 (1980); *see also* 126 Cong. Rec. 21,452, 21,453 (1980). In explaining the need for the RFA, Congress generally expressed concern about the problematic consequences of applying regulations uniformly to large and small entities. Specifically, Congress stated that ''laws and regulations designed for application to large scale entities have been applied uniformly to small [entities] even though the problems that gave rise to government action may not have been caused by those small entities, that ''uniform Federal regulatory and reporting requirements have in numerous instances imposed unnecessary and disproportionately burdensome demands * * * upon small [entities] with limited resources,'' that ''the failure to recognize differences in the scale and resources of regulated entities has in numerous instances adversely affected competition in the marketplace,'' and that ''the practice of treating all regulated [entities] as equivalent may lead to inefficient use of regulatory agency resources.'' *Id.* To address these concerns, Congress enacted the RFA ''to establish as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the [entity] *subject to regulation*'' (emphasis added). *Id.*

The statutory requirements for regulatory flexibility analyses confirm that the economic impact to be analyzed is the impact of the rule on small entities that will have to comply with the rule's requirements. In both initial and final regulatory flexibility analyses, for example, the agency issuing the rule is required to describe and (where feasible) estimate the number of small entities ''to which the proposed rule will apply''; describe the reporting, recordkeeping and other ''compliance requirements'' of the proposed rule; and estimate the classes of small entities that ''will be subject to the requirement.'' *See* RFA sections 603 and 604. The agency must also discuss and address significant regulatory alternatives that are consistent with the applicable statutes and would minimize any significant economic impact on small entities. Among the possible alternatives listed by the RFA are the establishment of differing compliance and reporting requirements that take into account the resources available to small entities and partial or total exemptions from the rule for small entities. *See* RFA section 603(c). The RFA's requirements for regulatory flexibility analyses thus establish that the focus of such analyses are the regulatory requirements small entities will be required to meet as a result of the rule and ways to tailor those requirements to reduce the burden on small entities. *Mid-Tex Electrical Co-op*, 773 F.2d at 342 (''[I]t is clear that Congress envisioned that the relevant ''economic impact'' was the impact of compliance with the proposed rule on regulated small entities').

The scope of regulatory flexibility analyses in turn informs the scope of the analysis necessary to support a certification that a rule will not have ''a significant economic impact on a substantial number of small entities.'' Thus, ''an agency may properly certify that no regulatory flexibility analysis is necessary when it determines that the rule will not have a significant economic impact on a substantial number of small entities *that are subject*

to the requirements of the rule.'' Id. (emphasis added); *see also United Distribution Companies* v. *FERC*, 88 F.3d 1105, 1170 (D.C. Cir. 1996).

In view of the RFA's purposes and the requirements it establishes for regulatory flexibility analyses, EPA believes that today's proposal to revise the O_3 NAAQS will not have a significant economic impact on small entities within the meaning of the RFA. The proposed rule, if promulgated, will not establish requirements applicable to small entities. Instead, it will establish a standard of air quality that other Act provisions will call on states (or in case of state default, the federal government) to achieve by adopting implementation plans containing specific control measures for that purpose. In other words, state (or federal) regulations implementing the NAAQS might establish requirements applicable to small entities, but the NAAQS itself would not.[28] For these reasons, the Administrator certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities.

While the statutory requirements for regulatory flexibility analyses are thus inapplicable to NAAQS standard-setting, EPA is nonetheless interested in assessing to the extent possible the potential impact on small entities of implementing a revised O_3 NAAQS. EPA has accordingly conducted a more general analysis of the potential cost impacts on small entities of control measures that states might adopt to attain and maintain a revised NAAQS, and has included that analysis in the RIA cited above.

That analysis examines industry-wide cost and economic impacts for those sectors likely to be affected when the proposed revisions to the O_3 NAAQS are implemented by States. As part of the draft RIA, the EPA has analyzed various industries for the existence of small entities to ascertain whether small entities within a given industry category are likely to be differentially affected when compared to the industry category as a whole. This information will serve to inform potentially affected small entities, thus enabling them to participate more effectively in EPA's review and potential revision of existing implementation requirements and policies and in development of any necessary State implementation plan revisions. As indicated previously, EPA will prepare further analyses as appropriate as it develops new implementation requirements or policies.

The EPA's finding that today's proposal will not have a significant economic impact on small entities also entails that the new small-entity provisions in Section 244 of the Small Business Regulatory Enforcement Fairness Act (SBREFA) do not apply. Nevertheless, EPA intends to fulfill the spirit of SBREFA on a voluntary basis. To accomplish this, following the proposal of new air quality standards for ozone and particulate matter, EPA intends to work with the Small Business Administration (SBA) to hold two separate panel exercises to collect comments, advice and recommendations from representatives of small businesses, small governments, and other small organizations. The first panel, soliciting comments on the new standards themselves, will be held shortly after proposal. The second panel, covering implementation of the standards, will be held a few months later. Both panel exercises will be carried out using a panel process modeled on the ''Small Business Advocacy Review Panel'' provisions in Section 244 of SBREFA. We are also adding a number of small-entity representatives to our Federal advisory committee focusing on NAAQS implementation; we expect the small-entity advice from this committee will help the aforementioned implementation panel accomplish its purpose.

C. Impact on Reporting Requirements

There are no reporting requirements directly associated with an ambient air quality standard proposed under section 109 of the Act (42 U.S.C. 7400). There are, however, reporting requirements associated with related sections of the Act, particularly sections 107, 110, 160, and 317 (42 U.S.C. 7407, 7410, 7460, and 7617). If EPA proposes revisions to the air quality surveillance requirements (40 CFR part 58) for O_3, the associated RIA will address the Paperwork Reduction Act requirements through an Information Collection Request.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 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. This requirement does not apply if EPA is prohibited by law from considering section 202 estimates and analyses in adopting the rule in question. 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. These requirements 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.

As indicated previously, EPA cannot consider in setting a NAAQS the economic or technological feasibility of attaining ambient air quality standards, although such factors may be considered to a degree in the development of State plans to implement the standards. Accordingly, EPA has determined that the provisions of sections 202, 203, and 205 of the UMRA do not apply to this proposed decision. The EPA acknowledges, however, that any corresponding revisions to associated State implementation plan requirements and air quality surveillance requirements, 40 CFR part 51 and 40 CFR part 58, respectively, might result in such effects. Accordingly, EPA will address unfunded mandates as appropriate when it proposes any revisions to 40 CFR parts 51 and 58.

E. Environmental Justice

Executive Order 12848 requires that each Federal agency make achieving environmental justice part of its mission by identifying and addressing, as

[28] Because the proposed rule would not establish requirements applicable to small entities, EPA can not in fact perform the analyses contemplated by the RFA.

appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minorities and low-income populations. These requirements have been addressed to the extent practicable in the draft RIA cited above.

List of Subjects in 40 CFR Part 50

Environmental protection, Air pollution control, Carbon monoxide, Lead, Nitrogen dioxide, Ozone, Particulate matter, Sulfur oxides.

Dated: November 27, 1996.

Carol M. Browner,

Administrator.

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For the reasons set forth in the preamble, chapter I of title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 50—NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS

1. The authority citation for part 50 continues to read as follows:

Authority: Secs. 109 and 301(a), Clean Air Act, as amended (42 U.S.C. 7409, 7601(a)).

2. Section 50.9 is revised to read as follows:

§ 50.9 National primary and secondary ambient air quality standards for O_3.

(a) The level of the national primary ambient air quality standard for O_3, measured by a reference method based on Appendix D to this part and designated in accordance with part 53 of this chapter, is 0.08 parts per million (ppm), daily maximum 8-hour average.

(b) An 8-hour average shall be considered valid if at least 75% of the hourly averages for the 8-hour period are available. In the event that only six (or seven) hourly averages are available, the 8-hour average shall be computed on the basis of the hours available, using six (or seven) as the divisor. The 8-hour averages shall be stated in parts per million to three decimal places.

(c) The primary O_3 ambient air quality standard is met at an ambient air quality monitoring site when the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration is less than or equal to 0.08 ppm. The primary standard is not met when the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration is greater than 0.08 ppm. Computations for comparisons with the primary standard and data handling conventions are specified in Appendix H to this part.

(d) The national secondary ambient air quality standard for O_3 is based on a 3-month cumulative index that sums all ambient hourly concentrations greater than or equal to 0.06 ppm during the hours 8:00 am to 8:00 pm local standard time (LST). The secondary O_3 standard is met at an ambient air quality monitoring site when the cumulative index value (SUM06) based on a consecutive 3-month period of maximum concentrations is less than or equal to 25 ppm-hours. Computations for comparisons with the level of the secondary standard and data handling conventions are specified in Appendix H to this part.

3. Appendix D is amended as follows:

a. References 8 and 9 are revised.

b. After Figure 2, Schematic Diagram of a Typical UV Photometric Calibration System (Option 1), all remaining text included within the ''Temporary Alternative Calibration Procedure—

(Boric Acid-Potassium Iodide)'' section is removed.

c. Figure 1, Schematic Diagram of a Typical BAKI Calibration System, Figure 2, KI Sampling Train, and Figure 3, Schematic Diagram of a Typical BAKI Calibration System (Option 1), are removed.

Appendix D to Part 50—Measurement Principle and Calibration Procedure for the Measurement of O_3 in the Atmosphere

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References

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8. Transfer Standards for Calibration of Ambient Air Monitoring Analyzers for O_3, EPA publication number EPA–600/4–79–056, EPA, National Exposure Research Laboratory, Department E, (MD–77B), Research Triangle Park, NC 27711.

9. Technical Assistance Document for the Calibration of Ambient Ozone Monitors, EPA publication number EPA–600/4–79–057, EPA, National Exposure Research Laboratory, Department E, (MD–77B), Research Triangle Park, NC 27711.

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Appendix E [Removed and Reserved]

4. Appendix E is removed and reserved.

5. Appendix H is revised in its entirety to read as follows:

Appendix H to Part 50—Interpretation of the Primary and Secondary National Ambient Air Quality Standards for O_3

1. General

This appendix explains the data handling conventions and computations necessary for determining whether the national primary and secondary ambient air quality standards for O_3 specified in part 50.9 of this chapter are met at an ambient O_3 air quality monitoring site. Ozone is measured in the ambient air by a reference method based on appendix D of this part. Data reporting, data handling, and computation procedures to be used in making comparisons between reported O_3 concentrations and the level of the O_3 standard are specified in the following sections.

2. Primary Ambient Air Quality Standard for O_3

2.1 Data Reporting and Handling Conventions

a. *Computing 8-hour averages.* Hourly average concentrations shall be reported in parts per million (ppm) to the third decimal place, with additional digits to the right being truncated. Running 8-hour averages shall be computed from the hourly O_3 concentration data for each hour of the year and the result shall be stored in the first, or start, hour of the 8-hour period. An 8-hour average shall be considered valid if at least 75% of the hourly averages for the 8-hour period are available. In the event that only six (or seven) hourly averages are available, the 8-hour average shall be computed on the basis of the hours available using six (or seven) as the divisor. The 8-hour average O_3 concentrations shall be rounded to three decimal places (with 0.0005 rounded up) to preserve the number of significant digits in the reported data. The insignificant digits are truncated.

b. *Daily maximum 8-hour average concentrations.* There are 24 possible running 8-hour average O_3 concentrations for each calendar day during the O_3 monitoring season. (Ozone monitoring seasons vary by geographic location as designated in part 58, Appendix D to this chapter.) The daily maximum 8-hour concentration for a given calendar day is the highest of the 24 possible 8-hour average concentrations computed for that day. This process is repeated, yielding a daily maximum 8-hour average O_3 concentration for each calendar day with ambient O_3 monitoring data. Because the 8-hour averages are recorded in the start hour, the daily maximum 8-hour concentrations from two consecutive days may have some hourly concentrations in common. Generally, overlapping daily maximum 8-hour averages are not likely, except in those non-urban monitoring locations with less pronounced diurnal variation in hourly concentrations.

c. An O_3 monitoring day shall be counted as a valid day if valid 8-hour averages are available for at least 75% of possible hours in the day (i.e., at least 18 of the 24 averages). In the event that less than 75% of the 8-hour averages are available, a day shall also be counted as a valid day if the daily maximum 8-hour average concentration for that day is greater than the level of the ambient standard.

2.2 Primary Standard-Related Summary Statistic

The standard-related summary statistic is the annual third-highest daily maximum 8-hour O_3 concentration, expressed in parts per million, averaged over three years. The 3-year average shall be computed using the three most recent, consecutive calendar years of monitoring data meeting the data completeness requirements described in this appendix. The computed 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentrations shall be rounded to three decimal places (with 0.0005 rounded up) to preserve the number of significant digits in the reported data. The insignificant digits are truncated.

2.3 Comparisons With the Primary O_3 Standard

a. The primary O_3 ambient air quality standard is met at an ambient air quality monitoring site when the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration is less than or equal to 0.08 ppm. The primary standard is not met at an ambient air quality monitoring site when the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentration is greater than 0.08 ppm. Thus, the 3-year average annual third-highest daily maximum 8-hour average O_3 concentration is also the design value for the site. The number of significant figures in the level of the standard dictates the rounding convention for comparing the computed 3-year average annual third-highest daily maximum 8-hour average O_3 concentration with the standard. The third decimal place of the computed value is rounded, with values equal to, or greater than 5 rounding up. Thus, a computed 3-year average O_3 concentration of 0.085 ppm is the smallest value that is greater than 0.08 ppm.

b. This comparison shall be based on three consecutive, complete calendar years of air quality monitoring data. This requirement is met for the three year period at a monitoring site if daily maximum 8-hour average concentrations are available for at least 90%, on average, of the days during the designated O_3 monitoring season, with a minimum data completeness in any one year of at least 75% of the designated sampling days.

c. Although three complete years of data are required to demonstrate attainment of the standard, years with high concentrations shall not be ignored on the ground that they have less than complete data. Thus, in computing the 3-year average third-highest maximum concentration, calendar years with less than 75% data completeness shall be included in the computation if the annual third-highest maximum 8-hour concentration is greater than the level of the standard.

EXAMPLE 1.—AMBIENT MONITORING SITE ATTAINING THE PRIMARY O_3 STANDARD

Year	Percent valid days	1st highest daily max 8-hour conc. (ppm)	2nd highest daily max 8-hour conc. (ppm)	3rd highest daily max 8-hour conc. (ppm)	4th highest daily max 8-hour conc. (ppm)	5th highest daily max 8-hour conc. (ppm)
1993	100	0.092	0.090	0.085	0.083	0.080
1994	96	0.084	0.083	0.075	0.074	0.074
1995	98	0.080	0.079	0.073	0.068	0.065
Average	98			0.078		

The primary standard is met at this monitoring site because the 3-year average of the annual third-highest daily maximum 8-hour average O_3 concentrations (i.e., 0.078 ppm) is less than or equal to 0.08 ppm. The data completeness requirement is also met because the average percent of days with valid monitoring is greater than 90%, and no single year has less than 75% data completeness.

EXAMPLE 2.—AMBIENT MONITORING SITE FAILING TO MEET THE PRIMARY O_3 STANDARD

Year	Percent valid days	1st highest daily max 8-hour conc. (ppm)	2nd highest daily max 8-hour conc. (ppm)	3rd highest daily max 8-hour conc. (ppm)	4th highest daily max 8-hour conc. (ppm)	5th highest daily max 8-hour conc. (ppm)
1993	96	0.105	0.103	0.103	0.102	0.102
1994	74	0.104	0.103	0.092	0.091	0.088
1995	98	0.103	0.101	0.101	0.097	0.095
Average	89			0.099		

The primary standard is not met at this monitoring site because the 3-year average of the third-highest daily maximum 8-hour average O_3 concentrations (i.e., 0.099 ppm) is greater than 0.08 ppm. Note that the O_3 concentration data for 1994 is used in these computations, even though the data capture is less than 75%, because the third-highest daily maximum 8-hour average concentration for that year is greater than 0.08 ppm.

3. Secondary Ambient Air Quality Standard for O_3

3.1 Data Reporting and Handling Conventions

a. *Computing the daily index value (D.I.).* The secondary O_3 standard is based on a seasonal index that accumulates all hourly O_3 concentrations greater than or equal to 0.060 ppm for each hour of the day between 8:00 a.m. to 8:00 p.m. local standard time (LST). The reporting requirements are the same as described above for the primary standard. The hourly average ambient O_3 concentrations shall be reported in parts per million (ppm) to three decimal places, with additional digits to the right being truncated. The first step, computing the daily index value, D.I., for the daylight hours is illustrated below:

EXAMPLE 3.—SAMPLE DAILY INDEX CALCULATION FOR AN AMBIENT OZONE MONITORING SITE

Start hour (a.m.)	Concentration (ppm)	Start hour (p.m.)	Concentration (ppm)
12	0.034	12	0.079
1	0.027	1	0.082
2	0.016	2	0.085
3	0.014	3	0.088
4	0.010	4	0.083
5	0.009	5	0.081
6	0.014	6	0.065
7	0.025	7	0.056
8	0.045	8	0.051
9	0.060	9	0.038
10	0.075	10	0.039
11	0.080	11	0.034

Daily index (D.I.) = 0.060 + 0.075 + 0.080 + 0.079 + 0.082 + 0.085 + 0.088 + 0.083 + 0.081 + 0.065 = 0.78 ppm-hours

b. *Computing the monthly cumulative index (SUM06).* The daily index is computed at each monitoring site for each calendar day in each month during the O_3 monitoring season designated in part 58, Appendix D to this chapter. At an individual monitoring site, a month is counted as a valid O_3 monitoring month if ambient O_3 concentrations are available for at least 75% of possible index hours in the month. For months with greater than 75% data completeness, the monthly total index value shall be adjusted for incomplete sampling by multiplying the unadjusted SUM06 cumulative index value by the ratio of the number of possible daylight hours to the number of hours with valid ambient hourly concentrations.

Example 4. Adjusting the monthly SUM06 for missing data.

$$M.I. = \sum_{j=1}^{n} (D.I.) * (n*12)/v$$

where,

M.I. = the monthly sum of the daylight hours greater than or equal to 0.060 ppm,

D.I. = the daily sum of the daylight hours greater than or equal to 0.060 ppm,

n = the number of days in the calendar month,

v = the number of daylight hours (8:00 a.m.—8:00 p.m. LST) with valid hourly O3 concentrations.

3.2 Secondary Standard-related Summary Statistic

The standard-related summary statistic is the annual maximum 3-month SUM06 value expressed in ppm-hours. Specifically, the annual SUM06 value is computed on a calendar year basis using the three highest, consecutive monthly SUM06 values.

3.3 Comparisons with the Secondary O_3 Standard

The secondary O_3 standard is met when the annual maximum SUM06 value based on a consecutive 3-month period at an O_3 air quality monitoring site is less than or equal to 25 ppm-hours. Values of 0.5 or greater shall be rounded up.

EXAMPLE 5.—SAMPLE CALCULATION OF THE MAXIMUM 3-MONTH SUM06 VALUE AT AN AMBIENT AIR QUALITY MONITORING SITE

	April	May	June	July	August	September	October
Monthly SUM06	4.442	9.124	12.983	16.153	13.555	4.364	1.302
3–Month Total	na	na	26.549	38.260	42.691	34.072	19.221

The maximum consecutive 3-month SUM06 value for this site is 43 ppm-hours. Because 43 is greater than 25, the secondary O_3 ambient air quality is not met at this ambient air quality monitoring site.

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Friday
December 13, 1996

Part IV

Environmental Protection Agency

40 CFR Part 51

Interim Implementation Policy on New or Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS); Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 51

[FRL–5659–3]

RIN 2060–AF34

Interim Implementation Policy on New or Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Proposed Policy (NPP).

SUMMARY: This document is to propose a policy regarding interim implementation requirements for ozone and PM air pollution control during the time period following promulgation of new or revised NAAQS. Elsewhere in today's Federal Register, EPA is proposing these NAAQS. The policy as proposed is intended to ensure momentum is maintained by the States in the current program while moving toward developing their plans for implementing the new NAAQS. An explanation and structure of the Federal Advisory Committee Act (FACA) Subcommittee for Ozone, PM and Regional Haze Implementation Programs (Subcommittee) is provided under **SUPPLEMENTARY INFORMATION**.

DATES: Written comments on this proposal must be received by February 18, 1997.

ADDRESSES: *Comments.* Comments on this proposal should be submitted (in duplicate if possible) to the Air and Radiation Docket and Information Center, 401 M Street, SW, Washington, DC 20460, Attention Docket Number A–95–38. *Docket.* The public docket for this action is available for public inspection and copying between 8:00 a.m. and 5:30 p.m., Monday through Friday, at the Air and Radiation Docket and Information Center (6102), Attention Docket A–95–38, South Conference Center, Room 4, 401 M Street, SW, Washington, DC 20460. A reasonable fee for copying may be charged.

FOR FURTHER INFORMATION CONTACT: For general FACA Subcommittee questions and comments, contact Ms. Denise Gerth, U.S. EPA, MD–15, Research Triangle Park, NC 27711, telephone (919) 541–5550. For specific questions and comments on the NPP, contact Ms. Sharon Reinders, U.S. EPA, MD–15, Research Triangle Park, NC 27711, telephone (919) 541–5284.

SUPPLEMENTARY INFORMATION: The following communications and outreach mechanisms have been established:

Overview information—A World Wide Web (WWW) site has been developed for overview information on the NAAQS and the ozone, PM, and regional haze (RH) FACA process. The Uniform Resource Location (URL) for the home page of the web site is *http://www.epa.gov/oar/faca/*.

Detailed and technical information—Available on the O3/PM/RH Bulletin Board on the Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network (TTN), which is a collection of electronic bulletin board systems operated by OAQPS containing information about a wide variety of air pollution topics. The O3/PM/RH Bulletin Board contains separate areas for each of the FACA Subcommittee's five work groups and includes meeting materials, issue papers, as well as general areas with information about the process, participants, etc. The TTN can be accessed by any of the following three methods:

—By modem: the dial-in number is (919) 541–5742. Communications software should be set with the following parameters: 8 Data Bits, No Parity, 1 Stop Bit (8–N–1) 14,400 bps (or less).
—Full Duplex.
—ANSI or VT–100 Terminal Emulation.

The TTN is available on the WWW site at the following URL: *http://ttnwww.rtpnc.epa.gov/html/ozpmrh/facahome.htm*. The TTN can also be accessed on the Internet using File Transfer Protocol (FTP); the FTP address is ttnftp.rtpnc.epa.gov. The TTN Helpline is (919) 541–5384.

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Purpose and Objectives

This notice proposes an interim implementation policy associated with the potential revision of the ozone and PM NAAQS. The interim implementation policy is the guidance that EPA will use to continue to implement the ozone and PM–10 nonattainment programs. The ozone and PM NAAQS are proposed elsewhere in today's Federal Register. The EPA intends to propose a regional haze program in mid-1997. Although EPA is undertaking a notice and comment process regarding the interim implementation policy, the interim implementation policy would nevertheless be a policy to be implemented through subsequent rulemaking actions, e.g., findings or other actions regarding SIP submittals from the States. Thus, the interim implementation policy would represent EPA's preliminary views on these issues and, while it may include various statements that States must take certain actions, these statements are made pursuant to EPA's preliminary interpretations, and thus do not bind the States and public as a matter of law. Only after EPA has made its interpretations final through rulemaking will they be binding on the States and public as a matter of law. Such rulemaking will follow the requirements of the Administrative Procedure Act, 5 U.S.C. section 553(b) and (c), and in some cases may rely on the ''good cause'' exception in 5 U.S.C. section 553(b)(B).

In advance of these actions, the EPA published an advance notice of proposed rulemaking (ANPR) entitled, ''National Ambient Air Quality Standards for Ozone and Particulate Matter,'' on June 12, 1996 (61 FR 29719) which announced the EPA's plans to propose decisions on whether to retain or revise the ozone and PM NAAQS. That ANPR also described the FACA Subcommittee process established under the Clean Air Act Advisory Committee (CAAAC) to provide advice and recommendations to the EPA on developing new, integrated approaches for implementing potential revised NAAQS for ozone and PM, as well as a new regional haze reduction program. The Subcommittee is composed of representatives from State, local and tribal organizations, environmental groups, industry and trade groups (including small business representatives), consultants, academic/

scientific communities, and Federal agencies. The organization of the Subcommittee includes a Coordination Group and four work groups: (1) Base Programs Analyses and Policies Work Group, (2) National and Regional Strategies Work Group, (3) Science and Technical Support Work Group, and (4) Communications and Outreach Work Group. Through this process, EPA is engaging in communications with segments of society that may be affected by the implementation of NAAQS and the regional haze program.

Elsewhere in today's Federal Register, the EPA is also publishing an ANPR entitled, ''Implementation of New or Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations,'' which outlines policy and technical implementation issues and principles, and questions for issues associated with the potential revision of the ozone and PM NAAQS and the development of a regional haze program.

These notices are intended to invite stakeholders to participate in the implementation development process, to assure that their concerns will be addressed and their options assessed, and, ultimately, to increase the effectiveness of the NAAQS implementation strategies and regional haze reduction program that is established.

A. FACA Subcommittee Recommendations

The Subcommittee has provided advice and recommendations for consideration by CAAAC on implementation of specific programs covering the transition time period after new or revised NAAQS are promulgated. The EPA is taking the advice and recommendations that the Subcommittee recommended for consideration by the CAAAC into consideration in this proposal. Where the Subcommittee reached broad agreement in their recommendations, EPA is accepting the recommendations. In other situations where the Subcommittee may not have reached broad agreement, EPA is modifying the recommendations. Where no specific recommendations were made, EPA is following the general philosophy that is invoked by the other recommendations. The recommendations and advice of the FACA Subcommittee provide the foundation of today's proposal.

The EPA solicits comment on each element contained in this proposal and seeks additional suggestions on approaches to increase flexibility during the interim period to improve both air quality and pollution reduction strategies with a change in the NAAQS. Consistent with long-standing EPA policy, States have the ability to propose case-by-case modifications to their plans which could make equivalent or improved environmental progress. The EPA will review and rulemake on these through the normal SIP revision process. Consistent with this, EPA solicits comment on whether, and how, to allow flexibility to control programs during the timeframe of the IIP to allow additional substitutions and/or modifications to existing control programs. Additionally, EPA seeks comment on the relevant criteria, such as air quality impact, emission reductions, risk and population exposure, cost-effectiveness, and transport impacts, it should employ during the evaluation of such SIP revisions. The reader is directed to the interim policy portion of this notice for further details.

Recognizing the merit of market-based solutions to pollution control, in 1994, EPA issued the economic incentive program (EIP) rule, which provides rules and guidance for establishing economic incentive programs. The EIP remains available to be used in coordination with this policy as part of the States' plans to reduce pollution and achieve the new NAAQS.

B. Basis for the Interim Implementation Policy

The EPA interprets the relevant portions of the Clean Air Act (Act) to provide that the general planning requirements of part A of title I and the basic nonattainment planning requirements of subpart 1 of part D of title I govern the implementation of a new or revised NAAQS. The detailed provisions of subparts 2 and 4 of part D that currently apply to ozone and PM–10 (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) nonattainment planning would not apply directly to the implementation of a new ozone NAAQS or a new fine particle NAAQS, but would continue to apply during the interim period after promulgation of a new or revised NAAQS to the extent they are retained under a no-backsliding principle and to the extent they are needed to comply with the general obligations of subpart 1. The provisions of subpart 4, however, would apply to the implementation of a new or revised PM–10 NAAQS. Furthermore, with regard to a no-backsliding principle, section 110(l) provides that EPA may not approve revisions to SIP's that interfere with requirements to attain or make reasonable further progress (RFP) or with any other applicable requirements of the Act.

The basis for the view that the specific requirements of subparts 2 and 4 do not apply directly in the case of the implementation of a new or revised ozone NAAQS, or in the implementation of a fine particle NAAQS, lies in the language and structure of those subparts, which are clearly and explicitly tied to the 1-hour ozone NAAQS in existence at the time of the enactment of the 1990 Amendments to the Act in the case of subpart 2, and to a PM–10 NAAQS in the case of subpart 4. The provisions of subpart 1, however, apply to the implementation of any NAAQS, including revisions to NAAQS in effect at the time of the 1990 Amendments. For example, the current ozone classification scheme of subpart 2, which forms the basis for the control requirements and attainment dates for nonattainment areas, is explicitly linked with the 1-hour NAAQS while section 172(a)(1) explicitly authorizes that EPA may establish a new classification system with respect to a revision of a NAAQS. Subpart 4 expressly applies only to PM–10. Thus, as subparts 2 and 4 are limited in direct applicability to the 1-hour ozone NAAQS and PM–10 NAAQS respectively, only subpart 1 directly applies to implementation of new or revised ozone NAAQS or a fine particle NAAQS in nonattainment areas. Because the provisions of subpart 4 are not linked to a specific PM–10 NAAQS (in contrast to subpart 2's linkage to one specific ozone NAAQS), the provisions of subpart 4 would apply to the implementation of a revised PM–10 NAAQS.

Of critical importance, however, is that subpart 1, in addition to the general obligations of section 172(c), includes a no-backsliding principle operative in the event of revisions to a NAAQS. Section 172(e) of the Act clearly provides that a no-backsliding principle should apply upon a relaxation of an existing NAAQS. It provides that EPA is to conduct a rulemaking within 12 months of the promulgation of a relaxed NAAQS to promulgate requirements applicable to areas not attaining the existing standard that will provide for controls which are not less stringent than the controls applicable to areas designated nonattainment before such relaxation.

The EPA believes that a no-backsliding principle is even more important and by implication was intended by the Act to be a governing principle when an existing NAAQS is strengthened, as is the case with ozone. However, the Act does not expressly

address how to implement the no-backsliding principle before the new NAAQS is implemented through the SIP program. Therefore, in order to provide greater assurance that the currently existing and required control measures will continue to be implemented until the implementation program for the new ozone NAAQS actually begins, which will probably not occur for several years, EPA is proposing (in the NAAQS proposal published elsewhere in today's Federal Register) that the effective date of the revocation of the existing ozone NAAQS (the 1-hour standard) be deferred until EPA determines that an area has a SIP that provides for the achievement of the new NAAQS. This deferral of the effective date would be on a case-by-case basis, e.g., once an attainment demonstration for the new ozone NAAQS is approved for a particular nonattainment area or EPA determines that a SIP for an attainment area meets the requirements of section 110(a)(1), the existing 1-hour ozone standard NAAQS would no longer be in effect as to that area. This will provide greater assurance that the air quality benefits of the existing ozone NAAQS implementation program, which EPA believes are necessary to attain and maintain the potential new or revised ozone NAAQS, will be retained, than would reliance solely on a no-backsliding principle implemented administratively through the general provisions of subpart 1 of part D of the Act.

The purposes for which EPA is not deferring the effective date of the revocation of the existing ozone NAAQS are those for which EPA believes it is not necessary or desirable to retain the existing NAAQS as part of a transition from the old to the new ozone NAAQS. These exceptions are twofold: (1) The requirement to demonstrate attainment of the existing NAAQS by the attainment dates set forth in subpart 2 of part D, and (2) the provisions regarding the reclassification of areas upon a failure to attain the current ozone standard by the applicable attainment dates in subpart 2. The EPA believes it is appropriate to exempt the first requirement from the general deferral of the effective date of the revocation of the existing NAAQS since its focus is on demonstrating attainment of the existing NAAQS as of a certain date—which will be superseded by a new requirement to attain the new NAAQS by new dates. The EPA believes it is appropriate for areas to shift their efforts to develop attainment demonstrations from the existing NAAQS to the new NAAQS. With respect to the second requirement, EPA believes that while areas should have to continue with the implementation of the control measure programs required as of the date a new NAAQS is promulgated, they need not have to comply with the additional specified control measures that they would have been subject to had they been reclassified in accordance with the provisions of subpart 2. As described below, EPA is relying on an independent basis for requiring these areas to achieve the same rate of progress in terms of emission reductions that they would have had to achieve after a reclassification under subpart 2. For the reasons described therein, EPA believes these areas should have greater flexibility in adopting and implementing new control measures to achieve the same progress than if they were simply subject to the reclassification provisions of subpart 2.

Also, based in part on the Subcommittee's deliberations and recommendations, the EPA believes that rather than expending significant effort during this interim period to evaluate whether to retain or eliminate the various existing and required control measures in light of the potential new or revised NAAQS, States and stakeholders should focus their planning efforts on moving forward to attain the new NAAQS rather than reevaluating prior planning decisions.

C. Interim Policy

1. Effective Dates

The interim policy that EPA is proposing in this notice is intended to take effect on the date of the NAAQS promulgation and remain as to each area until the effective date of EPA approval of the SIP revision for achievement of the new NAAQS. The EPA believes that approval rather than submission of a SIP is appropriate because submission of a new SIP alone provides neither sufficient assurance to allow the requirements in the currently EPA-approved SIP to be changed nor a sufficient legal basis for revising, amending or deleting requirements in a SIP that had been previously approved by EPA. The EPA notes that SIP's are approved through rulemaking action by EPA and thereby become Federal rules that are incorporated in the CFR. In order to revise such Federal rules, through a revision to a SIP, further EPA rulemaking action must be taken. Thus, EPA is proposing that the effective dates for the interim policy are from the date of NAAQS promulgation to the effective date of EPA approval of the new SIP for each area to achieve the new NAAQS. The length of time this policy remains in effect could be several years and depends on the time necessary for States to develop new SIP's and be approved by EPA.

This interim policy is not intended to apply to new attainment demonstrations and SIP submissions made to implement a new NAAQS which occurs after areas have undergone designations under section 107(d)(1) with respect to a new NAAQS. Further policy, guidance, and/or rules will be developed following further deliberations of the FACA that will apply to such submissions.

2. Designations, Redesignations and Classifications

In section 107(d)(1)(B)(iv), the Act provides that existing ozone and PM–10 designations remain in effect until areas are redesignated pursuant to section 107(d)(3). By analogy, EPA believes it is reasonable for such designations to remain in effect after promulgation of new NAAQS until new designations are undertaken after promulgation of the new NAAQS. In addition, in the case where the current ozone NAAQS would remain in effect, the designations would remain in effect so long as the current 1-hour ozone NAAQS remains in effect. No similar provision exists for classifications, however. Nevertheless, as classifications are linked with the control requirements applicable to the nonattainment areas, they should continue to have force inasmuch as they determine the control requirements applicable for purposes of applying the no-backsliding principle. In particular for ozone, because the existing NAAQS would remain in effect, the classifications remain in effect as well. Since classifications continue, control measures required for a specific classification in policy or guidance continue to apply.

a. Ozone

The EPA is proposing that ozone nonattainment areas with clean air quality data at the time of promulgation of the new or revised ozone NAAQS may be redesignated to attainment provided they satisfy the criteria of section 107(d)(3)(E) including having a fully-approved SIP, meeting all applicable requirements and an approved maintenance plan. Any redesignation action taken on areas currently designated attainment or nonattainment does not preclude EPA from taking future action with respect to these areas in the new round of designations that will address the new or revised NAAQS.

The following two scenarios would apply to existing ozone nonattainment

areas that wish to redesignate to attainment:

(1) Requests Submitted and EPA Approved Prior to Promulgation

Complete redesignation requests and maintenance plans for ozone nonattainment areas submitted prior to the promulgation date of the new or revised ozone NAAQS will be allowed to redesignate to attainment prior to promulgation of the new or revised ozone NAAQS upon approval of the maintenance plan provided that all available air quality data show attainment of the current 1-hour NAAQS. Therefore, any requests submitted prior to promulgation of the new NAAQS, which are not finally approved by EPA, will be processed according to scenario 2 below.

(2) Requests Submitted and EPA Approved on or After Promulgation

Ozone redesignation requests and maintenance plans submitted on or after promulgation of the new or revised NAAQS will be evaluated in accordance with section 107(d)(3)(E). In this case, maintenance plans must demonstrate attainment and maintenance of the 1-hour NAAQS and the new or revised NAAQS.

The EPA also recommends that previously redesignated ozone nonattainment areas review their maintenance plans to determine if their contingency provisions need to be modified to reflect the promulgation of a new or revised NAAQS.

b. PM–10

The EPA is proposing that PM–10 nonattainment areas with clean air quality data at the time of promulgation of the new and/or revised PM standards be allowed to redesignate to attainment if they satisfy the criteria of section 107(d)(3)(E) including having a fully-approved SIP, meeting all applicable requirements, and a maintenance plan. Thus, in the event that the 24-hour PM–10 standard is revised, existing nonattainment areas could redesignate to attainment if they otherwise satisfy the criteria of section 107(d)(3)(E) and submit a maintenance plan which demonstrates attainment with a SIP-approved design value which is equivalent to or below the revised PM–10 24-hour standard. If the area has already submitted a redesignation request, it need not withdraw and revise it unless the existing redesignation request and maintenance plan do not demonstrate that the SIP-approved design value will be below the revised PM–10 24-hour standard. In such a case, they should resubmit a revised redesignation request and maintenance plan that shows attainment and maintenance of the revised PM–10 standard.

In the event the PM–10 24-hour standard is eliminated, current nonattainment areas with clean air quality data at the time of promulgation would still be eligible to redesignate to attainment pending a submittal of a fully-approvable SIP demonstrating attainment of the PM–10 annual standard and the submittal of the maintenance plan under section 175A as required in section 107(d)(3)(E).

A nonattainment classification for PM–10 remains in effect until States can assess the impact of a revised PM–10 standard. In the case of PM–10, reclassification to serious is based on the inability of the area to practicably attain the 24-hour and/or annual PM–10 NAAQS within the timeframes prescribed by the Act. Consistent with the no-backsliding principle, those areas which failed to attain the PM–10 NAAQS in 1994 should have been reclassified as serious PM–10 areas. Since the deadline by which to reclassify to serious was before the June 1997 NAAQS promulgation, the requirements for serious areas would still apply. Areas with attainment dates occurring during the interim period will not be reclassified during the interim period.

3. Program Requirements

a. Progress Requirements for Serious and Above Ozone Areas

The EPA believes that the current ROP requirements should continue until EPA has approved the new SIP for the new NAAQS. Section 182(c)(2)(B) provides specifically that ozone nonattainment areas classified as serious and higher under the current NAAQS must submit a SIP (post-1996 ROP plan) which provides for actual VOC or NO_X emissions reductions of at least 3 percent per year averaged over each consecutive 3-year period beginning November 15, 1996 until the area's attainment date. The due date for this SIP was November 15, 1994 under the Act, but was extended to the end of 1995 in the ''Ozone Attainment Demonstrations,'' memorandum from Mary D. Nichols to Regional Administrators, March 2, 1995 (March 2, 1995 policy statement).

For ten States and the District of Columbia, EPA, by rulemaking published July 10, 1996 (61 FR 36292), made findings of failure to submit for (1) the first 9 percent of the post-1996 ROP plan and (2) for those States with severe ozone nonattainment areas, the commitment to adopt the additional post-1999 ROP control measures. This is discussed more fully below under July 1996 Findings Issued by EPA.

For ozone nonattainment areas classified as severe and higher, EPA believes that the post-1996 ROP plan should still include emissions reductions after 1999 in the event the new SIP's to attain the new NAAQS are delayed. Therefore, EPA is proposing to continue the requirement for an average of 3 percent per year ROP post-1999 until SIP's to attain the new NAAQS are approved by EPA. Although this represents a modification of the current requirement to provide for 3 percent-per-year ROP until the applicable attainment dates, EPA believes this is reasonable in light of a new NAAQS and the shift to planning for attainment of that NAAQS.

As mentioned above, the commitment to adopt the additional post-1999 ROP rules for the severe areas was due at the end of 1995, and EPA has made findings appropriately. However, the rules for the completion of the post-1999 ROP should be identified with the second SIP submittal, as described in the March 2, 1995 policy statement. That submittal is described below under Attainment Demonstration.

The March 2, 1995 policy statement indicates that States may phase-in adoption of the rules to provide for implementation of measures for post-1999 ROP beginning in the period immediately following 1999. Thus, these rules should be submitted to EPA no later than the end of 1999. The EPA believes these requirements will facilitate reasonable progress in the interim period.

Areas with ROP plans approved by EPA, such as certain areas in California, should continue to implement the ROP requirements of their SIP's.

For international border areas, EPA may continue to approve a SIP that establishes that the implementation of the plan would be adequate to attain and maintain the relevant NAAQS but for emissions emanating from outside the United States. Under these circumstances, States would be allowed to defer the adoption of a post-1996 ROP plan.

b. Attainment Demonstrations

(1) Ozone

Serious and Higher Classified Areas

Ozone attainment demonstration SIP's for serious and higher classified areas were due November 15, 1994. The EPA recognized that many of these serious and above ozone nonattainment areas were unable to complete SIP

requirements within schedules prescribed in the Act due to circumstances beyond their control. Of special concern was the influence of regional transport of ozone and its precursors on urban areas' ability to demonstrate attainment.

Through the March 2, 1995 policy statement, EPA provided States with a two-phased SIP submittal process which would allow additional time for States to perform an assessment of regional transport and its impact on urban areas. Areas that have adopted certain specified control measures and made appropriate commitments to interstate activities to study and address ozone transport are currently allowed until mid-1997 to submit full demonstration-of-attainment SIP's which take into account regional measures in nonattainment and attainment areas recommended by the interstate study to assess ozone transport.

The EPA believes that after promulgation of a new or revised ozone NAAQS, States should no longer be required to provide full demonstration-of-attainment SIP's for the 1-hour NAAQS; however, States are obliged to continue attainment planning toward the new NAAQS. The EPA believes that the full development of SIP's to attain the current 1-hour NAAQS is not a critical component of the transition from the current NAAQS to the new NAAQS, and that it would be advantageous for States to continue to achieve the required ROP while shifting their planning efforts toward satisfying the requirement to demonstrate attainment of the new ozone NAAQS.

Accordingly, the EPA proposes the following program elements related to attainment demonstrations: (1) That regional control measures identified (as discussed below) to reduce regional transport and support urban attainment planning and demonstrations be adopted and implemented in accordance with current programs; (2) that States submit the urban modeling analysis to establish the NO_X and VOC percent reductions but not the specific measures necessary to attain the 1-hour NAAQS by the attainment dates set forth in subpart 2; and (3) that within 90 days of promulgation of a revised NAAQS, States submit to EPA an early assessment of attaining the revised NAAQS by estimating the NO_X and VOC percent reductions needed to attain the revised NAAQS by those dates. This is discussed further below under Methods. States would not at this time be required to adopt and submit to EPA specific control measures to attain the new or revised ozone NAAQS. The first two elements described above, currently under way, will be useful to lay the groundwork for assembling attainment demonstrations for the new NAAQS. In the future, the EPA will prescribe new requirements for modeling demonstrations and SIP's to address the new or revised NAAQS.

Methods

The EPA believes that 90 days is a reasonable period of time for the early assessment. The early assessment should utilize information that is or will be generated through the current requirement for States' SIP attainment demonstration analyses. No new modeling runs are required for the early assessment beyond what is currently required for attainment demonstrations. Using the modeling results from the early assessment, States are expected to review the results to determine the effectiveness of the NO_X and VOC measures identified towards attaining the revised NAAQS. From this review, States are expected to estimate the levels of emission reductions needed to attain the revised NAAQS.

It is expected that the early assessment will require processing of existing modeling results. Two methods are being proposed. The first method results in a set of NO_X and VOC reductions needed to attain the revised NAAQS. For this method, it is assumed that States have performed a series of NO_X and VOC reduction runs and are able to generate an ozone response curve. The modeling required to produce the percent reductions to attain the 1-hour standard may be used to calculate predicted values (at each grid cell) for the revised standard. These values may then be used to quantitatively estimate the VOC and NO_X percent reductions necessary to attain the revised standard. This is typically done through the use of ozone response curves which show predicted changes in ozone as a result of changes in VOC and NO_X emissions in the inventory.

The second method results in an analysis of the effectiveness of a specific NO_X/VOC strategy toward attaining the revised NAAQS. Some areas may elect to model a specific strategy rather than a matrix of NO_X and VOC reductions to demonstrate attainment of the current NAAQS. For example, a State may elect to demonstrate attainment by modeling the impact of the regional control measures along with a local strategy (i.e., 9 percent ROP). In this case, the series of NO_X and VOC reduction runs are not needed to demonstrate attainment of the current NAAQS. For the second method, modeling results from the final attainment strategy run may be used to calculate the predicted values (at each grid cell) for the revised standard. These values may be used to produce the number of grid-cell-hours above the standard, display the spacial extent of daily maximum values above the revised standard, and determine the peak value predicted. This information may then be used to estimate the NO_X and VOC reductions needed to attain the revised NAAQS.

The early assessment will give States/local agencies and EPA an appreciation for the magnitude of possible additional controls needed to attain the revised standard. State/local agencies and EPA could use this information to begin preparations for development of a revised SIP to attain the new NAAQS.

It is EPA's intention that States that fail to submit the 90-day preliminary estimate be subject to a finding for failure to submit a required SIP element, which could subject the State to sanctions.

The EPA believes that regional control measures being identified in the current program to reduce regional transport and support attainment planning are critical to attainment of the current NAAQS and the new or revised NAAQS. These regional control measures are intended to reduce levels of ozone and its precursors over a larger geographic area rather than a single nonattainment area. Thus, these measures are applicable in rural areas or attainment areas and could also include measures needed in urban and nonattainment areas. The EPA reaffirms the importance of regional measures during the interim period. The EPA expects that these measures will promote progress toward attainment of the new NAAQS and, therefore, should be implemented. The EPA intends to work with all affected States to ensure that the required reductions are achieved. The EPA will address this issue more specifically in future guidance or rulemaking.

(2) PM–10

All moderate and serious area PM–10 attainment demonstration SIPs should have been submitted prior to the June 1997 promulgation of the revised PM–10 NAAQS. While the majority of the nonattainment areas have satisfied this requirement, there are still quite a few areas that have not. Consistent with the no-backsliding principle, EPA believes that areas that failed to submit an attainment demonstration during the 1991–1997 timeframe should still be required to satisfy relevant PM–10 requirements. Thus, specifically for PM–10, EPA is requiring the attainment demonstration, *not* for the purpose of

meeting the attainment demonstration requirement per se, but instead only for purposes of defining the appropriate level of RACM or BACM so that EPA can prevent RACM or BACM backsliding.

c. July 1996 Findings Issues by EPA—Ozone

By notice published July 10, 1996 (61 FR 36292), EPA issued three findings (the ''July 10, 1996 Findings'') for nine nonattainment areas in ten States and the District of Columbia (note that serious areas only received the first and third findings). These were for failure to submit: (1) A SIP provision for fully adopted rules requiring emissions reductions of 9 percent in ozone precursors from the end of 1996 to 1999, (2) a SIP commitment to adopt any additional rules needed to complete the requirements for ROP reductions after 1999 and until the attainment date, and (3) a SIP commitment to adopt additional measures needed for attainment of the 1-hour NAAQS.

The EPA interprets the July 10, 1996 findings as based not only on the requirements of section 182(c)(2) (A)–(B), which apply specifically to ozone nonattainment areas classified under the current NAAQS, but also on the requirements of section 172(c) (1)–(2), which apply generally to nonattainment areas. Specifically, the ''reasonable further progress'' requirement in section 172(c)(2) continues to be relevant.

Furthermore, EPA proposes to interpret the section 172(c)(2) ''reasonable further progress'' requirement as mandating VOC or NO_X reductions of 3 percent per year, averaged over a 3-year period, for ozone nonattainment areas classified under the current NAAQS that retain their nonattainment designation post-1996. The EPA believes that the requirement for 3 percent-per-year ROP found in section 182(c)(2)(B) indicates that the Act would have intended that this amount of progress continue in ozone nonattainment areas with this degree of air quality problem. Thus, the continuation of the ROP requirement is grounded in both the retention of the 1-hour ozone NAAQS (with the consequent effectiveness of section 182(c)(2)(B)) until SIP's implementing the new NAAQS are approved and the requirements of section 172(c) (1) and (2), under which EPA would apply the ROP requirements for anti-backsliding purposes.

Because the requirements of both section 182(c)(2)(B) related to the first 9 percent of the post-1999 ROP plan, and the comparable requirement of section 172(c)(2) continue to apply following promulgation of a revised NAAQS, the first finding and associated sanctions and Federal implementation plan (FIP) clocks continue to apply. This finding concerns the first 9 percent of the post-1996 ROP plan.

The EPA proposes to modify the second finding which requires severe areas to submit a SIP commitment to adopt additional 3 percent average annual reductions from the end of 1999 through the attainment date. The EPA proposes to modify this finding to cover the obligation of the affected States to commit to submit the reductions which are required only from the end of 1999 until EPA approves the attainment SIP's addressing the revised NAAQS.

The EPA proposes to retract the third finding which is for a SIP commitment to adopt additional measures needed to attain the 1-hour NAAQS. As described above, EPA proposes to take the position that the requirement to demonstrate attainment of the 1-hour NAAQS no longer applies in light of the need for States to focus on planning to attain the new ozone NAAQS. The EPA proposes to replace the third finding with a finding to require that States submit the 90-day preliminary estimate described above. This estimate assists the State in developing both ROP plans and attainment plans under the revised NAAQS.

Depending on its review of any comments to this interim implementation policy including any comments from the CAAAC, EPA intends to promulgate the above-described revisions to the July 10, 1996 findings and new findings in subsequent rulemakings. Because the July 10, 1996 findings were made through rulemaking, modifications would similarly need to be made through rulemaking.

Previously-issued findings pertaining to other required elements in the ozone program are carried forward during the interim period.

d. New Requirements for Marginal and Moderate Areas—Ozone

The Act requires moderate ozone nonattainment areas to attain the 1-hour NAAQS by November 15, 1996. The EPA is proposing that States with moderate and any remaining marginal nonattainment areas that do *not* attain the 1-hour NAAQS by November 15, 1996, submit to EPA, within 18 months after promulgation of a new ozone NAAQS: (1) a plan to achieve an emission reduction of 9 percent (3 percent-per-year average ROP through 1999), or alternatively, an attainment demonstration for the new NAAQS; as well as (2) the new source review (NSR) requirements as discussed below under New Source Review. Further, the EPA is proposing that all existing control measures that are in place, including those measures needed for the current moderate classified nonattainment areas to achieve 15 percent VOC ROP emission reductions through 1996, remain in place. The EPA believes that these requirements apply under section 172(c), paragraphs (1) (attainment demonstrations), (2) (reasonable further progress), and (5) (NSR). The applicability of paragraphs (1) and (2) of section 172(c) were discussed above. The EPA proposes to interpret paragraph (5), concerning NSR, as applicable for the same reasons.

The EPA believes that 18 months is a reasonable period of time for the States to make the required submission because much of the work required of the States should already have been completed under the requirements of the provisions of section 182(b)–(c) applicable to marginal and moderate nonattainment areas under the current NAAQS. Moreover, this period is generally consistent with the amount of time EPA allowed for submittal of new requirements when marginal areas were bumped up to moderate areas under the current NAAQS (59 FR 38410 (July 28, 1994), 59 FR 50848 (October 6, 1994) proposed and final bump-up of the Poughkeepsie, NY, marginal nonattainment area to moderate).

The EPA will conduct an early pre-designation determination within 90 days of promulgation of a new or revised ozone NAAQS using air quality data to evaluate if these marginal and moderate nonattainment areas are attaining the new NAAQS. The pre-designation determination will not affect the new round of designations and classifications that will occur after promulgation of new ozone NAAQS.

Two exceptions are discussed below:

(1) For areas not attaining the 1-hour NAAQS that are attaining the new NAAQS, EPA is proposing to defer implementation of the 9 percent ROP plans or the attainment demonstrations for the new NAAQS and the NSR requirements of the higher classification described above. However, the 9 percent ROP plan or attainment demonstration must still be adopted, submitted, and approved by EPA. The deferment continues as long as the area is showing attainment with the new NAAQS and until the SIP for the new NAAQS is approved. This is because the deferral is based on an early pre-designation determination and the SIP for the new NAAQS may require an ROP plan.

(2) An exception may also be granted for areas meeting the requirements for

an extension under the provisions of section 181(a)(5) of the Act. Under that section, the Administrator may grant an extension of the attainment date to areas that are not showing attainment if the area has: (1) met the requirements of the applicable implementation plan, and (2) has not recorded more than one exceedance of the ozone NAAQS in the year preceding the extension year. The EPA is proposing that areas failing to attain the ozone NAAQS by November 15, 1996 may be granted a 1-year extension.

e. Planning and Control Requirements—PM–10

As part of the no-backsliding principle, the EPA believes that if the PM–10 24-hour NAAQS is revised that, the PM–10 requirements and control programs required prior to the June 1997 promulgation date remain in place. Under the current program, 70 areas were initially designated as moderate nonattainment areas for PM–10. These areas were required to submit SIP's in November 1991 that included RACM/RACT and demonstrated attainment by December 31, 1994. Consistent with the no-backsliding principle, these areas must retain those PM–10 measures that have been adopted and/or implemented to address the annual and current 24-hour standard until the State demonstrates attainment of the PM–10 annual and revised 24-hour NAAQS. Also, PM–10 measures cannot be dropped without a demonstration that they are not needed to attain the fine particle NAAQS.

In the spring of 1995, EPA analyzed the air quality data and determined which areas were attaining the PM–10 standard as of December 31, 1994. At that time EPA determined:

- Out of the 43 areas with approved SIP's in place, 22 of the moderate areas had 3 years of clean air quality data making them eligible to redesignate to attainment pursuant to section 107(d)(3)(E).
- Thirteen of the 43 areas with approved SIP's in place qualified for a 1-year extension. These areas should be able to demonstrate attainment of the current PM–10 standard with 3 years of clean data prior to the June 1997 promulgation and should proceed with redesignation requests pursuant to section 107(d)(3)(E).
- Eight of the 43 areas with approved SIP's in place had clean, but incomplete, air quality data. Additional data needed to be collected before EPA could determine whether the areas were attaining the standard. These areas are still required to correct any deficiencies present in their moderate area SIP's before the SIP's can be deemed fully approvable and before a request for redesignation to attainment may be approved. The areas should also satisfy all remaining requirements for redesignation to attainment pursuant to section 107(d)(3)(E) prior to the promulgation of the revised NAAQS.
- Five of the initial moderate areas failed to attain by the December 31, 1994 attainment date and did not qualify for attainment extensions. Pursuant to section 188 of the Act, these areas should have been reclassified to serious nonattainment areas for PM–10. The serious area requirements for these areas included the development and submission of a best available control measures/best available control technology (BACM/BACT) and attainment demonstration SIP's showing attainment by December 31, 2001, as well as more stringent NSR requirements. Consistent with the no-backsliding principle, those areas that failed to attain the NAAQS by the December 31, 1994 attainment date and which also did not qualify for attainment date extensions should be reclassified as serious and should proceed with their serious area planning requirements during the interim period.
- Five of the initial 70 moderate areas were reclassified to serious nonattainment areas effective February 8, 1993. These areas were required to develop and submit BACM SIP's by August 8, 1994 and are required to submit attainment demonstrations by February 8, 1997 showing attainment of the PM–10 NAAQS by December 31, 2001. These areas should continue implementing those measures adopted in their BACM SIP's.

For those areas designated moderate nonattainment after the initial designations, SIP submittals which included RACM/RACT and demonstrated attainment by December 31, 2000 were required in 1995. These areas should continue implementing the measures adopted in their SIP's. Those areas which fail to attain the PM–10 NAAQS during the interim period will not be reclassified to serious.

In the event the PM–10 24-hour NAAQS is eliminated, EPA is proposing that PM–10 measures that do not affect fine particle concentrations may be candidates for elimination upon demonstration that removing the measure will not cause the PM–10 annual NAAQS to be violated. The PM–10 measures that affect fine particle concentrations must remain in place until the area can demonstrate that elimination of those measures will not affect the ability to attain and maintain the fine particle NAAQS. The EPA is also proposing that those nonattainment areas that do not have a fully-approved SIP in place should submit a plan which demonstrates attainment and maintenance of the annual PM–10 standard. No additional PM–10 measures will be required other than those required under the no-backsliding principle during the interim period. The EPA is also proposing that the requirement for retaining or requiring additional PM–10 control measures could be reconsidered if measures resulting in regional reductions are adopted during the interim period. However, EPA would have to approve the regional strategy and the State(s) or entity submitting the strategy must be able to quantitatively demonstrate with available tools that the regional reductions would be beneficial to reducing PM–10 (including coarse fractions if applicable), as well as fine particle concentrations.

f. Substitution of Credits for Emission Reductions

(1) Outside Nonattainment Areas—Ozone

The Subcommittee provided a specific recommendation that a nonattainment area should be allowed to take credit for emissions reductions from sources outside the nonattainment area for the post-1996 and post-1999 3 percent per year ROP requirement so long as the sources are no farther than 100 km (for VOC sources) or 200 km (for NO_X sources) away from the nonattainment area. The EPA believes that this additional flexibility for States in their ROP SIP's is consistent with the Act, since reductions from outside a nonattainment area within these limits contribute to progress toward attainment within the area. The 3 percent per year ROP requirement is a general rate of progress requirement, not a requirement for specific programs or measures such as vehicle inspection and maintenance. Allowing this flexibility would continue to provide the same rate of progress in terms of reducing emissions.

Therefore, EPA is proposing for the interim period that a nonattainment area should be able to take credit for post-1996 and post-1999 ROP emission reductions from sources outside the nonattainment area within the geographic distances from the nonattainment area mentioned above. For States with areas having approved NO_X waivers, EPA is proposing that substitutions of NO_X reductions outside of the nonattainment area for VOC reductions within the attainment area would be allowed if accompanied by a

technical justification at the time of submittal for replacing NO_X reductions with VOC reductions. Substitutions of NO_X for VOC within nonattainment areas with approved waivers will not be allowed.

The EPA is proposing, however, that the locality-based credit for substitutions be restricted to the post-1996 and post-1999 3 percent-per-year requirement. Thus, credit for substitutions to complete or revise the 15 percent ROP requirement for VOC emission reductions in nonattainment areas through 1996 would not be allowed. Further, States would not be able to substitute for specific control measures such as inspection/maintenance (I/M) or reasonably achievable control technology (RACT) that are required in an area by the Act. In these cases, the measures are either: (1) Specific, required measures for which EPA does not believe it appropriate to allow substitution since that could jeopardize the amount of reductions from such mandated programs; or (2) measures that are or should have been in place prior to promulgation of new ozone NAAQS. Further, States would not be able to credit toward the 3 percent-per-year requirement reductions from outside the nonattainment area attributable to other programs prescribed by the Act when implemented outside nonattainment areas. An example is credit for maximum achievable control technology standards controlling hazardous air pollutants or the title IV of the Act NO_X requirements. (These are merely two illustrative examples of such programs, not an inclusive list of all such programs.) Further, the EPA is proposing that all existing control measures that are in place remain in place. The EPA believes that substitutions should be restricted to intrastate areas unless two or more States involved reach agreement. Similarly, application of credits from substitutions should be limited to only one nonattainment area unless two or more States involved reach agreement on dividing the credit between them such that the same emission reductions are not credited toward the progress requirements for more than one area. Interstate substitutions, like intrastate substitutions, must be enforceable by the States in which the affected sources are located.

Credit toward the 3 percent-per-year requirement for regional measures described above to reduce transport and support attainment planning would be allowed if implemented in nonattainment areas. Such credit would also be allowed if implemented outside the nonattainment area but within the 100 and 200 km geographic limits to the extent the reductions generating the credits are not otherwise due to a prescribed requirement of the Act.

Emissions from the source or sources being substituted must be included in the baseline ROP emissions. The other emissions from source(s) outside the nonattainment area not involved in the substitution would not have to be inventoried nor included in the SIP or the baseline ROP emissions for purposes of the substitution. The EPA is proposing that this provision is only in effect during the interim transition period, and that the final implementation strategy will address the principles applicable to substitutions in attainment demonstrations for implementation of a new NAAQS.

(2) PM–10

The Notice of Proposed Rulemaking for the PM NAAQS lays out a rationale for why PM–10 and fine particles should be treated as two separate pollutants. In addition, the PM–10 standard (which will primarily address coarse particle control) targets localized nonattainment problems while the fine particle standard will address the fine particle fraction including secondarily-formed particles and will focus on the regional aspects and transport of fine particles. Given the physical and chemical differences in PM–10 and fine particles and the uncertainties about the localized and regional aspects of PM–10 and fine particles at this time, EPA is proposing that substitutions for PM in and outside of the nonattainment area should not be allowed during the interim period.

g. Ozone Transport Region (OTR), Ozone Transport Commission (OTC), and the Photochemical Assessment Monitoring System (PAMS)

The OTR and the OTC and related regional control measures, as defined in the Act, continue after promulgation of a new or revised ozone NAAQS. The OTC is currently in the process of evaluating the specific control requirements applicable to the OTR and expects to develop and submit to EPA for consideration an interim implementation program regarding those requirements. In the event such a submission is made to EPA, EPA will evaluate the recommendations and consider whether to modify the portion of this proposed interim implementation policy that addresses the OTR regional control measures.

The PAMS is also carried forward upon promulgation of new or revised ozone NAAQS.

h. Conformity

In general, existing part D SIP's will remain in force, and as a result, motor vehicle emissions budgets and relevant requirements in existing part D SIP's will continue to apply for transportation and general conformity purposes until they are superseded by new or revised part D SIP's.

Conformity determinations will not be required to address the new NAAQS until SIP's addressing the new NAAQS are approved by EPA. Conformity will not apply for fine particles or the new 8-hour ozone NAAQS until SIP's are approved by EPA. The EPA believes this is appropriate because section 176(c) of the Act requires conformity to an implementation plan that has been approved or promulgated under section 110 and refers to conformity to an implementation plan's purpose of reducing violations and attaining the NAAQS; without a SIP addressing the NAAQS there is nothing to which to conform. Although the 1990 Amendments outlined interim conformity tests that EPA required before SIP's were submitted, these Act provisions clearly did not envision the case of new NAAQS, and the emission reduction requirements only applied to ozone and carbon monoxide areas designated under the then existing NAAQS. The test applied to these areas was to contribute to annual emission reductions consistent with the requirements of sections 182 and 187; provisions which do not apply to areas in nonattainment for fine particles or the new 8-hour ozone NAAQS. In addition, as a policy matter, it is not reasonable to establish demonstration of reduction in fine particle emission reductions as a criterion for determining conformity before the SIP process has identified an emissions inventory that could serve as a baseline.

Areas that have not submitted ROP plans or attainment demonstrations for the old standard would be required to conform to the 15 percent plan until a ROP plan or new attainment demonstration is submitted. Some areas that are nonattainment under the existing NAAQS but are attaining the new NAAQS will be permitted to defer implementation of the ROP plan as described above. In such cases, conformity to the ROP plan would not be required, and these areas would demonstrate conformity to the 15 percent plan. Areas that were not required to submit a part D SIP or a 15 percent ROP plan by virtue of their

classification (previous marginal areas) and have not been demonstrating conformity to motor vehicle emissions budgets would be required to continue demonstrating conformity using the emission reduction tests until SIP's with motor vehicle emissions budgets are submitted. Areas that have approved redesignation maintenance plans should continue demonstrating conformity using the motor vehicle emissions budgets and relevant requirements for general conformity in the maintenance plans.

States are free to establish, through the SIP process, a motor vehicle emissions budget that addresses the new or revised NAAQS in advance of a complete SIP attainment demonstration. That is, a State could submit a motor vehicle emissions budget that does not demonstrate attainment but is consistent with projections and commitments to control measures and achieves some progress toward attainment. Such a budget would apply for conformity purposes in addition to existing budgets addressing the old NAAQS (i.e., a SIP that does not demonstrate attainment of the new NAAQS would not supersede existing part D SIP's).

Conformity requirements that are based on the classification system for the former NAAQS, such as the modeling procedures and the requirements for contents of transportation plans, continue to apply after the new or revised NAAQS are promulgated until new SIP's are approved.

i. New Source Review

In accordance with the current NSR requirements, proposed new and modified stationary sources of air pollution must undergo a pollutant-specific preconstruction review and obtain authority to construct prior to beginning their construction activities. A primary purpose of the NSR requirements is the protection of the NAAQS, including those for ozone and PM. The applicable NSR requirements generally are based on the attainment status of the area where the proposed source will locate for each pollutant for which NAAQS exist and which the source will emit.

In areas designated as attainment or unclassifiable, proposed new or modified major stationary sources must be reviewed under the requirements for prevention of significant deterioration (PSD) of air quality pursuant to section 165 of part C of title I of the Act.[1] The PSD requirements include: (1) A demonstration that the proposed emissions increase will not cause or contribute to a violation of any NAAQS or applicable PSD increment; (2) a determination, where applicable, that the proposed emissions increase from the source will not have an adverse impact on an air quality related value in a Class I area; and (3) compliance with best available control technology.

In nonattainment areas and ozone transport regions, new and modified major sources having the potential to emit major amounts of the nonattainment pollutant must meet the applicable NSR requirements contained in part D of title I of the Act.[2] The primary NSR requirements for nonattainment areas, contained in section 173 of subpart 1 of part D, require new or modified major stationary sources of any nonattainment pollutant to meet the following requirements: (1) Obtain offsetting emissions reductions (offsets) from existing sources; (2) comply with the lowest achievable emission rate; (3) demonstrate that all major stationary sources owned or operated by the permit applicant are in compliance with all applicable emission limitations and standards under the Act; and (4) submit an analysis of alternative sites, sizes, production processes, and control techniques demonstrating that the benefits of the proposed source outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

Additional NSR requirements specifically for ozone and PM nonattainment areas are contained in subparts 2 and 4 of part D, respectively. These subparts set forth criteria for establishing area classifications and various NSR requirements based on those classifications. Subpart 2 (Additional Provisions for Ozone Nonattainment Areas) contains, among other things, provisions for emissions offset ratios, major source thresholds, and source modification requirements for major sources of VOC. Subpart 2 also contains provisions concerning the treatment of NO_x as an ozone precursor in certain ozone nonattainment areas and ozone transport regions. Subpart 4 (Additional Provisions for PM Nonattainment Areas) contains, among other things, NSR requirements for PM–10, including a 70 tons per year (tpy) major source threshold for PM–10 sources in serious nonattainment areas, and the applicability of PM–10 NSR control requirements to major stationary sources of PM–10 precursors.

As described earlier in this document, the detailed provisions of subparts 2 and 4 of part D of title I of the Act that currently apply to existing ozone and PM–10 nonattainment areas would not apply directly to the implementation of the proposed new or revised ozone NAAQS or the proposed annual and 24-hour fine particle NAAQS, which EPA is proposing elsewhere in today's Federal Register. However, as part of EPA's proposed interim policy for transitioning from the current program to implementation of potential new or revised ozone and PM NAAQS, EPA is proposing to continue the implementation of the existing NSR requirements with respect to ozone and PM under a policy of no backsliding. In the case of ozone, this proposed position is further supported by the fact that EPA is also proposing to defer the effective date of the revocation of the existing 1-hour ozone NAAQS until such time that EPA determines that an area has a SIP which provides for achievement of the new NAAQS. This proposed interim implementation policy discussed in more detail below, does not address potential new PSD increments for any new or revised NAAQS because the Act provides EPA with an additional 2 years from the date of NAAQS promulgation to address such issues.

Numerous issues will need to be resolved as part of the development of the final integrated implementation program to address new or revised NAAQS for ozone and PM and a regional haze program (see ANPR for Implementation of New or Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations published elsewhere in today's Federal Register. Some of these issues, particularly as they relate to fine particles, directly affect the implementation of the NSR requirements. Of particular concern is the lack of necessary analytical and technical tools and guidance governing the preconstruction review of new and modified stationary sources associated with fine particles. For example, the use of dispersion models to predict air

[1] The EPA has adopted PSD regulations pursuant to part C at 40 CFR 51.166 (minimum requirements for submittal and approval of a State PSD program) and 40 CFR 52.21 (the Federal PSD program).

[2] The EPA's nonattainment NSR requirements are codified at 40 CFR 51.165(a). These existing regulations do not currently include the various changes enacted by Congress under the Clean Air Act Amendments of 1990. The EPA issued policy memos to describe how certain statutory NSR provisions would apply while EPA's regulations and State NSR programs were being revised to reflect the 1990 Amendments (March 11, 1991 and September 3, 1992 memoranda from John S. Seitz, Director, OAQPS). To meet statutory deadlines, most States have already completed the necessary update of their NSR programs. The EPA proposed to amend its NSR regulations on July 23, 1996 as part the NSR reform rulemaking (61 FR 38250–38344).

quality impacts of new and modified sources is at the heart of the required NAAQS compliance demonstration under the PSD program. Air quality dispersion modeling for ambient fine particle concentrations is in its infancy.

Another problem is that little information exists in emissions inventories regarding PM size distribution and corresponding settling velocities. Emissions factors for estimating the amount of fine particles from new and modified sources are generally not available and may take considerable time to develop and validate. The ability to predict the amounts of fine particle emissions is complicated by the emissions contribution made by precursors, including sulfates, nitrates, and VOC.

In addition, ambient fine particle concentrations in many areas experience a significant contribution from secondary fine particle transformation and transport. The EPA is currently in the process of developing a comprehensive modeling system which will account for secondary fine particle formation and will also eventually incorporate a method for nesting small local impacts from individual point sources within a greater modeling domain. The ultimate success of this system hinges upon the collection of sufficient monitoring data to verify protocol modeling results.

Finally, while ambient monitoring methods for measuring fine particles are to be proposed commensurate with the proposal of any new NAAQS for PM, sufficient monitors are not expected to be available immediately after promulgation of any new or revised NAAQS to satisfy the requirement that new and modified sources collect ambient fine particle data needed for individual PSD air quality analyses.

Consequently, in the absence of the necessary analytical and technical tools, as well as a final implementation strategy for fine particles, source owners and operators would have difficulty predicting amounts of fine particles being emitted from their own proposed source and from existing sources, and also would be unable to carry out a comprehensive air quality analysis for fine particle emissions.[3] The EPA believes that without the appropriate implementation tools and policy, such new preconstruction review responsibilities clearly would place an unreasonable burden on sources, as well as the permitting authorities, in terms of their ability to satisfy the NSR requirements.

The proposed interim policy for NSR will apply the principle of no backsliding, as described earlier in this document, to provide interim protection of any new or revised NAAQS after promulgation until EPA amends its existing NSR requirements and approves SIP's based on those amendments. The description of the proposed interim implementation policy for NSR is divided into a general discussion of geographic applicability for NSR, and separate discussions of how the existing NSR requirements will be implemented for ozone and PM.

Interim Implementation Policy for Geographic Applicability of the Existing NSR Requirements. The NSR requirements generally apply to new or modified major stationary sources with respect to any particular pollutant based on the attainment status of the area (relative to each affected pollutant) in which a new or modified source will locate. As described earlier in this document, EPA is proposing that the existing PM–10 area designations and classifications remain in effect until new designations are undertaken after promulgation of the new or revised NAAQS and that the ozone designations and classifications remain in effect for so long as the current 1-hour ozone NAAQS remains in effect. Thus, for the interim period following promulgation of any new or revised NAAQS for ozone and PM, EPA is also proposing that the existing NSR requirements continue to apply to sources of VOC (and NO_X, where applicable) and PM–10 (and PM–10 precursors, where applicable) on the basis of the attainment, unclassifiable, and nonattainment area designations and classifications that exist at the time of promulgation of any new or revised NAAQS for ozone and PM, respectively, except for those possible circumstances where a redesignation based on an existing ozone or PM NAAQS is approved by EPA subsequent to the promulgation of new or revised NAAQS. In such cases, EPA is proposing that once such redesignation is in effect, the area's attainment status based on the EPA-approved redesignation will determine the applicability of the NSR requirements for the affected pollutant during the interim period.

Interim Implementation Policy for Ozone NSR. During the interim period following promulgation of any new or revised NAAQS for ozone, EPA is proposing that permit applications for new and modified major sources of VOC (or NO_X, as applicable) which locate in an area designated as nonattainment for the 1-hour ozone NAAQS, or in an ozone transport region, must continue to satisfy the applicable nonattainment NSR requirements under part D of title I of the Act. The specific criteria which must be satisfied are to be based on the classification of the particular ozone nonattainment area or ozone transport region, except that for marginal and moderate nonattainment areas which do not attain the existing 1-hour ozone NAAQS by November 15, 1996 and are not attaining the new ozone NAAQS, EPA is proposing that the applicable NSR requirements for VOC and NO_X be determined by all of the statutory NSR requirements for the next higher classification. That is, in ozone nonattainment areas classified as marginal that failed to attain, the major source threshold would remain unchanged at 100 tpy of VOC or NO_X, but the interim offset ratio would be at least 1.15:1 (the offset ratio for moderate areas); and in moderate areas that fail to attain, the major source threshold would be lowered to 50 tpy of VOC or NO_X (the threshold for serious areas), and the interim offset ratio would be at least 1.2:1 (the offset ratio for serious areas). Section 182(b) (6)–(8) of subpart 2 of part D also contains special requirements for modifications to existing sources in serious (and severe) ozone nonattainment areas which would also apply to moderate nonattainment areas that do not attain by November 15, 1996 and are not attaining the new ozone NAAQS. These requirements include a new de minimis test involving a significance threshold based on aggregated emission increases of greater than 25 tpy of VOC or NO_X for proposed modifications; requirements and optional procedures for major modifications which emit, or have the potential to emit, less than 100 tpy or VOC or NO_X; and requirements and optional procedures for major modifications which emit, or have the potential to emit, 100 tpy or more of VOC or NO_X. Under a separate rulemaking, EPA has proposed its

[3] When EPA promulgated the NAAQS for PM–10, EPA also adopted, as necessary, amendments to the PSD regulations to establish new requirements applicable to that newly-regulated form of PM. Based on such new requirements, each PSD application subject to EPA's part 52 PSD regulations, and not eligible to be grandfathered, was required to address significant emissions increases of PM–10 as of the effective date of the revised NAAQS for PM (52 FR 24672, July 1, 1987). The EPA adopted, for purposes of PM–10, a new significant emissions rate, significant monitoring concentration, grandfathering provisions and special monitoring provisions to enable applicants to determine the applicability of any proposed PM–10 emissions to the preconstruction review requirements.

interpretation of these complex provisions.[4]

The NSR requirements under part D provide that emissions offsets may be acquired from existing sources either within the affected ozone nonattainment area or from another ozone nonattainment area with an equal or higher classification than the affected nonattainment area. In addition, when offsets from another nonattainment area (of equal or higher classification) are proposed, it must be shown that emissions from such nonattainment area contribute to a violation in the affected nonattainment area. The EPA is proposing that for purposes of the interim implementation policy, the term ''equal or higher classification'' is to be based on the actual classifications of the affected ozone nonattainment areas. For example, if the nonattainment area where a new source proposes to locate is a moderate nonattainment area that failed to attain by November 15, 1996 and, therefore, continues to be treated as a moderate area although the NSR requirements for serious areas apply under the interim policy, the offsets may still be obtained under section 173(c) of the Act from other ozone nonattainment areas classified as moderate or higher.

For areas designated as attainment or unclassifiable for the existing 1-hour ozone NAAQS, EPA is proposing that permit applications for major new and modified sources which would have a significant increase in VOC emissions, must satisfy the applicable existing PSD requirements. These requirements include compliance with the best available control technology and the completion of the required air quality analysis. In addition, there are no PSD increments for ozone.

Interim Implementation Policy for PM NSR. The EPA is also proposing, as part of its interim implementation policy for NSR, that the preconstruction review for PM will continue to involve only the review of PM–10 emissions and their ambient impacts, while deferring a specific review of potential fine particle emissions and their ambient impacts. This policy would provide that the review of fine particle emissions, including the applicant's demonstration of compliance with the fine particle NAAQS, will not be required until EPA promulgates amendments to the existing NSR requirements concerning any newly-regulated form of PM under the integrated implementation program and SIP's are revised accordingly and approved by EPA. The EPA cannot reasonably amend its own regulations until it is technically able to predict and measure emissions of fine particles generated by individual sources and better understand and estimate the formation and dispersion of ambient fine particle concentrations in the atmosphere.

For proposed new or modified sources of PM locating in areas designated as nonattainment for PM–10, EPA is proposing that during the interim period following promulgation of any new or revised PM NAAQS, permit applicants must continue to satisfy the applicable State or local nonattainment NSR requirements for PM–10 consistent with part D (subparts 1 and 4) of title I of the Act. The part D nonattainment NSR requirements apply to major new sources of PM–10 and modifications to existing major sources of PM–10 that would have a significant net emissions increase of PM–10, i.e., 15 tpy or more. The applicable major source threshold will continue to be based on the PM–10 level defined by the classification of the affected PM–10 nonattainment area. That is, if the nonattainment area is not classified as serious, a 100 tpy PM–10 emissions threshold will apply. For serious PM–10 nonattainment areas, a 70 tpy major source threshold will apply.

For areas designated as attainment or unclassifiable for the existing PM–10 NAAQS, permit applications for major new or modified stationary sources with the potential to emit significant amounts of PM–10 emissions (i.e., 15 tpy or more) must also continue to satisfy the applicable PSD requirements for PM–10. The specific requirements for PM include a demonstration that the source will: (1) Not cause or contribute to a violation of the annual or 24-hour PM–10 NAAQS, (2) not cause or contribute to a violation of the annual or 24-hour PM–10 increments, (3) not have an adverse impact on any air quality-related value associated with ambient PM–10 concentrations in a Class I area, and (4) apply best available control technology for PM–10 emissions.

The EPA intends the same interim implementation policy as described above for PM to apply—whether or not EPA decides to delete the 24-hour PM–10 NAAQS as an alternative to the proposed revision of the existing 24-hour PM–10 NAAQS. This is based on the need to continue to review and control PM–10 emissions and their ambient impacts as a surrogate for addressing the proposed 24-hour fine particle NAAQS during the interim period.

Dated: November 27, 1996.

Carol M. Browner,

Administrator.

[FR Doc. 96–30898 Filed 12–12–96; 8:45 am]

BILLING CODE 6560–50–P

[4] The EPA proposed its interpretation of the requirements contained in section 182(c) (6), (7), and (8) of subpart 2 of part D in the July 23, 1996 NSR reform proposed rulemaking (61 FR 38250, 38297–38302).

federal register

Friday
December 13, 1996

Part V

Environmental Protection Agency

40 CFR Part 51

Implementation of New or Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 51

[FRL–5661–5]

RIN 2060–AF34

Implementation of New or Revised Ozone and Particulate Matter (PM) National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Advance notice of proposed rulemaking (ANPR).

SUMMARY: The EPA is providing advance notice of key issues for consideration in the development of new or revised policies and/or regulations to implement revised NAAQS for ozone and PM, and development of a regional haze program. The EPA is under court order to issue a proposed decision on whether to retain or revise the PM NAAQS by November 29, 1996, and to issue a final rulemaking for PM by June 29, 1997. The Agency anticipates following the same schedule for the ozone standard and also intends to propose a regional haze program in mid-1997. If revised NAAQS replace existing NAAQS, there would be a period of time to phase in new requirements while continuing to address the requirements of the current programs. Further, ozone, PM and regional haze are products of interrelated chemical conversions in the atmosphere, and new approaches will be needed to identify and characterize affected areas and to assign planning, management and control responsibilities. This could lead to integrated implementation policies for ozone, PM and regional haze control programs. This ANPR provides a broad scientific and policy perspective on these issues and addresses implementation issues that have been identified, such as the need for regional strategies, and is a continuation of the advisory process first announced on September 11, 1995 (60 FR 47171) and further explained by the Agency on June 12, 1996 (61 FR 29719). Through today's action, the Agency is providing a brief discussion of a broad range of options, principles and questions related to each of these key issues. The options/principles/questions in this ANPR were designed to provide sufficient background information to stimulate public interest and comments and are not intended to indicate preferences or decisions by the EPA. By publishing this information at this time, the EPA is providing more time for the public to develop input and comments than would occur following the publication of the subsequent regulatory notices for the implementation strategies and regional haze program. An explanation and structure of the Federal Advisory Committee Act (FACA) Subcommittee is provided in **SUPPLEMENTARY INFORMATION.** Applicable terms and definitions are provided in the Appendix.

DATES: Written comments on this proposal must be received by February 18, 1997.

ADDRESSES: *Comments.* Comments should be submitted (in duplicate if possible) to the Air and Radiation Docket and Information Center, 401 M Street, SW, Washington, DC 20460, Attention Docket Number A–95–38.

Docket. The public docket for this action is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, at the Air and Radiation Docket and Information Center (6102), Attention Docket A–95–38, South Conference Center, Room 4, 401 M Street, SW, Washington, DC 20460. A reasonable fee for copying may be charged.

FOR FURTHER INFORMATION CONTACT: For general FACA Subcommittee questions and comments, contact Ms. Denise Gerth, U.S. EPA, MD–15, Research Triangle Park, NC 27711, telephone (919) 541–5550. For specific questions and comments on the ANPR, contact Ms. Sharon Reinders, U.S. EPA, MD–15, Research Triangle Park, NC 27711, telephone (919) 541–5284.

SUPPLEMENTARY INFORMATION: The following communications and outreach mechanisms have been established:

Overview information—A World Wide Web (WWW) site has been developed for overview information on the NAAQS and the ozone/PM/regional haze FACA process. The Uniform Resource Location (URL) for the home page of the web site is http://www.epa.gov/oar/faca/

Detailed and technical information—Available on the O3/PM/RH Bulletin Board on the Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network (TTN), which is a collection of electronic bulletin board systems operated by OAQPS containing information about a wide variety of air pollution topics. The O3/PM/RH Bulletin Board contains separate areas for each of the FACA Subcommittee's five work groups and includes meeting materials, issue papers, as well as general areas with information about the process, participants, etc. The TTN can be accessed by any of the following three methods:

—By modem; the dial-in number is (919) 541–5742. Communications software should be set with the following parameters: 8 Data Bits, No Parity, 1 Stop Bit (8–N–1) 14,400 bps (or less).
—Full Duplex.
—ANSI or VT–100 Terminal Emulation.

The TTN is available on the WWW site at the following URL: http://ttnwww.rtpnc.epa.gov. The TTN can also be accessed on the Internet using File Transfer Protocol (FTP); the FTP address is ttnftp.rtpnc.epa.gov. The TTN Helpline is (919) 541–5384.

I. Purpose and Objectives

This ANPR outlines policy and technical implementation issues and identifies a broad range of options/principles/questions for each issue associated with the potential revision of the ozone and PM NAAQS and with the development of a regional haze program. Although the proposals to change the ozone and PM NAAQS have been made, the possibility that such changes may be promulgated necessitates this advance notice, as well as the ongoing implementation discussions under the FACA discussed elsewhere in this notice. The alternative approach of waiting until possible standard revisions are actually promulgated would, in the Agency's judgement, cause inevitable delays and disruptions in national, State and local efforts to achieve clean, healthy air, especially those related to attainment of the NAAQS for ozone. The ozone and PM NAAQS proposals are scheduled for publication in December 1996 with final action scheduled for mid-1997. The EPA intends to propose a regional haze program in mid-1997.

In advance of these actions, the EPA published an ANPR entitled, *National Ambient Air Quality Standards for Ozone and Particulate Matter,* on June 12, 1996 (61 FR 29719) which announced the Agency's plans to propose decisions on whether to retain or revise the ozone and PM NAAQS. That ANPR also described the FACA process and the Subcommittee for Ozone, PM and Regional Haze Implementation Programs (Subcommittee). The Subcommittee is composed of 60 representatives from State, local and tribal organizations; environmental groups, industry and trade groups (including small business representatives), consultants; academic/scientific communities; and Federal agencies. The organization of the Subcommittee includes a Coordination

Group and four work groups: (1) Base Programs Analyses and Policies Work Group, (2) National and Regional Strategies Work Group, (3) Science and Technical Support Work Group, and (4) Communications and Outreach Work Group. The Subcommittee was established under the Clean Air Act Advisory Committee (CAAAC) to provide advice and recommendations to the EPA on developing new, integrated approaches for implementing potential revised NAAQS for ozone and PM, as well as for implementing a new regional haze reduction program. Through this process, EPA is engaging in communications with segments of society that may be affected by the implementation of NAAQS and the regional haze program. This announcement is a further attempt to invite stakeholders to participate in the implementation development process, to assure that their concerns will be addressed and their options assessed, and, ultimately increase the effectiveness of NAAQS implementation strategies and the regional haze program.

The implementation issues described in this ANPR form the basis of the Subcommittee's deliberations and for the most part were developed through the various work groups and the Coordination Group. The presentation of these issues and corresponding options/principles/questions is designed primarily to provide advance notice for the public who are not directly involved in the FACA process. Interested readers are directed to EPA's TTN and WWW site for an up-to-date status of the work groups' and Subcommittee's deliberations on these issues. This includes work group issue papers with options and, where appropriate, draft recommendations.

While the EPA is interested in considering new and innovative approaches to implementation, it is imperative to ensure that momentum is maintained in the current implementation programs, and that current programs and efforts such as the Ozone Transport Assessment Group (OTAG) continue in order to protect public health and welfare. As a consequence, the Subcommittee is providing recommendations to EPA regarding the development of an interim implementation policy (IIP), which was published in December 1996. The IIP will provide EPA's guidance to the State and local agencies on appropriate actions during the transitional period of time between any revision of the NAAQS and the development of new integrated implementation strategies. This is especially important since it is expected that any new NAAQS will be at least as stringent as the current NAAQS, and reductions in emissions to achieve the current NAAQS will be beneficial in achieving the revised NAAQS. While the IIP will provide guidance during the transition period, EPA will also develop implementation strategies for the potential new ozone/PM/regional haze programs.

The final integrated implementation programs for ozone, PM and regional haze are being developed in two phases. In Phase I, the air quality management framework issues will be addressed (proposal—mid-1997). Phase II will focus on more detailed control strategy development (proposal—mid-1998). These phases are described in more detail in subparagraph IV.

II. Scientific and Technical Discussion

The following discussion relies on the Scientific and Technical Support Work Group of the FACA Subcommittee. This group is developing a draft conceptual model framing our current scientific understanding of ozone, fine particles and haze, the associated gaps and uncertainties, and based on the technical basis and issues underlying the integration of regulatory programs for ozone, fine particles and regional haze, and the specification of geographic scales required for air quality management. This conceptual model provides a technical basis for the Subcommittee's deliberations of these issues. This document is undergoing further review prior to acceptance by the CAAAC. Regarding the rationality of integration, the initial response of the Science and Technical Support Work Group was a qualified yes, given the regional nature of the pollutants (i.e., regionalization), spatial patterns of air quality indices, precursors, sources, atmospheric chemistry and meteorological processes which affect more than one pollutant, and control options. The following discussion focuses on the relationships between ozone and fine particles, given the close linkage between fine particle levels and regional haze (the widespread impairment of visibility in every direction, mostly attributed to fine particle light scattering and absorption), with the following assumptions:

—Understanding the emission sources and atmospheric processes which are responsible for elevated air pollutant levels requires an examination of urban and regional geographical scales;

—Ozone and fine particles may exhibit similar spatial patterns, although the frequency (and importance) of concurrent patterns is not well understood;

—Many of the emission precursors (and sources of precursors) to ozone, fine particles and regional haze are the same;

—Many of the atmospheric processes (chemistry and meteorology) affecting ozone, fine particles, and regional haze are the same; and

—Several critically-important information gaps exist which create very difficult challenges for air quality management of these pollutants.

A. Interacting Spatial Scales of Emissions, Atmospheric Processes and Air Quality Indices

As explained in greater detail below, there are a variety of emissions that are precursors to elevated levels of ozone, fine particles, and regional haze and of sources to these emissions. Historically, attempts at air quality management of these problems focused on local sources in the context of an anonymous background term quantifying imported air quality. The evolution in our understanding of the spatial and temporal scales of the effects on ozone, fine particles, and regional haze of the emissions from all sources has, however, spawned the recognition of the need for a larger geographical perspective. This larger geographical perspective, which considers individual sources over regional, as well as local scales, is needed to support quantitative analysis of the relative contribution of the various source types and of their emission types (species) that contribute to nonattainment levels and regional haze. The need for an altered perspective has been recognized by the establishment of the Ozone Transport Commission (OTC), the OTAG, and the Grand Canyon Visibility Transport Commission (GCVTC).

Air quality management in the metropolitan statistical area or consolidated metropolitan statistical area (MSA or CMSA) has worked well historically to control the local source effect on nonattainment problems. This is evidenced by the significant decrease in the number of ozone nonattainment areas over the past decade. As these controls have reduced emissions and as modeling tools have progressed, the role of the effect of sources beyond the MSA or CMSA and the varying spatial scales of air quality indices and atmospheric processes continue to be investigated and supported by a strong body of scientific evidence:

—The 1991 National Academy of Science (NAS) Report, *Rethinking Ozone in Urban and Regional Scales*

(National Research Council (NRC), 1991);

—The 1993 NAS Report, *Protecting Visibility in National Parks and Wilderness Areas* (NRC, 1993);

—The National Acid Precipitation Assessment Program (Trijonis et al., 1990); and

—The Southern Oxidant Study (Chameides and Cowling, 1995).

Recent analyses based on ambient air monitoring data (Rao, 1995) and regional acid deposition model air quality modeling (Appleton, 1995) suggest a very broad spatial air pollution region covering the greater part of the Eastern United States (U.S.). These studies indicate that, while sources still have their largest influence in the near field, the zones of potential influence of source regions (e.g., an urban city) can under certain conditions extend out hundreds of kilometers (km) for ozone, fine particles, and regional haze. Moreover, these scales appear to be similar for ozone and fine particles. In other words, sources once thought to be remote with respect to nonattainment levels of ozone, fine particles, and regional haze are seen as potential contributors to those levels. The analyses suggest that chemical and meteorological processes which influence pollutant generation, air mass movement and pollutant removal (e.g., clouds and precipitation) are key factors in defining regional zones of influence. When the various nonattainment areas of the Eastern U.S. are surrounded by even conservative estimates of the zones of influence of these other sources, what results is a modeling domain that may span the greater part of the Eastern U.S. Accordingly, efficient air quality management requires addressing these additional sources, atmospheric processes and related impacts as scales of interactions over multiple spatial and temporal frames.

In air quality management practice, the term ''transport'' has been used in a very broad context beyond the strict meteorological definition of the term. This broad context includes: (1) The overall regionalization of both the scale of pollutant distributions and zone of influence of sources, (2) the interaction (or effect of one area on another) among local, urban and regional source scales, and (3) meso and large-scale meteorological phenomena (such as recirculation due to stagnant high pressure systems and land-sea interactions, large-scale movement of air masses with fairly uniform motion, and other events perhaps as simple as widespread elevated temperatures). The prevalence and importance of biogenic volatile organic compounds (VOC) emissions (e.g., emissions from trees) in the Eastern U.S. are ''regionwide,'' as are many other area source emissions such as those emitted by motor vehicles. All of these regional attributes are enhanced by the relatively flat and consistent terrain in the East and Midwest, contrasting the greater topographic and meteorological effects in the Western U.S., although the West can also experience regional problems.

Several physical and chemical events act together in determining pollutant concentrations over multiple space and time scales. Moving air masses carry all chemical species including precursors, fast-reacting intermediates, and chemical sinks, as well as the specific pollutant species of interest (e.g., fine particles and ozone). Removal of pollutants occurs continuously through deposition. Also, the impact of these pollutants is not simply additive. Ozone (or precursors) transported from one location can affect ozone levels downwind by indirectly accelerating atmospheric chemical reactions through the production of chemical intermediates (e.g., hydroxyl radicals). Clouds play several roles in modifying concentrations by: (1) Dissolving soluble gases (e.g., nitric acid, sulfur dioxide (SO_2), hydrogen peroxide) and generating aerosols through aqueous phase reactions, (2) circulating and venting pollutants to high altitudes where strong winds promote large horizontal transport, and (3) removing pollutants through precipitation. Cloud-related dissolution and transport also contribute to pollutant removal. Vertical air mass movements, or phenomena as basic as the daily mixed layer growth, affect air concentrations on various scales. Superimposed on these processes are a variety of emission sources with their own spatial, temporal and component (speciation) scales. Depending on location, pollutant and season, one particular spatial scale (e.g., urban) may (or may not) exert a dominating influence on air quality relative to another scale (e.g., regional). Even in cases where local and urban sources are responsible for most of the ''local'' air quality, an assessment of the contribution of distant sources to local air quality is required to reach such a conclusion. Thus, to avoid the exclusion of potentially important considerations in air quality analysis, ''regionality'' or ''interacting scales'' is a more descriptive term (than transport) which encompasses the broader meaning and effects of several complex interacting phenomena operating over extensive and multiple time and space scales.

The Eastern U.S. differs markedly, topographically and climatologically, from the West, so any extension to the West based on Eastern analyses (or vice versa) is not necessarily appropriate (important differences exist between Northern and Southern regions as well). The monitoring data and modeling analyses of the GCVTC process highlight the challenge of identifying and quantifying specific sources, some at great distances in order to estimate their effects in Western national parks and wilderness areas. The variations in topography, meteorology and source distribution across regions require that area- and case-specific differences be accounted for in any air management approach. The effects of emission reduction strategies should be viewed through multiple scales, considering regional and urban scale consequences (i.e., health and welfare protection).

A few points summarizing ''interacting scales'' and ''regionality'' should be considered in air management practices:

—Air quality modeling and historical monitoring trends have shown that local air management practices have the greatest influence on near field concentration impacts.

—Analyses of observations in the Eastern U.S. reveal the existence of very broad multistate regions (interacting scales approaching linear scales of 1000 km or more) of elevated pollutant levels and zones of influence (Rao, 1996).

—Air quality modeling data for the East suggest that similar regions of influence exist for ozone and fine particles (Dennis, 1996), although only sparse monitoring data exist to support these similarities.

—Modeling analyses for the Grand Canyon National Park (and other) Class 1 areas show that fine particles and precursors causing visibility impairment episodes are derived from both nearby (less than 50 km) and more distant (up to 1000 km) regions of influence (NRC, 1993; GCVTC, 1996).

—Area and case-specific analyses are required to delineate reasonable geographic areas for air quality planning purposes because of the wide regional variations in meteorology, topography and source distribution.

—The use of terms such as ''transport'' or ''background'' inadequately describes the complex set of emissions, chemistry, meteorological processes and interacting scales which contribute to the regionalization of air pollution.

—Because of broad spatial extents and gradations of interacting scales ranging from regional down to sub-grid cell scales, an air quality assessment focusing on a particular scale (e.g., urban) must consider effects due to interactions across various space and time scales. The concept of a single MSA/CMSA nonattainment area may be inconsistent with the spatial and temporal scales for ozone, fine particles and haze problems.

B. Technical Basis and Considerations for Integrating Ozone, Fine Particles and Regional Haze Implementation Programs

The technical and scientific rationale for underlying the integration of ozone, fine particles and regional haze air quality management practices is based on a mix of empirical observations, atmospheric processes and practical administrative concerns. While this discussion focuses on common attributes across pollutant groups, it is important to recognize and distinguish those attributes where there is little linkage. Many examples and inferences presented here tend to reflect what is known about Eastern U.S. air quality issues (e.g., ozone) with possibly little relation to Western U.S. phenomena. At the risk of generalizing (and simplifying) air quality descriptions for illustrative purposes, recognition that a generalized approach cannot operate effectively everywhere must be retained. The discussion focuses on the relationship between ozone and fine particles, with the implicit assumption that fine particle levels and chemical composition directly relate to regional visibility impairment, given the strong relationship between the constituents of fine particles and the manmade portion of visibility impairment. Regional haze is a widespread, largely uniform impairment of visibility in every direction over a large area, mostly due to light scattering from fine particles from multiple sources.

1. Empirical Evidence for Integration

Ozone and PM–10 (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) concentrations in the Eastern U.S. can exhibit similar spatial patterns during summer time episodes (Northeast States for Coordinated Air Use Management (NESCAUM), 1995). Analyses of PM data consistently indicate that fine particles constitute the majority mass fraction of PM–10 in the summertime East (EPA, 1996). In combination, these observations qualitatively imply concurrence of elevated ozone and fine particles. However, quantification of the similarity and frequency of such events is severely restricted by a lack of a fine particles data base in the East. While more data exist in certain Western locations, the episodic relationships between ozone and PM appears to be more complex than in the East. For example, a major component of the fine particle problem in Los Angeles (as well as the San Joaquin Valley, Salt Lake City and Denver) is wintertime formation of ammonium nitrate, which is not stable at the high temperatures associated with elevated ozone. High levels of fine particles in Western nonattainment areas can impair visibility when high ozone concentrations are not observed. Nevertheless, ''smog'' events in Los Angeles are almost always accompanied by impaired visibility, and visibility is directly associated with fine particle levels. Although some limited empirical evidence is highly suggestive of area specific concurrent events, other considerations as described below provide a stronger rationale for the appropriate level of integration across ozone, fine particles and regional haze control programs.

2. Emissions and Atmospheric Process Linkages Across Ozone, Fine Particles and Regional Haze

Several connections exist among ozone, PM and the resulting effect of visibility impairment. The linkages are based on the existence of common emission precursors, source categories and atmospheric chemistry and meteorological processes which affect more than one pollutant. For example, emissions of oxides of nitrogen (NO_X) potentially can lead to both ozone and fine particle formation. A combustion source often emits both SO_2 (a fine particle precursor) and NO_X (an ozone precursor). The sequence of atmospheric chemistry reactions underlying ozone formation is in part responsible for fine particle formation. Similar meteorological processes affect the movement, mixing and removal of ozone, fine particles and precursors. Some of these connections are complicated and will be explained more completely in forthcoming FACA science documents. The following are very brief descriptions of the connections across pollutant categories.

—*Common ''direct'' precursor emissions*. Emissions of NO_X, VOC and carbon monoxide (CO) are considered precursors for ozone formation. The NO_X, VOC and sulfur (SO_X, mostly as SO_2) emissions can also lead to fine particle formation through ''secondary'' atmospheric chemical reactions. Both ozone and a substantial fraction (which can vary greatly with season and location) of fine particles are the result of secondary formation processes. The major components (which also are highly variant) of secondary fine particles include sulfates, carbon (elemental and organic) and nitrates. The fraction of fine particles due to secondary processes is highly variant in space and time. During certain conditions (e.g., available ammonia, negligible sulfate, low temperatures), NO_X emissions can lead to fine PM ammonium nitrate formation. Several directly-emitted organic compounds contribute to fine particle organic aerosols. These organic compounds may contribute as ''primary'' organic aerosols, that is, they almost immediately condense to the aerosol phase during the emissions process or shortly downstream. Or, certain VOC (e.g., toluene) which exist as gases under most conditions can undergo atmospheric reactions and transform into condensible ''secondary'' organic aerosols. Thus, a VOC like toluene can contribute to both ozone or fine particle formation as a precursor emission.

—*Common source categories*. Based on the multiple roles of precursors, a particular source (natural or anthropogenic) emitting one precursor (e.g., NO_X or VOC) can affect ozone and fine particles, and a single source emitting multiple precursors (e.g., combustion process releasing NO_X, VOC, CO and SO_X) can affect multiple pollutant source categories. In this case, integration is not dependent on atmospheric chemical linkages. This commonality among sources should lead to a more consistent approach in estimating emissions of multiple precursors within a specific source category. For instance, a consistent approach needs to be applied for estimating and projecting both NO_X and SO_X emissions from a combustion source.

—*Interaction of atmospheric chemistry reaction cycles and ''indirect'' precursors*. Much of the general atmospheric chemistry involved in ozone formation can affect fine particle formation, as alluded to above, in certain instances. For example, ozone is the major initiator of hydroxyl radicals, a chemical intermediate which converts SO_2 and nitrogen dioxide (NO_2) to more oxidized sulfate (e.g., sulfuric acid) and nitrate (nitric acid) forms. Both sulfates and nitrates can contribute to fine particle formation. Clearly, a linkage between ozone and fine

particles exists through the role of ozone in generating hydroxyl radicals. Note that this linkage between ozone and fine particles is at the process level and does not require coexisting ''high'' ozone and fine particle levels. Many other important linkages involving oxidizing chemical species (radicals and peroxides) exist within the NO_X, VOC, SO_X, ozone chemistry system. A correct characterization of the basic ozone chemistry and the associated linkages among the precursors is needed to predict the affect of changing emissions on air quality indices. Consequently, the predictive air quality models used to assess ozone and fine particle impacts should include a basic core set of atmospheric chemical reactions (i.e., a gas phase ozone chemistry mechanism).

Because of their common atmospheric chemical linkages, many precursors associated with one pollutant might be considered as an ''indirect'' precursor for another pollutant as well. Virtually all precursor emissions (NO_X, SO_X, VOC, CO) undergo initial attack by hydroxyl radicals and participate in the general cycling of various chemical intermediate species. Therefore, precursors that typically may not be associated with a particular secondary pollutant, such as the effect of VOC on either sulfate or nitrate, indirectly participate through their roles in atmospheric chemistry. In this general context, the term precursor does not imply a positive effect on an associated secondary species as the emission precursor may only share in certain atmospheric chemical processes without leading to increases in a secondary pollutant. Multiple possibilities exist. For example, NO_X, which affects the cycling of hydroxyl radicals (which convert SO_X to sulfate), could act indirectly as a sulfate particle precursor. The majority of VOC species that do not transform into organic aerosols could nevertheless be fine particle precursors through their general role (i.e., cycling of radicals) in atmospheric chemistry. Nitrogen oxides could serve as indirect precursors for aerosol sulfate formation. This ''universal'' pool of precursors does not imply that reductions of any specific precursor lead to reductions of every pollutant. Just as reductions in NO_X potentially can raise local ozone levels, a reduction of a fine particle precursor possibly can increase ozone or increase a different fine particle component (e.g., SO_X reductions leading to increased ammonium nitrate, or NO_X reductions increasing sulfate formation). These examples are some of several conceivable indirect precursor relationships. Many other relationships with similarly unknown degrees of effect exist. Thus, integrated implementation is far from a straightforward exercise. Complex air quality simulation models (in combination with simpler models and receptor/observational methods) which include approximations of these process linkages will need to be exercised to account for the multiple nonlinearities and positive and negative feedbacks. This complexity demands that high quality emission inventories, technically credible models, and spatially and temporally representative monitoring data will be needed in predicting pollutant concentrations and control strategies.

3. Integrating Control Strategy Development Through an Air Quality Modeling Approach

What does integration mean from an implementation perspective? Given the complex mechanisms for and linkages between ozone and fine particle formation, the formulation of control strategies should acknowledge the need to optimize control options; control of one precursor might affect both ozone and fine particles or might be detrimental for one or both. For example, one might start with ozone management strategies being developed as part of ongoing urban and regional planning efforts and attempt to quantify the future impact on secondary aerosols. On the other hand, because NO_X controls might increase ozone levels in certain localized urban areas or because SO_2 reductions might lead to increased concentrations, efficient air quality management would attempt to optimize the system in relation to VOC, NO_X and SO_X emission reductions.

The real benefit of integration is the prospect of a more systematic, efficient and comprehensive treatment of emission inventories, episode selection, and atmospheric physics and chemistry that might empower the air quality manager to characterize source-to-receptor effects in an orderly way. The addition of data on the costs and effectiveness of control options would enable the air quality manager to identify the cost-effective means for attaining a variety of air quality goals.

To this end, emission bases underlying most current ozone modeling efforts include most of the sources for aerosol formation (but not necessarily the aerosol-specific emissions such as organic aerosols from motor vehicles). Notable exceptions include emissions from many of the fugitive primary particle sources and most sources of ammonia. The result of this hypothetical exercise could produce the residual aerosol- (and regional haze-) related air quality benefits from an ozone precursor control perspective. [Additional analysis directed at the specific needs for meeting fine particle and visibility concerns could follow this ozone oriented approach. Ideally, an objective (and likely iterative) ability to assess the benefits and tradeoffs associated with managing all three pollutant categories would evolve.] Although this example does not represent ''full'' integration given the unidirectional information flow (ozone to particles), it does acknowledge similarities among programs and avoids mistakes and inefficiencies incurred from independent analyses. Aside from any direct regulatory policy, the linkages across pollutants and emissions are reasons by themselves for planning for more effective and efficient development and use of emissions, air quality models and monitoring networks which address sometimes confounding multiple pollutants and their related health/welfare effects, and control options.

4. Distinctions Among Ozone, Fine Particles and Regional Haze

Concurrent ozone and fine particle episodes may be expected to occur given similarities in the meteorological and atmospheric chemistry processes underlying ozone and fine particle formation, maintenance and destruction. As discussed above, the linkages associated with emission source categories and physical and chemical processes exist more frequently than the occurrence of coepisodic events. For example, several basic atmospheric chemical reactions involved in ozone and fine particle formation occur whether or not high ozone and fine particle levels are generated in the atmosphere. Nevertheless, several distinctions among the pollutants persist. These differences include the contribution of primary particles to total fine particles (and especially PM–10) and wintertime (actually nonsummertime) fine particle events. Some primary particles are generated by strong wind conditions (e.g., soil/geologic material) and other mechanical processes (e.g., roadway fugitives). A fraction of primary PM peaks in summer in most of the Western third of the country where there is little precipitation for 6–8 months per year, and dry, windy conditions lead to the generation and movement of geologic materials. As discussed earlier, ammonium nitrate, a significant fine

particle component in the West, is stable at relatively low wintertime temperatures and therefore does not form significant levels during the high summertime temperatures. Meteorological effects which influence the creation, maintenance or removal of high levels of ozone and fine particles may be significantly different between pollutants, regions of the country, and times of the year. Other specific emissions-driven events such as forest burning and wintertime woodsmoke (a major wintertime source of urban PM) bear virtually no relation to ozone. Many of these PM episodes can be dominated by either primary or secondary fine particle components, or by primary anthropogenic coarse PM emissions. Research exploring the frequency and characterization of coepisodic and uni-episodic events would yield further insight into underlying causes of events and provide direction for integrated implementation opportunities.

Visibility protection presents several additional considerations beyond the scope of topics covered under ozone and fine particles. First, fine particle concentrations that are far below any potential NAAQS can adversely affect visibility in a significant manner, particularly in more pristine environments, such as Federal Class I areas in the rural West. For this reason, visibility management needs to consider the protection of ''clean'' days separately from assessments focusing on highly impaired days. The meteorology and emissions characteristics during ''clean'' days differ from those common during high pollution episodes. This concern raises complex technical issues related to the ability of models and monitoring instruments, which often have been designed or tested for meeting ''high'' concentration requirements, to characterize ''low'' level conditions. Second, relative humidity plays a significant role in enhancing visibility impairment, particularly in the East. In humid conditions, particularly above 70 percent relative humidity, sulfates, nitrates, and certain organics readily take on water and expand to sizes comparable to the wavelength of light. Particles in this size range (e.g., 0.1 to 1.0 micron in diameter) are efficient scatterers of light. Third, unlike the NAAQS approach of setting a national standard, the regional haze program has as its goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Federal Class I areas which impairment results from manmade air pollution. States are required to make ''reasonable progress'' toward this goal. The notion of background versus manmade air pollution raises several technical and policy challenges, particularly in the protection of visibility in ''cleaner'' environments, where small increases of fine particles can lead to significant visibility changes.

Generally, PM–10 is not considered in the integration discussions of ozone, fine particles and regional haze. This is because the coarse fraction (e.g., greater than 2.5 micron) typically is derived from primary emissions (e.g., fugitives and geologic material) with little association to ozone from a process (or episodic) perspective. In addition, visibility impairment leading to regional haze is overwhelmingly associated with the fine particle fraction of PM–10.

C. Major Technical Issues

The principal technical issues associated with integrated air quality management involve the adequacy of data bases and models (including specific process formulations) on which to base credible assessments. Generally, the tools (ambient data, models and emissions data) underlying ozone analyses are better developed than those for fine particles. Major efforts in chemical mechanism development, ambient monitoring methods and establishment of national and special study efforts for monitoring, emissions and modeling have resulted in a wealth of information and familiarity with these tools. This relative abundance of knowledge for ozone should not be construed as a science lacking uncertainty as significant technical issues remain (e.g., the current North American Research Strategies for Tropospheric Ozone (NARSTO) effort) and even more are yet to be defined. A sampling of these issues include the representativeness of emission inventories, particularly biogenic emissions; uncertainties in the modeling system (e.g., chemical characterizations of aromatics and biogenics, treatment of vertical mixing processes); difficulties in monitoring techniques (carbonyls, NO_X–NO_2, polar VOC); and lack of measurements (e.g., total reactive nitrogen, upper air data). In some cases, these gaps are significant and could compromise our ability to perform highly credible ozone analyses and to ascribe confidence levels in our results.

Consideration of fine particles and regional haze presents several additional issues which are a result of: (1) A very complex multiphase, multicomponent, multiseason aerosol system; (2) the complex covariance of these data; and 3) the present PM–10 form of the NAAQS which has resulted in few regulatory needs to hasten an improved characterization. Significant concerns include major positive and negative measurement artifacts (related to gas-particle phase changes); a simple lack of ambient data, especially urban fine particle measurements; poor quality assurance/control of ambient sampler data; emissions data with poor general spatial applicability; limited availability, limited application and evaluation of regionally-accurate air quality models; and highly empirical treatment of organic aerosols within the available models. These gaps are interconnected in the sense that quality model evaluation and improvement rely on available quality measurements. The issue is further complicated by difficulties (due to complexities, lack of precedence and resource constraints) in designing a data collection program to evaluate a gridded model's ability to characterize fine particles covering wide scales of time (annual, seasonal, daily) and spatial resolution (regional, urban, local). On the positive side, a strong history of using ambient data for PM source apportionment is probably more adaptable to fine particle analyses than ozone, given that the measurable components of secondary fine particles (e.g., sulfate) have some direct linkage to precursors, whereas an ozone measurement by itself provides no inference regarding contributing precursors.

Several interesting atmospheric chemistry questions remain to be answered; two examples include nitrate fine particle formation and organic aerosols. Where and when do ammonia and sulfate become limiting factors in ammonium nitrate formation? The relatively abundant nitrate fine particles at sites in the urban West contrast with abundant regional sulfate fine particles in the East. Substantive decreases in SO_2 emissions could lead to increased nitrate fine particle formation in the East if sufficient ammonia (a highly uncertain emissions category) is available. What impacts will NO_X emission reductions have on fine particles? Many possibilities exist. If nitrate is significant, one would expect a reduction in fine particles. However, if sufficient sulfur remains available, NO_X reductions could increase or decrease sulfate formation (and, therefore, fine particles) depending on a complex cycling of oxidizing species. Reductions in NO_X emissions could actually lead to sulfate increases by reducing competition (between SO_X and NO_X) for gas phase oxidizing radicals, or by increasing peroxide levels leading to

greater aqueous phase sulfate production. Or, NO_X reductions could slow down sulfate formation through overall reductions in ozone and other oxidants. This relationship is very complex, and we must exercise caution in associating fine particle benefits with NO_X reductions in the Eastern U.S.

What are the relative contributions of primary and secondary organic aerosols across varying spatial (and time) scales? The potential for large secondary organic aerosol production from biogenic sources (e.g., pinene emissions) exists throughout the East. How significant are biogenic-derived aerosols compared to local/urban contributions from primary anthropogenic organic aerosols? How different are these relative contributions across seasons, given that secondary organic aerosol formation increases during the summer? Many uncertainties underlie the integration of primary and secondary particles, aside from integrating particles and ozone. For instance, what are the interactive roles exerted by elemental carbon emissions and other products of incomplete combustion and geologic materials in both primary contribution to PM and as formation nuclei for highly complex secondary PM? On balance, the ability to perform ozone air quality assessments far exceeds that of fine particles. However, the infrastructure for conducting fine particle analyses appears to be in place as a result of progress gained from ozone and acid deposition modeling and existing monitoring programs for ozone and visibility (i.e., the Interagency Monitoring of Protected Visual Environments (IMPROVE) program). Finally, although uncertainties remain in transforming particles into visibility impairment within short averaging times, the IMPROVE methodologies for particle and visibility measurements (and the relationships between particles and visibility) are widely accepted.

Specific issues across PM and ozone include the ability to formulate fully-integrated models accounting for multidirectional effects on several pollutants. For example, the formation of secondary organic aerosols is a loss mechanism for VOC which presently is not accounted for in ozone modeling efforts. Many other integration topics exist, and collectively there is uncertainty regarding the overall importance of one pollutant imparting an effect on another.

Two basic issues span the gap between science and policy: (1) The manner in which tools are applied, and (2) accommodating scientific findings and uncertainties in air quality management decision making. The first topic reflects the concerns of how one applies deterministic (i.e., models that establish exact cause and effect relationships) and uncertain air quality models to probabilistic forms of the standard in ascribing rigid control requirements. The selection of ''severe'' meteorological episodes versus ''prototypical'' episodes for ozone and PM–10 modeling has been controversial and remains a difficult model application issue. Equally complicated is the emerging need to model seasonal and annual cases. The debate on the credibility of models is fueled by the manner in which they are applied as much as by concerns about their formulations and supporting data bases. The second topic acknowledges the need for conducting policy-relevant as opposed to policy-driven research and recognizing the different time scales operating in research and policy arenas (where the timeframe demands move much faster than research results). Extremely useful information emerges continuously from research programs, yet a separate, sometimes very significant, time-lag occurs before information is considered in the policy-setting process. Hence, opportunities must be available to incorporate the latest science into policy.

D. Integrating Models and Observations for Sound Air Quality Management Practice

Much emphasis has been placed on the complementary and integrated use of models and ambient data in air quality management practice (Rao et al., 1996). Several facets are associated with this topic, ranging from the need to evaluate models with sound data bases to conducting fully integrated analysis optimized through the separate, strong attributes of data and models. As the technical debate on the use of models and data continues to mature, perceptions such as ''model'' or ''data'' are replaced by the intelligent and integrated use of ''models and data.'' Clearly, the demand for measurements initiated by the National Academy of Sciences Ozone Report (NRC, 1991) to provide feedback information loops, as well as empirically-based corroboration of predictive tools, has been adopted by large segments of the air quality community and reflected in major efforts such as the Photochemical Assessments Measurement Stations (PAMS) and NARSTO.

An appreciation of the strengths of models and observations can assist the understanding of current analyses and lead to improved techniques. A model's strength is its ability to: (1) Integrate an enormous spectrum of data (e.g., emissions and meteorological variables) and process understandings (e.g., chemical mechanisms and flow phenomena), and (2) serve as an exceptional space and time mapping tool. This latter attribute reflects the model's unique ability to predict into the future and to supplement (or fill in) present gaps in observed data. The process formulations embedded in models enable the addressing of many ''what if'' questions related to emissions control. However, models are engineering tools that invoke substantial approximations of scientific understandings of natural phenomena, both their formulations and application methods reflect engineering principles more than fundamental science. Observations provide a basis for testing and diagnosing models. Also, in some instances, observations add another benefit. They can capture process-type relationships by themselves (e.g., the emergence of observational-based models for defining NO_X and VOC control preferences). However, often observations are very sparse.

Applied in isolation, the use of either models or observations alone is not desirable. Space and time constraints often bias the interpretation of observational analyses (i.e., analysis results reflect time and space of monitors which may or may not reflect the scales of concern). Models suffer from a very large spectrum of weaknesses because they attempt to portray so many phenomena. Most critical though is the risk of using a potentially biased model that is assumed bias free. The integrated use of observations and models mitigates the individual weaknesses of both approaches and produces a powerful air quality management tool, especially when applied in an iterative (even retrospective) manner to continually assess model results and related implementation strategies.

E. Summary

Air quality assessments for fine particles, ozone, and regional haze must consider emissions, meteorological processes, atmospheric chemistry, and deposition, all of which interact over multiple spatial and temporal scales. Examining in detail the sources only from the MSA/CMSA surrounding the monitor reporting nonattainment levels of air quality may need to be augmented (on a space and time basis) for responsibly allocating those levels to the sources causing them. When examining the issues on expanded time and space scales, the air quality management should also take into account the similarities of these air quality indices,

such as their common precursor emissions (e.g., NO_X, VOC); common emissions sources (e.g., mobile sources, stationary and area source combustion emissions, biogenics); and shared chemical and meteorological processes (e.g., transport, transformation, precipitation, and removal).

The principal technical issues associated with integrated air quality management involve the adequacy of data bases and models (including specific-process formulations) on which to base credible assessments. Many of these gaps are interconnected since model evaluations rely on available high quality measurements of emissions, atmospheric processes (such as wind fields) and ambient concentrations. On balance, the ability to perform ozone air quality assessments far exceeds that of fine particles, due mostly to the development of ozone research as well as a lack of urban fine particle measurements and important emissions components. However, many of the components of the infrastructure for conducting fine particle analyses appears to be in place as a result of progress gained from ozone, acid deposition, and visibility modeling and monitoring programs. The integrated application of models and observed data is strongly encouraged. In combination, both approaches help to mitigate the weakness of an isolated approach, producing a powerful tool for air quality management.

III. Schedules

Both the ozone NAAQS notice of proposed rulemaking (NPR) and the PM NAAQS NPR are expected to be published in December 1996 with promulgation of both the PM and ozone NAAQS scheduled for mid-1997. The previously-described IIP will be proposed for comment in late 1996 and finalized in mid-1997 and will apply during the time period following promulgation of any revised NAAQS. The ozone, PM and regional haze programs are tentatively planned to be developed on a common schedule.

As indicated above, the integrated implementation strategy for ozone and PM NAAQS will be issued in two phases. The Phase I implementation strategy which will give guidance to State and local agencies concerning actions prior to and including designation of areas not attaining potential new PM and ozone NAAQS will be proposed in mid-1997 with a public comment period prior to adoption of the strategy. The EPA expects that the Subcommittee and CAAAC will make recommendations regarding formulation of the Phase I strategy prior to proposal. In mid-1998, the Phase I implementation strategy will be finalized. (Note that prior to recommendations from the Subcommittee and CAAAC, EPA will refer to areas not attaining new NAAQS as nonattainment areas.)

Also in mid-1998, the Phase II implementation strategy will be proposed. This strategy will provide guidance for the events and actions between area designation and submittal and approval of State implementation plans (SIP's). This will include control strategies. The EPA expects that the Subcommittee and the CAAAC will also make recommendations regarding formulation of the Phase II strategy prior to proposal. In mid-1999, the Phase II implementation strategy will be finalized.

Unlike the NAAQS, the regional haze rule will not set a specific ambient pollutant standard. However, the rule will include criteria for measuring reasonable progress and the methods to measure progress. The EPA currently intends to publish the regional haze NPR in mid-1997 (with Phase I). The EPA is exploring ways to coordinate regional haze program implementation with NAAQS implementation.

IV. Framing of Phase I Implementation Issues

The Phase I issues below were identified by EPA with substantial input from the Subcommittee and represent the priority issues which must be addressed as soon as possible after the revision of the NAAQS. These issues and options are subject to change as the FACA process and deliberations continue. The options/principles/questions which are presented are not all inclusive and are designed to stimulate public discussion. These options/principles/questions are not intended to indicate preference or represent any decisions and are under active FACA consideration. Consistent with the broad mandate given to the Subcommittee, the EPA is actively seeking new ways to implement the potential revised ozone and PM NAAQS and regional haze programs, and at this time is not evaluating legal constraints in the Clean Air Act (Act) which may limit or change some policy options identified below. For example, revision of an ozone or PM NAAQS will require EPA to determine the effect of the new planning requirements triggered by the revised NAAQS on the existing planning requirements in the various subparts of part D of title I of the Act. The EPA is not addressing such legal issues in this notice. The purpose of this advance notice is to stimulate public interest and comments on a wide range of policy issues and options, without limitation at this stage, from legal constraints. After the FACA process produces policy options and recommendations and as the EPA develops a proposed and final integrated implementation strategy, the EPA will consider legal authorities and constraints which may be present in the current Act.

The issues identified below regarding implementation of a potential ozone or PM NAAQS revision generally use as their frame of reference the basic planning requirements of part A of title I of the Act and the basic nonattainment planning requirements of subpart 1 of part D of title I of the Act. Similarly, the discussion below addressing development of a regional haze program does not analyze pertinent legal issues but endeavors to use as a general frame of reference the visibility protection provisions in sections 169A and 169B of the current Act. Rather than focusing on the statutory requirements, however, the following discussion identifies technical and policy issues and options under consideration. Again, interested readers are directed to the EPA TTN and WWW site for an up-to-date status of FACA deliberations on these issues. The EPA is including the issues with sufficient background information in this ANPR to allow interested individuals to comment on the development of the implementation strategies.

Upon a proposal to revise current NAAQS or promulgate new NAAQS for ozone and PM and regulations for regional haze, the following characterize the most important implementation issues identified so far that should be considered. The issues are divided into two phases of implementation development. The options/principles/questions are presented as a broad range of possibilities and are not listed in any order of preference.

A. Phase I Issues

1. Regional Haze Program Development

In order to place the following discussions on the issues associated with joint programs in the proper perspective, this section begins with a discussion of issues and questions related to the development of a regional haze program. As described in section II, regional haze is produced by emissions of fine particles and their precursors from a multitude of manmade and natural sources located across a broad geographic area. Fine particles impair visibility by scattering and absorbing light. Average visual range in most of the Western U.S. is

100–150 km. In most of the East, the average visual range is less than 35 km. The following discussion includes general background on the existing visibility protection program, recommendations to EPA for improving regional haze conditions, and key issues for consideration in a new regional haze program.

Under a national visibility goal that calls for the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Federal Class I areas which impairment results from manmade air pollution, the EPA's 1980 visibility regulations addressed local visibility impairment that was ''reasonably attributable'' to a single source or small group of nearby sources. Under these rules, the 36 States containing mandatory Federal Class I areas were required to: (1) develop a program to assess and remedy visibility impairment from new and existing sources, (2) develop a long-term strategy to assure progress toward the national goal, (3) develop a visibility monitoring strategy, (4) consider ''integral vistas'' outside of Federal Class I areas in all aspects of visibility protection, and (5) notify Federal land managers (FLM) of proposed new major stationary sources and consider visibility analyses conducted by FLM in their permitting decisions.

The 1980 rules were designed to be the first phase in EPA's overall program to protect visibility. The EPA explicitly deferred action addressing impairment from regional haze due to the need for further research and improvements in several technical areas, including visibility monitoring, modeling, and the relationship between specific emitted pollutants and visibility impairment. The GCVTC was established to assess scientific and technical information regarding adverse impacts on visibility in the transport region and provide recommendations to the EPA for addressing these adverse impacts. Within 18 months of receipt of the GCVTC recommendations, the Administrator is required to carry out her ''regulatory responsibilities under section 169A, including criteria for measuring 'reasonable progress' toward the national goal.'' In developing the regional haze program, EPA will also have the benefit of recommendations from the 1993 report of the NRC Committee on Haze in National Parks and Wilderness Areas, *Protecting Visibility in National Parks and Wilderness Areas,* and from the work of the FACA Subcommittee on Ozone, PM and Regional Haze Implementation Programs. The following addresses key issues for consideration in developing a regional haze program.

Issue: Applicability—Currently, States containing mandatory Federal Class I areas where visibility has been identified as an important value, or having sources which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area, must revise their SIP's to make reasonable progress toward the national visibility goal. Existing visibility regulations apply to the 36 States containing one or more mandatory Federal Class I areas. Studies have shown that regional haze can be caused by fine particles that are transported hundreds or even thousands of kilometers. Thus, sources in States having no mandatory Federal Class I areas could potentially contribute to impairment in Federal Class I areas in other States. The regional haze program should address the potential applicability to all States.

Issue: Regional Haze Planning Areas—It has been recognized in many forums that programs to mitigate regional haze may require multistate or regional approaches to technical assessment, planning, and/or control strategy implementation. Potential regional approaches are currently under discussion through the FACA process. Key questions to be considered are: (a) if regional approaches are taken, should one set of multistate groupings be developed to address ozone, PM, and regional haze implementation programs, or should separate approaches be taken for each of the three programs; and (b) should existing or new institutions be responsible for future planning activities related to these three programs?

Issue: Definition of Reasonable Progress—The term ''reasonable progress'' was not specifically defined in the 1980 visibility regulations for purposes of regional haze. Current regulations require SIP's to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward the national goal, including: (1) requirements for best available retrofit technology (BART) for certain major sources of pollution, and (2) a long-term strategy for making reasonable progress toward meeting the national goal.

In the June 1996 report from the GCVTC, the Public Advisory Committee defines reasonable progress as ''achieving continuous emission reductions necessary to reduce existing impairment and attain steady improvement in visibility in mandatory Federal Class I areas, and managing emissions growth so as to prevent perceptible degradation of clean air days.'' In the GCVTC report, visibility impairment is defined in terms of total light extinction and deciview. The legislative history of the 1990 Amendments to the Act also addresses the issue of reasonable progress and perceptible improvement. Senator Adams, the sponsor of the 1990 revisions to the visibility protection program stated that, ''At a minimum, progress and improvement must require that visibility be perceptibly improved compared to periods of impairment, and that it not be degraded or impaired during conditions that historically contribute to relatively unimpaired visibility.''

Question: What should be the criteria for measuring reasonable progress?

The assessment of reasonable progress can involve quantitative and nonquantitative factors. From a quantitative perspective, measurement of reasonable progress could incorporate assessments of visibility trends, emission reductions, or a combination of both. Tracking visibility trends suggests a periodic assessment of visibility conditions (e.g., averages of 20 percent best and worst days, annual average) as derived from visibility monitoring data and use of a common metric nationally. The light extinction coefficient would be a logical choice since it has been used widely for years and is routinely calculated from optical and aerosol measurements for all IMPROVE sites. Tracking progress will also require the initial documentation of a baseline level of anthropogenic visibility impairment at mandatory Federal Class I areas. The GCVTC has recommended an emission reduction target approach, including review of compliance with an SO_2 percent emission reduction target in the year 2000 and 5-year progress reviews thereafter. Nonquantitative progress factors could address whether a State has taken certain administrative or technical actions determined necessary for measuring and achieving progress over time.

Other questions related to reasonable progress include:

Question: How frequently should progress be measured?

Question: Since monitors are located at only about one-quarter of the 156 mandatory Federal Class I areas, how can progress be demonstrated for sites without monitoring?

Question: Should reasonable progress be demonstrated on a ''regional'' basis (i.e., for groups of Federal Class I areas), with certain IMPROVE sites deemed

representative of others lacking monitoring?

Question: Would tracking of emissions reductions and conducting regional modeling be an acceptable surrogate to using monitoring data?

Question: Would the GCVTC approach, which specifies maintaining (rather than improving) average ''clean day'' conditions, be appropriate for areas with higher levels of anthropogenic pollution and thus greater room for improvement (such as most of the Eastern U.S. and selected areas in the West)?

Question: How should a reasonable progress determination take into account the degree of improvement in visibility which may reasonably be anticipated, the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements?

Question: What should be required in a State's long-term strategy for making reasonable progress under the regional haze program?

One element of the reasonable progress demonstration should describe the State's strategies for preventing future impairment and ensuring continued progress for a long-term strategy. Estimates of future population growth and associated changes in emissions, and a plan to ensure reasonable progress under these anticipated conditions, could be required by the program. Current visibility regulations require States to revise their long-term strategies every 3 years with respect to reasonably attributable impairment. A regional haze program should address long-term strategies for mitigating all types of visibility impairment, including regional haze impacts.

Another consideration is the implementation of current statutory requirements. An EPA Report to Congress dealing with the effects of the 1990 Act Amendments on visibility in Class I areas estimated that Class I areas from Maine to Georgia would see perceptible improvements in summer and winter visibility under expected implementation of the Amendments. The most significant improvements are expected for Class I areas along the Central and Southern portions of the Appalachian Mountains. The 1993 report indicates that modeled future improvements in annual average Eastern regional visibility are directly related to expected reductions of SO_2 emissions under title IV of the Act (i.e., the acid rain program). Note, however, that current models are not reliable enough to estimate the extent of improvement in the number of clear and hazy days at specific locations.

Question: How should regional haze regulations address the requirement for BART for sources that may reasonably be anticipated to contribute to regional haze?

Rules for regional haze are required to address BART for any major source placed in operation between 1962 and 1977 that ''emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility'' in a mandatory Federal Class I area. The EPA's current visibility rules limit BART to major stationary sources whose contribution is ''reasonably attributable'' to impairment in a Federal Class I area. Recognizing that determinations of BART for regional haze involves contributions from multiple sources, EPA solicits comment on how technological controls, costs, the degree of improvement in visibility which may reasonably be anticipated, and other factors contained in section 169A(g)(2) should be considered.

Section 169A(g)(2) defines BART as follows: ''* * * in determining best available retrofit technology, the State (or the Administrator in determining emission limitations which reflect such technology) shall take into consideration the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control technology in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology * * *.'' (42 U.S.C. 7491(g)(2).

Under the existing visibility program, the BART process has involved extensive technical assessments to demonstrate that emissions from a specific major source contribute a specific amount of impairment at a specific Federal Class I area. The regional haze program should address whether the BART requirement would be interpreted differently for the purposes of remedying existing impairment due to the cumulative emissions from sources located across broad regions.

One alternative interpretation could involve the identification of sources potentially subject to BART, development of emission rates determined to be equivalent to BART for key source categories, the estimation of total emission reductions that would be achieved if BART-level emission rates are implemented, incorporation of these reductions into regional emission reduction targets, and implementation of programs by the States to achieve these emission reductions. Regional emission reduction targets for BART could be met through reductions from BART-eligible stationary sources, or the program could potentially allow an equivalent level of reductions through some other means, such as a trading program. Under such an approach, proposed emission reductions planned for attaining any new NAAQS will improve visibility conditions to some degree. Thus, program integration is needed to assess the extent to which strategies for attaining the NAAQS will help meet section 169A requirements for making reasonable progress and implementing BART.

Question: What should be the process for FLM's and EPA involvement in reviewing SIP revisions and reasonable progress demonstrations?

States are required to consult in person with the appropriate FLM's before holding a public hearing on any SIP revisions for visibility. The regional haze program, therefore, should define roles and responsibilities of FLM's, States, and EPA in the review of SIP revisions and reasonable progress demonstrations. It should include ways that input from FLM's and EPA can be incorporated early in program planning activities.

Issue: Visibility SIP revisions due after 12 months—States will be required to revise their SIP's within 12 months of promulgation of regional haze regulations.

The regional haze rules will need to identify the program elements to be addressed in these SIP's. Monitoring strategies, emissions inventories and tracking, emission limitations, schedules of compliance, and adequacy of personnel, funding, and authority for program implementation are all important areas for consideration. The EPA seeks input on other elements that should be included in visibility SIP's and how to coordinate regional haze program implementation with NAAQS implementation.

Issue: Monitoring Program—Since 1987, EPA has supported the IMPROVE network in cooperation with the National Park Service, other FLM's, and State organizations. The IMPROVE network employs aerosol, optical (i.e., nephelometers and transmissometers) and scene (i.e., 35 mm photography) measurements. Direct measurements are taken of fine particles and precursors that contribute to visibility impairment at more than 40 mandatory Federal Class I areas across the country. Aerosol measurements are taken twice a week

for PM–10 and fine particle masses and for key constituents of fine particles, such as sulfate, nitrate, organic and elemental carbon, soil dust, and several other elements. Measurements for specific aerosol constituents are used to calculate ''reconstructed'' aerosol light extinction by multiplying the mass for each constituent by its empirically-derived scattering and/or absorption efficiency. These reconstructed light extinction levels are cross-checked with nephelometer and/or transmissometer measurements. Knowledge of the main constituents of a site's light extinction ''budget'' is critical for source apportionment and control strategy development. These methodologies allow estimates of how proposed changes in atmospheric constituents would affect future visibility conditions.

Currently, the IMPROVE monitoring protocols for aerosol, optical, and scene measurements are not included as Federal reference methods because visibility is not regulated under the NAAQS. The EPA is developing a visibility monitoring guidance document, however, that will identify important methods and procedures for effective aerosol, optical, and scene monitoring.

Question: Will the current IMPROVE network be sufficient to determine reasonable progress for mandatory Federal Class I areas?

States implementing a new regional haze program can benefit from the existing infrastructure of the IMPROVE network, established protocols, existing sites, and historical data available. The fact that monitoring equipment is located at only about a quarter of the 156 mandatory Federal Class I areas, however, raises the issue of whether the current configuration is representative of all sites, and whether the network needs expansion. The GCVTC, in its recommendations on future technical needs, states that: ''The current IMPROVE monitoring network only measures aerosol samples twice a week and at only a few Federal Class I sites * * *. Consideration should be given to expanding the coverage or redeployment of resources in the IMPROVE network to enhance completeness of the data set, including on tribal lands. In addition, background surveillance sites could be established at intermediate locations between Federal Class I areas and large regional sources (metropolitan areas) to provide a better understanding of the intermediate course of atmospheric chemistry and transport. Monitoring should be maintained at existing sites in order to allow for long-term trend analysis.''

As discussed above, visibility SIP submittals and State reasonable progress demonstrations likely will rely on monitored data from the IMPROVE network. Thus, it should be determined whether the existing geographic distribution of IMPROVE network sites is adequate for making future determinations of reasonable progress in all Federal Class I areas and for verifying models for predicting possible visibility effects of future air quality management strategies. In addition, the ability for the current cooperative arrangement between EPA, FLM's and the States for managing and funding the network in the future should be assessed.

2. Designations for New NAAQS and Regional Haze Planning Areas

Under the current statutory requirements and EPA policy, EPA is required to designate areas as attainment, nonattainment, or unclassifiable after promulgation of a new or revised NAAQS. The designation process allows EPA to identify geographic regions where the public is subject to potential health risks, to alert the public to the existence of those areas, and to require States to establish control programs to mitigate those health risks.

The EPA is giving advance notice that regional haze planning areas (to address Federal Class I areas) may need to be established for the purposes of conducting technical assessments and developing plans to abate haze on a regional basis. This is the approach to reducing haze recommended by the NRC, as well as the GCVTC. Because haze results from direct emissions of fine particles and fine particle and ozone precursors, the Subcommittee is considering whether regional haze planning areas should coincide with nonattainment areas or other types of control strategy areas established to reduce ozone and PM.

Given that EPA will designate areas and may establish regional haze planning areas, there are several issues that must be resolved. These relate mainly to the timing of designations, the basis for designations (e.g., the use of monitoring or modeling data), the size of nonattainment areas, and the role of transport in the designations process. These requirements raise questions such as the following.

Question: What are EPA's options in developing designation schemes for areas violating the new revised NAAQS?

Question: Should there be differentiation in designations between areas where violations are occurring and the source areas contributing to the problem?

Question: Should nonattainment status be changed to indicate only a public health risk or should nonattainment both indicate the public health risk and trigger control strategies?

Other questions identified to date include the following.

Question: What information should be used as a basis for designating areas and establishing regional haze planning areas, e.g., monitoring data, modeling data, other data, or combinations of monitoring, modeling, and other data?

Question: If monitoring or modeling data are relied upon, will adequate information be available within the appropriate timeframe?

Question: To what extent, if any, should the boundaries of nonattainment areas, control strategy areas and regional haze planning areas coincide or should there be separate areas for ozone, PM, and regional haze?

Question: How can incentives be created to monitor air quality in order to gain a better scientific understanding of the pollutants and avoid disincentives when NAAQS violations are measured? How can incentives be created for private sectors to form monitoring partnerships with EPA and States?

3. Mechanisms to Address Regional Strategies

Question: How do we develop or use existing institutional mechanisms to effectively implement control strategies incorporating multistate regionally—or nationally-applicable measures?

Reviews of monitoring/modeling data suggest that violations of new ozone NAAQS in the center of the range described by the Clean Air Science Advisory Committee (CASAC) are likely to be more widespread than is the case with the current NAAQS. Further, data available at this time suggest that if a PM–2.5 NAAQS is established in the lower end of the range being considered, it too may result in a problem which is regional in scope. By its definition, regional haze is a regional problem. Areas that present the most concerns for visibility protection (i.e., Federal Class I areas such as national parks and wilderness areas) are often located at considerable distances from anthropogenic sources of visibility degradation.

The likely regional scope of problems meeting new NAAQS or visibility goals implies a need for measures applied over large (e.g., multistate) geographical areas.

Question: Should a framework for institutional mechanisms be identified

and developed for facilitating development and implementation of strategies to reduce regional transport of ozone, fine particles, and their precursors?

Recently, several cooperative efforts have emerged to better understand and address regional problems. Some of these have been mandated, others are voluntary. Examples include NESCAUM, Mid-Atlantic Regional Air Management Association (MARAMA), Lake Michigan Air Directors Consortium (LADCO), OTC, Southeast States Air Regional Management (SESARM), OTAG, Western States Air Resources Council (WESTAR), GCVTC, State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO) and the Environmental Commissioners of States organization (ECOS).

Question: What attributes of existing multistate institutions have been successful or appear essential for assisting in the development and implementation of a regional strategy? Can or should multistate institutions be developed using one or more existing institutions as a starting point?

To identify an appropriate institutional mechanism to facilitate State implementation of programs to meet several air quality goals which are regional in scope, it is first necessary to more specifically define what principles are appropriate for such a group. The following principles, developed by the National and Regional Strategies Work Group to guide their deliberations, are proposed for consideration.

Principle: The institutional mechanism which is established should develop an operating protocol whereby participating States can reach agreement on regional measures to implement. The protocol would address such issues as, who gets to vote?; what constitutes consensus?; to what extent are consensus decisions binding?; what should be the role of the private sector?; what steps should be followed if there is no compliance with an agreement?

Principle: The institutional mechanism should develop a means for summarizing and distributing information on the scientific basis, technical viability and capital/operating costs associated with measures under consideration. In addition, the institution should provide a means, along with the EPA, for facilitating distribution of consistent information regarding emissions, air quality, meteorological data and modeling results to member States.

Question: When considering possible regional strategies, what limitations are imposed by State laws or other constraints? Are clear priority options or ''operating principles'' needed for any institutional mechanism which is formed to help implement regional control measures? The following principles serve as possible examples.

Principle: Use the institutional mechanism as a means to establish positive incentives for upwind areas to reduce precursor emissions. Possible approaches to consider include: having downwind areas/sources defray some of the control costs at upwind locations in exchange for not having to implement the most costly controls in their area, use of performance goals rather than specific measures, and providing a ''bonus credit'' for early implementation.

Principle: Use the institutional mechanism as a means for fostering communication among States and the private sector involved with implementing measures. This goal envisions the mechanism as providing an information clearinghouse on what different States are doing and the appropriate contacts for further details. The institutional mechanism might also serve as the means for facilitating periodic meetings on various subjects related to implementing regional strategies in a coordinated fashion.

Principle: Use the institutional mechanism as a means for promoting use of improved analytical tools and data bases as well as to promote use of consistent assumptions among the States which are implementing regional measures.

4. Integration of NAAQS and Regional Haze Implementation Programs

Question: When and where does it make sense to develop and implement integrated criteria and policies for urban ozone, fine particles and regional haze control programs?; for regional ozone, fine particle and regional haze control programs?

As discussed in the previous science section, the photochemical reactions involving VOC, NO_X and sunlight which produce ozone also produce other secondary pollutants. The photochemical reactions can result in oxidation of SO_2 and NO_X to produce visibility-reducing species which may be regarded as fine PM or as haze. This realization leads to the question of whether control of ozone, fine particles and haze can be optimized through consideration of all of them together in an integrated fashion rather than considering each separately. This issue considers first how to decide if integration is appropriate and second, if it is, then what integrated control strategies should be implemented to reduce the impact on public health and improve visibility caused by regional haze?

Before key national/regional/multipollutant control strategies can be developed, a clear understanding of what integration of ozone, PM, and regional haze means to the implementation process must be established. For instance, if the goal is to minimize the burden on the regulated industry, then the outcome of the control strategy may look different from one with the goal of maximizing the risk reduction to public health and welfare. Will the knowledge and understanding of these approaches be understood and the technical tools needed to integrate the programs be available, or must new state-of-the-science and technical tools be developed?

While the focus of control strategy integration centers around the ozone, PM and regional haze programs, some consideration of how other programs affect these programs will need to be assessed (i.e., acid rain, climate change, stratospheric ozone, ecosystem protection, toxics). A number of questions arise when considering the feasibility of an integrated strategy.

Question: What should be the basis for designing control strategies?

Question: Should integration utilize consistent or uniform modeling approaches to understanding long-range transport? What is the most practical way to accomplish this?

Question: Is an atmospheric chemistry linkage needed between all the programs? Currently, efforts are under way for fine particles and ozone. There may be some SO_2 chemistry included and limited toxics integration. Are these adequately characterized?

Question: How should multipollutant integration fit into the development and initiation of control strategies and programs?

Question: How can contributing sources be identified?

Question: If equity between control of long-range transport and control of local generation of pollutants is important, how could it be defined?

Question: What qualitative considerations can be made to provide assurance that control programs for ozone, PM, regional haze, toxics, acid deposition, etc., are integrated with one another?

To identify an appropriate framework for implementing efficient programs that meet several air quality goals for pollutants which are regional in scope, it is first necessary to more specifically define what principles are appropriate. As indicated above, the following

principles are guiding the National and Regional Strategies Work Group deliberations and could provide an initial set for consideration:

Principle: Pursue integrated control strategies for simultaneously reducing ambient concentrations of tropospheric ozone and fine PM if there are sufficient observation-based data to demonstrate both an environmental and economic benefit to integration.

Principle: Emphasize performance-based control strategies in lieu of prescriptive command-and-control strategies.

Principle: Develop controls that establish emission reduction responsibility based on the contribution to the problems, while also considering cost-effectiveness.

Principle: Emphasize broad-scale control strategies for contributing sources where dictated by sound science.

Principle: Focus on the interactions of the pollutants and the interactions between control strategies, identifying both positive and negative interactions.

Principle: Integrate the implementation of the three programs (ozone, PM, and regional haze) to the greatest extent possible.

Principle: Recognize that decisions need to be made based on scientific information that is improving and find institutional mechanisms to allow for mid-course corrections when significant new information is available.

5. Prevention of Significant Deterioration (PSD) of Air Quality and Nonattainment New Source Review (NSR)

Protection of the NAAQS, including new and revised standards, is provided in part under Federal regulations requiring the preconstruction review of large new and modified stationary sources of air pollution, referred to as ''major stationary sources.'' As described below, the nature of the changes which EPA will be proposing to the implementation policies for the NAAQS for both ozone and PM will necessitate consideration of significant changes to these regulations commensurate with the types of issues already described in this ANPR.

Two separate preconstruction review programs exist, based on the air quality attainment status of the proposed location of source construction. Major stationary sources locating in areas designated attainment or unclassifiable for a particular pollutant are subject to requirements for the PSD of air quality. Major stationary sources located in areas designated nonattainment for a particular pollutant must undergo review via nonattainment NSR requirements.

Under the PSD program, a major stationary source is defined as one that emits or has the potential to emit 250 tons per year (tpy) or more of any air pollutant, except where a source is one in a category specifically listed as a 100 tpy major source category. In addition to the pollutant for which the source is major, the PSD preconstruction review applies to each regulated pollutant which the major source will have the potential to emit in significant amounts, as defined by EPA regulations. Sources required to undergo PSD review generally must demonstrate to the applicable permitting authority that proposed emissions increases will not cause or contribute to violations of the NAAQS or maximum allowable pollutant concentration increases (known as increments). Under certain circumstances, the source may also need to demonstrate that emissions will not have an adverse impact on air quality related values in Federal Class I areas. The air quality impact analyses associated with these demonstrations rely upon the use of both predicted (modeled) air quality and measured (ambient monitoring) data. The predictions of air quality using air dispersion models require the use of emissions data for the new or modified source and certain existing sources within the potential area of impact. Where adequate ambient data are not available, the permitting authority may require the PSD applicant to collect 1 year of ambient monitoring data. As described earlier in this ANPR, changes in the way which air quality assessments are made, considering how emissions, meteorological processes, atmospheric chemistry, and deposition occur over multiple spacial and temporal scales, will likely affect the way in which future PSD air quality impact analyses are carried out for ozone and PM.

In addition, the PSD applicant must demonstrate that proposed emissions increases will be controlled through the use of best available control technology (BACT). The determination of BACT involves the selection of the most effective control technology for reducing emissions of a particular pollutant on a case-by-case basis, taking into consideration energy, environmental and economic impacts and other costs. Decisions for controlling PM, for example, could be affected by the particle size, as well as the chemical composition, of the PM proposed to be emitted. Moreover, changes to the requirements for applying BACT to individual sources may be needed to more adequately address the consideration of precursor contributions and atmospheric chemistry in selecting the best controls to provide the most effective ambient benefits for ozone and PM.

Increments for PM were originally defined for total suspended particulate (TSP). The EPA later replaced those increments with PM–10 increments following replacement of the TSP NAAQS with the PM–10 NAAQS. Should EPA adopt NAAQS for PM which include standards for both PM–10 and fine particles, then EPA will need to consider how that will affect the current PM–10 increments. Increments for ozone have never been established because of the technical difficulty associated with predicting ambient concentration changes resulting from individual stationary sources of VOC.

Under the nonattainment NSR regulations, ''major source'' is defined generally as any stationary source that emits, or has the potential to emit, in consideration of controls, 100 tpy or more of the nonattainment pollutant, except in specific cases where lower thresholds apply to more serious nonattainment classifications. The basic nonattainment NSR requirements for the construction or modification of major stationary sources in nonattainment areas and the ozone transport region include the requirement that the lowest achievable emission rate technology be installed, and that the increased emissions of the nonattainment pollutant from the proposed new major source or major modification be offset by actual emissions decreases of the same pollutant from one or more existing sources. The offsets may come from the same nonattainment area or another nonattainment area of equal or higher classification as long as the offsetting emissions contribute to the air quality problem in the area where the decrease is being credited. As with PSD, the NSR requirements for control technology application and offsets do not adequately account for precursor activities or for the complexities associated with atmospheric chemistry.

Any revised ozone and PM NAAQS may suggest that existing implementing guidance, EPA's nonattainment NSR rules, and the States' nonattainment NSR programs will need to be reviewed and revised in various ways to address the integrated implementation approach being contemplated.

The FACA Subcommittee and work groups will look into how the current PSD/NSR programs for ozone and PM–10 attainment, unclassifiable and nonattainment areas could be adapted

or modified. Some PSD/NSR questions that may consider include:

Question: What types of mitigation procedures should be required of major new or modified sources that would contribute to violations of the revised NAAQS for ozone or PM, or to visibility impairment in Federal Class I areas?

Question: Should PSD/NSR requirements reflect the potential for broad intra and interstate nonattainment areas, control areas, and regional haze planning areas that could result when addressing implementation under revised NAAQS for ozone and PM?

Question: What approach should be developed for the treatment of ozone and fine particle precursors for PSD/NSR applicability purposes?

Question: Should the PSD/NSR programs allow for precursor substitutions when environmentally beneficial to meet offset and control technology requirements?

Question: How can availability, crediting, and location of emissions offsets be restructured under a more regionalized implementation strategy for PM?

6. Attainment Dates

Areas designated nonattainment with respect to a primary NAAQS are, under the current statutory structure, required to achieve attainment as expeditiously as practicable, but no later than 5 years from the date the area was designated nonattainment. The EPA may extend this date up to an additional 5 years. This extension may be a full 5 years or any 1 year increment in between. Additionally, the Administrator may grant two 1-year extensions.

With respect to a potential new secondary ozone NAAQS, areas designated nonattainment are required, under the current statutory structure, to achieve attainment of the secondary NAAQS as ''expeditiously as practicable'' following designation. Secondary nonattainment areas are not bound to the same 10-year deadline as primary areas.

Question: Given the preceding discussion, how should attainment dates for primary and secondary NAAQS be established?

B. Phase II Issues

As discussed earlier in this notice, in Phase I, the FACA Subcommittee and work groups will address air quality management framework issues. The EPA plans to propose the resulting Phase I strategy in mid-1997. Phase II of the integrated implementation strategy will focus on more detailed control strategy development. The EPA plans to propose the Phase II strategy in mid-1998. The Phase II implementation issues include:

—Classifications of nonattainment areas;

—Control requirements (e.g., reasonably available control measures including reasonably available control technology);

—Economic incentive programs;

—State implementation plan requirements;

—Overall control program integration;

—Measures of progress; and,

—Institutional processes.

All of these issues will be discussed in greater detail at a later date. Interested readers are directed to EPA's TTN and WWW site for an up-to-date status of the work groups and Subcommittee deliberations on these issues.

V. Administrative Requirements

A. Executive Order 12866

Under Executive Order 12866, 58 FR 51735 (October 4, 1993), the Administrator must determine whether the regulatory action is significant and therefore subject to the Office of Management and Budget (OMB) review and the requirements of the Executive Order. The 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, 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 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.

Pursuant to the terms of Executive Order 12866, it has been determined that this ANPR announces a significant regulatory action, and as such, will be submitted to OMB for review. Any written comments from OMB to EPA, any written EPA responses to those comments, and any changes made in response to OMB suggestions or recommendations will be included in the docket. The docket is available for public inspection at the EPA's Air and Radiation Docket and Information Center, which is listed in the ADDRESSES section of this notice.

B. Miscellaneous

Requirements under the Unfunded Mandates Act of 1995, the Paperwork Reduction Act, and the Regulatory Flexibility Act will be addressed if and when the Agency issues a proposed rule based on the comments received on this ANPR.

List of Subjects in 40 CFR Part 51

Environmental protection, Administrative practice and procedure, Air pollution control, Carbon monoxide, Nitrogen dioxide, Ozone, Particulate matter, Sulfur oxides, Volatile organic compounds.

Dated: December 4, 1996.

Carol M. Browner,

Administrator.

Appendix

Definitions

Annual sulfate conversion: Although significant gas phase transformation of sulfur dioxide occurs, aqueous phase oxidation is believed to be responsible for the majority of annual sulfate conversion in the Eastern U.S.

''Best'' and ''worst'' days: Can be defined as the average of the 20 percent best and worst days, respectively, as measured in terms of total light extinction.

Chemical sinks: Termination compounds that essentially remove other compounds (e.g., nitric acid, hydrogen and organic peroxides). Some ''sinks'' can eventually break down and reform precursor compounds (e.g., peroxy acetyl nitrate, PAN).

Deciview: Derived from the light extinction coefficient and describes changes in uniform atmospheric extinction that can be perceived by a human observer. It is designed to be linear with respect to perceived visual changes over its entire range in a way that is analogous to the decibel scale for sound. A 1-deciview change is roughly equivalent to a 10 percent change in visibility.

Improve: A federally-administered visibility monitoring network for Federal Class I areas in several States that failed to submit SIP's containing monitoring strategies as required in the 1980 visibility regulations.

Intermediates: Include the short-lived radicals (hydroxyl, hydro-, and organic-peroxy) which perform many of the important atmospheric oxidation reactions.

Mandatory Federal Class I Areas: Areas designated as mandatory Federal Class I areas are those national parks exceeding 6000 acres, wilderness areas and memorial parks exceeding 5000 areas, and all international parks which were in existence on August 7, 1977.

Precursors: Compounds which contribute or lead to the formation of a secondary pollutant. For example, NOx and VOC are ozone precursors.

Reasonably attributable: Visibility impairment, as defined in 40 CFR 51.301, that is ''attributable by visual observation or any other technique the State deems appropriate.'' It includes impacts to mandatory Federal Class I areas caused by

smoke, plumes or layered hazes from a single source or group of sources.

Visibility regulations: See 45 FR 80084 (December 2, 1980) (codified at 40 CFR 51.300–307).

VOC species: Most low molecular weight VOC species (which are most prevalent in ambient air) are not expected to contribute significantly to secondary aerosol formation. Certain aromatics, and higher molecular weight alkanes and alkenes (>6 carbons) are believed to be the major contributors to secondary organic aerosol formation.

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Friday
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Part VI

Environmental Protection Agency

40 CFR Parts 53 and 58

Proposed Requirements for Designation of Reference and Equivalent Methods for $PM_{2.5}$ and Ambient Air Quality Surveillance for Particulate Matter; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 53 and 58

RIN 2060–AH09

[AD–FRL–5659–2]

Proposed Requirements for Designation of Reference and Equivalent Methods for $PM_{2.5}$ and Ambient Air Quality Surveillance for Particulate Matter

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA proposes to revise 40 CFR part 58 to establish ambient air quality monitoring requirements for $PM_{2.5}$ (particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers) as measured by a new reference method being proposed in Appendix L to 40 CFR part 50 or by an equivalent method designated in accordance with requirements being proposed in 40 CFR part 53. In addition, this document also proposes certain revisions to existing ambient air quality monitoring requirements for PM_{10} (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers). The changes proposed in this document address among other things, network design and siting, quality assurance and quality control, and monitoring methodology. The document also indicates EPA's intent to explore opportunities to coordinate and integrate the existing visibility monitoring requirements with the ambient air quality monitoring requirements for particulate matter being proposed today to accommodate a better regional haze program and to reduce burdens and achieve multiple monitoring objectives.

DATES: Comments must be submitted on or before February 18, 1997.

ADDRESSES: Comments should be submitted (in duplicate, if possible) to: Air Docket (LE–131), U.S. Environmental Protection Agency, Attn. Docket No. A–96–51, 401 M Street, SW, Washington, DC 20460. The docket may be inspected between 8:00 a.m. and 5:30 p.m. on weekdays. A reasonable fee may be charged for copying.

Public hearing: The EPA will announce in a separate Federal Register document the date, time, and address of the public hearing on this proposed decision.

FOR FURTHER INFORMATION CONTACT: Mr. Neil Frank (MD–14), Monitoring and Quality Assurance Group, Emissions, Monitoring, and Analysis Division, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541–5560.

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I. Authority

Sections 110, 301(a), and 319 of the Clean Air Act as amended 42 U.S.C. 7410, 7601(a), 7619.

II. Introduction

A. Proposed Revision to the Particulate Matter NAAQS

Elsewhere in today's Federal Register, EPA announced proposed revisions to the national ambient air quality standards for particulate matter. In that notice, EPA proposes to amend the current suite of PM_{10} standards by adding new $PM_{2.5}$ standards and by revising the form of the current 24-hour PM_{10} standard. Specifically, the EPA proposes to add two new primary $PM_{2.5}$ standards set at 15 $\mu g/m^3$, annual mean, and 50 $\mu g/m^3$, 24-hour average. The proposed new annual $PM_{2.5}$ standard would be met when the 3-year average of the annual arithmetic mean $PM_{2.5}$ concentrations, spatially averaged across an area, is less than or equal to 15 $\mu g/m^3$. The proposed new 24-hour $PM_{2.5}$ standard would be met when the 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations at each monitor within an area is less than or equal to 50.

The EPA also proposes to retain the current annual PM_{10} standard at the level of 50 $\mu g/m^3$, which would be met when the 3-year average of the annual arithmetic PM_{10} concentrations at each monitor within an area is less than or equal to 50 $\mu g/m^3$. Further, EPA proposes to retain the current 24-hour PM_{10} standard at the level of 150 $\mu g/m^3$, but to revise the form such that the standard would be met when the 3-year average of the 98th percentile of the monitored concentrations at the highest monitor in an area is less than or equal to 150 $\mu g/m^3$.

In the part 50 notice, EPA also proposed to revise the current secondary standards by making them identical to the suite of proposed primary standards. The suite of $PM_{2.5}$ and PM_{10} standards, in conjunction with the establishment of a regional haze program under section 169A of the Clean Air Act (Act), are intended to protect against PM-related welfare effects including soiling and materials damage and visibility impairment.

As discussed in the part 50 notice, the proposed new $PM_{2.5}$ standards are intended to protect against exposures to fine particulate pollution, while the new PM_{10} standards are intended to protect against coarse fraction particles as measured by PM_{10}.

For $PM_{2.5}$, the annual standard is intended to protect against both long- and short-term exposures to fine particle pollution. Under this approach, the $PM_{2.5}$ 24-hour standard would serve as a ''back stop'' to provide additional protection against days with high $PM_{2.5}$ concentrations, localized ''hot spots,'' and risks arising from seasonal emissions that would not be well controlled by a national annual standard.

In specifying that the calculation of the annual arithmetic mean for an area (for purposes of comparison to level of $PM_{2.5}$ annual standard) should be

accomplished by averaging the annual arithmetic means derived from multiple, population-oriented monitoring sites, EPA took into account several factors. As discussed in the part 50 notice, many of the community-based epidemiologic studies examined in this review used spatial averages, when multiple monitoring sites were available, to characterize area-wide PM exposure levels and associated public health risk. Even in those studies that used only one monitoring location, the selected site was chosen to represent community-wide exposures, not the highest value likely to be experienced within the community. Because the annual $PM_{2.5}$ standard would be intended to reduce aggregate population risk from both long- and short-term exposures by lowering the broad distribution of PM concentrations across the community, an annual standard based on spatially averaged concentrations from several population-oriented monitoring sites would better reflect areawide PM exposure levels and associated health risks than would a standard based on concentrations from a single monitor with the highest measured values in the area. The spatial average approach is not appropriate for PM_{10} because the spatial distribution of coarse particles is different and tends to be more localized in its behavior.

Finally, under the policy approach presented in the part 50 notice, the 24-hour $PM_{2.5}$ standard would be intended to supplement a spatially-averaged annual $PM_{2.5}$ standard by providing protection against peak 24-hour concentrations arising from situations that would not be well-controlled by an annual standard. Accordingly, the 24-hour $PM_{2.5}$ standard would be based on the single population-oriented monitoring site within a monitoring planning area with the highest measured values.

In EPA's judgment, an annual $PM_{2.5}$ standard expressed as a spatial average, established in conjunction with a 24-hour standard based on the monitoring site with the highest measured values, would provide the most appropriate target for reducing area-wide population exposure to fine particle pollution and would be most consistent with the underlying epidemiologic data base. On the other hand, EPA is mindful that adoption of spatial averaging for a $PM_{2.5}$ standard would add a degree of complexity to the monitoring siting requirements and to the specification of those areas across which spatial averaging should be permitted. This approach may also require larger monitoring networks in some areas. By proposing a spatial averaging approach, the part 50 notice recognizes that some monitoring planning areas may have to be subdivided into smaller subareas to reflect gradients in particle levels (e.g., upwind suburban sites, central city sites, downwind sites) as well as topographical barriers or other factors that may result in a monitoring planning area having several distinct air quality regimes.

Recognizing the complexities that spatial averaging may introduce into risk management programs and that unforeseen issues may arise from public comment on the requirements presented in this notice, the part 50 notice also requests comment on the alternative of basing the $PM_{2.5}$ annual standard on the population-oriented monitoring site within the monitoring planning area with the highest 3-year average annual mean. The part 50 notice indicates, based on comments received, that EPA may choose either of these two approaches for specifying the form of the annual $PM_{2.5}$ standard at the time of promulgation of any revisions to the PM standards.

In the part 50 notice, EPA also solicits comments on alternative levels of both annual and 24-hour $PM_{2.5}$ primary standards and on revoking the current 24-hour primary PM_{10} standard.

B. Air Quality Monitoring Requirements

Section 110(a)(2)(C) of the Act requires ambient air quality monitoring for purposes of the State implementation plans (SIP's) and for reporting data quality to EPA. Uniform criteria to be followed when measuring air quality and provisions for daily air pollution index reporting are required by section 319 of the Act. To satisfy these requirements, on May 10, 1979 (44 FR 27558), EPA established 40 CFR part 58 which provided detailed requirements for air quality monitoring, data reporting, and surveillance for all of the pollutants for which national ambient air quality standards have been established (criteria pollutants). Provisions were promulgated subsequently for particulate matter (PM_{10}) on July 1, 1987 (52 FR 24740).

The intent of the air quality surveillance requirement being proposed today is to establish a revised particulate matter monitoring network that would produce air quality data for the purpose of comparison to the proposed primary and secondary PM NAAQS and to facilitate implementation of a possible new regional haze program. In developing a new particulate matter monitoring network and associated requirements, consideration has been given to the indicators, forms, and levels of the proposed primary and secondary PM NAAQS. As a result, nationwide monitoring would be performed for two indicators of PM: $PM_{2.5}$ and PM_{10}. To be reflective of the basis for and the specification of the forms of the proposed new annual and 24-hour primary and secondary $PM_{2.5}$ NAAQS, new monitoring network design and siting requirements are being proposed. For purposes of comparison to the proposed $PM_{2.5}$ annual standard, such sites would be population-oriented and be representative of community-wide exposure levels. The siting criteria for monitors to be used for comparison to the proposed 24-hour $PM_{2.5}$ standard would also be population-oriented but reflective of the highest measured values within the community. To ensure PM data of the highest possible quality, new requirements for quality assurance and designation of new $PM_{2.5}$ reference or equivalent samplers are also described.

With respect to NAAQS comparisons and visibility protection in more rural areas, the new network design and siting requirements would encourage the placement of $PM_{2.5}$ monitors outside population centers with two purposes in mind: (1) To provide air quality data necessary to facilitate implementation of the proposed NAAQS, and (2) augmentation of the existing visibility fine particle monitoring network. The coordination of these two monitoring objectives would facilitate implementation of a regional haze program and lead to an integrated monitoring program for fine particles.

The network design and siting requirements for the annual and 24-hour PM_{10} NAAQS would continue to emphasize identification of locations at maximum concentrations. The PM_{10} network itself, however, would be revised because the proposed $PM_{2.5}$ standards would likely be the controlling standards in most situations.

The new network for PM_{10} would be derived from the existing network of State and Local Air Monitoring Stations (SLAMS), National Air Monitoring Stations (NAMS), and other monitors generically classified as Special Purpose Monitors (SPM's) which include industrial and special study monitors. Population-oriented NAMS will generally be maintained, other key sampling locations in existing nonattainment areas, and in areas whose concentrations are near the levels of the proposed PM_{10} NAAQS will be continued. Currently approved reference or equivalent PM_{10} samplers could continue to be utilized. The revised network would ensure that analysis of national trends in PM_{10} can

be continued, that air surveillance in areas with established PM emission control programs can be maintained, and that the PM_{10} NAAQS will not be jeopardized by additional growth in PM_{10} emissions. PM_{10} sites should be collocated with new $PM_{2.5}$ sites at key population-oriented monitoring stations so that better definition of fine and coarse contributions to PM_{10} can be determined to provide a better understanding of exposure, emission controls, and atmospheric processes. PM_{10} sites not needed for trends or for monitoring in areas with relatively high PM_{10} concentrations would likely be discontinued in a longer-term PM_{10} network. The sampling frequency at all PM_{10} sites would be reduced to a minimum of once in 6 days, which would be sufficient to make comparisons with proposed PM_{10} standards. The combination of fewer PM_{10} sites and the reduction in required sampling frequency would save significant resources that could be redirected to $PM_{2.5}$ monitoring.

The new network for $PM_{2.5}$ would consist of a ''core'' network of population-oriented SLAMS monitors, ''core'' regional background and regional transport SLAMS, a NAMS subset for long-term monitoring, other SLAMS monitors, and supplementary network of SPM's. The core population-oriented sites would be reflective of community-wide exposure and would be required in all of the largest metropolitan areas and must sample everyday. Frequent measurements are important to understand episodic behavior of $PM_{2.5}$, and to establish effective emission control strategies to assure protection of the NAAQS. Many of the new $PM_{2.5}$ sites are expected to be located at existing PM_{10} sites, and would be collocated with some PAMS sites.

Consistency with the proposed new $PM_{2.5}$ NAAQS necessitates the adoption of new concepts for identification and establishment of monitoring stations for the $PM_{2.5}$ ambient air monitoring network as well as use of the data in relation to the proposed $PM_{2.5}$ NAAQS. These concepts include: (1) The addition of specially coded sites whose data would be used to compare to the levels of the annual and 24-hour $PM_{2.5}$ NAAQS, and (2) the inclusion of monitoring planning areas and spatial averaging zones (SAZ) to correspond to the population-oriented, spatial averaging approach. These concepts and associated requirements are discussed in sections 58.15 and sections 2.8.1–2.8.3 of Appendix D below.

Although the major emphasis of the new PM networks is compliance monitoring in support of the NAAQS, the network is also intended to assist in reporting of data to the general public, especially during air pollution episodes and to assist in the SIP planning process. To these ends, additional monitoring and analysis requirements are proposed concerning the location of nephelometers (or other continuous particulate matter measuring devices) at some core monitoring sites and the archiving of filters for possible subsequent analysis for subsets of the $PM_{2.5}$ SLAMS sites. Moreover, collection of meteorological data at core SLAMS sites (including background and regional transport sites) are suggested. The additional requirements should help to further characterize the composition and trends in $PM_{2.5}$ and better understand the sources and processes leading to elevated $PM_{2.5}$ concentrations. Because these proposed revisions do not specifically require the chemical analysis of collected $PM_{2.5}$ or PM_{10} filters, the Administrator would welcome comments on this issue. In particular, comments are solicited on the need for alternative $PM_{2.5}$ monitoring methodologies and additional monitoring requirements which might accompany the part 51 implementation rules to identify the causes of detected $PM_{2.5}$ NAAQS violations and to assist in the development of $PM_{2.5}$ emission control strategies.

While the proposed siting criteria and network designs are appropriate for both the proposed revisions to the primary and secondary NAAQS as a whole, additional consideration must be given to air quality surveillance in more rural/remote areas to characterize fine particle levels in order to protect against broader regional scale visibility impairment. To achieve the appropriate level of air quality surveillance in such areas, EPA believes it is important to coordinate and integrate the background and transport monitoring sites specified in this notice with the existing Interagency Monitoring of Protected Visual Environments (IMPROVE) monitors that are in place in a number of locations around the country to characterize fine particle levels and visibility in mandatory Federal Class I areas (e.g., certain national parks and wilderness areas). The need for coordination and integration of visibility-oriented monitoring sites will increase when EPA proposes rules under section 169A of the Act to supplement the secondary NAAQS in addressing regional haze. More detailed guidance on monitoring and assessment requirements will be provided when those rules are proposed. This will include details on topics such as monitor placement, monitoring methodology, duration of sampling and frequency of sampling. It is anticipated, however, that the existing IMPROVE network, together with sites established under this proposal, would be an integral part of the network for determining reasonable progress under a regional haze program.

In the meantime, EPA recommends that States, in conjunction with EPA and Federal land managers, explore opportunities for expanding and managing $PM_{2.5}$ and visibility monitoring networks in most efficient and effective ways to meet the collective goals of these programs. To facilitate this, EPA has proposed changes in Appendix C below, to allow use of existing or new IMPROVE monitoring sites to meet the requirements for a transport and/or background site for the proposed $PM_{2.5}$ standards. States should consider the feasibility of siting new transport/background and/or visibility monitoring locations at or near mandatory Federal Class I areas currently without an IMPROVE site so that such sites could provide data to characterize both fine particle levels and visibility in or near Class I areas. It is EPA's intent that monitoring conducted for purposes of the PM primary and secondary NAAQS (including background and transport sites), and for visibility protection be undertaken as one coordinated national PM monitoring program, rather than as a number of independent networks.

It is recognized by EPA as well as many outside groups including the Clean Air Act Advisory Committee's Subcommittee on Ozone, Particulate Matter, Regional Haze Implementation Programs and the National Research Council in its 1993 report ''Protecting Visibility in National Parks and Wilderness Areas'' that chemical speciation of PM data would permit development of more effective control strategies to better target those sources of emissions that are causing or contributing to elevated levels of $PM_{2.5}$ and PM_{10}. Speciation of $PM_{2.5}$ data can also be used to develop reliable estimates of seasonal and annual average visibility conditions.

Because of the costs associated with conducting filter analysis on a routine basis, this proposal only requires filters to be archived so they are available for analysis on an as needed basis. The EPA requests comment, however, on the extent to which chemical speciation should be conducted. This would include: (1) Whether specific monitoring sites should be designated for such analyses; (2) the criteria to be

used to select sites for speciated sampling and analysis; (3) the extent and frequency to which speciation should be required by EPA for at least some monitoring stations and (4) the need for monitoring methodologies not described in this proposal which may be needed to facilitate compositional analysis. The EPA recognizes that there is a need for speciation and other specialized monitoring efforts which are not specifically required by this proposed rule. Accordingly, EPA will give these PM monitoring efforts high priority in its section 105 grants program. The Administrator solicits comment on the appropriate portion of the nation's monitoring resources which should be dedicated to speciation and collection of special study data relative to the siting and collection of mass measurements for purposes of comparisons to the NAAQS and visibility assessments at permanent and temporary monitoring stations. The estimated cost for the new PM monitoring program is discussed further in Section IV. R.

Finally, in anticipation of a new regional haze program and associated additional monitoring requirements, EPA also requests comment on ways that the future PM and IMPROVE networks can be coordinated to conserve resources and serve the goals of both the PM and regional haze implementation program.

This proposed rulemaking is taken in conjunction with the proposed revisions to the PM NAAQS published elsewhere in today's Federal Register and pertains to changes in the ambient air monitoring requirements for particulate matter contained primarily in 40 CFR part 58. A new Federal Reference Method for $PM_{2.5}$, and changes to the definition of PM_{10} measurements are proposed in a new Appendix L and revisions to Appendix J respectively in 40 CR part 50. The effective date of these proposed monitoring regulations would be 6 months after the actual promulgation date. The EPA is soliciting comment on all aspects of all of the proposed rules.

III. Proposed Revisions to Part 53

A. Designation of Reference Methods for $PM_{2.5}$

The specifications for reference methods for $PM_{2.5}$ are described in Appendix L to part 50, proposed elsewhere in this issue of the Federal Register. The performance-based specifications for the operational aspects of a reference method sampler allow various sampler manufacturers to design and fabricate different samplers that would meet the specifications. Accordingly, multiple $PM_{2.5}$ reference methods are expected to become available from several manufacturers, as is the case for reference methods for PM_{10} and most gaseous criteria pollutants. Similarly, each reference method for $PM_{2.5}$, based on a particular sampler, would be formally designated as such by the EPA under new provisions added to part 53.

These new provisions, primarily contained in a new subpart E, would require that the applicant submit information and documentation to demonstrate that a candidate reference method sampler meets the design specifications set forth in Appendix L of part 50. The provisions would also require that the applicant carry out specific tests to demonstrate that the sampler meets all performance specifications. The nature of these tests and the requirement that they be carried out by the applicant rather than the EPA is consistent with the current requirements in part 53 for designating reference methods for other criteria pollutants.

Since the critical inlet and particle size separation components of the sampler are specified by design, no wind tunnel or aerodynamic performance tests of these components would be required. But documentation would be required to demonstrate that samplers to be sold as reference methods would be manufactured under an effective quality control system, such as required in an International Organization for Standardization (ISO) [1] 9001-certified facility, or a quality control system otherwise certified to meet similar requirements. Specific tests would be required to verify that the critical $PM_{2.5}$ impact or jet diameter was within the design specifications, and that the surface finish of surfaces required to anodized meets the surface finish specifications. Also, a checklist certifying that reference method samplers are or will be manufactured under an acceptable quality assurance system would have to be completed by an ISO-certified or equivalent auditor and submitted initially and annually.

The performance tests for reference method samplers would focus on testing of the sampler's operational performance parameters, the accuracy of its measurement systems, its field precision, and various other sampler control functions. A comprehensive test procedure is proposed for testing a representative candidate sampler for correct flow rate, flow rate regulation, flow rate measurement accuracy, ambient air temperature and barometric pressure measurement accuracy, filter temperature control and measurement accuracy, and sampling time accuracy. This test procedure would require a temperature-controlled environmental test chamber, a technique to simulate reduced barometric pressure, and facilities to generate simulated solar radiation. Other specific tests are proposed to test the sampler's post-sampling filter temperature control, leak check procedure, flow rate cut off function, and field operational precision. It should be noted that work to test the feasibility of these proposed test procedures has not been completed at this time; therefore, some technical changes to the proposed test procedures may be necessary following the results of that work.

B. Designation of Equivalent Methods for $PM_{2.5}$

In keeping with the EPA's largely performance-based approach for specification of measurement methods for environmental pollutants, provision is also proposed for designating equivalent methods for $PM_{2.5}$. These provisions are contained in proposed additions to subparts A and C and proposed new subparts E and F of part 53. To minimize the number and extent of performance tests to which candidate equivalent methods would be subjected, three classes of equivalent method are proposed to be defined.

The first class (Class I) would include $PM_{2.5}$ methods based on samplers that are very similar to a reference method sampler as specified in appendix L to part 50. Class I would primarily include methods based on samplers whose primary difference from reference method samplers is one or more modifications necessary to provide capability for collection of several sequential samples automatically without intermediate operator service. Samplers capable of collecting multiple sequential samples are important because the sampling schedules proposed in § 58.13 of part 58 call for daily sampling for certain SLAMS. With such a requirement, there is an expected need for samplers that will permit the collection of the required daily samples without the need for an operator to visit the site on a daily basis or for installing multiple samplers at the site. (Since the samplers would need to sample from midnight to midnight, a minimum of two single day samplers would be

[1] The ISO certification ensures compliance to international manufacturing standards from the design and engineering specifications. An ISO certification, or its equivalence for the manufacturing of the reference samplers is consistent with National Technology Transfer and Advancement Act Section 12(d), 15 U.S.C. Section 272 (1996).

required for full daily sampling; however, as a practical matter, additional single day samplers would generally be needed at a daily monitoring site to cover weekends, holidays, and personnel and scheduling logistics.) A sampler capable of automatically collecting five sequential samples would permit twice-weekly servicing of a monitoring site (assuming sample filters can be retrieved and reloaded on the inactive channels without affecting the actively sampling channel).

Since the design of sequential samplers is not specified explicitly, sampler manufacturers would be able to design and develop their own techniques to provide for this capability. Where the sequential sample technique consists of relatively minor or simple modifications of the reference method sampler, the sampler would be classified as a Class I candidate equivalent method. (Sequential samplers would also be possible as Class II or III equivalent methods.)

Class I equivalent method sequential samplers would have to be tested to make sure that the modifications required to provide for sequential sampling do not significantly compromise sampler performance. However, because of their similarity to the reference method sampler, the only additional test requirement for most Class I candidate equivalent methods—in addition to the tests and performance requirements applicable to reference method samplers—would be a test for possible loss of PM in any new or modified components in the sampler inlet upstream of the sample filter. This additional test for Class I samplers is set forth in the proposed new Subpart E, along with the tests for reference method samplers.

Class II equivalent methods would include all other $PM_{2.5}$ methods that are based on a 24-hour integrated filter sample which is subjected to subsequent moisture equilibration and gravimetric mass analysis, but with an associated sampler having substantial deviations from the design or performance specifications for reference method samplers. These samplers may have a different inlet, a different particle size separator, a different volumetric flow rate, a different filter or filter face velocity, or other significant differences. More extensive performance testing would be required for designation of Class II candidate equivalent methods, with various tests required depending on the nature and extent of the differences between the candidate sampler and specified reference method samplers. These tests include a full wind tunnel evaluation, a wind tunnel inlet aspiration test, a static fractionator test, a fractionator loading test, and a volatility test. The tests and their specific applicability to various types of candidate Class II equivalent method samplers are set forth in proposed new subpart F.

Finally, Class III equivalent methods would include any candidate $PM_{2.5}$ methods that could not qualify as Class I or Class II. This class would include any filter-based integrated sampling method having other than a 24-hour $PM_{2.5}$ sample collection interval followed by moisture equilibration and gravimetric mass. More importantly, class III would also include filter-based continuous or semi-continuous methods, such as beta attenuation instruments, harmonic oscillating element instruments, and other complete *in situ* monitor types, as well as non-filter-based methods such as nephelometry or other optical instruments.

The testing requirements for designation of Class III candidate methods would be the most stringent, since quantitative comparability to the reference method would have to be shown under various potential particle size distributions and aerosol composition. However, because of the variety of measurement principles and types of methods possible for Class III candidate equivalent methods, the test requirements would have to be individually selected or specifically designed or adapted for each such type of method. Therefore, the EPA believes that it is not practical to attempt to develop and explicitly describe the test procedures and performance requirements for all of these potential Class III methods *a priori.* Rather, it is proposed that the test procedures and performance requirements applicable to specific Class III candidate methods would be determined by the EPA on a case-by-case basis upon request, in connection with each proposed or anticipated application for a Class III equivalent method determination. In this regard, the EPA is interested in receiving comments pertinent to the nature and extent of tests that would be appropriate and effectual in determining the performance of various types of Class III candidate equivalent methods relative to the performance of reference methods for $PM_{2.5}$.

All classes of candidate equivalent methods would have to be field-tested to determine their comparability to measurements obtained with collocated reference methods. For Classes I and II, these collocated field test requirements are specified explicitly in Subpart C, which is proposed to be revised to include the specific requirements for $PM_{2.5}$ candidate equivalent methods. The proposed requirements for $PM_{2.5}$ methods are generally patterned after the existing requirements for PM_{10} candidate methods.

However, because of the need for greater measurement precision for $PM_{2.5}$, the comparability specifications, summarized in Table C–4, are somewhat more stringent than those previously established for PM_{10}. Also, for Class II candidate equivalent methods—where two different test sites are required—more definitive specifications are proposed for the tests sites in terms of the $PM_{2.5}$ to PM_{10} measurement ratio for the test samples. This is necessary because experience with PM_{10} measurements has indicated that PM measurements made with dissimilar samplers are often considerably affected by differences in the ''character'' of the PM at different monitoring sites, as represented by differences in particle size distribution, composition, density, humidity, and other factors. For purposes of the comparability test, the character of the PM at each test site is represented by the measured $PM_{2.5}$ to PM_{10} ratio, which must be greater than 0.75 for one site and less than 0.40 at the other site. (More definitive tests of PM character at the test site are deemed too difficult or costly to carry out for purposes of the comparability test.) Insuring comparability to reference method measurements at sites having profoundly different character of PM is critically important for Class II (and Class III) candidate equivalent methods. Note, however, that the $PM_{2.5}$ to PM_{10} ratio requirement does not apply to testing of Class I candidate methods, where only one test site is required.

C. Quality Assurance

Accurate measurement of ambient particulate matter concentrations is severely hampered by the impracticality of providing PM concentration standards for field (or even laboratory) testing of ambient samplers or monitors. Therefore, it is necessary to rely on a specific, well-defined reference method, uniformity of reference method devices and procedures, and continual assessment of bias and operating precision. For the purposes of this regulation, $PM_{2.5}$ concentration measurements would be referenced to measurements made with a reference method sampler in accordance with the reference method as specified in Appendix L of part 50 of this chapter. Monitoring for $PM_{2.5}$ requires greater attention to achieving data of high quality, with minimal imprecision and

relative error. These higher quality monitoring data are essential to reduce the chance that $PM_{2.5}$ measurements would potentially cause unjustified health risk to the population, when measurements underestimate true concentrations, or unnecessary control requirements, when measurements overestimate the true concentrations.

To meet a data quality objective of ±15% precision for ambient $PM_{2.5}$ attainment measurements, enhanced quality assurance would be required in all areas relating to sampler performance including sampler manufacturing and sampler operation. This is especially important because a reference method sampler is proposed to be used to audit other field monitors, as described later.

Designated reference and equivalent method samplers and monitors would be required to be manufactured in a manufacturing facility that is either (1) an ISO 9001-registered manufacturing facility, with registration maintained continuously, or (2) a facility that can be demonstrated, on the basis of information submitted to the EPA, to be operated according to an EPA-approved and periodically audited quality system which meets, to the extent appropriate, the same general requirements as for an ISO-registered facility. (This requirement is referred to in this document as an ISO-registered facility, regardless of the procedure taken for EPA approval.)

In addition to the ISO registration (or equivalent) requirement, a quality assurance manufacturing checklist would have to be submitted annually attesting that the appropriate quality assurance procedures are routinely implemented in the manufacturing of samplers sold as reference or equivalent method samplers. This check list would have to be signed by an ISO-certified auditor or by an auditor who, based on information submitted to the EPA, meets the same general requirements as provided for ISO-certified auditors. (Similarly, an auditor approved by EPA through either mechanism is referred to in this document as an ISO-certified auditor.) This requirement allows for the demonstration of consistency in production and sustained uniformity in design and operation. Further, all testing related to an application for a reference or equivalent method determination under part 53 would have to be carried out in accordance with ISO 9001 and ANSI/ASQC E4 standards.

It is believed that these requirements are necessary to insure that all samplers or analyzers sold as reference or equivalent methods are manufactured to the high standard required to achieve the needed data quality. These procedures are in keeping with the developing international standards for manufacturing in this and other industries. However, comments on the appropriateness and impact of these proposed requirements are solicited. While these requirements are currently proposed to apply only to the manufacture of $PM_{2.5}$ monitors, extending these requirements to the manufacture of PM_{10} monitors and possibly other types of SLAMS monitors will likely be considered at a later time.

A new operational requirement would also have to be met by each $PM_{2.5}$ sampler or monitor to retain its designation as a reference or equivalent method. Each user agency operating a SLAMS site would be required to obtain at least 6 collocated measurements (audits) per year with a reference method ''audit'' sampler for each routinely operating $PM_{2.5}$ monitor. The data obtained from these collocated audits would be used to determine a national network integrated operating precision and relative accuracy performance indicator for each designated method. A $PM_{2.5}$ monitoring method that fails to meet the specified limits for this performance indicator would be subject to possible cancellation of its reference or equivalent method designation under the provisions of § 53.11. For more information on this provision, see section 6 of proposed revisions to Appendix A of part 58 and its associated preamble, set forth elsewhere in this Federal Register.

D. Other Changes

A number of other relatively minor technical changes are proposed to Appendix A, some of which affect designation of reference or equivalent methods for other criteria pollutants as well as for $PM_{2.5}$. These changes include new definitions and clarifications of existing definitions in § 53.1; clarifications of the reference and equivalent method designation requirements for methods for all pollutants, including the new classes of equivalent methods for $PM_{2.5}$ and a new table summarizing all the designation requirements; and updating of the name of the EPA laboratory to which applications are to be sent. Additional changes include proposed clarifications of the content of information required in submitted applications regarding the candidate method test data, manufacturing quality assurance system, and product warranty, and the content required in the operation or instruction manual associated with a candidate method sampler or analyzer.

Also, because of the increasing complexity of anticipated candidate methods for all criteria pollutants, an increase in the EPA's time limit for processing applications for reference and equivalent methods, from 75 to 120 days, is proposed. Finally, it is proposed (under § 53.4) that applicants for a $PM_{2.5}$ reference or equivalent method determination be required to provide a sampler or analyzer that is representative of the one associated with the candidate method for inspection and possible testing by the EPA in connection with processing of the application.

IV. Discussion of Proposed Revisions to Part 58

A. Section 58.1—Definitions

The revisions proposed today would revise the definition of the term traceable and add definitions of the terms Consolidated Metropolitan Statistical Area (CMSA), core SLAMS, equivalent methods, Metropolitan Statistical Area (MSA), monitoring planning area (MPA), monitoring plan, $PM_{2.5}$, Primary Metropolitan Statistical Area (PMSA), population-oriented, reference method, SAZ (SAZ), SPM fine monitors, and Annual State Monitoring Report.

B. Section 58.13—Operating Schedule

1. PM_{10} Sampling. The current operating schedule for PM_{10} is based primarily on an analysis of the ratio of measured PM_{10} concentrations to the controlling PM_{10} standard. Depending upon the ratio, the sampling frequency is either every day, every other day, or every sixth day. The proposed operating schedule would reduce the sampling frequency at all PM_{10} sites to once every sixth day.

The Administrator has proposed a new 24-hr PM_{10} standard based on the 98th percentile which offers a more stable statistical form. She has also solicited comment on the need to retain any 24-hour PM_{10} standard. Unlike the current 24-hr PM_{10} standard, the proposed standard, if adopted, would not place emphasis on the most extreme 24-hr concentrations, especially in areas influenced by fugitive dust. Furthermore, more emphasis for control requirements is anticipated to be placed on annual average concentrations and fewer nonattainment areas (i.e. violation areas) are expected to be based on peak daily concentrations. Consequently, 1 in 6 day sampling should be sufficient to support the new PM_{10} NAAQS and a less dense monitoring network would also be needed. Comments are solicited on the appropriate sampling schedules

for PM_{10} sites if the 24-hour NAAQS for PM_{10} is retained.

2. $PM_{2.5}$ Sampling. Core $PM_{2.5}$ SLAMS (including NAMS and Core SLAMS collocated at PAMS sites) would be required to sample every day, unless an exception is approved by EPA during established seasons of low PM pollution during which time a minimum of once in 6 days sampling would be permitted. Non-core SLAMS sites would generally be required to sample a minimum of once every sixth day, although episodic or seasonal sampling could also be possible (e.g., in areas where significant violations of the 24-hour NAAQS are expected or at sites heavily influenced by regional transport or episodic conditions). Special purpose monitors, however, may sample on any sampling schedule.

There is currently very little $PM_{2.5}$ measurement data. New networks must be established as expeditiously as possible to help characterize the nature and extent of $PM_{2.5}$ ambient air quality nationwide. Daily sampling for $PM_{2.5}$ is especially important during the first few years of the new $PM_{2.5}$ monitoring program to allow for the collection of complete sets of data in order to help with identifying temporal patterns and to understand the episodic behavior of fine particles.

Although daily sampling with manual methods is labor intensive due to site visits and filter equilibration and weighing, semi-automatic sequential samplers are anticipated to be approvable as class I equivalent samplers (under the provisions of Part 53) which will simplify the data collection process. The EPA solicits comments on the need to extend the start date for a requirement to perform everyday sampling until the time when Class I equivalent samplers have been approved by the Agency.

In addition, alternative $PM_{2.5}$ operating schedules which combine intermittent sampling with the use of acceptable continuous fine particle samplers are approvable at some core sites. This alternative is intended to give the States additional flexibility in designing their $PM_{2.5}$ monitoring networks and to permit data from continuous instruments to be telemetered. This would facilitate public reporting of fine particle concentrations, allow air pollution alerts to be issued and episodic controls to be implemented (as currently done in woodburning areas for PM_{10}). Furthermore, this would permit monitoring agencies to take advantage of new and improved monitoring technologies that should become available during the first few years following the promulgation. As proposed, applicability of the alternative depends on population size of the monitoring area and $PM_{2.5}$ air quality status.

After the initial 3 years of $PM_{2.5}$ data collection and after characterization of $PM_{2.5}$ levels, determination of violation areas and development of State Implementation Plans), reductions in the frequency of $PM_{2.5}$ sampling may be appropriate. The EPA welcomes comments on the need for continued long-term monitoring with reference or equivalent samplers on an every day schedule at some or all monitoring stations and on the appropriateness of the criteria for allowing alternative schedules.

C. Section 58.14—Special Purpose Monitors

Special purpose monitoring is needed to help identify potential problems, to help define boundaries of problem areas, to better define temporal (e.g., diurnal) patterns, to determine the spatial scale of high concentration areas, and to help characterize the chemical composition of PM (using alternative samplers and supplemental analyzers), especially on high concentration days or during special studies. Special purpose monitors are an important part of the overall PM monitoring program, and sufficient EPA and State resources must be allocated for their use.

Today's revisions propose that special purpose $PM_{2.5}$ and PM_{10} monitors may sample with any measurement method on any sampling schedule. However, the data from SPM's would not be used for attainment/nonattainment designations if the monitoring method is not a reference or equivalent method or does not meet the requirements of Section 2.4 of Appendix C of Part 58. Moreover, in order to encourage the deployment of SPM's, today's revisions propose that nonattainment designations will not be based on data produced at an SPM site with any monitoring method for a period of 3 years following the promulgation date of the NAAQS.

The rationale for this concept is based on the need for to encourage building from ''ground zero'' a monitoring infrastructure. Such an infrastructure is needed because of the complexity of the $PM_{2.5}$ problem and the relative paucity of $PM_{2.5}$ data to determine where problem areas lie, and the lack of information about sources and formation of aerosols in particular areas. The requirements for the NAMS, minimum core SLAMS, and minimum additional SLAMS sites, described in this notice, are designed to provide much of the information needed to merely define the location of problem areas.

There is a need, however, to look beyond this minimal network to create an ''optimal'' network that would gather air quality data over a wider geographic area. The optimal network would consist of SLAMS monitors in addition to the required minimums and also SPM's. There are several reasons for a moratorium on regulatory use of data from the during the first 3 years following promulgation of the NAAQS:

(1) SPM data have historically supplemented the SLAMS network to provide the States with a flexible monitoring program. Although the SPM monitoring does not have to use reference or equivalent monitors, the States tend to use these monitors for data collection. And although SPM data are not required to be submitted to EPA, the States tend to enter all such data into the AIRS data base. Because of the paucity of $PM_{2.5}$ data, we want to encourage both the collection—with reference or equivalent monitors—and the reporting of as much new $PM_{2.5}$ data as possible. This includes SPM data.

(2) There is a general reluctance among State and local governments and businesses to monitor ambient air quality beyond those minimum requirements contained in regulations promulgated by the Environmental Protection Agency (EPA) in the Code of Federal Regulations at Part 58. The reluctance is based in part on the fact that areas have historically been designated to nonattainment where monitoring shows violations of the NAAQS and then classified according to the seriousness of the air pollution problem. Currently, such a nonattainment designation and classification automatically trigger the State implementation attainment planning and demonstration requirements, potential stationary and mobile source emission controls, nonattainment new source review for sources wanting to locate or expand in the new nonattainment area, and possibly additional requirements relating to nonattainment of the NAAQS. Thus, to many affected parties, the current regulatory system results in a disincentive for detecting violations.

(3) The EPA is evaluating a concept involving the identification of areas that have measured or modeled violations and subsequent identification of other areas whose emissions contribute to those violations. The new required $PM_{2.5}$ monitoring network, however, may be insufficient to determine all such violation areas and contributing areas, and therefore additional monitors may be desirable. Ambient air

monitoring will play an important and expanded role in defining violating and contributing areas; with a moratorium on the regulatory use of SPM data, States and businesses would have an additional incentive to monitor for data to more accurately determine the extent of these areas.

(4) During the initial stages of development of a new $PM_{2.5}$ network, there is a greater need for experimental sampling—to move samplers around, to sample for short periods of time, and to utilize different methods. Incomplete data sets may not be fully representative of local air quality. For these and other similar reasons, there is a need for a pilot network that would not be subjected to the same rules as the full SLAMS network.

(5) Finally, collecting data at a number of sites beyond either the minimum or optimal number proposed in these regulations would support modeling studies to better define pollution problems, identification of potential pollution problems for enhanced air management programs, the design and implementation of episodic control plans to encourage quick response actions for voluntary emission reduction measures to lower pollution and thereby possibly avoiding nonattainment or ''bump-ups'', and to measure progress toward attainment by relating air quality to population.

The system of SPM's would at first not be part of the full required or even the ''optimal'' network. To provide the best kind of information, EPA believes that properly sited Federal Reference or Equivalent Methods be used for these SPM efforts in order to collect technically credible data. The EPA also believes that data from those efforts be reported to AIRS so that they are generally available to the public at large and to those who need them for understanding the nature of the problem and for developing solutions and control strategies.

In proposing a 3-year moratorium on the regulatory use of SPM data, EPA is trying to establish an incentive for States to engage in this additional SPM monitoring using properly sited Federal Reference or Equivalent Monitors. The data from these SPM's would supplement the data collected by SLAMS sites. Although the SPM data would be exempt from regulatory use during the 3-year moratorium, they would nevertheless be evaluated by the State during its annual SLAMS network review. A notice of NAAQS violations resulting from PM SPM''s should be reported to EPA, such high concentrations should be evaluated by the State in the design of its overall SLAMS network and considered by EPA in its review and approval of the State''s monitoring plan. Therefore, during the first 3 years, the SPM data would still play an important role in the regulatory process. After the proposed 3-year exemption period, SPM locations should be considered as potential SLAMS in the State's development and subsequent EPA reviewal process of their monitoring plan network, if the sites record high concentrations which indicate potential violations of the PM NAAQS (for either PM_{10} or $PM_{2.5}$) and have been operating for at least 6 months.

The EPA could have taken a different approach to this problem and not propose a moratorium on the regulatory use of data from the SPM sites. States would still be able to deploy SPM monitors in ways to avoid legal consequences if an exceedance of the NAAQS were found. For instance, any State may use non-reference or non-equivalent methods, which do not meet EPA specifications. Any State could site monitors so that they do not meet EPA siting criteria. Such monitoring would avoid the above-described legal entanglements associated with any NAAQS exceedances, because the data collected would not, under current EPA regulations, be valid for use in comparison to the NAAQS. Moreover, any State could simply not submit the SPM data to EPA.

The approach described in the above paragraph, however, does have major disadvantages. For instance, an approach that uses unacceptable monitors or siting would result in data that—even if close to being representative of the area or what a properly sited acceptable monitor would measure, would still be clouded with questions regarding its accuracy or precision, which would limit their value in the kinds of analyses mentioned above. In the case of data simply not submitted to EPA, data would not be available to either other States that would be working on development of a solution to the PM-fine problem, or, more important, to the public at large so that they could be aware if there really are problems detected by the monitor.

In light of these concerns, EPA's proposal is an attempt to take a more straightforward approach, which will encourage collection of additional data that is technically credible and publicly available, and therefore address the Act's mandate for EPA to take the lead in this matter, as found in section 103(c).

D. Section 58.15—$PM_{2.5}$ NAAQS Eligible Monitors

This new section is proposed to define the $PM_{2.5}$ monitors eligible for use in determining compliance with the $PM_{2.5}$ annual and 24-hour NAAQS. The EPA proposes that States identify on EPA's AIRS monitoring site file, all $PM_{2.5}$ sites eligible for both annual NAAQS comparisons and 24-hour comparisons and those only eligible for 24-hour (daily) comparisons. The former sites are intended to be population oriented spatial averaging sites and the latter are intended to represent population-oriented ''hot spot'' locations. The reasons for the different types of monitors are discussed in the preamble to 40 CFR part 50.

E. Section 58.20—Air Quality Surveillance: Plan Content

The revisions proposed today would require States to submit a PM monitoring plan to the Regional Administrator within 6 months of the effective date promulgation. The monitoring plan would describe the PM monitoring strategy based on the use of SLAMS (including NAMS and PAMS) and SPM's for PM_{10} and $PM_{2.5}$; describe the phase-in of $PM_{2.5}$ monitors and changes in the existing PM_{10} monitoring program; describe monitoring objectives and scales of representativeness to facilitate subsequent interpretation of data; define sampling schedules; denote sites intended for comparison to the PM NAAQS; and define the monitoring planning areas (MPA's) and SAZ's (SAZ's) within the State. It should also reference the revised quality assurance plan which is required by Appendix A to Part 58. In regard to the use of air quality data for making comparisons to the NAAQS and other SIP related purposes, the monitoring plan shall also describe the SPM's whose data the State intends to use for SIP purposes. The monitoring plan must also provide for an annual review for termination, relocations, or establishment of new SLAMS or core SLAMS.

F. Section 58.23—Monitoring Network Completion

Under the revisions proposed today, the PM networks would be expected to be completed within 3 years of the effective date of promulgation. While new $PM_{2.5}$ networks are developed, existing PM_{10} networks should be considered for reductions consistent with the goals stated in the background section earlier. For $PM_{2.5}$, a 3-year phase-in would be used. The proposed schedule for deployment of new required $PM_{2.5}$ monitors is described

here. During the first year, a minimum of one monitoring planning area per State would be required to have core $PM_{2.5}$ SLAMS. This area would be selected by the State according to the likelihood of observing high $PM_{2.5}$ concentrations and according to the size of the affected population. In addition, one $PM_{2.5}$ site would be collocated at one site in each of the PAMS areas. During the second year, all other core population-oriented $PM_{2.5}$ SLAMS, and all core background and transport sites, must be fully operational. During the third year, any additional required $PM_{2.5}$ (non-core) SLAMS must be fully deployed and all NAMS sites must be selected from core SLAMS and proposed to EPA for approval.

G. Section 58.25—System Modification

No changes to the regulatory language are proposed to § 58.25; however, under the revisions proposed today, the annual system modifications review must include changes to $PM_{2.5}$ site designations (e.g., NAAQS comparison sites), the number or boundaries of monitoring planning areas and/or SAZ's.

H. Section 58.26—Annual State Monitoring Report

Under the current regulations, States are required to submit an annual SLAMS data summary report. Under today's proposed revisions, this report shall be expanded to include additional information. First, the new State Monitoring report shall describe the proposed changes to the State's Monitoring Plan, as defined in § 58.20. It shall include a new brief narrative report to describe the findings of the annual SLAMS network review, reflecting within year and proposed changes to the State air quality surveillance system, and to provide information on PM SPM's and other PM sites described in the monitoring plan regardless of whether data from the stations are submitted to EPA (including number of monitoring stations; general locations; monitoring objective; scale of measurement; and appropriate concentration statistics to characterize PM air quality such as number of measurements, averaging time, and maximum, minimum, and average concentration). The latter is needed for EPA to ensure that a proper mix of permanent and temporary monitoring locations are used, that populated areas throughout the nation are monitored, and to provide needed flexibility in the State monitoring program. The content of this brief report shall be in accordance with EPA guidance, and will be available at the time of promulgation of the final Part 58 rule.

Next, States would be required to describe the proposed changes to existing PM networks. Proposed changes to the existing networks may include modifications to the number, size, or boundaries of Monitoring Planning Areas or SAZ's, number and location of PM SLAMS; number or location of core $PM_{2.5}$ SLAMS; alternative sampling frequencies proposed for $PM_{2.5}$ SLAMS (including core $PM_{2.5}$ SLAMS and $PM_{2.5}$ NAMS); core $PM_{2.5}$ SLAMS to be designated $PM_{2.5}$ NAMS; and PM SLAMS to be designated PM NAMS. SLAMS with NAAQS violations should be considered to become new or replacement core sites, and SPM's with NAAQS violations could become part of the SLAMS network. The proposed changes should be developed in close consultation with the appropriate EPA Regional Office and submitted to the appropriate Regional Office for approval. The portion of the plan pertaining to NAMS would be submitted to the Administrator (through the appropriate Regional Office).

Finally, as a continuation of current regulations, the States shall be required to submit the Annual SLAMS summary report and to certify to the Administrator that the SLAMS data submitted are accurate and in conformance with applicable Part 58 requirements. Under the revisions proposed today, States would also be required to submit annual summaries of SPM data to the Regional Administrator for sites included in their Monitoring Plan and to certify that such data are similarly accurate and likewise in conformance with applicable Part 58 requirements or other requirements approved by the Regional Administrator, if these data are intended to be used for SIP purposes.

During the first 3 years following promulgation, the monitoring plan and any modifications of it must be submitted to EPA by July 1 (starting on the year following promulgation) or by alternate annual date to be negotiated between the State and Regional Administrator, with review and approval/disapproval by the Regional Administrator within 45 days. After the initial 3-year period or once a SAZ has been determined to be violating any $PM_{2.5}$ NAAQS, then changes to a monitoring planning area will require public review and notification to ensure that the appropriate monitoring locations and site types are included. Specific comment on or suggestions for alternate procedures that are not unduly time consuming or burdensome to allow public review and comment on changes in MPA's, SAZ's, or other elements of a monitoring plan developed by a State or local air pollution control agency are especially welcome.

I. Section 58.30—NAMS Network Establishment

The revision proposed today would designate 6 months after the effective date of promulgation as the date by which the NAMS network portion (to be derived from core $PM_{2.5}$ SLAMS) of each State's SLAMS network must be fully described and documented in a submittal to the Administrator (through the appropriate EPA Regional Office). At this time, a State's NAMS PM_{10} network must be reaffirmed if no changes are made to the existing network and if changed must also be fully described and documented in a submittal to the Administrator (through the appropriate EPA Regional Office).

J. Section 58.31—NAMS Network Description

Today's proposed revision would require that the NAMS network description also include for $PM_{2.5}$ the monitoring planning area, SAZ, and the site code designation to identify which site will be used to determine violation of the appropriate NAAQS (annual or 24-hour).

K. Section 58.34—NAMS Network Completion

The revision proposed today would designate 3 years after the effective date of promulgation as the date by which the State must have all $PM_{2.5}$ NAMS in operation, and 1 year after the effective date of promulgation as the date by which the State must have made all changes to the existing PM_{10} NAMS.

L. Section 58.35—NAMS Data Submittal

This section defines the data submittal requirements for NAMS and SLAMS. Consistent with current requirements, only the total mass derived from PM_{10} and $PM_{2.5}$ SLAMS would be required to be submitted to EPA. However, EPA encourages reporting all data from monitors proposed in the State monitoring plan. These optional data would include data from SPM's and compositional data from all monitors.

M. Appendix A—Quality Assurance Requirements for SLAMS

Meeting the more stringent data quality objectives for ambient $PM_{2.5}$ monitoring will require considerably enhanced quality assurance in the areas of sampler operation, filter handling, data quality assessment, and other

operator-related aspects of the $PM_{2.5}$ measurement process.

Most operational quality control aspects are specified in Appendix A in general terms. For $PM_{2.5}$, however, explicit, more stringent, requirements are proposed for sample filter treatment—including the moisture equilibration protocol, weighing procedures, temperature limits for collected samples, and time limits for prompt analysis of samples. These requirements, which are specified in the reference method set forth in proposed new Appendix L to part 50, will help to control measurement precision. Additional or supplemental detailed quality assurance procedures and guidance for all operator-related aspects of the $PM_{2.5}$ monitoring process will be developed and published as a new Section 2.12 of the EPA's, Quality Assurance Handbook for Air Pollution Measurement Systems series to assist monitoring personnel in maintaining high standards of data quality.

Procedures for continually assessing the operational quality of the SLAMS monitoring data are specified explicitly in Appendix A of part 58. Perhaps the most significant new data quality assessment requirement proposed for $PM_{2.5}$ monitoring is the requirement that each routinely operating $PM_{2.5}$ ''compliance'' monitor must be ''audited'' at least 6 times per year. A compliance monitor is a monitor at a site which is included in the PM monitoring plan and whose data is intended for comparison to the NAAQS as described in Appendix D. This is the first time a requirement has been proposed to assess the relative accuracy of the mass concentration measured by a SLAMS PM monitor.

Each of these 6 ''audits'' would be performed by the monitoring agency and would consist of concurrent operation of a collocated reference method audit sampler along with the routinely operated compliance sampler or monitor. The data from these collocated audits would be pooled by the EPA to assess the performance of $PM_{2.5}$ monitoring methods on a national basis and for each reporting organization. These data would also be used in a screening test of the performance of individual monitors at each monitoring location. Six has been determined to be the minimum number of audit data points needed to yield a reasonable assessment of individual monitor operational performance on an annual basis. This number is analagous to the data requirements for the precision and accuracy assessments for PM_{10}, $PM_{2.5}$ and other pollutants described in Section 5.

The integrated operating precision and relative accuracy, evaluated annually, would have to meet a limit of ±15 percent. A monitoring method that fails this requirement nationally would be placed in a probationary status pending resolution of the inadequate performance or possible cancellation of its reference or equivalent method designation under the provisions of § 53.11 of part 53 of this chapter. While this action would not result in immediate cancellation of the designation, it would require the method applicant (e.g., the manufacturer) to correct the method performance problems or to submit alternative evidence or arguments (possibly in collaboration with other affected entities) that the method's designation should not be canceled.

Reporting organizations whose monitoring data failed to meet this requirement (or are significantly worse than the national norm) would be notified that its quality assurance plan or procedures need improvement. Similarly, monitoring data from individual sites that fail the screening test would require remedial action or replacement of the monitoring method. Note, however, that failure of either of these tests or the national test would not automatically cause the associated monitoring data to be invalid.

Comments are solicited on these method operating performance audits and particularly on the potential use of the audit data by EPA to: (1) Determine a national network operating precision and accuracy performance indicator for each type of designated method, (2) determine the operational performance of methods used by reporting organizations relative to the national norm, and (3) consider cancellation of the reference or equivalent method designation of methods failing to meet the ±15 percent operational performance specification.

Other data assessment requirements proposed in Appendix A for $PM_{2.5}$ monitoring networks are patterned after the current requirements for PM_{10} networks and are intended to supplement the audit procedure. $PM_{2.5}$ network monitors would be subject to precision and accuracy assessments for both manual and automated methods, using procedures similar or identical to the current procedures required for PM_{10} monitoring networks. Results of these field tests performed by the monitoring agencies (along with the results of the field audits) would be sent to the EPA, which then would carry out the specified calculations. These calculated statistics would become part of the annual assessment of the quality of the monitoring data.

For automated methods, the additional assessment of the precision would consist of a one-point precision check performed at least once every 2 weeks on each automated analyzer used to measure $PM_{2.5}$. This precision check would be made by checking the operational flow rate of the analyzer. A standard precision flow rate check procedure similar to that currently used for PM_{10} network assessments is proposed. Also proposed is an alternative procedure where, under certain specific conditions, it would be permissible to obtain the precision check flow rate data from the analyzer's internal flow meter without the use of an external flow rate transfer standard. (This alternative procedure would also be made applicable to PM_{10} methods.)

The additional accuracy assessment procedure proposed for $PM_{2.5}$ automated methods is also similar to that used for PM_{10} networks, although each $PM_{2.5}$ analyzer would have to be audited quarterly rather than annually, as is the current requirement for PM_{10} analyzers. The assessment would be performed on the analyzer's operational flow rate using a flow rate transfer standard, with the accuracy calculated from the percent difference between the actual flow rate and the corresponding flow rate indicated by the analyzer.

For manual methods, an additional precision assessment would be calculated from the data collected from collocated samplers, as is currently required for manual PM_{10} methods. The number of collocated samplers within each $PM_{2.5}$ network is proposed to be based upon the total number of samplers within the reporting organization's network. For 1 to 10 total sites, 1 site would be selected for collocation; for 11 to 20 total sites, 2 sites would be selected for collocation; and if a reporting organization has over 20 total sites, then 3 sites would be selected for collocation. As for PM_{10}, one sampler of the collocated pair would be designated as the primary sampler whose samples would be used to report air quality for the site, and the other would be designated as the duplicate sampler. The percent differences in measured concentration between the two collocated samplers would be used to calculate this additional network precision.

The accuracy of the flow rate system of manual methods for $PM_{2.5}$ would be determined, as for automated methods, by auditing each sampler each calendar quarter. Using a flow rate transfer standard, each sampler would be audited at its normal operating flow

rate. The percent differences between these flow rates would be used to calculate an additional indicator of accuracy.

Although the new quality assurance requirements for $PM_{2.5}$ would result in an increase in the quality of the PM monitoring data, the additional QA/QC checks would entail additional cost to the monitoring agency. Some of the new QA/QC assessment requirements may somewhat overlap the similar information provided by other checks, such as the periodic flow rate checks and the use of collocated samplers in monitoring networks. Consequently, the EPA solicits comments on the need to maintain all of these QA requirements and also on the adequacy of the proposed QA data assessments to ensure the defined quality for $PM_{2.5}$ measurements.

Table A–1, which summarizes the minimum data quality assessment requirements, would be updated to include the new requirements for $PM_{2.5}$ methods, and other minor, mostly editorial changes are proposed to Appendix A to update and clarify the language and specific requirements.

A change to section 2.5 of Appendix A is also being proposed to provide for technical system audits to be performed by EPA at least every three years rather than every year. This change to a less frequent system audit schedule recognizes the fact that for many well established agencies, an extensive system audit and rigorous inspection may not be necessary every year. The determination of the extent and frequency of system audits at an even lower frequency than the proposed three year interval is being left to the discretion of the appropriate Regional Office, based on an evaluation of the Agency's data quality measures. This change would afford both the EPA and the air monitoring agencies flexibility to manage their air monitoring resources to better address the most critical data quality issues.

N. Appendix C—Monitoring Methodology

Section 2.2 of Appendix C is proposed to be amended to allow the use of PM_{10} monitors as surrogates for $PM_{2.5}$ monitors for purposes of demonstrating compliance with the NAAQS. However, following the measurement of a PM_{10} concentration higher than the 24-hour $PM_{2.5}$ standard or an annual average concentration higher than the annual average $PM_{2.5}$ standard, the PM_{10} monitor would have to be replaced with a $PM_{2.5}$ monitor. In addition, for NAMS that are converted to $PM_{2.5}$ monitoring from PM_{10} monitoring, the PM_{10} monitoring must continue concurrently with the PM_{10} monitoring for 1 year following the beginning of the $PM_{2.5}$ monitoring.

Appendix C would also be amended to add a new section 2.4 containing provisions that would allow the use at a SLAMS of a $PM_{2.5}$ method that had not been designated as a reference or equivalent method under part 53. Such a method would be allowed to be used at a particular SLAMS site to make comparisons to the NAAQS if it met the basic requirements of the test for comparability to a reference method sampler for $PM_{2.5}$, as specified in Subpart C of part 53 of this chapter, in each of the four seasons of the year at the site at which it is intended to be used. A method that meets this test would then be further subjected to the operating precision and accuracy requirements specified in section 6 of Appendix A of this part, at twice the normal evaluation interval (6 audits in 6 months instead of 6 audits in 12 months). A method that meets these requirements would not become an equivalent method, but the method could be used at that particular SLAMS site for any regulatory purpose. The method would be assigned a special method code, and monitoring data obtained with the method would be accepted into AIRS as if they had been obtained with a reference or equivalent method. This provision could thus allow the use of non-conventional $PM_{2.5}$ methods, such as optical or open path measurement methods, which would be difficult to test under the equivalent method test procedures proposed for part 53.

In addition, Appendix C would also be amended to add two new sections. A proposed new section 2.5 would clarify that correlated acceptable continuous (CAC) methods for $PM_{2.5}$ approved for use in a SLAMS under proposed new provisions in § 58.13(f) would not become de facto equivalent methods. This applies to methods that have not been designated equivalent and do not satisfy the requirement of Section 2.4 described above. The new section would further clarify that the monitoring data obtained with CAC methods would be restricted to use for the purposes of § 58.13(f) and would not be used for making comparisons to the NAAQS. Proposed new section 2.9 would define so-called ''IMPROVE'' samplers for fine particulate matter and clarify that IMPROVE samplers, although not designated as equivalent methods, could be used in SLAMS for monitoring regional background concentrations of fine particulate matter.

Finally, minor changes are proposed to section 2.7.1 to update the address to which requests for approval for the use of methods under the various provisions of Appendix C should be sent, and section 5 to add additional references.

O. Appendix D

The revisions to Appendix D proposed today would revise Sections 1, 2, 2.8, 3, 3.7, and 5 to incorporate changes made necessary by the proposed new $PM_{2.5}$ NAAQS. Section 1 is revised to add criteria for core $PM_{2.5}$ stations. Two additional SLAMS monitoring objectives are added: the first is to determine the extent of regional pollutant transport among populated areas, which may originate from distant pollutant sources; the second is in support of secondary NAAQS, to determine the welfare-related impacts in more rural and remote areas (such as visibility impairment and effects on vegetation). Section 2 is revised to include information that would be useful in designing regulatory networks. Section 2.8 and 3.7 are revised to apply to $PM_{2.5}$ as well as PM_{10}. Section 2.8.1 is added to discuss monitoring planning areas and SAZ's. Section 2.8.2 is added to address the $PM_{2.5}$ monitoring sites and other requirements to be discussed in the State PM monitoring plan. Finally, section 2.8.3 is added to describe the selection of monitoring locations and SAZ's within the monitoring planning area. A series of diagrams are used to illustrate the basic principles.

The $PM_{2.5}$ NAMS shall be selected from the core $PM_{2.5}$ SLAMS. This network will focus on population-oriented surveillance and is intended to provide a national trends network to study the impact of $PM_{2.5}$ emission sources including regional transport. A new Table 5, which lists the goals for the number of $PM_{2.5}$ NAMS by EPA Region, is added to Section 3.7. Table 5 in Section 5 is redesignated as Table 6 and revised to include $PM_{2.5}$.

In Section 2.8.1, in particular, MPA's and SAZ's are introduced to conform to the population-oriented, spatial averaging approach taken in the proposed new $PM_{2.5}$ NAAQS under 40 CFR Part 50. This approach is more directly related to the epidemiological studies used as the basis for the proposed revisions to the particulate matter NAAQS. This proposal recognizes that the use of MPA's and SAZ's introduces greater complexity into the network design process and the assessment of violations of the NAAQS. Thus, the Administrator would specifically welcome comments on the

network design approach described in Section 2.8.1 through Section 2.8.3.

Previous requirements for number of monitors in this appendix have been related to the urbanized area populations. The boundaries for the urbanized populations to do not follow political or geographical boundaries. Hence, it is difficult at times to determine the component populations, emissions, or location of monitoring sites. A new concept is being introduced with this proposal to change from urbanized area population to MSA/PMSA populations for PM_{10} and $PM_{2.5}$. This will make it easier to track monitors for the above reasons, and to more accurately relate measured concentrations to population exposures.

1. NAAQS Comparison Sites and New Site Codes

Through its monitoring plan, which is reviewed and approved by the Regional Administrator, a State would select the population-oriented [2] sites eligible for NAAQS comparisons which are included in each monitoring planning area and its SAZ's. Comparisons with the annual primary $PM_{2.5}$ NAAQS would be based on population oriented SLAMS sites as well as other sites representative of area-wide concentrations in SAZ's. Comparisons to the 24-hour primary $PM_{2.5}$ NAAQS would be based on these sites as well as all other sites which are population-oriented. To encourage $PM_{2.5}$ monitoring initially, for the first 3 years after effective date of promulgation a moratorium is proposed on using data from all eligible SPM's to determine violations of the NAAQS. After this time, any operating SPM site which records a violation of the NAAQS would become eligible for NAAQS comparisons, should be included in the State monitoring plan, and should be considered during the State's review and development of their monitoring network.

Figure 1 in Appendix D shows a conceptual Venn diagram that illustrates which $PM_{2.5}$ sites in a MPA would be eligible for comparison to the 24-hour and annual $PM_{2.5}$ NAAQS. To be eligible for NAAQS comparisons, sites must meet all three of the following requirements: (1) Are NAMS/SLAMS or other population oriented sites, (2) are included in the monitoring plan, and (3) meet the requirements of 58.13 and Appendices A, C, and E. Sites that meet the additional requirement of generally representing areawide concentrations in the SAZ are also eligible for comparison to the annual $PM_{2.5}$ NAAQS using the spatial averaging procedure specified in Part 50 Appendix K. Such sites are designated ''B''. All core monitoring sites and NAMS sites, which are a subset of the core sites, are B sites as are many other SLAMS and some non-SLAMS sites. Other population-oriented sites which are more representative of localized hot spots are only eligible for comparison on a site-by-site basis to the 24-hour $PM_{2.5}$ NAAQS and are designated ''D''. These may include population-oriented industrial monitors which meet the applicable Part 58 requirements and are also included in the PM monitoring plan. The figure shows that all $PM_{2.5}$ SLAMS sites are designated ''B'' or ''D''. Sites not designated as ''B'' or ''D'' sites would be designated as ''O'' sites. These codes would become new pollutant specific codes on the AIRS monitoring site file. In addition, core SLAMS $PM_{2.5}$ sites will receive a new AIRS site type code. These data reporting changes will be described more fully in future AIRS guidance.

A network design issue that relates to the spatial averaging form of the annual standard is the selection of the first (and/or only) site in a prospective SAZ. Because the intent of the spatial average form of the $PM_{2.5}$ NAAQS is to estimate community, area-wide air pollution, the emphasis on the first selected SLAMS sites (including core SLAMS) would be ''typical population exposure.''

2. Monitoring Planning Areas and SAZ's

In order to acquire population-oriented, spatially averaged monitoring data that correspond more closely to the data that are the basis for the proposed $PM_{2.5}$ NAAQS, the concepts of monitoring planning areas and SAZ's are used in Section 2.8.1. As part of its monitoring plan, a State will propose monitoring planning areas and also propose non-overlapping SAZ's for each monitoring planning area. The number of monitoring planning areas is determined by the State. This may be one area to cover a small State like Rhode Island or be as many as 25 to correspond to existing air pollution control districts in a State like California. Information to be considered includes topography, PM emissions, number and type of significant PM sources as well as population density and distribution. Monitoring planning areas are required to include all metropolitan statistical areas (MSA's) and Primary Metropolitan Statistical areas (PMSA's) with population greater than 500,000, and generally recommended to include MSA's/PMSA's with population greater than 250,000 and high pollution (defined as producing measurements greater than or equal to 0.8 times the level of the $PM_{2.5}$ NAAQS) as well as other areas determined to be likely to have high concentration of $PM_{2.5}$. In addition, optional MPA's may include other designated parts of a State. An MPA should not include different areas separated by topographical barriers. Each MPA can have one or more SAZ's representing the area. The SAZ define the area within which all eligible monitoring data (from ''B'' sites) will be averaged for comparisons with the annual $PM_{2.5}$ NAAQS. The MPA's and SAZ's would be reviewed and approved annually by the Regional Administrator. Until the monitoring plan is approved, EPA intends to have the SLAMS and sites eligible for NAAQS comparisons default to the SLAMS previously approved. Sites which have discontinued monitoring would continue to be used for comparisons to the NAAQS until their monitoring type status changes.

Multiple zones within an MPA are most appropriate for large metropolitan areas, large geographical monitoring regions and areas in which concentrated source regions are in low population portions of an MPA. All MPA's and SAZ's must be defined on the basis of some existing delineated mapping data such as county boundaries, zip codes, census blocks or groups of census blocks. This will assist in the proper characterization of the spatial representativeness of air monitoring sites and facilitate better presentations of air monitoring data on national, regional, and local maps.

All areas in the ambient air may become a SAZ based on considerations of population density, pollution concentration gradients and or the physical size of the area. Generally, a SAZ should characterize an area of relatively homogeneous air quality (i.e., the annual average concentration of the individual monitoring locations within the area should be within ±20 percent of the spatial average) and be affected by the same major source categories of particulate matter. In MSA's, the SAZ's must completely cover the entire MPA. In other MPA's, the SAZ's might not completely cover the entire MPA. For example, small networks consisting of say one or two monitoring sites may not adequately characterize the air quality in a large geographic area or in large areas of relatively low population or pollution density. In another situation,

[2] As currently used in Part 58, population-oriented monitoring or sites applies to residential areas, commercial areas, recreational areas, industrial areas where workers from more than one company are located, and other areas where a substantial number of people may spend a significant fraction of their day.

population centers and pollution regions represented by monitoring sites may be geographically disjoint. In these cases, the spatial representativeness of the monitoring site should be considered in defining the SAZ boundaries. Until more monitoring sites are established, the monitored air quality in areas outside of SAZ's is not known. Although ideally all areas of a State should be included in a SAZ, monitoring density may be insufficient to completely characterize a specific MPA and more monitors would be needed. Nonetheless, in some circumstances a SAZ can be represented by a single monitoring location and this may be sufficient to properly characterize an MPA. The SAZ's should generally include a minimum population of 250,000 and not more than 2 million. Deviations from this criteria should be based on the area's physical size and population density.

The Administrator recognizes that the designation of SAZ's within Monitoring Planning Areas introduces a certain degree of complexity into the monitoring network planning and data usage process. Comments are therefore solicited on the use of a simpler approach to satisfy the requirements for spatial averaging which are proposed in Part 50. In particular, comments are solicited on a approach wherein there is only one SAZ in each MPA which has the same boundaries as the MPA.

3. Core Monitoring Sites

To provide a minimal $PM_{2.5}$ network in all high population areas for protection of the annual and 24-hour PM NAAQS, each required monitoring planning area must have at least two core monitors. The new core monitoring locations would be an important part of the basic PM-fine SLAMS regulatory network. These sites are intended to primarily reflect community-wide air pollution, which would reflect monitoring locations in residential areas or where people spend a substantial part of the day take. In addition to the population-oriented monitoring sites, core monitors would also be established for background and transport monitoring. States should work cooperatively in establishing their State networks in order to maximize the value of monitoring data to best understand the regional behavior of $PM_{2.5}$.

To permit interface with measurements of ozone precursors which are also contributors to $PM_{2.5}$, an additional core monitor collocated at a PAMS site is required in those MSA's where both PAMS and $PM_{2.5}$ monitoring are required. The core monitor to be collocated at a PAMS site is considered part of the MPA $PM_{2.5}$ SLAMS network and is not considered as a part of the PAMS network as described in Section 4 of Appendix D.

The new core population-oriented PM-fine network is conceptually similar to the existing NAMS for other pollutants, but would allow for some year to year changes in site location to ensure that the typical areas of high pollution, high population areas are always monitored. Core sites will be the key sampling locations designated for initial monitoring, and a subset would be selected for longer-term monitoring. The latter would become the NAMS.

The core sites will also produce the most complete data in the PM-fine network. Daily sampling would be required, except during low pollution seasons or other periods as exempted by EPA. As such, a subset of these sites should be considered as candidate locations for adding state-of-the-art research monitoring devices whose data might need to be considered in future reviews of the PM NAAQS. This will ensure continuity and comparability of past, present and future PM data bases.

Finally, because the core sites would produce the most data, many would be the most likely locations for determining violations of a short-term NAAQS. The core locations would become critical for judging future attainment in an area that has been determined to violate the NAAQS, again putting emphasis on areas with the largest population impact. Complete data at background and transport core sites will also provide the needed data base to better understand the source-receptor relationships and assist the implementation program.

Each SAZ in a required MPA must have at least one core monitor; the SAZ's in optional MPA's should have at least one core monitor; and it is also suggested that SAZ's should have at least one core site for every four SLAMS. Exemptions are allowed for required core stations in MSA's with population greater than 500,000, if measured or modeled concentrations of $PM_{2.5}$ are less than 80 percent of the NAAQS for $PM_{2.5}$. Specific comments on the required and suggested number of core monitoring locations are requested.

4. Examples of MPA's, SAZ's and NAAQS Eligible Monitors

Some examples may better illustrate how the concepts of monitoring planning areas and SAZ's may be realized in practice. The San Joaquin Valley air basin in California could be an MPA. If emission sources are distributed throughout this region, then the entire MPA could also be the SAZ. For large counties, such as California's San Bernardino County, which have non-uniform emission sources and population density, there could be at least two SAZ's, such as an eastern SAZ and a western SAZ which is part of the South Coast Air Basin. For an MSA, such as the Philadelphia MSA, or MSA/MPA which crosses State boundaries, separate SAZ's are suggested for each State portion, with substantial population (e.g. greater than 250,000). For the Philadelphia PA–NJ MSA, this could mean at least separate zones for the Philadelphia, PA and NJ portions. In this manner, each State would be responsible for the networks in its SAZ portion of the MPA. (Each of these SAZ's must have at least one core monitor for a total of two for the MPA). Furthermore, for MSA's and large geographic areas with concentrated source regions or industrial areas, such as Philadelphia, separate SAZ's are suggested for the residential/city center and the industrial area to better characterize the gradients in $PM_{2.5}$ concentrations. Downtown street canyons may be appropriate SAZ's if they also include residential areas, such as is the case in mid-town Manhattan, NY or if they include commercial areas which have higher $PM_{2.5}$ concentrations within the MPA and where significant numbers of people work during the day. Comments are solicited on criteria for defining SAZ's.

A series of figures is presented to illustrate the concept of MPA's and SAZ's. A hypothetical MPA representing an Eastern urban area is given in Figure 2 of appendix D and illustrates how monitors can be located in relation to population and areas of poor quality. Figure 3 in Appendix D shows the same MPA as Figure 2, but includes three SAZ's: an industrial zone, a downtown central business district, and residential areas. Figure 4 in Appendix D shows the same MPA illustrated in Figures 2 and 3. However, sites are denoted by whether they are eligible for comparison with the 24-hour $PM_{2.5}$ NAAQS or both the 24-hour and the annual $PM_{2.5}$ NAAQS. Figure 5 in Appendix D shows potential SAZ's in a hypothetical Western State. Figure 6 in Appendix D illustrates State coverage by SAZ's both within and outside MPA's. More detailed guidance for network design for $PM_{2.5}$ using the concepts of core monitoring stations, MPA's, and SAZ's will be available shortly in an EPA guidance document which is in preparation.

5. Substitute PM Samplers

Appendix C (Section 2.2) to Part 58 describes conditions under which TSP samplers may be used as substitutes for PM_{10} samplers and when such TSP samplers must be replaced with PM_{10} samplers. The proposed rule will describe similar language regarding PM_{10} samplers which may be used as substitutes for $PM_{2.5}$ and provide clarification to ensure that only the appropriate TSP or PM_{10} sites are required to be converted to PM_{10} and $PM_{2.5}$, respectively. This provision is intended to be used when PM concentrations are low and substitute samplers can be used to satisfy the minimum number of PM samplers needed for an adequate PM network. This may be most appropriate when sufficient resources to purchase new PM samplers may not exist and existing samplers can be temporarily used to serve a new PM network.

6. NAMS Network Design

In Section 3.7, the PM_{10} design criteria for NAMS, namely monitoring objectives, spatial representativeness, the category ''a'' maximum concentration site, number of sites, etc., remains in effect. In addition, the traditional concept of NAMS as long-term monitoring stations to assess trends and to support national assessments and decisions is reiterated. However, concerning $PM_{2.5}$ network design, a more flexible approach is proposed. First, the $PM_{2.5}$ NAMS will be concentrated in metropolitan areas in keeping with the risk management approach of the proposed new $PM_{2.5}$ NAAQS. Next, a numeric range of prospective $PM_{2.5}$ NAMS by EPA Region are identified. These are based on consideration of a number of factors set by Regions to provide maximum flexibility for State and local agencies, but should represent the range of conditions occurring in the Regions taking into consideration such factors as the total number and types of sources, ambient characteristics of particulate matter, regional transport, geographic area, and affected population. The goals for Regions varies from a low of 10 to 15 for Regions VII, VIII and X to a high of 35 to 50 for Regions IV and V while the total ranges from 205 to 295 with an expected national target of 250. In particular, comments are requested about the general approach of goals by Region and the numbers estimated.

P. Appendix E

Today's revision to Appendix E consists of relatively minor changes to Section 8 which currently provides the sampler siting criteria for PM_{10}. The modifications basically expand the siting requirements to include $PM_{2.5}$ as well as PM_{10} by selectively replacing the term PM_{10} with PM which would be defined as applying to PM_{10} and $PM_{2.5}$. This will permit existing PM_{10} sites to continue to be used and, when appropriate, to serve as platforms for new $PM_{2.5}$ sampling.

Q. Appendix F

A new section has been added for the annual summary statistics for $PM_{2.5}$ in Appendix F. It should be noted that the current procedures for reporting and certifying the air quality data may be changed later, since the AIRS system is undergoing reengineering.

R. Cost Estimates for New PM Networks

The costs associated with the start-up of a $PM_{2.5}$ network and the phase-down of the existing PM_{10} sampling network depend on the 3-year phase-in of the new proposed requirements and the number of PM monitors that the Administrator believes are necessary in a mature network.

TABLE 1. PM–2.5 NETWORK COSTS

[Thousands of dollars]

Year	Number of sites	Number of samplers [1]	Capital cost	Sampling & QA	Filter analysis [2]	Special studies	Total cost
1997	0	0	$4,095	.....	.....	.....	$4,095
1998	216	318	7,908	$4,382	$1,558	$2,600	16,478
1999	714	1,004	6,850	11,514	926	1,300	20,590
2000	1,200	1,490	.....	17,833	926	1,300	20,059

[1] The PM–2.5 Network includes 160 collocated monitors for QA purposes, and 130 collocated monitors to avoid weekend site visits.
[2] Three different types of filter analyses are anticipated (exceedances analyses, screening analyses, and detailed analyses).

TABLE 2.—COST FOR $PM_{2.5}$ FILTER ANALYSES

Type of filter analysis	Estimated cost per sample
Exceedance Analysis:	$200
High $PM_{2.5}$ concentration events are optically analyzed for particle size and composition utilizing electron microscopy.	
Screening Analysis:	
X-Ray Fluorescence (XRF) for elemental composition (crustal material, sulfur, and heavy metals)	50

TABLE 2.—COST FOR $PM_{2.5}$ FILTER ANALYSES—Continued

Type of filter analysis	Estimated cost per sample
Thermo-optical analysis for elemental/organic/total carbon	50
Detailed Analysis:	
Inductively Coupled Argon Plasma (ICAP) Analysis for elemental composition	100
Analysis for speciated organic composition	400
Analysis for sulfate, aerosol acidity	100

Table 3 presents the change in PM_{10} network costs. The costs are shown for a current network of 1,650 sites and the phase down to a future projected network of 600 sites. PM_{10} costs have been calculated for the continued operation on a one in 6-day schedule, and for the relocation or discontinuance of monitoring sites. Table 4 shows the cost of PM monitoring according to sampling frequency and the type of PM monitor. Details of this information can be found in the ''Information Collection Request'' for these proposed requirements.

TABLE3.—PM–10 NETWORK COSTS

[Thousands of dollars]

Year	Number of sites	Number of samplers[1]	Capital cost to remove sites	Operation & maintenance cost	Total cost
1997	1,650	1,810	.....	$15,474	$15,473
1998	1,374	1,544	$110	12,181	12,291
1999	972	1,132	174	8,914	9,088
2000	600	760	161	5,966	6,127

[1] The PM_{10} network includes 160 collocated monitors for QA purposes.

TABLE 4.—COSTS FOR PARTICULATE MONITORING

PM monitor and sampling frequency	One-time capital cost	Annual operation & maintenance cost
PM–10 1-in-6 day sampling schedule.	$14,500	$8,700.
PM–2.5 1-in-6 day sampling schedule.	$9,600 to $16,900.	$11,200.
PM–2.5 every day sampling.	$14,600 to $21,900.	$18,900.
Nephelometer (continuous).	$20,100 to $26,300.	$16,700 to $17,500.

S. Reference

1. Information Collection Request, 40 CFR 58 Ambient Air Quality Surveillance, OMB #2060–0084, EPA ICR #0940.14, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 (October 23, 1996).

V. Administrative Requirements

A. Regulatory Impact Analysis

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is ''significant'' and therefore subject to Office of Management and Budget (OMB) review and to the requirements of the Executive Order. The 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 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 or 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 the Executive Order 12866 and is therefore not subject to formal OMB review. However, this rule is being reviewed by OMB under Reporting and Record keeping Requirements (see below).

B. Paperwork Reduction Act

The information collection requirements contained in this proposed rule have been submitted for approval to OMB under the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* An Information Collection Request document has been prepared by the EPA (ICR No. 0940.14) and a copy may be obtained from Sandy Farmer, Information Policy Branch, EPA, 401 M Street SW, Mail Code 2137, Washington, DC 20460; or by calling (202) 260–2740.

1. Need and Use of the Collection

The main use for the collection of the data is to support the PM NAAQS revisions. The various parameters reported as part of this ICR are necessary to ensure that the information and data collected by State and local agencies to assess the nation's air quality are defensible, of known quality, and meet the EPA's data quality goals of completeness, precision, and accuracy.

The need and authority for this information collection is contained in Section 110(a)(2)(C) of the Act, which requires ambient air quality monitoring for purposes of the SIP and reporting of the data to EPA, and Section 319, which requires the reporting of a daily air pollution index. The legal authority for this requirement is the Ambient Air Quality Surveillance Regulations, 40 CFR 58.20, 58.21, 58.25, 58.26, 58.28, 58.30, 58.31, 58.35, and 58.36.

The EPA's Office of Air Quality Planning and Standards uses ambient air monitoring data for a wide variety of purposes, including making NAAQS attainment/nonattainment decisions; determining the effectiveness of air pollution control programs; evaluating the effects of air pollution levels on public health; tracking the progress of SIP's; providing dispersion modeling support; developing responsible, cost-effective control strategies; reconciling emission inventories; and developing air quality trends. The collection of $PM_{2.5}$ data is necessary to support the $PM_{2.5}$ NAAQS, and the information collected will have practical utility as a data analysis tool.

The State and local agencies with responsibility for reporting ambient air quality data and information as requested by these proposed regulations will submit these data electronically to the U.S. EPA's Aerometric Information Retrieval System, Air Quality Subsystem (AIRS–AQS). Quality assurance/quality control records and monitoring network documentation are also maintained by each State/local agency, in AIRS–AQS electronic format where possible.

2. Reporting and Recordkeeping Burden

The total annual collection and reporting burden associated with this proposal is estimated to be 490,526 hours. Of this total, 484,545 hours are estimated to be for data reporting, or an average of 3,327 hours for the estimated 130 respondents. The remainder of 5,981 hours for recordkeeping burden averages 46 hours for the estimated 130 respondents. The capital O/M costs associated with this proposal are estimated to be $19,714,453. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The frequency of data reporting for the NAMS and the SLAMS air quality data as well as the associated precision and accuracy data are submitted to EPA according to the schedule defined in 40 CFR part 58. This regulation currently requires that State and local air quality

management agencies report their data within 90 days after the end of the quarter during which the data were collected. The annual SLAMS report is submitted by July 1 of each year for data collected from January 1 through December 31 of the previous year in accordance with 40 CFR 58.26. This certification also implies that all SPM data to be used for regulatory purposes by the affected State or local air quality management agency have been submitted by July 1.

3. Burden

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 purpose 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.

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, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., SW.; 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 December 13, 1996, a comment to OMB is best assured of having its full effect if OMB receives it by January 13, 1997. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Impact on Small Entities

Pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities. This rulemaking package does not impose any additional requirements on small entities because it applies to governments whose jurisdictions cover more than 200,000 population. Under the Regulatory Flexibility Act, governments are small entities only if they have jurisdictions of less than 50,000 people. In addition, this rule imposes no enforceable duties on small businesses.

D. Unfunded Mandates Reform Act of 1995

Under sections 202, 203 and 205 of the Unfunded Mandates Reform Act of 1995 (''Unfunded Mandates Act''), signed into law on March 22, 1995, the EPA must undertake various actions in association with proposed or final rules that include a Federal mandate that may result in estimated costs of $100 million or more to the private sector, or to State or local governments in the aggregate.

The EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, and local governments, in the aggregate, or the private sector in any one year. Our economic analysis indicates that the total implementation cost will be approximately $88,728,000 in 1996 dollars for the 3 years to phase in the network, or an average of $29,576,000 for the 3-year implementation. The table below shows how this 3-year average was derived for the various cost elements of monitoring. While this table represents the 3-year period 1998–2000, the total cost for $PM_{2.5}$ monitoring include the initial capital costs anticipated in 1997. In addition, this rule imposes no enforceable duties on small businesses.

COST BASED ON 3-YEAR AVERAGE

[Thousands of dollars]

Cost/Element	PM_{10}	$PM_{2.5}$	3 year totals
Network design	$0	$571	$571
Site installation	311	5,013	5,324
Sampling & analysis	2,647	6,758	9,405
Maintenance	1,233	1,928	3,161
Data management	1,245	1,574	2,819
Quality assurance	1,745	3,373	5,118
Supervision	1,988	1,189	3,177
Summary [1]	9,169	20,407	29,576

[1] Totals are rounded.

List of Subjects

40 CFR Part 53

Environmental protection, Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements.

40 CFR Part 58

Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: November 27, 1996.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, title 40, chapter I, part 53 and part 58 of the Code of Federal Regulations are proposed to be amended as follows:

PART 53—[AMENDED]

1. The authority citation for part 53 continues to read as follows:

Authority: Sec. 301(a) of the Clean Air Act (42 U.S.C. Sec. 1857g(a)) as amended by sec. 15(c)(2) of Pub. L. 91–604, 84 Stat. 1713, unless otherwise noted.

2. Subpart A is revised to read as follows:

Subpart A—General Provisions

Sec.
53.1 Definitions.
53.2 General requirements for a reference method determination.
53.3 General requirements for an equivalent method determination.
53.4 Applications for reference or equivalent method determinations.
53.5 Processing of applications.
53.6 Right to witness conduct of tests.
53.7 Testing of methods at the initiative of the Administrator.
53.8 Designation of reference and equivalent methods.
53.9 Conditions of designation.
53.10 Appeal from rejection of application.
53.11 Cancellation of reference or equivalent method designation.
53.12 Request for hearing on cancellation.
53.13 Hearings.
53.14 Modification of a reference or equivalent method.
53.15 Trade secrets and confidential or privileged information.
53.16 Supersession of reference methods.

Tables to Subpart A of Part 53

Table A–1—Summary of Applicable Requirements for Reference & Equivalent Methods for Air Monitoring of Criteria Pollutants

Appendix A to Subpart A of Part 53—References

Subpart A—General Provisions

§ 53.1 Definitions.

(a) Terms used but not defined in this part shall have the meaning given them by the Act.

(b) *Act* means the Clean Air Act (42 U.S.C. 1857–1857l), as amended.

(c) *Agency* means the Environmental Protection Agency.

(d) *Administrator* means the Administrator of the Environmental Protection Agency or the Administrator's authorized representative.

(e) *Reference method* means a method of sampling and analyzing the ambient air for an air pollutant that is specified as a reference method in an appendix to part 50 of this chapter, or a method that has been designated as a reference method in accordance with this part; it does not include a method for which a reference method designation has been canceled in accordance with § 53.11 or § 53.16.

(f) *Equivalent method* means a method of sampling and analyzing the ambient air for an air pollutant that has been designated as an equivalent method in accordance with this part; it does not include a method for which an equivalent method designation has been canceled in accordance with § 53.11 or § 53.16.

(g) *Candidate method* means a method of sampling and analyzing the ambient air for an air pollutant for which an application for a reference method determination or an equivalent method determination is submitted in accordance with § 53.4, or a method tested at the initiative of the Administrator in accordance with § 53.7.

(h) *Manual method* means a method for measuring concentrations of an ambient air pollutant in which sample collection, analysis, or measurement, or some combination thereof, is performed manually. A method for PM_{10} or $PM_{2.5}$ which utilizes a sampler that requires manual preparation, loading, and weighing of filter samples is considered a manual method even though the sampler may be capable of automatically collecting a series of sequential samples.

(i) *Automated method* or *analyzer* means a method for measuring concentrations of an ambient air pollutant in which sample collection (if necessary), analysis, and measurement are performed automatically by an instrument.

(j) *Test analyzer* means an analyzer subjected to testing as part of a candidate method in accordance with subparts B, C, D, E, or F of this part, as applicable.

(k) *Applicant* means a person or entity who submits an application for a reference or equivalent method determination under § 53.4, or a person or entity who assumes the rights and obligations of an applicant under § 53.7. Applicant may include a manufacturer, distributer, supplier, or vendor.

(l) *Ultimate purchaser* means the first person who purchases a reference method or an equivalent method for purposes other than resale.

(m) *PM_{10} sampler* or *$PM_{2.5}$ sampler* means a device, associated with a manual method for measuring PM_{10} or $PM_{2.5}$ (respectively), designed to collect PM_{10} or $PM_{2.5}$ (respectively) from an ambient air sample, but lacking the ability to automatically analyze or measure the collected sample to determine the mass concentration of PM_{10} or $PM_{2.5}$ in the sampled air.

(n) *Test sampler* means a PM_{10} sampler or a $PM_{2.5}$ sampler subjected to testing as part of a candidate method in accordance with subparts C, D, E or F of this part.

(o) *Collocated* describes two or more air samplers, analyzers, or other instruments which sample the ambient air that are operated simultaneously while located side by side, separated by a distance that is large enough to preclude the air sampled by any of the devices from being affected by any of the other devices, but small enough so that all devices obtain identical or uniform ambient air samples that are equally representative of the general area in which the group of devices is located.

(p) *Sequential samples* for particulate matter samplers means two or more particulate matter samples for sequential (but not necessarily contiguous) time periods that are collected automatically by the same sampler without the need for intervening operator service.

(q) *Class I equivalent method* means an equivalent method for $PM_{2.5}$ which is based on a sampler that is very similar to the sampler specified for reference methods in Appendix L of part 50 of this chapter, with only minor deviations or modifications, as determined by the EPA. A common example of a Class I $PM_{2.5}$ sampler is a reference method sampler that has been modified to provide automatic collection of sequential samples, as defined in paragraph (p) of this section.

(r) *Class II equivalent method* means an equivalent method for $PM_{2.5}$ that utilizes a $PM_{2.5}$ sampler in which an integrated $PM_{2.5}$ sample is obtained from the atmosphere by filtration and subjected to a subsequent filter equilibration process followed by a gravimetric mass determination, but which is not a Class I equivalent method because of substantial deviations from the design specifications of the sampler specified for reference methods in Appendix L of part 50 of this chapter, as determined by the EPA.

(s) *Class III equivalent method* means an equivalent method for $PM_{2.5}$ that has been determined by the EPA not to be a Class I or Class II equivalent method. This fourth type of $PM_{2.5}$ method includes alternative equivalent method samplers and continuous analyzers, based on designs and measurement principles different from those specified for reference methods (e.g., a means for estimating aerosol mass concentration other than by conventional integrated filtration followed by equilibration and gravimetric analysis). These samplers (or monitors) are those deemed to be substantially different from reference method samplers and may use components and methods other than

those specified for reference method samplers. Class III candidate samplers or analyzers require full equivalency testing and must meet all requirements specified in subpart F of this chapter.

(t) An *ISO-registered facility* shall be defined as a manufacturing facility that is either:

(1) An International Organization for Standardization (ISO) 9001-registered manufacturing facility, with registration maintained continuously; or

(2) A facility that can be demonstrated, on the basis of information submitted to the EPA, to be operated according to an EPA-approved and periodically audited quality system which meets, to the extent appropriate, the same general requirements as an ISO registered facility for the design and manufacture of designated reference and equivalent method samplers and monitors.

(u) An *ISO-certified auditor* shall be defined as an auditor either certified by an ISO accredited registrar or an auditor who, based on information submitted to the EPA, meets the same general requirements as provided for ISO-certified auditors.

§ 53.2 General requirements for a reference method determination.

The following general requirements for a reference method determination are summarized in Table A–1 of this subpart.

(a) *Manual methods.* (1) For measuring SO_2 and lead, Appendices A and G of part 50 of this chapter specify unique manual reference methods for those pollutants. Except as provided in § 53.16, other manual methods for SO_2 and lead will not be considered for reference method determinations under this part.

(2) A reference method for measuring PM_{10} must be a manual method that meets all requirements specified in Appendix J of part 50 of this chapter and must include a PM_{10} sampler that has been shown in accordance with this part to meet all requirements specified in subpart D of this part.

(3) A reference method for measuring $PM_{2.5}$ must be a manual method that meets the requirements specified in Appendix L of part 50 of this chapter and must include a $PM_{2.5}$ sampler that has been shown in accordance with this part to meet the applicable requirements specified in subpart E of this part. Further, reference method samplers must be manufactured in an ISO 9001-registered facility as defined in § 53.1(t) and , as set forth in § 53.51 (subpart E, of this part), and the Product Manufacturing Checklist set forth in subpart E of this part must be completed by an ISO 9001-certified auditor, as defined in § 53.1(u), and submitted to the EPA annually to retain a $PM_{2.5}$ reference method designation. In addition, all designated reference methods for $PM_{2.5}$ must meet requirements for network operating performance determined annually as set forth in section 6 of Appendix A of part 58 of this chapter.

(b) ''Automated methods.'' An automated reference method for measuring CO, O_3, and NO_2 must utilize the measurement principle and calibration procedure specified in the appropriate appendix to part 50 of this chapter and must have been shown in accordance with this part to meet the requirements specified in subpart B of this part.

§ 53.3 General requirements for an equivalent method determination.

(a) *Manual methods.* A manual equivalent method must have been shown in accordance with this part to satisfy the applicable requirements specified in subpart C of this part. In addition, PM_{10} or $PM_{2.5}$ samplers associated with manual equivalent methods for PM_{10} or $PM_{2.5}$ must have been shown in accordance with this part to satisfy the following additional requirements:

(1) A PM_{10} sampler associated with a manual method for PM_{10} must satisfy the requirements of subpart D of this part.

(2) A $PM_{2.5}$ Class I equivalent method sampler must satisfy all requirements of subparts C and E of this part, which include appropriate demonstration that each and every deviation or modification from the reference method sampler specifications does not significantly alter the performance of the sampler.

(3) A $PM_{2.5}$ Class II equivalent method sampler must satisfy the requirements of subparts C, E, and F of this chapter.

(4) Requirements for $PM_{2.5}$ Class III equivalent method samplers are not provided in this part because of the wide range of no-filter-based measurement technologies that could be applied and the likelihood that these requirements will have to be specifically adapted for each such type of technology. Specific requirements will be developed as needed.

(5) All designated equivalent methods for $PM_{2.5}$ must be manufactured in an ISO 9001-registered facility, as defined in § 53.1(t) and as set forth in § 53.51 (subpart E) of this part, and the Product Manufacturing Checklist set forth in Appendix E of this part must be completed by an ISO 9001-certified auditor, as defined in § 53.1(u), and submitted to the EPA annually to retain a $PM_{2.5}$ equivalent method designation.

(6) All designated equivalent methods for $PM_{2.5}$ must also meet annual requirements for network operating performance determined as set forth in section 6 of Appendix A of part 58 of this chapter.

(b) *Automated methods.* (1) Automated equivalent methods for pollutants other than $PM_{2.5}$ or PM_{10} must have been shown in accordance with this part to satisfy the requirements specified in subparts B and C of this part.

(2) Automated equivalent methods for PM_{10} must have been shown in accordance with this part to satisfy the requirements of subparts C and D of this part.

(3) Requirements for $PM_{2.5}$ Class III automated equivalent methods for $PM_{2.5}$ are not provided in this part because of the wide range of non-filter-based measurement technologies that could be applied and the likelihood that these requirements will have to be specifically adapted for each such type of technology. Specific requirements will be developed as needed.

(4) All designated equivalent methods for $PM_{2.5}$ must be manufactured in an ISO 9001-registered facility, as set forth in Appendix E of this part, and the Product Manufacturing Checklist set forth in Appendix E of this part must be completed by an ISO 9001-certified auditor and submitted to the EPA annually to retain a $PM_{2.5}$ equivalent method designation.

(5) All designated equivalent methods for $PM_{2.5}$ must also meet annual requirements for network operating performance determined as set forth in section 6 of Appendix A of part 58 of this chapter.

§ 53.4 Applications for reference or equivalent method determinations.

(a) Applications for reference or equivalent method determinations shall be submitted in duplicate to: Director, National Exposure Research Laboratory, Department E (MD–77B), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

(b) Each application shall be signed by an authorized representative of the applicant, shall be marked in accordance with § 53.15 (if applicable), and shall contain the following:

(1) A clear identification of the candidate method, which will distinguish it from all other methods such that the method may be referred to unambiguously. This identification must consist of a unique series of descriptors such as title, identification

number, analyte, measurement principle, manufacturer, brand, model, etc., as necessary to distinguish the method from all other methods or method variations, both within and outside the applicant's organization.

(2) A detailed description of the candidate method, including but not limited to the following: The measurement principle, manufacturer, name, model number and other forms of identification, a list of the significant components, schematic diagrams, design drawings, and a detailed description of the apparatus and measurement procedures. Drawings and descriptions pertaining to candidate methods or samplers for $PM_{2.5}$ must meet all applicable requirements in Reference 1 of Appendix A to this subpart, using appropriate graphical, nomenclature, and mathematical conventions such as those specified in References 3 and 4 of Appendix A to this subpart.

(3) A copy of a comprehensive operation or instruction manual providing a complete and detailed description of the operational and calibration procedures prescribed for field use of the candidate method and all instruments utilized as part of that method (see § 53.9a).

(i) As a minimum this manual shall include:

(A) Description of the method and associated instruments;

(B) Explanation of all indicators, information displays, and controls;

(C) Complete setup and installation instructions, including any additional materials or supplies required;

(D) Details of all initial or startup checks or acceptance tests and any auxiliary equipment required;

(E) Complete operational instructions;

(F) Calibration procedures and required calibration equipment and standards;

(G) Instructions for verification of correct or proper operation;

(H) Trouble-shooting guidance and suggested corrective actions for abnormal operation;

(I) Required or recommended routine, periodic, and preventative maintenance and maintenance schedules,

(J) Any calculations required to derive final concentration measurements; and

(K) Appropriate references to 40 CFR part 50, Appendix L, Reference 6, and any other pertinent guidelines.

(ii) The manual shall also include adequate warning of potential safety hazards that may result from normal use and/or malfunction of the method and a description of necessary safety precautions. [See § 53.9(b)] However, the previous requirement shall not be interpreted to constitute or imply any warranty of safety of the method by the EPA. For samplers and automated methods, the manual shall include a clear description of all procedures pertaining to installation, operation, preventative maintenance, and troubleshooting and shall also include parts identification diagrams. The manual may be used to satisfy the requirements of paragraphs (b) (1) and (2) of this section to the extent that it includes information necessary to meet those requirements.

(4) A statement that the candidate method has been tested in accordance with the procedures described in subparts B, C, D, E, and/or F of this part, as applicable.

(5) Test data, records, calculations, and test results as specified in subparts B, C, D, E, and/or F of this part, as applicable. Data must be sufficiently detailed to meet appropriate principles described in paragraphs 4 through 6 of Reference 2, Part b, sections 3.3.1 (paragraph 1) and 3.5.1 (paragraphs 2 and 3) and in paragraphs 1 through 3 of Reference 5 (section 4.8, Records) of appendix A of this subpart. Salient requirements from these references include the following:

(i) The applicant shall maintain and include records of all relevant measuring equipment, including the make, type, and serial number or other identification, and most recent calibration with identification of the measurement standard or standards used and their NIST traceability. These records shall demonstrate the measurement capability of each item of measuring equipment used for the application and include a description and justification (if needed) of the measurement setup or configuration in which it was used for the tests. The calibration results shall be recorded and identified in sufficient detail so that the traceability of all measurements can be determined and any measurement could be reproduced under conditions close to the original conditions, if necessary, to resolve any anomalies.

(ii) Test data shall be collected according to the standards of good practice and by qualified personnel. Test anomalies or irregularities shall be documented and explained or justified. The impact and significance of the deviation on test results and conclusions shall be determined. Data collected shall correspond directly to the specified test requirement and be labeled and identified clearly so that results can be verified and evaluated against the test requirement. Calculations or data manipulations must be explained in detail so that they can be verified.

(6) A statement that the method, analyzer, or sampler tested in accordance with this part is representative of the candidate method described in the application.

(c) For candidate automated methods and candidate manual methods for PM_{10} and $PM_{2.5}$, the application shall also contain the following:

(1) A detailed description of the quality system that will be utilized, if the candidate method is designated as a reference or equivalent method, to ensure that all analyzers or samplers offered for sale under that designation will have essentially the same performance characteristics as the analyzer(s) or samplers tested in accordance with this part. In addition, the quality system requirements for candidate methods for $PM_{2.5}$ must be described in sufficient detail, based on the elements described in section 4 of Reference 1 (Quality System Requirements) of appendix A of this subpart. Further clarification is provided in the following sections of Reference 2: Part A (Management Systems), sections 2.2 (Quality System and Description), 2.3 (Personnel Qualification and Training), 2.4 (Procurement of Items and Services), 2.5 (Documents and Records), and 2.7 (Planning); Part B (Collection and Evaluation of Environmental Data), sections 3.1 (Planning and Scoping), 3.2 (Design of Data Collection Operations), and 3.5 (Assessment and Verification of Data Usability); and Part C (Operation of Environmental Technology), sections 4.1 (Planning), 4.2 (Design of Systems), and 4.4 (Operation of Systems) of appendix A of this subpart .

(2) A description of the durability characteristics of such analyzers or samplers [see §53.9(c)]. For methods for $PM_{2.5}$, the warranty program must ensure that the required specifications (see Table A–1 of this subpart) will be met throughout the warranty period and that the applicant accepts responsibility and liability for ensuring this conformance, or resolving any nonconformities, including all necessary components of the system, regardless of the original manufacturer. The warranty program must be described in sufficient detail to meet appropriate provisions of the ANSI/ASQC and ISO 9001 standards (References 1 and 2 in appendix A of this subpart) for controlling conformance and resolving nonconformance, particularly sections 4.12, 4.13, and 4.14 of Reference 1 in appendix A of this subpart.

(i) Section 4.12 in appendix A of this subpart requires the manufacturer to establish and maintain a system of procedures for identifying and maintaining the identification of inspection and test status throughout all phases of manufacturing to ensure that only instruments that have passed the required inspections and tests are released for sale.

(ii) Section 4.13 in appendix A of this subpart requires documented procedures for control of nonconforming product, including review and acceptable alternatives for disposition; section 4.14 requires documented procedures for implementing corrective (4.14.2) and preventive (4.14.3) action to eliminate the causes of actual or potential nonconformities. In particular, section 4.14.3 requires that potential causes of nonconformities be eliminated by using information such as service reports and customer complaints to eliminate potential causes of nonconformities.

(d) For candidate reference or equivalent methods for $PM_{2.5}$, the applicant shall provide to EPA for test purposes one sampler or analyzer that is representative of the sampler or analyzer associated with the candidate method. The sampler or analyzer shall be shipped FOB destination to Department E, (MD–77B), U.S. EPA, 79 T.W. Alexander Drive, Research Triangle Park, NC 27709, scheduled to arrive concurrent with or within 30 days of the arrival of the other application materials. This analyzer or sampler may be subjected to various tests that the EPA determines to be necessary or appropriate under § 53.5(e), and such tests may include special tests not otherwise described in this part. If the instrument submitted under this paragraph malfunctions, becomes inoperative, or fails to perform as represented in the application before the necessary EPA testing is completed, the applicant shall be afforded an opportunity to repair or replace the device at no cost to the EPA. Upon completion of the EPA testing, the analyzer or sampler submitted under this paragraph shall be repacked by the EPA for return shipment to the applicant, using the same packing materials used for shipping the instrument to the EPA unless alternative packing is provided by the applicant. Arrangements for, and the cost of, return shipment shall be the responsibility of the applicant. The EPA does not warrant or assume any liability for the condition of the analyzer or sampler upon return to the applicant.

§ 53.5 Processing of applications.

After receiving an application for a reference or equivalent method determination, the Administrator will publish notice of the application in the Federal Register and, within 120 calendar days after receipt of the application, take one or more of the following actions:

(a) Send notice to the applicant, in accordance with § 53.8, that the candidate method has been determined to be a reference or equivalent method;

(b) Send notice to the applicant that the application has been rejected, including a statement of reasons for rejection;

(c) Send notice to the applicant that additional information must be submitted before a determination can be made and specify the additional information that is needed (in such cases, the 120-day period shall commence upon receipt of the additional information);

(d) Send notice to the applicant that additional test data must be submitted and specify what tests are necessary and how they shall be interpreted (in such cases, the 120-day period shall commence upon receipt of the additional test data);

(e) Send notice to the applicant that the application has been found to be substantially deficient or incomplete and cannot be processed until additional information is submitted to complete the application and specify the general areas of substantial deficiency; or

(f) Send notice to the applicant that additional tests will be conducted by the Administrator, specifying the nature of and reasons for the additional tests and the estimated time required (in such cases, the 120-day period shall commence one calendar day after the additional tests have been completed).

§ 53.6 Right to witness conduct of tests.

(a) Submission of an application for a reference or equivalent method determination shall constitute consent for the Administrator or the Administrator's authorized representative, upon presentation of appropriate credentials, to witness or observe any tests required by this part in connection with the application or in connection with any modification or intended modification of the method by the applicant.

(b) The applicant shall have the right to witness or observe any test conducted by the Administrator in connection with the application or in connection with any modification or intended modification of the method by the applicant.

(c) Any tests by either party that are to be witnessed or observed by the other party shall be conducted at a time and place mutually agreeable to both parties.

§ 53.7 Testing of methods at the initiative of the Administrator.

(a) In the absence of an application for a reference or equivalent method determination, the Administrator may conduct the tests required by this part for such a determination, may compile such other information as may be necessary in the judgment of the Administrator to make such a determination, and on the basis of the tests and information may determine that a method satisfies applicable requirements of this part.

(b) In the absence of an application requesting the Administrator to consider revising an appendix to part 50 of this chapter in accordance with § 53.16, the Administrator may conduct such tests and compile such information as may be necessary in the Administrator's judgment to make a determination under § 53.16(d) and on the basis of the tests and information make such a determination.

(c) If a method tested in accordance with this section is designated as a reference or equivalent method in accordance with § 53.8 or is specified or designated as a reference method in accordance with § 53.16, any person or entity who offers the method for sale as a reference or equivalent method thereafter shall assume the rights and obligations of an applicant for purposes of this part, with the exception of those pertaining to submission and processing of applications.

§ 53.8 Designation of reference and equivalent methods.

(a) A candidate method determined by the Administrator to satisfy the applicable requirements of this part shall be designated as a reference method or equivalent method (as applicable), and a notice of the designation shall be submitted for publication in the Federal Register not later than 15 days after the determination is made.

(b) A notice indicating that the method has been determined to be a reference method or an equivalent method shall be sent to the applicant. This notice shall constitute proof of the determination until a notice of designation is published in accordance with paragraph (a) of this section.

(c) The Administrator will maintain a current list of methods designated as reference or equivalent methods in accordance with this part and will send a copy of the list to any person or group

upon request. A copy of the list will be available for inspection or copying at EPA Regional Offices.

§ 53.9 Conditions of designation.

Designation of a candidate method as a reference method or equivalent method shall be conditioned on the applicant's compliance with the following requirements. Failure to comply with any of the requirements shall constitute a ground for cancellation of the designation in accordance with § 53.11.

(a) Any method offered for sale as a reference or equivalent method shall be accompanied by a copy of the manual referred to in § 53.4(b)(3) when delivered to any ultimate purchaser.

(b) Any method offered for sale as a reference or equivalent method shall generate no unreasonable hazard to operators or to the environment during normal use or when malfunctioning.

(c) Any analyzer, PM_{10} sampler, or $PM_{2.5}$ sampler offered for sale as a reference or equivalent method shall function within the limits of the performance specifications referred to in § 53.20(a), § 53.40(a), § 53.50(a), or § 53.60(a), as applicable, for at least 1 year after delivery and acceptance when maintained and operated in accordance with the manual referred to in § 53.4(b)(3).

(d) Any analyzer, PM_{10} sampler or $PM_{2.5}$ sampler offered for sale as a reference or equivalent method shall bear a prominent, permanently affixed label or sticker indicating that the analyzer or sampler has been designated by EPA as a reference method or as an equivalent method (as applicable) in accordance with this part and displaying any designated method identification number that may be assigned by the EPA.

(e) If an analyzer is offered for sale as a reference or equivalent method and has one or more selectable ranges, the label or sticker required by paragraph (d) of this section shall be placed in close proximity to the range selector and shall indicate clearly which range or ranges have been designated as parts of the reference or equivalent method.

(f) An applicant who offers analyzers, PM_{10} samplers, or $PM_{2.5}$ samplers for sale as reference or equivalent methods shall maintain an accurate and current list of the names and mailing addresses of all ultimate purchasers of such analyzers or samplers. For a period of 7 years after publication of the reference or equivalent method designation applicable to such an analyzer or sampler, the applicant shall notify all ultimate purchasers of the analyzer or $PM_{2.5}$ or PM_{10} sampler within 30 days if the designation has been canceled in accordance with § 53.11 or § 53.16 or if adjustment of the analyzer or sampler is necessary under § 53.11(b).

(g) If an applicant modifies an analyzer, PM_{10} sampler, or $PM_{2.5}$ sampler that has been designated as a reference or equivalent method, the applicant shall not sell the modified analyzer or sampler as a reference or equivalent method nor attach a label or sticker to the modified analyzer or sampler under paragraph (d) or (e) of this section until the applicant has received notice under § 53.14(c) that the existing designation or a new designation will apply to the modified analyzer, PM_{10} sampler, or $PM_{2.5}$ sampler or has applied for and received notice under § 53.8(b) of a new reference or equivalent method determination for the modified analyzer or sampler.

(h) An applicant who has offered $PM_{2.5}$ samplers or analyzers for sale as part of a reference or equivalent method may continue to do so only so long as the reference or equivalent method meets the annual requirements for network operating performance determined as set forth in section 6 of Appendix A of part 58 of this chapter. In the event that the annual network operating performance does not meet those requirements, the EPA shall, within 90 days after the end of the calendar year, notify the applicant of the unacceptable network performance assessment and issue a preliminary finding and notification of possible cancellation of the reference or equivalent method designation under § 53.11. (Net performance is generally assessed for each calendar year, although when the number of samples for a specific method is not great enough to determine precision with adequate confidence, more than 1 calendar year of data may be combined.)

(i) An applicant who has offered $PM_{2.5}$ samplers or analyzers for sale as part of a reference or equivalent method may continue to do so only so long as the facility in which the samplers or analyzers are manufactured continues to be an ISO-registered facility, as set forth in subpart E of this part. In the event that the ISO registration for the facility is withdrawn, suspended, or otherwise becomes inapplicable, either permanently or for some specified time interval, such that the facility is no longer an ISO-registered facility, the applicant shall notify EPA within 30 days of the date the facility becomes other than an ISO-registered facility, and upon such notification, the EPA shall issue a preliminary finding and notification of possible cancellation of the reference or equivalent method designation under § 53.11.

(j) An applicant who has offered $PM_{2.5}$ samplers or analyzers for sale as part of a reference or equivalent method may continue to do so only so long as updates of the Product Manufacturing Checklist set forth in subpart E of this part are submitted annually. In the event that an annual Checklist update is not received by the EPA within 12 months of the date of the last such submitted Checklist or Checklist update, the EPA shall notify the applicant within 30 days that the Checklist update has not been received and shall, within 30 days from the issuance of such notification, issue a preliminary finding and notification of possible cancellation of the reference or equivalent method designation under § 53.11.

§ 53.10 Appeal from rejection of application.

Any applicant whose application for a reference or equivalent method determination has been rejected may appeal the Administrator's decision by taking one or more of the following actions:

(a) The applicant may submit new or additional information in support of the application.

(b) The applicant may request that the Administrator reconsider the data and information already submitted.

(c) The applicant may request that any test conducted by the Administrator that was a material factor in the decision to reject the application be repeated.

§ 53.11 Cancellation of reference or equivalent method designation.

(a) *Preliminary finding.* If the Administrator makes a preliminary finding on the basis of any available information that a representative sample of a method designated as a reference or equivalent method and offered for sale as such does not fully satisfy the requirements of this part or that there is any violation of the requirements set forth in § 53.9, the Administrator may initiate proceedings to cancel the designation in accordance with the following procedures.

(b) *Notification and opportunity to demonstrate or achieve compliance.*

(1) After making a preliminary finding in accordance with paragraph (a) of this section, the Administrator will send notice of the preliminary finding to the applicant, together with a statement of the facts and reasons on which the preliminary finding is based, and will publish notice of the preliminary finding in the Federal Register.

(2) The applicant will be afforded an opportunity to demonstrate or to

achieve compliance with the requirements of this part within 60 days after publication of notice in accordance with paragraph (b)(1) of this section or within such further period as the Administrator may allow, by demonstrating to the satisfaction of the Administrator that the method in question satisfies the requirements of this part, by commencing a program to make any adjustments that are necessary to bring the method into compliance, or by taking such action as may be necessary to cure any violation of the requirements of § 53.9. If adjustments are necessary to bring the method into compliance, all such adjustments shall be made within a reasonable time as determined by the Administrator. If the applicant demonstrates or achieves compliance in accordance with this paragraph (b)(2), the Administrator will publish notice of such demonstration or achievement in the Federal Register.

(c) *Request for hearing.* Within 60 days after publication of a notice in accordance with paragraph (b)(1) of this section, the applicant or any interested person may request a hearing as provided in § 53.12.

(d) *Notice of cancellation.* If, at the end of the period referred to in paragraph (b)(2) of this section, the Administrator determines that the reference or equivalent method designation should be canceled, a notice of cancellation will be published in the Federal Register and the designation will be deleted from the list maintained under § 53.8(c). If a hearing has been requested and granted in accordance with § 53.12, action under this paragraph (d) will be taken only after completion of proceedings (including any administrative review) conducted in accordance with § 53.13 and only if the decision of the Administrator reached in such proceedings is that the designation in question should be canceled.

§ 53.12 Request for hearing on cancellation.

Within 60 days after publication of a notice in accordance with § 53.11(b)(1), the applicant or any interested person may request a hearing on the Administrator's action. If, after reviewing the request and supporting data, the Administrator finds that the request raises a substantial issue of fact, a hearing will be granted in accordance with § 53.13 with respect to such issue. The request shall be in writing, signed by an authorized representative of the applicant or interested person, and shall include a statement specifying:

(a) Any objections to the Administrator's action; and

(b) Data or other information in support of such objections.

§ 53.13 Hearings.

(a)(1) After granting a request for a hearing under § 53.12, the Administrator will designate a presiding officer for the hearing.

(2) If a time and place for the hearing have not been fixed by the Administrator, the hearing will be held as soon as practicable at a time and place fixed by the presiding officer, except that the hearing shall in no case be held sooner than 30 days after publication of a notice of hearing in the Federal Register.

(3) For purposes of the hearing, the parties shall include the Environmental Protection Agency, the applicant or interested person(s) who requested the hearing, and any person permitted to intervene in accordance with paragraph (c) of this section.

(4) The Deputy General Counsel or the Deputy General Counsel's representative will represent the Environmental Protection Agency in any hearing under this section.

(5) Each party other than the Environmental Protection Agency may be represented by counsel or by any other duly authorized representative.

(b)(1) Upon appointment, the presiding officer will establish a hearing file. The file shall contain copies of the notices issued by the Administrator pursuant to § 53.11(b)(1), together with any accompanying material, the request for a hearing and supporting data submitted therewith, the notice of hearing published in accordance with paragraph (a)(2) of this section, and correspondence and other material data relevant to the hearing.

(2) The hearing file shall be available for inspection by the parties or their representatives at the office of the presiding officer, except to the extent that it contains information identified in accordance with § 53.15.

(c) The presiding officer may permit any interested person to intervene in the hearing upon such a showing of interest as the presiding officer may require; provided that permission to intervene may be denied in the interest of expediting the hearing where it appears that the interests of the person seeking to intervene will be adequately represented by another party (or by other parties), including the Environmental Protection Agency.

(d)(1) The presiding officer, upon the request of any party or at the officer's discretion, may arrange for a prehearing conference at a time and place specified by the officer to consider the following:

(i) Simplification of the issues.

(ii) Stipulations, admissions of fact, and the introduction of documents.

(iii) Limitation of the number of expert witnesses.

(iv) Possibility of agreement on disposing of all or any of the issues in dispute.

(v) Such other matters as may aid in the disposition of the hearing, including such additional tests as may be agreed upon by the parties.

(2) The results of the conference shall be reduced to writing by the presiding officer and made part of the record.

(e)(1) Hearings shall be conducted by the presiding officer in an informal but orderly and expeditious manner. The parties may offer oral or written evidence, subject to exclusion by the presiding officer of irrelevant, immaterial, or repetitious evidence.

(2) Witnesses shall be placed under oath.

(3) Any witness may be examined or cross-examined by the presiding officer, the parties, or their representatives. The presiding officer may, at his discretion, limit cross-examination to relevant and material issues.

(4) Hearings shall be reported verbatim. Copies of transcripts of proceedings may be purchased from the reporter.

(5) All written statements, charts, tabulations, and data offered in evidence at the hearing shall, upon a showing satisfactory to the presiding officer of their authenticity, relevancy, and materiality, be received in evidence and shall constitute part of the record.

(6) Oral argument shall be permitted. The presiding officer may limit oral presentations to relevant and material issues and designate the amount of time allowed for oral argument.

(f)(1) The presiding officer shall make an initial decision which shall include written findings and conclusions and the reasons therefor on all the material issues of fact, law, or discretion presented on the record. The findings, conclusions, and written decision shall be provided to the parties and made part of the record. The initial decision shall become the decision of the Administrator without further proceedings unless there is an appeal to, or review on motion of, the Administrator within 30 calendar days after the initial decision is filed.

(2) On appeal from or review of the initial decision, the Administrator will have all the powers consistent with making the initial decision, including the discretion to require or allow briefs, oral argument, the taking of additional evidence or the remanding to the presiding officer for additional proceedings. The decision by the

Administrator will include written findings and conclusions and the reasons or basis therefor on all the material issues of fact, law, or discretion presented on the appeal or considered in the review.

§ 53.14 Modification of a reference or equivalent method.

(a) An applicant who offers a method for sale as a reference or equivalent method shall report to the Administrator prior to implementation any intended modification of the method, including but not limited to modifications of design or construction or of operational and maintenance procedures specified in the operation manual [see § 53.9(g)]. The report shall be signed by an authorized representative of the applicant, marked in accordance with § 53.15 (if applicable), and addressed as specified in § 53.4(a).

(b) A report submitted under paragraph (a) of this section shall include:

(1) A description, in such detail as may be appropriate, of the intended modification;

(2) A brief statement of the applicant's belief that the modification will, will not, or may affect the performance characteristics of the method;

(3) A brief statement of the probable effect if the applicant believes the modification will or may affect the performance characteristics of the method; and

(4) Such further information, including test data, as may be necessary to explain and support any statement required by paragraphs (b)(2) and (b)(3) of this section.

(c) Within 30 calendar days after receiving a report under paragraph (a) of this section, the Administrator will take one or more of the following actions:

(1) Notify the applicant that the designation will continue to apply to the method if the modification is implemented.

(2) Send notice to the applicant that a new designation will apply to the method (as modified) if the modification is implemented, submit notice of the determination for publication in the Federal Register, and revise or supplement the list referred to in § 53.8(c) to reflect the determination.

(3) Send notice to the applicant that the designation will not apply to the method (as modified) if the modification is implemented and submit notice of the determination for publication in the Federal Register;

(4) Send notice to the applicant that additional information must be submitted before a determination can be made and specify the additional information that is needed (in such cases, the 30-day period shall commence upon receipt of the additional information);

(5) Send notice to the applicant that additional tests are necessary and specify what tests are necessary and how they shall be interpreted (in such cases, the 30-day period shall commence upon receipt of the additional test data); or

(6) Send notice to the applicant that additional tests will be conducted by the Administrator and specify the reasons for and the nature of the additional tests (in such cases, the 30-day period shall commence one calendar day after the additional tests are completed).

(d) An applicant who has received a notice under paragraph (c)(3) of this section may appeal the Administrator's action as follows:

(1) The applicant may submit new or additional information pertinent to the intended modification.

(2) The applicant may request the Administrator to reconsider data and information already submitted.

(3) The applicant may request that the Administrator repeat any test conducted that was a material factor in the Administrator's determination. A representative of the applicant may be present during the performance of any such retest.

§ 53.15 Trade secrets and confidential or privileged information.

Any information submitted under this part that is claimed to be a trade secret or confidential or privileged information shall be marked or otherwise clearly identified as such in the submittal. Information so identified will be treated in accordance with part 2 of this chapter (concerning public information).

§ 53.16 Supersession of reference methods.

(a) This section prescribes procedures and criteria applicable to requests that the Administrator specify a new reference method, or a new measurement principle and calibration procedure on which reference methods shall be based, by revision of the appropriate appendix to 50 part of this chapter. Such action will ordinarily be taken only if the Administrator determines that a candidate method or a variation thereof is substantially superior to the existing reference method(s).

(b) In exercising discretion under this section, the Administrator will consider:

(1) The benefits, in terms of the requirements and purposes of the Act, that would result from specifying a new reference method or a new measurement principle and calibration procedure;

(2) The potential economic consequences of such action for State and local control agencies; and

(3) Any disruption of State and local air quality monitoring programs that might result from such action.

(c) An applicant who wishes the Administrator to consider revising an appendix to part 50 of this chapter on the ground that the applicant's candidate method is substantially superior to the existing reference method(s) shall submit an application for a reference or equivalent method determination in accordance with § 53.4 and shall indicate therein that such consideration is desired. The application shall include, in addition to the information required by § 53.4, data and any other information supporting the applicant's claim that the candidate method is substantially superior to the existing reference method(s).

(d) After receiving an application under paragraph (c) of this section, the Administrator will publish notice of its receipt in the Federal Register and, within 120 calendar days after receipt of the application, take one of the following actions:

(1) Determine that it is appropriate to propose a revision of the appendix to part 50 of this chapter in question and send notice of the determination to the applicant;

(2) Determine that it is inappropriate to propose a revision of the appendix to part 50 of this chapter in question, determine whether the candidate method is a reference or equivalent method, and send notice of the determinations, including a statement of reasons for the determination not to propose a revision, to the applicant;

(3) Send notice to the applicant that additional information must be submitted before a determination can be made and specify the additional information that is needed (in such cases, the 120-day period shall commence upon receipt of the additional information);

(4) Send notice to the applicant that additional tests are necessary, specifying what tests are necessary and how they shall be interpreted (in such cases, the 120-day period shall commence upon receipt of the additional test data); or

(5) Send notice to the applicant that additional tests will be conducted by the Administrator, specifying the nature of and reasons for the additional tests and the estimated time required (in such cases, the 120-day period shall

commence one calendar day after the additional tests have been completed).

(e)(1)(i) After making a determination under paragraph (d)(1) of this section, the Administrator will publish a notice of proposed rulemaking in the Federal Register. The notice will indicate that the Administrator proposes:

(A) To revise the appendix to part 50 of this chapter in question;

(B) Where the appendix specifies a measurement principle and calibration procedure, to cancel reference method designations based on the appendix; and

(C) To cancel equivalent method designations based on the existing reference method(s).

(ii) The notice will include the terms or substance of the proposed revision, will indicate what period(s) of time the Administrator proposes to allow for replacement of existing methods under section 2.3 of Appendix C to part 58 of this chapter, and will solicit public comments on the proposal with particular reference to the considerations set forth in paragraphs (a) and (b) of this section.

(2) If, after consideration of comments received, the Administrator determines that the appendix to part 50 in question should be revised, the Administrator will by publication in the Federal Register promulgate the proposed revision, with such modifications as may be appropriate in view of comments received; where the appendix to part 50 (prior to revision) specifies a measurement principle and calibration procedure, cancel reference method designations based on the appendix; cancel equivalent method designations based on the existing reference method(s); and specify the period(s) that will be allowed for replacement of existing methods under section 2.3 of Appendix C to part 58 of this chapter, with such modifications from the proposed period(s) as may be appropriate in view of comments received. Canceled designations will be deleted from the list maintained under §53.8(c). The requirements and procedures for cancellation set forth in §53.11 shall be inapplicable to cancellation of reference or equivalent method designations under this section.

(3) If the appendix to part 50 of this chapter in question is revised to specify a new measurement principle and calibration procedure on which the applicant's candidate method is based, the Administrator will take appropriate action under §53.5 to determine whether the candidate method is a reference method.

(4) Upon taking action under paragraph (e)(2) of this section, the Administrator will send notice of the action to all applicants for whose methods reference and equivalent method designations are canceled by such action.

(f) An applicant who has received notice of a determination under paragraph (d)(2) of this section may appeal the determination by taking one or more of the following actions:

(1) The applicant may submit new or additional information in support of the application.

(2) The applicant may request that the Administrator reconsider the data and information already submitted.

(3) The applicant may request that any test conducted by the Administrator that was a material factor in making the determination be repeated.

Tables to Subpart A of Part 53

TABLE A–1 TO SUBPART A—SUMMARY OF APPLICABLE REQUIREMENTS FOR REFERENCE AND EQUIVALENT METHODS FOR AIR MONITORING OF CRITERIA POLLUTANTS

Pollutant	Ref. or equivalent	Manual or automated	Applicable part 50 appendix	Applicable subparts of part 53					
				A	B	C	D	E	F
SO_2	Reference	Manual	A						
	Equivalent	Manual		✔		✔			
		Automated		✔	✔	✔			
CO	Reference	Automated	C	✔	✔				
	Equivalent	Manual		✔		✔			
		Automated		✔	✔	✔			
O_3	Reference	Automated	D	✔	✔				
	Equivalent	Manual		✔		✔			
		Automated		✔	✔	✔			
NO_2	Reference	Automated	F	✔	✔				
	Equivalent	Manual		✔		✔			
		Automated		✔	✔	✔			
Pb	Reference	Manual	G						
	Equivalent	Manual		✔		✔			
PM_{10}	Reference	Manual	J	✔			✔		
	Equivalent	Manual		✔		✔	✔		
		Automated		✔		✔	✔		
$PM_{2.5}$	Reference	Manual	L	✔				✔	
	Equivalent Class I	Manual	L	✔		✔		✔	
	Equivalent Class II	Manual	L	✔		✔		✔	✔
	Equivalent Class III	Manual or Automated		✔		✔[1]		✔[1]	✔[1]

[1] Because of the wide variety of potential devices possible, the specific requirements applicable to a Class III candidate equivalent method for $PM_{2.5}$ are not specified explicitly in this part but, instead, shall be determined on a case-by-case basis for each such candidiate method.

Appendix A to Subpart A of Part 53—References

1. American National Standard—Quality Systems-Model for Quality Assurance in Design, Development, Production, Installation, and Servicing, ANSI/ISO/ASQC Q9001–1994. Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.
2. American National Standard—Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, ANSI/ASQC E4—1994. Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.
3. Dimensioning and Tolerancing, ASME Y14.5M–1994. Available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017.
4. Mathematical Definition of Dimensioning and Tolerancing Principles, ASME Y14.5.1M–1994. Available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017.
5. ISO 10012, Quality assurance requirements for measuring equipment—Part 1: Meteorological confirmation system for measuring equipment):1992(E). Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.
6. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Specific Methods (Interim Edition), Section 2.12. EPA/600/R–94/038b, April 1994. Available from CERI, ORD Publications, U.S. Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268. [Note: Section 2.12 of Volume II is currently under development and will not be available from the CERI address until it is published as an addition to EPA/600/R–94/038b. Prepublication draft copies of Section 2.12 will be available from Department E (MD–77B), U. S. EPA, Research Triangle Park, NC 27711 or from the contact identified at the beginning of this proposed rule.]

3. Subpart C is revised to read as follows:

Subpart C—Procedures for Determining Comparability Between Candidate Methods and Reference Methods

Sec.
53.30 General provisions.
53.31 Test conditions.
53.32 Test procedures for methods for SO_2, CO, O_3, and NO_2.
53.33 Test procedure for methods for lead.
53.34 Test procedure for methods for PM_{10} and $PM_{2.5}$

Tables to Subpart C of Part 53

Table C–1—Test Concentration Ranges, Number of Measurements Required, and Maximum Discrepancy Specification
Table C–2—Sequence of Test Measurements
Table C–3—Test Specifications for Lead Methods
Table C–4—Specifications for PM_{10} and $PM_{2.5}$ Methods

Figures to Subpart C

Figure C–1—Suggested Format for Reporting Test Results

Appendix A to Subpart C to Part 53—References

Subpart C—Procedures for Determining Comparability Between Candidate Methods and Reference Methods

§ 53.30 General provisions.

(a) *Determination of comparability.* The test procedures prescribed in this Subpart shall be used to determine if a candidate method is comparable to a reference method when both methods measure pollutant concentrations in ambient air.

(1) Comparability is shown for SO_2, CO, $O_3$3, and NO_2 methods when the differences between:

(i) Measurements made by a candidate manual method or by a test analyzer representative of a candidate automated method; and

(ii) Measurements made simultaneously by a reference method, are less than or equal to the values specified in the last column of Table C–1 of this subpart.

(2) Comparability is shown for lead methods when the differences between:

(i) Measurements made by a candidate method, and

(ii) Measurements made by the reference method on simultaneously collected lead samples (or the same sample, if applicable), are less than or equal to the value specified in Table C–3 of this subpart.

(3) Comparability is shown for PM_{10} and $PM_{2.5}$ methods when the relationship between:

(i) Measurements made by a candidate method; and

(ii) Measurements made by a reference method on simultaneously collected samples (or the same sample, if applicable) at each of two test sites, is such that the linear regression parameters (slope, intercept, and correlation coefficient) describing the relationship meet the values specified in Table C–4 of this subpart.

(b) *Selection of test sites.* (1) *All methods.* Each test site shall be in a predominately urban area which can be shown to have at least moderate concentrations of various pollutants. The site shall be clearly identified and shall be justified as an appropriate test site with suitable supporting evidence such as maps, population density data, vehicular traffic data, emission inventories, pollutant measurements from previous years, concurrent pollutant measurements, and meteorological data. If approval of a proposed test site is desired prior to conducting the tests, a written request for approval of the test site or sites must be submitted prior to conducting the tests and must include the supporting and justification information required. The Administrator may exercise discretion in selecting a different site (or sites) for any additional tests the Administrator decides to conduct.

(2) *Methods for SO_2, CO, O_3, and NO_2.* All test measurements are to be made at the same test site. If necessary, the concentration of pollutant in the sampled ambient air may be augmented with artificially generated pollutant to facilitate measurements in the specified ranges. [See paragraph (d)(2) of this section.]

(3) *Methods for lead.* Test measurements may be made at any number of test sites. Augmentation of pollutant concentrations is not permitted, hence an appropriate test site or sites must be selected to provide lead concentrations in the specified range.

(4) *Methods for PM_{10}.* Test measurements must be made, or derived from particulate samples collected, at not less than two test sites, each of which must be located in a geographical area characterized by ambient particulate matter that is significantly different in nature and composition from that at the other test site(s). Augmentation of pollutant concentrations is not permitted, hence appropriate test sites must be selected to provide PM10 concentrations in the specified range. The tests at the two sites may be conducted in different calendar seasons, if appropriate, to provide PM_{10} concentrations in the specified ranges.

(5) *Methods for $PM_{2.5}$.* Augmentation of pollutant concentrations is not permitted, hence appropriate test sites must be selected to provide $PM_{2.5}$ concentrations and $PM_{2.5}/PM_{10}$ ratios (if applicable) in the specified ranges.

(i) Where only one test site is required, as specified in Table C–4 of this subpart, the site need only meet the $PM_{2.5}$ ambient concentration levels required by § 53.34(c)(3).

(ii) Where two sites are required, as specified in Table C–4 of this subpart, each site must be selected to provide the ambient concentration levels required by § 53.34(c)(3). In addition, one site

must be selected such that all acceptable test sample sets, as defined in § 53.34(c)(3), have a $PM_{2.5}/PM_{10}$ ratio of more than 0.75; the other site must be selected such that all acceptable test sample sets, as defined in § 53.34(c)(3), have a $PM_{2.5}/PM_{10}$ ratio of less than 0.40. At least two reference method PM_{10} samplers shall be collocated with the candidate and reference method $PM_{2.5}$ samplers and operated simultaneously with the other samplers at each test site to measure concurrent ambient concentrations of PM_{10} to determine the $PM_{2.5}/PM_{10}$ ratio for each sample set. The $PM_{2.5}/PM_{10}$ ratio for each sample set shall be the average of the $PM_{2.5}$ concentration, as determined in § 53.34(c)(1), divided by the average PM_{10} concentration, as measured by the PM_{10} samplers. The tests at the two sites may be conducted in different calendar seasons, if appropriate, to provide $PM_{2.5}$ concentrations and $PM_{2.5}/PM_{10}$ ratios in the specified ranges.

(c) *Test atmosphere.* Ambient air sampled at an appropriate test site or sites shall be used for these tests. Simultaneous concentration measurements shall be made in each of the concentration ranges specified in Table C–1, C–3, or C–4 of this subpart, as appropriate.

(d) *Sample collection.*

(1) *All methods.* All test concentration measurements or samples shall be taken in such a way that both the candidate method and the reference method receive air samples that are homogenous or as nearly identical as practical.

(2) *Methods for SO_2*, CO, O_3, and NO_2. Ambient air shall be sampled from a common intake and distribution manifold designed to deliver homogenous air samples to both methods. Precautions shall be taken in the design and construction of this manifold to minimize the removal of particulates and trace gases, and to insure that identical samples reach the two methods. If necessary, the concentration of pollutant in the sampled ambient air may be augmented with artificially generated pollutant. However, at all times the air sample measured by the candidate and reference methods under test shall consist of not less than 80 percent ambient air by volume. Schematic drawings, physical illustrations, descriptions, and complete details of the manifold system and the augmentation system (if used) shall be submitted.

(3) *Methods for lead, PM_{10}* and $PM_{2.5}$. The ambient air intake points of all the candidate and reference method collocated samplers for lead, PM_{10} or $PM_{2.5}$ shall be positioned at the same height above the ground level, and between 2 and 5 meters apart. The samplers shall be oriented in a manner that will minimize spatial and wind directional effects on sample collection.

(4) *PM_{10} methods employing the same sampling procedure as the reference method but a different analytical method.* Candidate methods for PM_{10} which employ a sampler and sample collection procedure that are identical to the sampler and sample collection procedure specified in the reference method, but use a different analytical procedure, may be tested by analyzing common samples. The common samples shall be collected according to the sample collection procedure specified by the reference method and shall be analyzed in accordance with the analytical procedures of both the candidate method and the reference method.

(e) *Submission of test data and other information.* All recorder charts, calibration data, records, test results, procedural descriptions and details, and other documentation obtained from (or pertinent to) these tests shall be identified, dated, signed by the analyst performing the test, and submitted. For candidate methods for $PM_{2.5}$, all submitted information must meet the requirements of the ANSI/ASQC E4, sections 3.3.1, paragraphs 1 and 2 (Reference 1) of Appendix A of this Subpart.

§ 53.31 Test conditions.

(a) *All methods.* All test measurements made or test samples collected by means of a sample manifold as specified in § 53.30(d)(2) shall be at a room temperature between 20° and 30°C, and at a line voltage between 105 and 125 volts. All methods shall be calibrated as specified in paragraph (c) of this section prior to initiation of the tests.

(b) *Samplers and automated methods.* (1) Setup and start-up of the test analyzer, test sampler(s), and reference method (if applicable) shall be in strict accordance with the applicable operation manual(s). If the test analyzer does not have an integral strip chart or digital data recorder, connect the analyzer output to a suitable strip chart or digital data recorder. This recorder shall have a chart width of at least 25 centimeters, a response time of 1 second or less, a deadband of not more than 0.25 percent of full scale, and capability of either reading measurements at least 5 percent below zero or offsetting the zero by at least 5 percent. Digital data shall be recorded at appropriate time intervals such that trend plots similar to a strip chart recording may be constructed with a similar or suitable level of detail.

(2) Other data acquisition components may be used along with the chart recorder during the conduct of these tests. Use of the chart recorder is intended only to facilitate visual evaluation of data submitted.

(3) Allow adequate warmup or stabilization time as indicated in the applicable operation manual(s) before beginning the tests.

(c) *Calibration.* The reference method shall be calibrated according to the appropriate appendix to part 50 of this chapter (if it is a manual method) or according to the applicable operation manual(s) (if it is an automated method). A candidate manual method (or portion thereof) shall be calibrated, according to the applicable operation manual(s), if such calibration is a part of the method.

(d) *Range.* Except as provided in paragraph (d)(2) of this section, each method shall be operated in the range specified for the reference method in the appropriate appendix to part 50 of this chapter (for manual reference methods), or specified in Table B–1 of subpart B of this part (for automated reference methods).

(e) *Operation of automated methods.* (1) Once the test analyzer has been set up and calibrated and tests started, manual adjustment or normal periodic maintenance is permitted only every 3 days. Automatic adjustments which the test analyzer performs by itself are permitted at any time. At 3-day intervals only adjustments and periodic maintenance as specified in the manual referred to in § 53.4(b)(3) are permitted. The submitted records shall show clearly when manual adjustments were made and describe the operations performed.

(2) All test measurements shall be made with the same test analyzer; use of multiple test analyzers is not permitted. The test analyzer shall be operated continuously during the entire series of test measurements.

(3) If a test analyzer should malfunction during any of these tests, the entire set of measurements shall be repeated, and a detailed explanation of the malfunction, remedial action taken, and whether recalibration was necessary (along with all pertinent records and charts) shall be submitted.

§ 53.32 Test procedures for methods for SO_2, CO, O_3, and NO_2.

(a) Conduct the first set of simultaneous measurements with the candidate and reference methods:

(1) Table C–1 of this subpart specifies the type (1- or 24-hour) and number of

measurements to be made in each of the three test concentration ranges.

(2) The pollutant concentration must fall within the specified range as measured by the reference method.

(3) The measurements shall be made in the sequence specified in Table C–2 of this subpart, except for the 1-hour SO_2 measurements, which are all in the high range.

(b) For each pair of measurements, determine the difference (discrepancy) between the candidate method measurement and reference method measurement. A discrepancy which exceeds the discrepancy specified in Table C–1 of this subpart constitutes a failure. (See Figure C–1 of this subpart for a suggested format for reporting the test results.)

(c) The results of the first set of measurements shall be interpreted as follows:

(1) *Zero (0) failures.* The candidate method passes the test for comparability.

(2) *Three (3) or more failures.* The candidate method fails the test for comparability.

(3) *One (1) or two (2) failures.* Conduct a second set of simultaneous measurements as specified in Table C–1 of this subpart. The results of the combined total of first-set and second-set measurements shall be interpreted as follows:

(i) *One (1) or two (2) failures.* The candidate method passes the test for comparability.

(ii) *Three (3) or more failures.* The candidate method fails the test for comparability.

(4) For sulfur dioxide, the 1-hour and 24-hour measurements shall be interpreted separately, and the candidate method must pass the tests for both 1- and 24-hour measurements to pass the test for comparability.

(d) A 1-hour measurement consists of the integral of the instantaneous concentration over a 60-minute continuous period divided by the time period. Integration of the instantaneous concentration may be performed by any appropriate means such as chemical, electronic, mechanical, visual judgment, or by calculating the mean of not less than 12 equally spaced instantaneous readings. Appropriate allowances or corrections shall be made in cases where significant errors could occur due to characteristic lag time or rise/fall time differences between the candidate and reference methods. Details of the means of integration and any corrections shall be submitted.

(e) A 24-hour measurement consists of the integral of the instantaneous concentration over a 24-hour continuous period divided by the time period. This integration may be performed by any appropriate means such as chemical, electronic, mechanical, or by calculating the mean of twenty-four (24) sequential 1-hour measurements.

(f) For oxidant and carbon monoxide, no more than six (6) 1-hour measurements shall be made per day. For sulfur dioxide, no more than four (4) 1-hour measurements or one (1) 24-hour measurement shall be made per day. One-hour measurements may be made concurrently with 24-hour measurements if appropriate.

(g) For applicable methods, control or calibration checks may be performed once per day without adjusting the test analyzer or method. These checks may be used as a basis for a linear interpolation-type correction to be applied to the measurements to correct for drift. If such a correction is used, it shall be applied to all measurements made with the method, and the correction procedure shall become a part of the method.

§ 53.33 Test procedure for methods for lead.

(a) *Sample collection.* Collect simultaneous 24-hour samples (filters) of lead at the test site or sites with both the reference and candidate methods until at least 10 filter pairs have been obtained. If the conditions of § 53.30(d)(4) apply, collect at least 10 common samples (filters) in accordance with § 53.30(d)(4) and divide each to form the filter pairs.

(b) *Audit samples.* Three audit samples must be obtained from the Quality Assurance Branch (MD–77B), Air Measurements Research Division, National Exposure Research Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. The audit samples are ¾ × 8-inch glass fiber strips containing known amounts of lead at the following nominal levels: 100 µg/strip; 300 µg/strip; 750 µg/strip. The true amount of lead in total µg/strip will be provided with each audit sample.

(c) *Filter analysis.*

(1) For both the reference method and the audit samples, analyze each filter extract 3 times in accordance with the reference method analytical procedure. The analysis of replicates should not be performed sequentially (i.e., a single sample should not be analyzed three times in sequence). Calculate the indicated lead concentrations for the reference method samples in µg/m³ for each analysis of each filter. Calculate the indicated total lead amount for the audit samples in µg/strip for each analysis of each strip. Label these test results as R_{1A}, R_{1B}, R_{1C}, R_{2A}, R_{2B}, * * *, Q_{1A}, Q_{1B}, Q_{1C}, * * *., where R denotes results from the reference method samples; Q denotes results from the audit samples; 1, 2, 3 indicates filter number and A, B, C indicates the first, second, and third analysis of each filter, respectively.

(2) For the candidate method samples, analyze each sample filter or filter extract three times and calculate, in accordance with the candidate method, the indicated lead concentration in µg/m³ for each analysis of each filter. Label these test results as C_{1A}, C_{1B}, C_{2C}, * * *, where C denotes results from the candidate method. (For candidate methods which provide a direct measurement of lead concentrates without a separable procedure, $C_{1A}=C_{1B}=C_{1C}$, $C_{2A}=C_{2B}=C_{2C}$, etc.)

$$R_{i\,ave} = \frac{R_{iA} + R_{iB} + R_{iC}}{3} \quad (1)$$

(d) For the reference method, calculate the average lead concentration for each filter by averaging the concentrations calculated from the three analyses: where I is the filter number.

(e) Disregard all filter pairs for which the lead concentration as determined in the previous paragraph (d) of this section by the average of the three reference method determinations, falls outside the range of 0.5 to 4.0 µg/m³. All remaining filter pairs must be subjected to both of the following tests for precision and comparability. At least five filter pairs must be within the 0.5 to 4.0 µg/m³ range for the tests to be valid.

(f) *Test for precision.* (1) Calculate the precision (P) of the analysis (in percent) for each filter and for each method, as the maximum minus the minimum divided by the average of the three concentration values, as follows:

$$P_{Ri} = \frac{R_{i\,max} - R_{i\,min}}{R_{i\,ave}} \times 100\% \quad (2)$$

or

$$P_{Ci} = \frac{C_{i\,max} - C_{i\,min}}{C_{i\,ave}} \times 100\% \quad (3)$$

where I indicates the filter number.

(2) If any reference method precision value (P_{Ri}) exceeds 15 percent, the precision of the reference method analytical procedure is out of control. Corrective action must be taken to determine the source(s) of imprecision and the reference method determinations must be repeated

according to paragraph (c) of this section, or the entire test procedure (starting with paragraph (a) of this section) must be repeated.

(3) If any candidate method precision value (P_{Ci}) exceeds 15 percent, the candidate method fails the precision test.

(4) The candidate method passes this test if all precision values (i.e., all P_{Ri}'s and all P_{Ci}'s) are less than 15 percent.

(g) *Test for accuracy.*

(1) (i) For the audit samples calculate the average lead concentration for each strip by averaging the concentrations calculated from the three analyses:

$$Q_{i\,ave} = \frac{Q_{iA} + Q_{iB} + Q_{iC}}{3} \quad (4)$$

where i is audit sample number.

(ii) Calculate the percent difference (D_q) between the indicated lead concentration for each audit sample and the true lead concentration (T_q) as follows:

$$D_{qi} = \frac{Q_{i\,ave} - T_{qi}}{T_{qi}} \times 100\% \quad (5)$$

(2) If any difference value (D_{qi}) exceeds ±5 percent the accuracy of the reference method analytical procedure is out of control. Corrective action must be taken to determine the source of the error(s) (e.g., calibration standard discrepancies, extraction problems, etc.) and the reference method and audit sample determinations must be repeated according to paragraph (c) of this section or the entire test procedure (starting with paragraph (a) of this section) must be repeated.

(h) *Test for comparability.*

(1) For each filter pair, calculate all nine possible percent differences (D) between the reference and candidate methods, using all nine possible combinations of the three determinations (A, B, and C) for each method, as:

$$D_{in} = \frac{C_{ij} - R_{ik}}{R_{ik}} \times 100\% \quad (6)$$

where i is the filter number, and n numbers from 1 to 9 for the nine possible difference combinations for the three determinations for each method (j= A, B, C, candidate; k= A, B, C, reference).

(2) If none of the percent differences (D) exceed ±20 percent, the candidate method passes the test for comparability.

(3) If one or more of the percent differences (D) exceed ±20 percent, the candidate method fails the test for comparability.

(i) The candidate method must pass both the precision test and the comparability test to qualify for designation as an equivalent method.

§ 53.34 Test procedure for methods for PM_{10} and $PM_{2.5}$.

(a) *Collocated measurements.* Set up three reference method samplers collocated with three candidate method samplers or analyzers at each of the number of test sites specified in Table C–4 of this subpart. At each site, obtain as many sets of simultaneous PM_{10} or $PM_{2.5}$ measurements as necessary (see 53.34(c)(3)), each set consisting of three reference method and three candidate method measurements, all obtained simultaneously. For $PM_{2.5}$ Class II candidate methods, at least two collocated PM_{10} reference method samplers are also required to obtain $PM_{2.5}/PM_{10}$ ratios for each sample set. Candidate PM_{10} method measurements shall be 24-hour integrated measurements; $PM_{2.5}$ measurements may be either 24- or 48-hour integrated measurements. All collocated measurements in a sample set must cover the same 24- or 48-hour time period. For samplers, retrieve the samples promptly after sample collection and analyze each sample according to the reference method or candidate method, as appropriate, and determine the PM_{10} or $PM_{2.5}$ concentration in μg/m³. If the conditions of § 53.30(d)(4) apply, collect sample sets only with the three reference method samplers. Guidance for quality assurance procedures for $PM_{2.5}$ methods is found in section 2.12 of the Quality Assurance Handbook.

(b) *Sequential samplers.* For sequential samplers, the sampler shall be configured for the maximum number of sequential samples and shall be set for automatic collection of all samples sequentially such that the test samples are collected equally, to the extent possible, among all available sequential channels or utilizing the full available sequential capability. At least 2 valid samples, one each above and below the applicable concentration limit specified in paragraph (c)(3) of this section, shall be obtained from each sequential channel in the maximum-channel configuration of the sampler.

(c) *Test for comparability.* (1) For each of the measurement sets, calculate the average PM_{10} or $PM_{2.5}$ concentration obtained with the reference method samplers:

$$\bar{R}_j = \frac{\sum_{i=1}^{3} R_{i,j}}{3} \quad (7)$$

where R denotes results from the reference method, I is the sampler number, and j is the set.

(2)(i) For each of the measurement sets, calculate the precision of the reference method PM_{10} or $PM_{2.5}$ measurements as:

$$P_j = \sqrt{\frac{\sum_{i=1}^{3} R_{i,j}^2 - \frac{1}{3}\left(\sum_{i=1}^{3} R_{i,j}\right)^2}{2}} \quad (8)$$

if $\bar{R}_j$ is below:

80 μg/m³ for PM_{10} methods;

40 μg/m³ for 24-hour $PM_{2.5}$ at single test sites for Class I candidate methods;

40 μg/m³ for 24-hour $PM_{2.5}$ at sites having $PM_{2.5}/PM_{10}$ ratios >0.75;

30 μg/m³ for 48-hour $PM_{2.5}$ at single test sites for Class I candidate methods;

30 μg/m³ for 48-hour $PM_{2.5}$ at sites having $PM_{2.5}/PM_{10}$ ratios >0.75;

30 μg/m³ for 24-hour $PM_{2.5}$ at sites having $PM_{2.5}/PM_{10}$ ratios <0.40; and

20 μg/m³ for 48-hour $PM_{2.5}$ at sites having $PM_{2.5}/PM_{10}$ ratios >0.75.

(ii) Otherwise, calculate the precision of the reference method PM_{10} or $PM_{2.5}$ measurements as:

$$RP_j = \frac{1}{\overline{R}_j}\sqrt{\frac{\sum_{i=1}^{3} R_{i,j}^2 - \frac{1}{3}\left(\sum_{i=1}^{3} R_{i,j}\right)^2}{2}} \times 100\% \qquad (9)$$

(3) If R_j falls outside the acceptable concentration range specified in Table C–4 of this subpart for any set, or if P_j or RP_j, as applicable, exceeds the value specified in Table C–4 of this subpart for any set, that set of measurements shall be discarded. For each site, Table C–4 of this subpart specifies the minimum number of sample sets required for various conditions, and § 53.30(b)(5) specifies the $PM_{2.5}/PM_{10}$ ratio requirements applicable to Class II candidate equivalent methods. Additional measurement sets shall be collected and analyzed, as necessary, to provide a minimum of 10 acceptable measurement sets for each test site. If more than 10 measurement sets are collected that meet the above criteria, all such measurement sets shall be used to demonstrate comparability.

(4) For each of the acceptable measurement sets, calculate the average PM_{10} or $PM_{2.5}$ concentration obtained with the candidate method samplers:

$$\overline{C}_j = \frac{\sum_{i=1}^{3} C_{i,j}}{3} \qquad (10)$$

where C denotes results from the candidate method, I is the sampler number, and j is the set.

(5) For each site, plot the average PM_{10} or $PM_{2.5}$ measurements obtained with the candidate method (C_j) against the corresponding average PM_{10} or $PM_{2.5}$ measurements obtained with the reference method (R_j). For each site, calculate and record the linear regression slope and intercept, and the correlation coefficient.

(6) If the linear regression parameters calculated above meet the values specified in Table C–4 of this subpart for all test sites, the candidate method passes the test for comparability.

Tables to Subpart C of Part 53

TABLE C–1.—TEST CONCENTRATION RANGES, NUMBER OF MEASUREMENTS REQUIRED, AND MAXIMUM DISCREPANCY SPECIFICATION

Pollutant	Concentration range parts per million	Simultaneous measurements required				Maximum discrepancy specification, parts per million
		1–hr		24–hr		
		First set	Second set	First set	Second set	
Oxidants	Low 0.06 to 0.10	5	6			0.02
	Med 0.15 to 0.25	5	6			.03
	High 0.35 to 0.45	4	6			.04
	Total	14	18			
Carbon monoxide	Low 7 to 11	5	6			1.5
	Med 20 to 30	5	6			2.0
	High 35 to 45	4	6			3.0
	Total	14	18			
Sulfur dioxide	Low 0.02 to 0.05			3	3	0.02
	Med 0.10 to 0.15			2	3	.03
	High 0.30 to 0.50	7	8	2	2	.04
	Total	7	8	7	8	
Nitrogen dioxide	Low 0.02 to 0.08			3	3	0.02
	Med 0.10 to 0.20			2	3	.03
	High 0.25 to 0.35			2	2	.03
	Total			7	8	

TABLE C–2.—SEQUENCE OF TEST MEASUREMENTS

Measurement	Concentration range	
	First set	Second set
1	Low	Medum.
2	High	High.
3	Medium	Low.
4	High	High.
5	Low	Medium.
6	Medium	Low.
7	Low	Medium.
8	Medium	Low.
9	High	High.

TABLE C–2.—SEQUENCE OF TEST MEASUREMENTS—Continued

Measurement	Concentration range	
	First set	Second set
10	Medium	Low.
11	High	Medium.
12	Low	High.
13	Medium	Medium.
14	Low	High.
15		Low.
16		Medium.
17		Low.
18		High.

TABLE C–3.—TEST SPECIFICATIONS FOR LEAD METHODS

Concentration range, μg/m³	0.5–4.0
Minimum number of 24-hr measurements	5
Maximum analytical precision, percent	5
Maximum analytical accuracy, percent	±5
Maximum difference, percent of reference method	±20

TABLE C–4.—TEST SPECIFICATIONS FOR PM_{10} AND $PM_{2.5}$ METHODS

Specification	PM_{10}	$PM_{2.5}$	
		Class I	Class II
Acceptable concentration range (R_j), μg/m³	30–300	10–200	10–200
Minimum number of test sites	2	1	2
Number of candidate method samplers per site	3	3	3
Number of reference method samplers per site	3	3	3
Minimum number of acceptable sample sets per site for PM_{10}:			
R_j < 80 μg/m³	3		
R_j > 80 μg/m³	3		
Total	10		
Minimum number of acceptable sample sets per site for $PM_{2.5}$:			
Single test site for Class I candidate equivalent methods:			
R_j < 40 μg/m³ for 24-hr or R_j < 30 μg/m³ for 48-hr samples		3[a]	
R_j > 40 μg/m³ for 24-hr or R_j > 30 μg/m³ for 48-hr samples		3[a]	
Sites at which the $PM_{2.5}/PM_{10}$ ratio must be > 0.75:			
R_j < 40 μg/m³ for 24-hr or R_j < 30 μg/m³ for 48-hr samples			3[a]
R_j > 40 μg/m³ for 24-hr or R_j > 30 μg/m³ for 48-hr samples			3[a]
Sites at which the $PM_{2.5}/PM_{10}$ ratio must be < 0.40:			
R_j < 30 μg/m³ for 24-hr or R_j < 20 μg/m³ for 48-hr samples			3[a]
R_j > 30 μg/m³ for 24-hr or R_j > 20 μg/m³ for 48-hr samples			3[a]
Total, each site		10[a]	10[a]
Precision of replicate reference method measurements, P_j or RP_j	5 μg/m³ or 7%	2 μg/m³ or 5%	2 μg/m³ or 5%
Slope of regression relationship	1±0.1	1±0.05	1±0.05
Intercept of regression relationship, μg/m³	0±5	0±1	0±1
Correlation of reference method and candidate method measurements	≥0.97	≥0.97	≥0.97

[a] For sequential samplers, at least 2 samples, one above and one below the applicable concentration limit shall be obtained from each sequential channel in the maximum sequential configuration of the sampler. Therefore, the number of samples in each category, and possibly the total number of samples, will be dependent on the number of sequential channels available.

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FIGURES TO SUBPART C OF PART 53

Figure C–1.—Suggested Format for Reporting Test Results

Candidate Method _____

Reference Method _____

Applicant _____ Pollutant _____

☐ First Set ☐ Second Set ☐ Type ☐ 1 hour ☐ 24 hour

CONCENTRATION RANGE		DATE	TIME	CONCENTRATION, ppm		DIFFERENCE	TABLE C-1 SPEC.	PASS OR FAIL
				CANDIDATE	REFERENCE			
LOW _____ ppm to _____ ppm	1							
	2							
	3							
	4							
	5							
	6							
MEDIUM _____ ppm to _____ ppm	1							
	2							
	3							
	4							
	5							
	6							
HIGH _____ ppm to _____ ppm	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							

TOTAL FAILURES: ☐

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Appendix A to Subpart C of Part 53—References

1. American National Standard—Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, ANSI/ASQC E4–1994. Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.

4. Subpart E is added to read as follows:

Subpart E—Procedures for Testing Physical (Design) and Performance Characteristics of Reference Methods and Class I Equivalent Methods for $PM_{2.5}$

Sec.

53.50 General provisions.
53.51 Requirements to show compliance with design specifications.
53.52 Comprehensive procedure to test sampler performance under various environmental conditions (environmental chamber tests).
53.53 Post-sampling filter temperature control test.
53.54 Leak check test.
53.55 Flow rate cut-off test.
53.56 Operational field precision test.
53.57 Aerosol transport test for Class I sequential samplers.

Tables to Subpart E of Part 53

Table E–1—Test conditions for § 53.52 comprehensive 24-hour tests
Table E–2—Summary of test requirements for reference and Class I equivalent methods for $PM_{2.5}$

Figures to Subpart E of Part 53

Figure E–1—Designation Check List
Figure E–2—Product Manufacturing Check List
Figure E–3—Suggested test configuration for simulating reduced barometric pressure for comprehensive test procedure (§ 53.52)

Appendix to Subpart E of Part 53—References

Subpart E—Procedures for Testing Physical (Design) and Performance Characteristics of Reference Methods and Class I Equivalent Methods for $PM_{2.5}$

§ 53.50 General provisions.

(a) This subpart sets forth the specific tests that must be carried out and the test results, evidence, documentation, and other materials that must be provided to EPA to demonstrate that a $PM_{2.5}$ sampler associated with a candidate reference method or Class I equivalent method meets all design and performance specifications set forth in Appendix L of part 50 of this chapter as well as additional requirements specified in this subpart E. Some of these tests may also be applicable to portions of a Class II or III equivalent method sampler, as determined under subpart F of this part.

(b) Samplers associated with candidate reference methods for $PM_{2.5}$ shall be subject to the provisions, specifications, and test procedures prescribed in §§ 53.51 through 53.56. Samplers associated with candidate Class I equivalent method for $PM_{2.5}$ shall be subject to the provisions, specifications, and test procedures prescribed in all sections of this Subpart. Samplers associated with candidate Class II or Class III equivalent method for $PM_{2.5}$ shall be subject to the provisions, specifications, and test procedures prescribed in all applicable sections of this Subpart, as specified in subpart F of this part.

(c) Section 53.51 pertains to test results and documentation required to demonstrate compliance of a candidate method sampler with the design specifications set forth in Appendix L of part 50 of this chapter. Test procedures prescribed in §§ 53.52 through 53.56 pertain to performance tests required to demonstrate compliance of a candidate method sampler with the performance specifications set forth in Appendix L of part 50 of this chapter, as well as additional requirements specified in this subpart E. These latter test procedures shall be used to test the performance of candidate samplers against the performance specifications and requirements specified in each procedure and summarized in Table E–1 of this subpart.

(d) Test procedures prescribed in § 53.57 do not apply to candidate reference method samplers. These procedures apply primarily to candidate class I equivalent method samplers for $PM_{2.5}$ that have a sample air flow path configuration upstream of the sample filter that is modified from that specified for the reference method sampler—as set forth in Drawings L–18 and L–24 of Appendix L to part 50 of this chapter to provide for sequential sample capability. The additional tests determine the adequacy of aerosol transport through any altered components or supplemental devices that are used in a candidate sampler upstream of the filter to achieve the sequential sample capability. These tests may also apply, with appropriate adaptation, if necessary, to candidate samplers having minor deviations from the specified reference method sampler for purposes other than sequential operation. In addition to the other test procedures in this subpart, these test procedures shall be used to further test the performance of such equivalent method samplers against the performance specifications given in Table E–2 of this subpart.

(e) Tests of a candidate sampler for sample flow rate capacity and regulation, flow rate control, flow rate measurement accuracy, ambient temperature and pressure measurement accuracy, filter temperature control during sampling, and correct determination of elapsed sample time, average volumetric flow rate, and flow rate variation are all combined into a comprehensive test procedure (§ 53.52) that is carried out over four 24-hour test periods under multiple test conditions. Other performance parameters are tested individually with specific test procedures (§§ 53.53—53.57).

(f) A 10-day field test of measurement precision is required for both reference and equivalent method samplers. This test requires collocated operation of 3 candidate method samplers at a field test site. For candidate equivalent method samplers, this test may be combined and carried out concurrently with the test for comparability to the reference method specified under § 53.34, which requires collocated operation of three reference method samplers and three candidate equivalent method samplers.

(g) All tests and collection of test data shall be in accordance with the requirements of Reference 1, section 4.10.5 (ISO 9001) and Reference 2, Part B, section 3.3.1, paragraphs 1 and 2 and Part C, section 4.6 (ANSI/ASQC E4) in appendix A of this subpart. All test data and other documentation obtained specifically from or pertinent to these tests shall be identified, dated, signed by the analyst performing the test, and submitted to EPA in accordance with subpart A of this part.

§ 53.51 Requirements to show compliance with design specifications.

For the purposes of this document the definitions of ISO registered facility and ISO-certified auditor are found in § 53.1(t) and (u). An exception to this reliance by EPA on ISO affiliate audits is the requirement of the submission of the operation or instruction manual associated with the candidate method to EPA prior to designation. This manual is required under § 53.4(b)(3). The EPA has determined that acceptable technical judgment for review of this manual may not be assured by ISO affiliates, and approval of this manual will therefore be accomplished by the EPA.

(a) *Overview.* (1) In the absence of performance standards for some features of the FRM sampler system, and of the EPA resources to directly review and ensure manufacturer performance in producing samplers according to the EPA design specifications in 40 CFR part 50, Appendix L, EPA considers it necessary to require manufacturers to meet two kinds of requirements to ensure their compliance with the design specifications of 40 CFR part 50, Appendix L.

(2) The subsequent paragraphs of this section specify certain documentation that must be submitted and tests that are required to demonstrate that instruments associated with a designated reference or equivalent method for $PM_{2.5}$ are properly manufactured to meet all applicable design specifications and have been properly tested according to all applicable test requirements for such designation. Documentation is required to show that instruments and components are manufactured or assembled in an ISO–9001-registered (or equivalent) facility under a quality system that meets ISO–9001

requirements for manufacturing quality control and testing.

(3) In addition, specific tests are required to verify that two critical features of reference method samplers—impactor jet diameter and the surface finish of surfaces specified to be anodized—meet the specifications of 40 CFR part 50, Appendix L. A checklist is required to provide certification by an ISO-certified auditor that all performance and other required tests have been properly and appropriately conducted. Following designation of the method, another checklist is required, initially and annually, to provide an ISO-qualified (or equivalent) auditor's certification that an adequate and appropriate quality system is being implemented in the instrument manufacturing process.

(b) *ISO Registration of manufacturing facility.* (1) The applicant must submit documentation verifying that the samplers associated with the candidate method will be manufactured in an ISO 9001-registered facility (as defined in § 53.1(u)) and that the manufacturing facility is maintained in compliance with all applicable ISO 9001 requirements (Reference 1 in appendix A of this subpart). The documentation shall indicate the date of the original ISO 9001 registration for the facility and shall include a copy of the most recent certification of continued ISO 9001 facility registration. If the manufacturer does not wish to initiate or complete ISO 9001 registration for the manufacturing facility, documentation must be included in the application to EPA describing an alternative method to demonstrate that the facility meets the same general requirements as required for ISO registration. In this case, the applicant must provide documentation in the application to demonstrate, by required ISO-certified auditor's inspections, that a quality system is in place which is adequate to document and monitor that the sampler system components all conform to the design, performance and other requirements specified in Appendix L of part 50 of this chapter.

(2) *Phase-in period.* For a period of 1 year following the effective date of this subpart, a candidate reference or equivalent method for $PM_{2.5}$ that utilizes a sampler manufactured in a facility that is not ISO 9001-registered or otherwise approved by the EPA under paragraph (b)(1) of this section may be conditionally designated as a reference or equivalent method under this part. Such conditional designation will be considered on the basis of evidence submitted in association with the candidate method application showing that appropriate efforts are currently underway to seek ISO 9001 registration or alternative approval of the facility's quality system under paragraph (b)(1) of this section within the next 12 months. Such conditional designation shall expire 1 year after the date of the Federal Register notice of the conditional designation unless documentation verifying successful ISO 9001 registration for the facility or other EPA-acceptable quality system review and approval process of the production that will manufacture the samplers is submitted at least 30 days prior to the expiration date.

(c) *Sampler Manufacturing Quality Control.* The manufacturer must ensure that all components used in the manufacture of $PM_{2.5}$ samplers to be sold as reference or equivalent methods and that are specified by design in Appendix L of part 50 of this chapter are fabricated or manufactured exactly as specified. If the manufacturer's QC records show that its QC and QA system of standard process control inspections (of a set number and frequency of testing that is less than 100%) complies with the applicable QA provisions of section 4 of Reference 4 in Appendix A of this subpart and prevents nonconformances, 100% testing shall not be required until that conclusion is disproved by customer return or other independent manufacturer or customer test records. If problems are uncovered, inspection to verify conformance to the drawings, specifications, and tolerances shall be performed. See also paragraph (e) of this section (final assembly and inspection requirements).

(d) *Specific tests and supporting documentation required to verify conformance to critical component specifications.* (1) *Verification of $PM_{2.5}$* impactor jet diameter. The diameter of the jet of each impactor manufactured for a $PM_{2.5}$ sampler under the impactor design specifications set forth in Appendix L of part 50 of this chapter shall be verified against the tolerance specified on the drawing, using standard, NIST-traceable plug gages. This test shall be a final check of the jet diameter following all fabrication operations, and a record shall be kept of this final check. Submit evidence that this procedure is incorporated in the ISO 9001-certified manufacturing procedure, that the test is or will be routinely implemented, and that an appropriate procedure is in place for the disposition of units that fail this tolerance test.

(2) *Verification of surface finish.* The anodization process used to treat surfaces specified to be anodized shall be verified by testing treated specimen surfaces for weight and corrosion resistance to ensure that the coating obtained conforms to the coating specification. The specimen surfaces shall be finished in accordance with military standard specification 8625F, Type II, Class I (Reference 4) in the same way the sampler surfaces are finished, and tested, prior to sealing, as specified in Section 4.5.2 of Reference 4 in Appendix A of this subpart.

(e) *Final assembly and inspection requirements.* Each sampler shall be tested after manufacture and before delivery to the final user. Each manufacturer shall document its post-manufacturing test procedures. As a minimum, each test shall consist of the following: Tests of the overall integrity of the sampler, including leak tests; calibration or verification of the calibration of the flow measurement device, barometric pressure sensors, and temperature sensors; and operation of the sampler with a filter in place over a period of at least 48 hours. The results of each test shall be suitably documented and shall be subject to review by an ISO 9001 auditor.

(f) *Manufacturer's audit checklists.* Manufacturers shall require ISO 9001 auditors to sign and date a statement indicating that the auditor is aware of the appropriate manufacturing specifications contained in Appendix L of part 50 of this chapter and the test or verification requirements in this subpart. Manufacturers shall also require ISO 9001 auditors to complete the checklists, shown in Figures E–1 and E–2 of this subpart, which describe the manufacturer's ability to meet the requirements of the standard for both designation testing and product

manufacture. Refer to Reference 5 for additional guidance on the scope and detail required for the checklist evaluations.

(1) *Designation testing checklist.* The completed statement and checklist as shown in Figure E–1 of this subpart shall be submitted with the application for reference or equivalent method determination.

(2) *Product manufacturing checklist.* Manufacturers shall require ISO 9001 auditors to complete the attached Production Checklist, which evaluates the manufacturer on its ability to meet the requirements of the standard in maintaining quality control in the production of reference or equivalent devices. The completed statement and checklist shall be submitted with the application for reference or equivalent method determination. As set forth in subpart A of this part, this checklist must be completed and submitted annually to retain a reference or equivalent method designation for a $PM_{2.5}$ method.

(3) If the conditions of paragraph (b)(2) of this section apply, a candidate reference or equivalent method for $PM_{2.5}$ may be conditionally designated as a reference or equivalent method under this part 53 without the submission of the checklists described in paragraphs (f) (1) and (2) of this section. Such conditional designation shall expire 1 year after the date of the Federal Register notice of the conditional designation unless the checklists are submitted at least 30 days prior to the expiration date.

§ 53.52 Comprehensive procedure to test sampler performance under various environmental conditions (environmental chamber tests).

(a) *Overview.* This test procedure is a combined procedure to test the following performance parameters:

(1) Sample flow rate, flow rate regulation, and flow rate measurement accuracy;

(2) Ambient air temperature and barometric pressure measurement accuracy;

(3) Filter temperature control during sampling; and

(4) Elapsed sampling time accuracy.

The performance parameters tested under this procedure, the corresponding minimum performance specifications, and the applicable test conditions are summarized in Table E–2 of this subpart. Each performance parameter tested, as described or determined in the test procedure, must meet or exceed the performance specification given in Table E–2 of this subpart. The candidate sampler must meet all specifications for the associated $PM_{2.5}$ method to be considered for designation as a reference or equivalent method.

(b) *Technical definition.* Sample flow rate means the quantitative volumetric flow rate of the air stream caused by the sampler to enter the sampler inlet and pass through the sample filter, measured in actual volume units at the temperature and pressure of the air as it enters the inlet.

(c) *Required test equipment.*

(1) Environmental chamber or other temperature-controlled environment or environments, capable of obtaining and maintaining the various temperatures between −20 °C to +40 °C as required for the test with an accuracy of ±2 °C. The test environment(s) must be capable of maintaining temperature within the specified limits continuously with the additional heat load of the operating test sampler in the environment. [Henceforth, where the test procedures specify a test or environmental ''chamber,'' an alternative temperature-controlled environmental area or areas may be substituted, provided the required test temperatures and all other test requirements are met. See paragraph (f)(1) of this section]

(2) Variable voltage ac power transformer, range 100 to 130 Vac, with sufficient VA capacity to operate the test sampler continuously under the test conditions.

(3) Flow rate meter, suitable for measuring the actual volumetric sampler flow rate at the sampler downtube in either an open system or in a closed system operating below atmospheric pressure, range 10 to 25 actual L/min, 2 percent certified accuracy, NIST-traceable, over a temperature range of −30 °C to +50 °C and pressure range of 600 to 800 mm Hg, with continuous (analog) recording capability or digital recording at intervals of not more than 5 minutes. Mass flow meter type recommended; however, note that temperature and pressure corrections are generally required to convert measured mass flow rate to actual volumetric flow rate.

(4) Ambient air temperature recorder, range −30°C to +50°C, certified accurate to within 0.5 °C with a radiation error of 0.2 °C or less under a solar radiation intensity of 1000 watts/m², as described in Reference 6 in appendix A of this subpart.

(5) Barometric pressure meter, range 600 to 800 mm Hg, certified accurate to 2 mm Hg.

(6) Miniature temperature sensor, capable of being installed in the sampler without introducing air leakage and capable of measuring the sample air temperature within 1 cm of the center of the filter, downstream of the filter, certified accurate to within 0.5 °C, NIST traceable, with continuous (analog) recording capability or digital recording at intervals of not more than 5 minutes.

(7) Means for creating or simulating the effect of a reduced barometric pressure on the test sampler during sampler operation, capable of simulating barometric pressures ranging from 730 to 600 mm Hg. A suggested, closed-system technique for a hypothetical sampler is illustrated in Figure E–3 of this subpart, but the configuration shown may have to be modified or adapted to accommodate the specific design of the actual candidate method sampler. The sampler-specific technique or apparatus proposed by the applicant for simulating barometric pressure for purposes of this test may be submitted for pre-approval of concept prior to conducting the test. Alternatively, a hypobarometric chamber or other test environment with capability of maintaining barometric pressures ranging from local actual barometric pressure to 600 mm Hg, as well as the temperature capability specified in paragraph (c)(1) of this section, shall be used.

(8) Means, such as a solar-spectrum lamp or lamps, for generating or simulating thermal radiation in approximate spectral content and intensity equivalent to solar insolation of 1000 watts/m² (1.43 langleys/min) inside the environmental chamber.

(9) AC rms voltmeter, accurate to 0.5 volts.

(10) Means for creating an additional pressure drop of 55 mm Hg in the sampler to simulate a heavily loaded filter, such as an orifice or flow restrictive plate installed in the filter holder or a valve or other flow restrictor temporarily installed in the flow path near the filter.

(11) Time measurement system, accurate to within 10 seconds per day.

(12) Radiometer, to measure the intensity of the simulated solar radiation in the test environment, range 0—1500/m².

(d) *Calibration of test measurement instruments.* Submit documentation showing evidence of recent calibration, calibration accuracy, and NIST-traceability (if required) of all measurement instruments used in the tests. The accuracy of flow meters shall be verified at the highest and lowest pressures and temperatures used in the tests and shall be checked at zero and one or more non-zero flow rates within 7 days of test use. Where an instrument's measurements are to be recorded with an analog recording

device, the accuracy of the entire instrument-recorder system shall be calibrated or verified.

(e) *Test setup.* (1) The test sampler shall be set up for testing in the temperature-controlled chamber. Setup of the sampler shall be performed as described in the sampler's operation or instruction manual referred to in § 53.4(b)(3). The sampler shall be installed upright and set up in its normal configuration for collecting $PM_{2.5}$ samples, except that the sample air inlet shall be removed to permit measurement of the sampler flow rate.

(2) The certified flow rate meter shall be connected to the test sampler so as to accurately measure the sampler flow rate at the entrance to the sampler (*i.e.*, the flow rate that would enter the sampler inlet if the inlet had not been removed).

(3) The sampler shall be provided with ac line power from the variable voltage ac power transformer, which shall be initially set to a nominal voltage of 115 volts ac (rms).

(4) The miniature temperature sensor shall be installed in the test sampler such that it accurately measures the air temperature 1 cm from the center of the filter on the downstream side of the filter. The sensor shall be installed in a way such that no external or internal leakage is created by the sensor installation.

(5) If a closed-system means for simulating reduced barometric pressure in the sampler, as suggested in paragraph (c)(7) of this section, is to be used in lieu of a hypobarometric chamber, the necessary apparatus shall be installed on the test sampler as appropriate, in such a way that the certified flow rate meter will still accurately measure the sampler flow rate. Also, the barometric pressure meter shall be installed to accurately measure the simulated or actual reduced barometric pressure to which the sampler is subjected during the test.

(6) The solar radiant energy source shall be installed in the test chamber such that the entire test sampler is irradiated in a manner similar to the way it would be irradiated by solar radiation if it were located outdoors in an open area on a sunny day, with the radiation arriving at an angle of between 30 and 45 degrees from vertical and such that the intensity of the radiation received by all sampler surfaces that receive direct radiation is not less than 1000 watts/cm^2, measured in a plane perpendicular to the incident radiation. The incident radiation shall be oriented with respect to the sampler such that the area of the sampler's ambient temperature sensor (or temperature shield) receives direct radiation as it would or could during normal outdoor installation. Also, the sensor must not be shielded from the radiation by a sampler part in a way that would not occur at other normal insolation angles or directions.

(7) The ambient air temperature recorder shall be installed in the test chamber such that it will accurately measure the temperature of the air in the chamber without being unduly affected by the chamber's air temperature control system or by the radiant energy from the solar radiation source that may be present inside the test chamber.

(f) *Procedure.* (1) The test sampler shall be tested during operation over four (4) 24-hour sample collection periods (Test numbers 1—4) under the conditions specified in Table E–1 of this subpart. The test chamber temperature shall be held at the specified initial temperature for the first 8 hours of each test period, during which various performance parameters are measured. During hours 9 through 21 of each test period, the chamber temperature is transitioned from the initial to the final specified temperature; the temperature profile is unspecified during this period, provided that the final specified temperature is achieved before the start of hour 22 of each test period. The specified final temperature shall be maintained during hours 22 through 24 of each test period.

(2) Prepare the test sampler for normal sample collection operation as directed in the sampler's operation or instructional manual. If the sampler has multiple (sequential) sample capability, this capability may be used for the four 24-hour tests, if desired. Convenient start and stop times for a 24±0.1 hour test period shall be set in the test sampler to effect automatic sampler operation for each test period. Test periods are not required to start at midnight; each test period may start at any time of day.

(3) Carry out a leak test of the sampler as described in the sampler's operation manual. The leak test must be properly passed before other tests are carried out.

(4) At the beginning of each test period, the solar insolation source, as described in paragraph (c)(8) of this section, shall be off, and the sampler shall be subject to barometric pressure of not less than 730 mm Hg.

(5) During each 24-hour test period, continuously record the test chamber air temperature, the filter temperature, and the sampler flow rate, as measured by the test equipment [paragraph (c) of this section], either via a continuous analog recording or digital recording at intervals of not more than 5 minutes. Note and record the actual start and stop times for the sample period. The sampler power line voltage shall be measured and recorded during hours 1 and 24 of the test period and following completion of the specific performance parameter tests during the initial 8-hour portion of the test period.

(6) The following tests shall be carried out at some time during hours 1–8 of each 24-hour test period. The time at which the test data for each test are obtained (either time of day or elapsed time since the start of the 24-hour test period, whichever system is used to record flow rate and chamber temperature, to the closest 1 minute) shall be recorded along with the test data. If analog recording is used, the time of each test shall be identified or annotated directly on the strip chart record.

(i) Determine and record the sampler flow rate, in actual volumetric units, indicated by the sampler, and the corresponding flow rate measured by the flow rate test meter specified in paragraph (c)(3) of this section.

(ii) Determine and record the ambient (chamber) temperature indicated by the sampler and the corresponding ambient (chamber) temperature measured by the ambient temperature recorder specified in paragraph (c)(4) of this section.

(iii) Determine and record the ambient (chamber) barometric pressure indicated by the sampler and the corresponding ambient (chamber) barometric pressure measured by the barometric pressure meter specified in paragraph (c)(5) of this section.

(iv) Activate the solar radiation source; after at least 2 hours (120 minutes) of sampler operation following the start of simulated insolation exposure, repeat tests in paragraphs (f)(6) (i) and (ii) of this section under continuation of the insolation exposure.

(v) Activate the solar radiation source; after at least 2 hours (120 minutes) of sampler operation following the start of simulated solar insolation exposure, subject the sampler to a barometric pressure (actual or simulated) of ≤600 mm Hg (absolute) while continuing the insolation exposure. After at least 1 hour (60 minutes) of sampler operation at this barometric pressure, repeat tests in paragraphs (f)(6) (i), (ii), and (iii) of this section under continuation of the reduced barometric pressure and insolation exposure.

(vi) Activate the solar radiation source; after at least 2 hours (120 minutes) of sampler operation following the start of insolation exposure, subject the sampler to a barometric pressure (actual or simulated) of ≤600 mm Hg

while continuing the insolation exposure. After at least 1 hour (60 minutes) of sampler operation at this barometric pressure, provide an additional filter pressure drop of 55 mm Hg, as specified in paragraph (c)(10) of this section and repeat tests in paragraphs (f)(6)(i), and (iii) of this section under continuation of the reduced barometric pressure, increased pressure drop, and insolation exposure. One or more of the power interruptions required in paragraph (f) (6)(vii) of this section may be used, if appropriate, to make necessary adjustments to the sampler to effect the additional filter pressure drop.

(vii) Interrupt the ac line electrical power to the sampler for periods of 20 seconds, 40 seconds, 2 minutes, 7 minutes, and 20 minutes, with not less than 5 minutes of electrical power, at the voltage specified for the test, between each power interruption. Record the hour and minute of each power interruption.

(7) After completing the special tests under paragraph (f)(6) of this section, the remainder of the 24-hour test period may be completed with the test sampler subjected to any barometric pressure within the range specified in Table E–2 of this subpart, with or without the additional filter pressure drop, and with the solar radiation either off or on.

(g) *Test Results.* All requirements in this procedure must be passed in full for each of the four 24-hour tests; no provision is made for additional trials to compensate for failed tests. For each of the four 24-hour test periods, validate the test conditions and determine the test results as follows:

(1) *Chamber temperature control.* Examine the continuous record of the chamber temperature obtained in test procedure paragraph (f)(5) of this section and verify that the temperature met the requirements specified in Table E–1 of this subpart at all times during the test. If not, the entire 24-hour test is not valid and must be repeated.

(2) *Power line voltage.* Verify that each of the three power line voltage measurements obtained in test procedure in paragraph (f)(5) of this section met the line voltage requirements specified in Table E–1 of this subpart. If not, the entire 24-hour test is not valid and must be repeated.

(3) *Sample flow rate.* (i) From the continuous record of the test sampler flow rate obtained from the flow rate meter in test procedure paragraph (f)(5) of this section, determine the average or instantaneous sampler flow rate, or average flow rate, at intervals of not more than 5 minutes for the entire 24-hour sample period. Calculate the percent difference between the sampler interval flow rate, in actual liters per minute (L/min), and 16.67 L/min, for each interval in test procedures in paragraphs (f)(6)(i), (6)(iv), (6)(v), and (6)(vi) of this section, as follows:

$$\%\ \text{Difference} = \frac{F_i - 16.67}{16.67} \times 100\% \quad (1)$$

Where F_i is the measured sampler flow rate for interval I, in actual L/min.

(ii) All calculated sampler flow rate percent differences must meet the sample flow rate specification listed in Table E–2 of this subpart.

(4) *Sample flow rate regulation.* (i) Using the sampler interval flow rates obtained in paragraph (g)(3) of this section, calculate the average sampler flow rate in actual liters per minute for the 24-hour period, excluding periods of electrical power interruption, as,

$$\overline{F}_{ave} = \frac{\sum_{i=1}^{n} F_i}{n} \quad (2)$$

where

F_{ave} = average sampler flow rate over the 24-hour test period,

F_i = sampler flow rate for interval I

n = number of flow intervals over the 24-hour period, excluding intervals of no flow rate during power interruptions.

(ii) For each interval over the 24-hour period, calculate the difference between the interval sampler flow rate and the average sampler flow rate. The difference between the interval sampler flow rate and the average sampler flow rate must meet the flow rate regulation specification listed in Table E–2 of this subpart for all intervals during the 24-hour test period, excluding periods of electrical power interruption.

(5) *Sample flow rate coefficient of variation.* (i) Using the sampler interval flow rates determined in paragraph (g)(3) of this section, calculate the sampler flow rate coefficient of variation, CV_{flow} as:

$$CV_{flow} = \frac{1}{F_{ave}} \times \sqrt{\frac{\sum_{i=1}^{n} F_i^2 - \frac{1}{n}\left(\sum_{i=1}^{n} F_i\right)^2}{n-1}} \times 100\% \quad (3)$$

Where

CV_{flow} = coefficient of variation of sampler flow rate, and F_{ave}, F_i, I, and n are as defined previously.

(ii) The CV_{flow} calculated must meet the sampler flow rate coefficient of variation specification listed in Table E–2 of this subpart for each test. Also the coefficient of variation reported by the sampler at the end of the sample period must agree with CV_{flow} calculated here within 0.5%.

(6) *Flow rate measurement accuracy.* (i)(A) Calculate the percent difference between the sampler flow rate, in actual liters per minute (L/min), indicated by the sampler, and the sampler flow rate measured with the flow rate test meter [paragraph (c)(3) of this section] in test procedures in paragraphs (f) (6)(i), (6)(iv), (6)(v), and (6)(vi) of this section, for each set of measurements as:

$$\%\ \text{Difference} = \frac{F_{si} - F_i}{F_i} \times 100\% \quad (4)$$

Where

F_{si} = sampler flow rate indicated by the sampler, in actual L/min., for measurement set I.

(B) All calculated sampler flow rate percent differences must meet the flow

rate measurement accuracy specification listed in Table E–2 of this subpart.

(ii)(A) Obtain the value for the average sampler volumetric flow rate reported by the sampler at the end of the sample period and calculate the percent difference between the reported average sampler flow rate and the average flow rate determined in paragraph (f)(4) of this section as:

$$\% \text{ Difference} = \frac{F_{s,ave} - F_{ave}}{F_{ave}} \times 100\% \qquad (5)$$

Where

$F_{s,ave}$ = average sampler flow rate reported by the sampler.

(B) This calculated percent difference must also meet the flow rate measurement accuracy specification listed in Table E–2 of this subpart.

(7) *Ambient temperature measurement accuracy.* (i) Calculate the difference between the ambient air temperature indicated by the sampler and the ambient (chamber) air temperature measured with the ambient air temperature recorder, paragraph (c)(4) of this section, in test procedures paragraphs (f) (6)(ii), (6)(iv), and (6)(v) of this section, as:

$$T_{difference} = T_s - T_m \qquad (6)$$

Where

T_s = ambient air temperature indicated by the sampler, °C; and

T_m = ambient air temperature measured by the test temperature instrument, °C.

(ii) All calculated temperature differences must meet the ambient air temperature measurement accuracy specification listed in Table E–2 of this subpart.

(8) *Ambient barometric pressure measurement accuracy.* (i) Calculate the difference between the ambient barometric pressure indicated by the sampler and the ambient barometric pressure measured with the ambient barometric pressure meter, paragraph (c)(5) of this section, in test procedures in paragraphs (f)(6)(iii), (6)(v), and (6)(vi) of this section, as:

$$P_{difference} = P_s - P_m \qquad (7)$$

Where

P_s=ambient barometric pressure indicated by the sampler, mm Hg; and

P_m=ambient barometric pressure measured by the test barometric pressure meter, mm Hg.

(ii) All calculated differences for barometric pressure must meet the ambient barometric pressure measurement accuracy specification listed in Table E–2 of this subpart.

(9)(i) Filter temperature control (sampling). From the continuous record of the test sampler filter temperature obtained from the filter temperature sensor, paragraphs (c)(6) and (e)(4) of this section, in test procedure in paragraph (f)(5) of this section, determine the measured instantaneous or average filter temperature at intervals of not more than 5 minutes for the entire 24-hour sample period. From the continuous record of the ambient air temperature obtained from the ambient (chamber) air temperature recorder, paragraph (c)(4) of this section, in test procedure paragraph (f)(5) of this section, determine the measured instantaneous or average ambient (chamber) air temperature at intervals of not more than 5 minutes for the entire 24-hour sample period. For each interval over the 24-hour period (excluding intervals during power interruptions), calculate the difference, in °C, between the measured interval filter temperature and the measured interval ambient temperature for the corresponding interval, as:

$$T_{filter,\ difference} = T_{filter} - T_{ambient} \qquad (8)$$

(ii) The difference between the interval filter temperature and the interval average ambient temperature for all intervals must meet the filter temperature control specification listed in Table E–2 of this subpart, excluding periods of electrical power interruption.

(10) Elapsed sample time accuracy. Calculate the sample time for the 24-hour sample period as the difference between the sample end time and the sample start time, as recorded in paragraph (f)(5) of this section, less the total time duration of all power interruptions. The difference between the actual sampler time calculated and the sample time reported by the sampler at the end of the sample period must meet the elapsed sample time accuracy specification listed in Table E–2 of this subpart.

(11) Record of power interruptions. Verify that the sampler provides a visual display of the correct year, month, day-of-month, hour, and minute, within ±2 minutes, of the start of each power interruption of more than 60 seconds.

§ 53.53 Post-sampling filter temperature control test.

(a) *Overview.* This procedure provides for testing the temperature control of the sample filter during the post-sampling (non-sampling) mode following sample collection. The test conditions and performance specifications are summarized in Table E–2 of this subpart. This performance parameter, when tested or determined as described in this test procedure, must meet or exceed the performance specification given in Table E–2 of this subpart for the associated $PM_{2.5}$ method to be considered for designation as a reference or equivalent method.

(b) *Technical Definition.* Post-sampling temperature control is the ability of a sampler to maintain the temperature of the particulate matter sample filter within the specified deviation from ambient temperature during the period between the end of active sample collection of the $PM_{2.5}$ sample by the sampler until the filter is retrieved from the sampler for laboratory analysis.

(c) *Required test equipment.* (1) Environmental chamber or other

temperature-controlled environment or environments, capable of obtaining and maintaining the various temperatures between −20 °C to +40 °C as required for the test with an accuracy of ±2 °C. The test environment(s) must be capable of maintaining temperature within the specified limits continuously with the additional heat load of the operating test sampler in the environment. [Henceforth, where the test procedures specify a test or environmental ''chamber,'' an alternative temperature-controlled environmental area or areas may be substituted, provided the required test temperatures and all other test requirements are met. See § 53.52(f)(1)].

(2) Variable voltage ac power transformer, range 100 to 130 Vac, with sufficient VA capacity to operate the sampler continuously under test conditions.

(3) Ambient air temperature recorder, range −30°C to +50°C, certified accurate to within 0.5 °C with a radiation error of 0.2 °C or less under a solar radiation intensity of 1000 watts/m², as described in Reference 6 in Appendix A of this subpart.

(4) Miniature temperature sensor, capable of being installed in the sampler without introducing air leakage and capable of measuring the sample air temperature within 1 cm of the center of the filter, downstream of the filter, certified accurate to within 0.5°C, NIST traceable, with continuous (analog) recording capability or digital recording at intervals of not more than 5 minutes.

(5) Means, such as a solar-spectrum lamp or lamps, for generating or simulating thermal radiation in approximate spectral content and intensity equivalent to solar insolation of 1000 watts/m², inside the environmental chamber.

(6) AC rms voltmeter, accurate to 0.5 volts.

(7) Time measurement system, accurate to 10 seconds per day.

(d) *Calibration of test measurement instruments.* Submit documentation showing evidence of recent calibration, calibration accuracy, and NIST-traceability (if required) of all measurement instruments used for the tests. Where an instrument's measurements are to be recorded with an analog recording device, the accuracy of the entire instrument-recorder system shall be calibrated or verified.

(e) *Test Setup.* (1) The test sampler shall be set up for testing in the temperature-controlled chamber. Setup of the sampler shall be performed as described in the sampler's operation or instruction manual referred to in § 53.4 (b)(3). The sampler shall be installed upright and set up in its normal configuration for collecting $PM_{2.5}$ samples with a filter installed, except that the sample air inlet may be removed, if desired.

(2) The sampler shall be provided ac line power from the variable voltage ac power transformer, which shall be set to provide power to the sampler at a voltage of 105 ±1 volts ac (rms) during this test.

(3) The miniature temperature sensor shall be installed in the test sampler such that it accurately measures the temperature of the air 1 cm from the center of the filter on the downstream side of the filter.

(4) The solar radiant energy source shall be installed in the test chamber such that the entire test sampler is irradiated in a manner similar to the way it would be irradiated by solar radiation if it were located outdoors in an open area on a sunny day, with the radiation arriving at an angle of between 30 and 45 degrees from vertical and such that the intensity of the radiation received by all sampler surfaces that receive direct radiation is not less than 1000 watts/m² (measured in a plane perpendicular to the incident radiation). The incident radiation shall be oriented with respect to the sampler such that the area of the sampler's ambient temperature sensor (or temperature sensor shield) receives direct radiation as it would or could during normal outdoor installation. Also, the sensor must not be shielded from the radiation by a sampler part in a way that would not occur at other normal insolation angles or directions.

(5) The ambient air temperature recorder shall be installed in the test chamber such that it will accurately measure the temperature of the air in the chamber without being unduly affected by the chamber's air temperature control system or by the radiant energy from the solar radiation that may be present inside the test chamber.

(f) *Procedure.* (1) The test sampler shall be tested during operation in the post-sample collection operational mode (operation of the sampler during the period from the end of active sample collection of the $PM_{2.5}$ sample by the sampler until the filter is retrieved from the sampler for laboratory analysis) over seven (7) hours, following one of the 24-hour tests described in § 53.52. The test chamber temperature shall be initially set to ≤−20 °C, raised to ≥40 °C, held at ≥40 °C for one hour, then reduced to ≤−20 °C during the test.

(2) Prepare the sampler for the test by allowing the sampler to operate for a normal 24-hour sample collection period, as directed in the sampler's operation or instruction manual. If the sampler has multiple (sequential) sample capability, any of the sequential channels may be used for the test; however, if the sampler has multiple filter holders, each filter holder must be tested for temperature control. Convenient start and stop times for a 24 ± 0.1 hour sample collection period shall be set in the sampler to effect automatic sampler operation for each test period. The active sample collection period may start at any time of day and is not required to start at midnight. One or more of the test periods associated with test procedure set forth in § 53.52 may be used for this test preparation.

(3) At the beginning of the 7-hour test period, the solar insolation source, as described in paragraphs (c)(4) and (e)(4) of this section, shall be on, the ambient (chamber) temperature shall be set to ≤−20 °C, and the sampler power line voltage shall be set to 105 ±1 volts ac (rms).

(4) During the 7-hour test period, continuously record the test chamber air temperature and the filter temperature, as measured by the test equipment in paragraph (c) of this section, either via a continuous analog recording or digital recording at intervals of not more than 5 minutes. Note and record the actual start and stop times for the sample period. The sampler power line voltage shall be measured during hours 1 and 7 of the test and at any other time during the test period when there is a possibility that the voltage may have changed.

(5) During the first 3 hours of the test, the chamber air temperature shall be increased such that the chamber air temperature is ≥40 °C 3 hours after the beginning of the test. The chamber air temperature shall be maintained at ≥40 °C for one hour (until 4 hours after the beginning of the test), then decreased over the next 3 hours of the test such that the chamber air temperature is ≤−20 °C at the end of the test (7 hours after the beginning of the test. The chamber air temperature profile during the first and last three hours of the test is unspecified, provided the initial, central hour, and final temperatures are as specified in paragraph (f)(1) of this section.

(g) *Test Results*—(1) *Filter temperature control (post-sampling).* From the continuous record of the test sampler filter temperature obtained from the filter temperature sensor, paragraphs (c)(3) and (e)(3) of this section, determine the measured instantaneous or average filter temperature at intervals of not more than 5 minutes for the entire 7-hour test

period. From the continuous record of the ambient air temperature obtained from the ambient (chamber) air temperature recorder, paragraphs (c)(4) and (e)(5) of this section, determine the measured instantaneous or average ambient (chamber) air temperature at the same intervals used for filter temperature for the entire 7-hour sample period. For each interval over the 7-hour period, calculate the difference, in °C, between the measured interval filter temperature and the measured interval ambient temperature for the corresponding interval, as:

$$T_{filter,\ difference} = T_{filter} - T_{ambient} \qquad (9)$$

(2) The difference between the interval filter temperature and the interval average ambient temperature for each and all intervals must meet the filter temperature control specification listed in Table E–2 of this subpart, excluding periods of electrical power interruption, if any.

§ 53.54 Leak check test.

(a) *Overview.* Under section 7.4.6 of Appendix L of part 50 of this chapter, the sampler is required to include a facility—including components, instruments, operator controls, a written procedure, and other capabilities as necessary—to allow the operator to carry out a leak test of the sampler at a field monitoring site without additional equipment. This procedure is intended to test the adequacy and effectiveness of the sampler's leak check facility. Because of the variety of potential sampler configurations and leak check procedures possible, some adaptation of this procedure may be necessary to accommodate the specific sampler under test.

(b) *Technical definitions.* (1) External leakage includes the total flow rate of external ambient air which enters the sampler other than through the sampler inlet and which passes through any one or more of the impactor, filter, or flow rate measurement components.

(2) Internal leakage is the total sample air flow rate that passes through the filter holder assembly without passing through the sample filter.

(c) *Required test equipment.*

(1) Flow rate measurement device, range 70 to 130 mL/min, 2 percent certified accuracy, NIST-traceable.

(2) Flow control device, capable of providing a controlled, simulated leak flow rate of 100 mL/min.

(3) Flow rate measurement adaptor (Drawing L–27, Appendix L of part 50 of this chapter) or equivalent adaptor to facilitate measurement of sampler flow rate.

(4) A disk, such as a sample filter that is heavily loaded or a flow-impervious membrane containing one or more pinholes, which can be installed into the sampler's filter cassette (either with or without a normal sample filter) and which blocks the normal flow rate through the filter cassette but which, instead, provides a simulated leak flow rate through the disk of not more than 100 mL/min under the conditions specified for the leak check in the sampler's leak check procedure.

(d) *Calibration of test measurement instruments.* Submit documentation showing evidence of recent calibration, calibration accuracy, and NIST-traceability (if required) of all measurement instruments used in the tests. The accuracy of flow meters shall be verified at the highest and lowest pressures and temperatures used in the tests and shall be checked at zero and one or more non-zero flow rates within 7 days of test use.

(e) *Test setup.* (1) The test sampler shall be set up for testing as described in the sampler's operation or instruction manual referred to in § 53.4(b)(3). The sampler shall be installed upright and set up in its normal configuration for collecting $PM_{2.5}$ samples, except that the sample air inlet shall be removed and a device such as a flow rate measurement adaptor shall be installed on the sampler's downtube.

(2) The flow rate control device shall be set up to provide a constant, controlled flow rate of 100 mL/min into the sampler downtube under the conditions specified for the leak check in the sampler's leak check procedure.

(3) The flow rate measurement device shall be set up to measure the controlled flow rate of 100 mL/min into the sampler downtube under the conditions specified for the leak check in the sampler's leak check procedure.

(f) *Procedure.* (1) Install a sample filter in the test sampler and ensure that the sampler has no internal or external leaks.

(2) Carry out both the external and internal leak check procedure as described in the sampler's operation/instruction manual and verify that both leak checks indicate no significant leaks in the test sampler.

(3) Arrange the flow control device, flow rate measurement device, and other apparatus as necessary to provide a simulated leak flow rate of 100 mL/min into the test sampler through the downtube during the specified external leak check procedure. Carry out the external leak check procedure as described in the sampler's operation/instruction manual but with the simulated leak of 100 mL/min.

(4) Install the disk that simulates a filter-bypass leak in the filter cassette and carry out the internal leak check procedure as described in the sampler's operation/instruction manual.

(g) *Test results.* The requirements for successful passage of this test are:

(1) That the leak check procedure indicates no significant external or internal leaks in the test sampler when no simulated leaks are introduced.

(2) That the external leak check procedure properly identifies the simulated external leak of 100 mL/min.

(3) That the internal leak check procedure properly identifies the simulated internal leak of 100 mL/min.

§ 53.55 Flow rate cut-off test.

(a) *Overview.* This test is intended to verify that the sampler carries out the required automatic sample flow rate cut-off function properly.

(b) *Technical definition.* The flow rate-cut off function requires the sampler to automatically stop sample flow and terminate the current sample collection if the sample flow rate becomes less than the minimum flow rate specified in Table E–2 of this subpart (10 percent below the nominal sample flow rate) for more than 60 seconds during a sample collection period.

(c) *Required test equipment.* (1) Flow rate meter, suitable for measuring the sampler flow rate at the sampler inlet in a closed system below atmospheric pressure, range 10 to 25 actual L/min, 2 percent certified accuracy, NIST-traceable, with continuous (analog) recording capability or digital recording at intervals of not more than 5 seconds. Mass flow meter type recommended; however, note that temperature and pressure corrections are generally required to convert measured mass flow rate to actual volumetric flow rate.

(2) Valve or other means to restrict or reduce the sample flow rate.

(d) *Calibration of test measurement instruments.* Submit documentation showing evidence of recent calibration, calibration accuracy, and NIST-traceability of the flow rate meter used for this test. The accuracy of the flow meter shall be verified at the highest

and lowest pressures used in the tests and shall be checked at zero and one or more non-zero flow rates within 7 days of test use. Where an instrument's measurements are to be recorded with an analog recording device, the accuracy of the entire instrument-recorder system shall be calibrated or verified.

(e) *Test setup.* (1) The test sampler shall be set up for testing at any temperature and barometric pressure within the specified ranges. Setup of the sampler shall be performed as described in the sampler's operation or instruction manual referred to in § 53.4(b)(3). The sampler shall be installed upright and set up in its normal configuration for collecting $PM_{2.5}$ samples, except that the sample air inlet shall be removed to permit measurement of the sampler flow rate by the certified flow rate meter.

(2) The flow rate meter shall be connected so as to measure the sampler flow rate at the entrance to the sampler (*i.e.* the flow rate that would enter the sampler inlet if the inlet had not been removed).

(3) The valve or means for reducing sampler flow rate shall be installed such that the sampler flow rate can be manually restricted during the test.

(f) *Procedure.* (1) Prepare the sampler for normal sample collection operation as directed in the sampler's operation or instruction manual. Set the sampler to automatically start a normal 24-hour sampler collection period at a convenient time.

(2) Continuously record the sampler flow rate and the time during the sample period, with at least 5-minute resolution during the normal operation of the sampler and at least 5-second resolution during the time period when the sampler flow rate is manually reduced.

(3) After at least 1 hour of normal sampler operation at a sample flow rate within the specified flow rate range specified in Table E–2 of this subpart, manually restrict the sampler flow rate such that the sampler flow rate is decreased slowly over several minutes to a flow rate less than the flow rate cut off value specified in Table E–2 of this subpart. Maintain this flow rate for at least 2.0 minutes or until the sampler stops the sample flow automatically.

(g) *Test Results.* (1) Inspect the continuous record of the sampler flow rate and determine the time at which the sampler flow rate decreases to a value less than the cut-off value specified in Table E–2 of this subpart. To pass this test, the sampler must automatically stop the sampler flow at least 30 seconds but not more than 50 seconds after the time at which the sampler flow rate was determined to have decreased to a value less than the value specified in Table E–2 of this subpart.

(2) Verify that the elapsed sample time and average flow rate reported by the sampler for this test sample period are accurate within 2 percent. The sampler must provide the same information to the operator as is required following a normal sample collection period, and the information reported in this test must accurately reflect the substantially shortened sample collection period caused by the automatic sample flow cut off.

(3) Verify that the sampler's required ''Flow-out-of-spec'' and the ''Incorrect sample period'' flag indicators are set at the end of the test.

§ 53.56 Operational field precision test.

(a) *Overview.* This test is intended to determine the operational precision of the candidate sampler during a minimum of 10 days of field operation, using three collocated test samplers. Measurements of $PM_{2.5}$ are made with all of the samplers and then compared to determine replicate precision. This procedure is applicable to both reference and equivalent methods. In the case of equivalent methods, this test may be combined and conducted concurrently with the comparability test for equivalent methods (subpart C of this part), using three reference method samplers collocated with three candidate equivalent method samplers and meeting the applicable site and other requirements of subpart C of this part.

(b) *Technical definition.* Field precision means the standard deviation or relative standard deviation of a set of measurements obtained concurrently with three or more collocated samplers in actual ambient air field operation.

(c) *Test site.* Any outdoor test site having $PM_{2.5}$ concentrations that are reasonably uniform over the test area and that meet the minimum level requirement of § 53.56(g) is acceptable for this test.

(d) *Required facilities and equipment.* An appropriate test site and suitable electrical power to accommodate three test samplers.

(e) *Test setup.* (1) Three identical test samplers shall be installed at the test site in their normal configuration for collecting $PM_{2.5}$ samples in accordance with the instructions in the associated manual referred to in § 53.4(b)(3) and in accordance with applicable supplemental guidance provided in Reference 3 in Appendix A of this subpart. The test sampler inlet openings shall be located at the same height above ground and between 2 and 4 meters apart horizontally. The samplers shall be arranged or oriented in a manner that will minimize spatial and wind directional effects on sample collection of one sampler on the other samplers.

(2) Each test sampler shall be leak checked, calibrated, and set up for normal operation in accordance with the instruction manual and with any applicable supplemental guidance provided in Reference 3 in Appendix A of this supbart.

(f) *Test procedure.* (1) Install a specified filter in each sampler and otherwise prepare each sampler for normal sample collection. Set identical sample collection start and stop times for each sampler.

(2) Collect either a 24-hour or a 48-hour atmospheric $PM_{2.5}$ sample simultaneously with each of the three test samplers.

(3) Determine the measured $PM_{2.5}$ mass concentration for each sample in accordance with the procedures prescribed for the candidate method in the associated manual referred to in § 53.4(b)(3) and in accordance with supplemental guidance in Reference 3 in Appendix A of this subpart.

(4) Repeat this procedure to obtain a total of 10 sets of 24-hour or 48-hour $PM_{2.5}$ measurements over 10 test periods.

(g) *Calculations.* (1) Record the $PM_{2.5}$ concentration for each test sampler for each test day as $C_{i,j}$, where I is the sampler number (I=1,2,3) and j is the test day (j=1,2, . . . 10).

(2) For each test day, calculate and record the average of the three measured $PM_{2.5}$ concentrations as $\bar{C}_j$ where j is the test day:

$$\bar{C}_j = \frac{1}{3} \times \sum_{i=1}^{3} C_{i,j} \qquad (10)$$

If $\bar{C}_j < 10\ \mu g/m^3$ for any test day, data from that test day are unacceptable and an additional sample collection set must be performed to replace the unacceptable data.

(3) Calculate and record the precision for each of the 10 test days as:

$$P_j = \sqrt{\frac{\sum_{i=1}^{3} C_{i,j}^2 - \frac{1}{3}\left(\sum_{i=1}^{3} C_{i,j}\right)^2}{2}} \qquad (11)$$

if $\bar{C}_j$ is below 40 μg/m³ for 24-hour measurements or below 30 μg/m³ for 48-hour measurements; or

$$RP_j = 100\% \times \frac{1}{\bar{C}_j}\sqrt{\frac{\sum_{i=1}^{3} C_{i,j}^2 - \frac{1}{3}\left(\sum_{i=1}^{3} C_{i,j}\right)^2}{2}} \qquad (12)$$

if $\bar{C}_j$ is above 40 μg/m³ for 24-hour measurements or above 30 μg/m³ for 48-hour measurements.

(h) *Test results.* The candidate method passes the precision test if all 10 P_j or RP_j values meet the specifications in Table E–2 of this subpart.

§ 53.57 Aerosol transport test for class I sequential samplers

(a) *Overview.* This test is intended to verify adequate aerosol transport through any air flow splitting components that may be used in a Class I candidate equivalent method sampler to achieve sequential sampling capability. This test is applicable to all Class I candidate samplers in which the aerosol flow path (the flow of air upstream of filtration) differs from that specified for reference method samplers as set forth in Drawings L–18 and L–24 of Appendix L to part 50 of this chapter. This test does not apply to candidate Class I equivalent method samplers in which each channel consists of a separate inlet, impactor, and filter holder of the exact same internal geometry as specified for the reference method sampler. The test requirements and performance specifications for this test are summarized in Table E–1 of this subpart.

(b) *Technical Definitions.* (1) Aerosol transport is the percentage of the laboratory challenge aerosol which penetrates to the active sample filter of the candidate Class I sampler.

(2) The active sample filter is the exclusive filter through which air is flowing during performance of this test.

(3) A no-flow filter is a sample filter through which no air is flowing during performance of this test.

(4) A channel is a flow path that the aerosol make take, only one of which may be active at a time.

(5) An added component is any physical part of the sampler which is different from that specified for the reference method sampler and which allows or causes the aerosol to be routed to a different channel.

(c) *Required facilities and test equipment.* (1) Aerosol generation system, as specified in § 53.64(c)(1).

(2) Aerosol delivery system, as specified in § 53.64(c)(2).

(3) Particle size verification equipment, as specified in § 53.64(c)(3).

(4) Fluorometer, as specified in § 53.64(c)(4).

(5) Candidate sampler, with the inlet and impactor or impactors removed, and with all internal surfaces of added components electroless nickel coated as specified in § 53.64(d)(5)

(d) *Calibration of test measurement instruments.* Submit documentation showing evidence of recent calibration, calibration accuracy, and NIST-traceability (if required) of all measurement instruments used for the tests. Where an instrument's measurements are to be recorded with an analog recording device, the accuracy of the entire instrument-recorder system shall be calibrated or verified.

(e) *Test setup.* (1) The candidate sampler, with its inlet and impactor(s) removed, shall be installed in the particle delivery system so that the test aerosol is introduced at the top of the downtube that connects to the exit adaptor of the inlet. If the candidate sampler has a separate impactor for each channel, then for this test the filter holder assemblies must be connected to the physical location on the sampler where the impactors would normally connect.

(2) Filters that are appropriate for use with fluorometric methods (e.g., glass fiber) shall be used for particle collection for these tests.

(f) *Procedure.* (1) All surfaces of the added component(s) which come in contact with the aerosol flow shall be thoroughly washed with 0.01 N NaOH and then dried.

(2) Generate aerosol composed of oleic acid with a uranine fluorometric tag of 4 μm ±0.25 μm using a vibrating orifice aerosol generator according to procedures specified in § 53.61(g). Check for the presence of satellites and adjust the generator to minimize their production. Calculate the aerodynamic particle size using the operating parameters of the vibrating orifice aerosol generator and record. The calculated aerodynamic diameter must be within 0.25 μm of 4 μm.

(3) Verify the particle size according to procedures specified in § 53.62(d)(4)(i).

(4) Collect particles on filters for a time period such that the relative error of the measured fluorometric concentration in the active filter is less than 5 percent.

(5) Determine the quantity of material collected on the active filter using a calibrated fluorometer. Record the mass of fluorometric material for the active filter as $M_{active(I)}$ where I = active channel number.

(6) Determine the quantity of material collected on the no-flow filter(s) using a calibrated fluorometer. Record the mass of fluorometric material on each no-flow filter as $M_{no\text{-}flow(ij)}$ where I = active channel number and j = no-flow filter number.

(7) Wash the surfaces of the added component(s) which contact the aerosol flow with 0.01N NaOH and determine the quantity of material collected using a calibrated fluorometer. Record the mass of fluorometric material collected in the wash as $M_{wash(I)}$, where I = replicate number.

(8) Calculate and record the aerosol transport as:

$$T_{(i)} = \frac{M_{active(i)}}{M_{active(i)} + M_{wash(i)} + \sum M_{no\ flow(ij)}} \times 100\% \qquad (13)$$

where I = active channel number and j = no-flow filter number.

(9) Repeat paragraphs (f) (1) through (6) of this section for each channel, making each channel in turn the exclusive active channel.

(g) *Evaluation of test results.* The candidate Class I sampler passes the aerosol transport test if the specification in Table E–1 of this subpart is met for each channel.

Tables to Subpart E of Part 53

TABLE E–1—TEST CONDITIONS FOR § 53.52 COMPREHENSIVE 24-HOUR TESTS

24-hour test number	Power Line voltage	Initial temperature Deg C, Hours 1–8	Final temperature, Deg. C, Hours 22–24
1	105 ±1	≤ − 20.0	15.0 ±2.0
2	125 ±1	15.0 ±2.0	≥40.0
3	125 ±1	≥40.0	15.0 ±2.0
4	105 ±1	15.0 ±2.0	≤ − 20.0

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TABLE E-2—SUMMARY OF TEST REQUIREMENTS FOR REFERENCE AND CLASS I EQUIVALENT METHODS FOR $PM_{2.5}$

Performance Test	Test Procedure	Performance Specification	Test Conditions	Part 50, Appendix L Reference
Sample flow rate	§53.52	16.67 ± 5% actual L/min	a) specified filter b) ambient temp -20 to +40°C c) barometric pressure: 600 - 730 mm Hg d) additional filter pressure drop: 55 mm Hg e) line voltage: 105-125 Vac	Sec. 7.4.1, Sec. 7.4.2,
Sample flow rate regulation	§53.52	Ave. volumetric flow rate ± 5%		Sec. 7.4.3
Sample flow rate coefficient of variation	§53.52	CV_{flow}, 4% max		Sec. 7.4.3
Flow rate and average flow rate measurement accuracy	§53.52	Accuracy: ± 2%		Sec. 7.4.5
Ambient air temperature measurement accuracy	§53.52	Accuracy: ± 2°C	ambient temperature range: -20 to +40°C	Sec. 7.4.8
Ambient barometric pressure measurement accuracy	§53.52	Accuracy: ± 10 mm Hg	ambient pressure range: 600 to 800 mm Hg	Sec. 7.4.9
Filter temperature control (sampling)	§53.52	$T_{filter} \leq 3$ °C above ambient temperature	ambient temperature range: -20 to +40°C	Sec. 7.4.10
Elapsed sample time accuracy	§53.52	± 1 min	typical sampler operation, including various power interruptions.	Sec. 7.4.13
Filter temperature control (post sampling)	§53.53	$T_{ambient} \leq 3$ °C above ambient temperature	ambient temperature range: -20 to +40°C	Sec. 7.4.10
Sample flow rate cut off	§53.55	Flow rate cut-off if flow rate deviates more than 10 % from the specified nominal flow rate for >60 seconds	Nominal	Sec. 7.4.4
Sampler leak check facility	§53.54	External leakage: 100 mL/min, max Internal leakage: 100 mL/min, max	a) Controlled leak flow rate of 100 mL/min b) additional filter pressure drop of 55 mm Hg Filter blocked, with leak flow rate of 100 mL/min	Sec. 7.4.6
Field Precision	§53.56	< 40 $\mu g/m^3$ (24-hr) or 30 $\mu g/m^3$ (48-hr): Std. dev. < 2 $\mu g/m^3$ > 40 $\mu g/m3$ (24-hr) or 30 $\mu g/m^3$ (48-hr): CV < 5%	3 collocated samplers at 1 site for at least 10 days; based on levels >10 $\mu g/m3$	Sec. 5.1
THE FOLLOWING REQUIREMENT IS APPLICABLE TO CLASS I CANDIDATE EQUIVALENT METHODS				
Aerosol Transport	§53.57	Aerosol transport must be >98% for all channels	Determine aerosol transport through any new components added to the reference method before the filter for each channel.	---

Figures to Subpart E

DESIGNATION TESTING CHECKLIST

Auditee	Auditor signature	Date

Compliance Status: Y = Yes N = No NA = Not applicable/Not available				
Verification			**Verified by Direct Observation of Process or of Documented Evidence: Performance, Design or Application Spec.** *Corresponding to Sections of 40 CFR Part 53 or 40 CFR Part 50, App.L*	**Verification Comments** (Includes documentation of who, what, where, when, why) (Doc. #, Rev. #, Rev. Date)
Y	N	NA		
			PERFORMANCE SPEC/TEST	
			Sample flow rate coefficient of variation (§53.52) (L 7.4.3)	
			Filter temperature control (sampling) (§53.52) (L 7.4.10)	
			Elapsed sample time accuracy (§53.52) (L 7.4.13)	
			Filter temperature control (post sampling) (§53.53) (L 7.4.10)	
			APPLICATION SPEC/TEST	
			Field Precision (§53.56) (L 5.1)	
			Meets All App. L Requirements (53 subpart A, §53.2(a)(3)) (53 subpart E, §53.51(b))	
			Filter Weighing (L-8)	
			Field Sampling Procedure (L-10)	
			DESIGN SPEC./ TEST	
			Filter (L-6)	
			Range of Operational Conditions (L-7.4.7)	
THE FOLLOWING REQUIREMENTS APPLY ONLY TO CLASS I CANDIDATE EQUIVALENT METHODS				
			PERFORMANCE SPEC. TEST(CONT'D.)	
			Aerosol Transport (§53.57)	

Figure E-1 Designation testing checklist

PRODUCT MANUFACTURING CHECKLIST

Auditee _____ Auditor signature _____ Date _____

Compliance Status: Y = Yes N = No NA = Not applicable/Not available				
Verification			**Verified by Direct Observation of Process or of Documented Evidence: Performance, Design or Application Spec.** *Corresponding to sections of 40 CFR Part 53 or 40 CFR Part 50, App L*	Verification Comments (Includes documentation of who, what, where, when, why) (Doc. #, Rev. #, Rev. Date)
Y	N	NA		
			PERFORMANCE SPEC/TEST	
			Assembled operational performance (Burn-in test)	
			Sample flow rate (§53.52) (L 7.4.1, L 7.4.2)	
			Sample flow rate regulation (§53.52) (L 7.4.3)	
			Flow rate and average flow rate measurement accuracy (§53.52) (L 7.4.5)	
			Ambient air temperature measurement accuracy (§53.52) (L 7.4.8)	
			Ambient barometric pressure measurement accuracy (§53.52) (L 7.4.9)	
			Sample flow rate cut-off (§53.55) (L 7.4.4)	
			Sample air path leakage (§53.54 (L 7.4.6)	
			APPLICATION SPEC/TEST	
			Flow rate transfer standard (L-7.4.17)	
			Operational /Instructional manual (L-7.4.18)	
			DESIGN SPEC./ TEST	
			Impactor (jet width) (L-7.3.3; 53.51(c)(2))	
			Surface finish (L-7.3.7; 53.51(c)(2))	

Figure E-2 Product manufacturing checklist

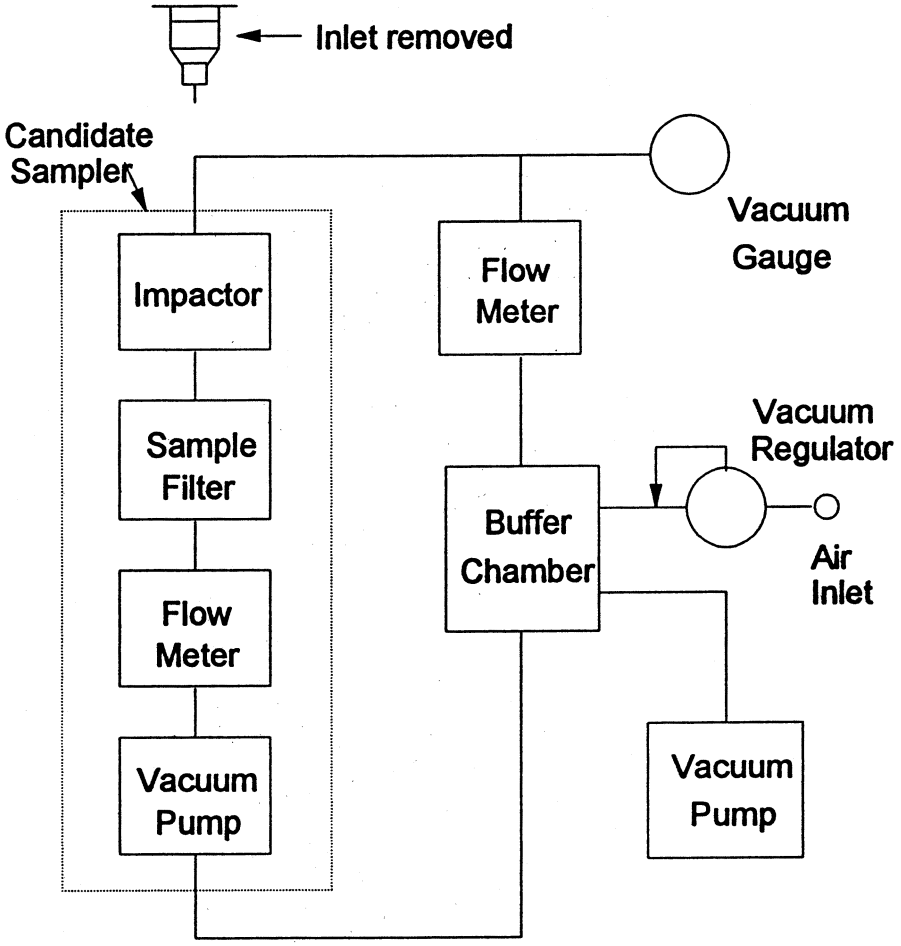

Figure E-3 Suggested test configuration for simulating reduced barometric pressure for the comprehensive test procedure (§53.52)

Appendix A to Subpart E of Part 53—References

1. ''Quality systems—Model for quality assurance in design, development, production, installation and servicing,'' ISO9001. July 1994. Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.

2. ''American National Standard—Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs.'' ANSI/ASQC E4–1994. January 1995. Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.

3. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Specific Methods (Interim Edition), section 2.12. EPA/600/R–94/038b, April 1994. Available from CERI, ORD Publications, U.S. Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268. [Section 2.12 is currently under development and will not be available from the previous address until it is published as an addition to EPA/600/R–94/038b. Prepublication draft copies of section 2.12 will be available from Department E (MD–77B), U.S. EPA, Research Triangle Park, NC 27711 or from the contact identified at the beginning of this proposed rule].

4. Military standard specification (mil. spec.) 8625F, Type II, Class 1 as listed in Department of Defense Index of Specifications and Standards (DODISS), available from DODSSP-Customer Service, Standardization Documents Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 1911–5094.

5. ''Guidance for the Use and Application of Designation Testing and Sampler Manufacturing Checklists, as Required under 40 CFR 53.51'' U.S. EPA Publication No. [To be prepared.]

6. Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements. Revised March, 1995. EPA–600/R–94–038d. Available from U.S. EPA, ORD Publications Office, Center for Environmental Research Information (CERI), 26 West Martin Luther King Drive, Cincinnati, Ohio 45268–1072 (513–569–7562).

5. Subpart F is added to read as follows:

Subpart F—Procedures for Testing Performance Characteristics of Class II Equivalent Methods for $PM_{2.5}$

Sec.
53.60 General provisions.
53.61 Test conditions for $PM_{2.5}$ reference method equivalency.
53.62 Test procedures: Full wind tunnel test.
53.63 Test procedures: Wind tunnel inlet aspiration test.
53.64 Test procedures: Static fractionator test.
53.65 Test procedures: Loading test.
53.66 Test procedures: Volatility test.

Tables to Subpart F of Part 53

Table F–1 Performance Specifications for $PM_{2.5}$ Class II Equivalent Samplers
Table F–2 Particle Size and Wind Speeds for Full Wind Tunnel Evaluation, Wind Tunnel Inlet Aspiration Test, and Statics Chamber Test
Table F–3 Critical Parameters of Idealized Ambient Particle Size Distributions
Table F–4 Estimated Mass Concentration of $PM_{2.5}$ for Idealized Coarse Aerosol Size Distribution
Table F–5 Estimated Mass Concentration Measurement of $PM_{2.5}$ for Idealized ''Typical'' Coarse Aerosol Size Distribution
Table F–6 Estimated Mass Concentration Measurement of $PM_{2.5}$ for Idealized Fine Aerosol Size Distribution

Figures to Subpart F of Part 53

Figure F–1 Flowchart for Determining Requirements for Class II Samplers Equivalent
Figure F–2 Designation Testing Checklist

Appendix A to Subpart F of Part 53—References

Subpart F—Procedures for Testing Performance Characteristics of Class II Equivalent Methods for $PM_{2.5}$

§ 53.60 General provisions.

(a) This subpart sets forth the specific requirements that a $PM_{2.5}$ sampler associated with a candidate Class II equivalent method must meet to be designated as an equivalent method for $PM_{2.5}$. This subpart also sets forth the explicit test procedures that must be carried out and the test results, evidence, documentation, and other materials that must be provided to EPA to demonstrate that a sampler meets all specified requirements for designation as an equivalent method.

(b) A candidate method described in an application for a reference or equivalent method application submitted under § 53.4 shall be determined by the EPA to be a Class II candidate equivalent method on the basis of the definition of a Class II equivalent method given in § 53.1.

(c) Any sampler associated with a Class II candidate equivalent method (Class II sampler) must meet all requirements for reference method samplers or Class I equivalent method samplers specified in subpart E of this part, as appropriate. In addition, a Class II sampler must meet the additional requirements as specified in § 53.60(d) of this part.

(d) Except as provided in paragraph (d) (1), (2) and (3) of this section, all Class II samplers are subject to the additional tests and performance requirements specified in § 53.62 (full wind tunnel test), § 53.65 (loading test), and § 53.66 (volatility test). Alternative tests and performance requirements, as described in paragraphs (d) (1), (2), and (3) of this section, are optionally available for certain Class II samplers which meet the requirements for reference method or Class I samplers given in Appendix L of part 50 of this chapter and in Subpart E of this part, except for specific deviations of the inlet, fractionator, or filter. These requirements and the exceptions in paragraphs (d) (1), (2), and (3) of this section are summarized in the flowchart given in Figure F–1 of this subpart.

(1) *Inlet deviation.* A sampler which has been determined to be a Class II sampler (rather than a reference method or Class II sampler) solely because the design or construction of its inlet deviates from the design or construction of the inlet specified in Appendix L for reference method samplers shall not be subject to the requirements of § 53.62 (full wind tunnel test), provided that it meets all requirements of § 53.63 (inlet aspiration test), § 53.65 (loading test), and § 53.66 (volatility test).

(2) *Fractionator deviation.* A sampler which has been determined to be a Class II sampler solely because the design or construction of its particle size fractionator deviates significantly from the design or construction of the particle size fractionator specified in 40 CFR part 50, Appendix L for reference method samplers shall not be subject to the requirements of § 53.62 (full wind tunnel test), provided that it meets all requirements of § 53.64 (static fractionator test), § 53.65 (loading test), and § 53.66 (volatility test).

(3) *Filter size deviation.* A sampler which has been determined to be a Class II sampler solely because the size of its sample collection filter deviates from the sampler filter size specified in Appendix L for reference method samplers shall not be subject to the requirements of § 53.62 (full wind tunnel test) nor § 53.65 (loading test), provided it meets all requirements of § 53.66 (volatility test).

(e) The test specifications and acceptance criteria for each test are summarized in Table F–1 of this subpart. The candidate sampler must demonstrate performance that meets the acceptance criteria for each applicable test to be designated as an equivalent method.

(f) *Overview of various test procedures for Class II samplers.* (1) *Full wind tunnel test.* This test procedure is designed to ensure that the candidate sampler's aspiration of an ambient aerosol and penetration of the sub 2.5-micron fraction to its sample filter will be comparable to that of a reference method sampler. The test conditions are

summarized in Table F–2 of this subpart (under the heading, ''Full Wind Tunnel Test'), and the candidate sampler must meet the acceptance criteria specified in Table F–1 of this subpart.

(2) *Wind tunnel inlet test.* The wind tunnel inlet aspiration test challenges the candidate sampler with a monodisperse aerosol that is specified in Table F–2 of this subpart (under the heading, ''Inlet Aspiration Test'). The aerosol is introduced into a wind tunnel environment, and the aspiration of the candidate sampler is compared with that of the reference method sampler at wind speeds of 2 km/hr and 24 km/hr. The acceptance criteria presented in Table F–1 of this subpart is based on the relative aspiration between the candidate sampler and federal reference method sampler.

(3) *Static 2.5-micron fractionator test.* The static 2.5-micron fractionator test determines the effectiveness of the candidate fractionator under static conditions for aerosols of the size and type specified in Table F–2 of this subpart (under the heading, ''Static Fractionator Test'). The candidate sampler must meet the acceptance criteria presented in Table F–1 of this subpart.

(4) *Loading test.* (i) The loading test is used to ensure that the performance of a candidate sampler is not significantly affected by the amount of material deposited on its interior surfaces between periodic cleaning. This test is divided into two distinct experiments:

(A) A mandatory demonstration of no significant performance shift over a 24-hour time period; and

(B) An optional demonstration of no significant performance shift over an extended time period for approval of a cleaning interval greater than 24 hours.

(ii) In the initial evaluation, the candidate sampler is operated in test environment equivalent to sampling 150 μg/m^3 coarse mode aerosol over a 24-hour time period. The candidate's performance must then be evaluated by § 53.62 (full wind tunnel evaluation) with the exception being a modification to the fractionator alone, in which case the performance may be optionally evaluated by § 53.64 (static fractionator test). If the results of the appropriate test meet the criteria presented in Table F1 of this subpart, then the candidate sampler passes the loading test under the condition that it be cleaned after each 24-hour use.

(iii) An extended loading test may be performed to gain approval of a longer time period between periodic cleaning of the fractionator. In this extended loading test, the candidate sampler is loaded with a mass equivalent to operating the unit in an environment of 150 μg/m^3 coarse mode aerosol over the time period proposed by the manufacturer between cleaning. Reevaluation of the expected mass collected is performed via the wind tunnel test or the static 2.5-micron fractionator test, depending upon which test was used for the initial evaluation. If the results meet the criteria presented in Table F–1 of this subpart, then the candidate sampler passes the loading test under the condition that it be cleaned at least as often as the proposed cleaning frequency.

(5) *Volatility test.* The volatility test challenges the candidate sampler with a polydisperse, semi-volatile liquid aerosol. This aerosol is simultaneously sampled by the candidate method sampler and a reference method sampler for a specified time period. Clean air is then passed through the samplers for an additional time period. The filters are then reweighed to determine residual mass of the collected aerosol. The candidate sampler passes the volatility test if the candidate method meets the specifications presented in Table F–1 of this subpart.

(g) *Test data.* All test data and other documentation obtained from or pertinent to these tests shall be identified, dated, signed by the analyst performing the test, and submitted to EPA as part of the equivalent method application. Schematic drawings of each particle delivery system and other information showing complete procedural details of the test atmosphere generation, verification, and delivery techniques for each test performed shall be submitted to EPA. All pertinent calculations shall be clearly presented. In addition, manufacturers are required to complete and submit the designation testing checklist presented in Figure 2 of this subpart as part of the application.

§ 53.61 Test conditions.

(a) *Sampler surface preparation.* Internal surfaces of the candidate sampler shall be cleaned and dried prior to performing any Class II sampler test in this Subpart. The internal collection surfaces of the sampler shall then be prepared in strict accordance with the operating instructions specified in the sampler's operating manual referred to in § 53.4(b)(3).

(b) *Sampler setup.* Set up and start up of all test samplers shall be in strict accordance with the operating instructions specified in the manual referred to in § 53.4(b)(3), unless otherwise specified within this subpart.

(c) *Sampler adjustments.* Once the test sampler or samplers have been set up and the performance tests started, manual adjustment shall be permitted only between test points for all applicable tests. Manual adjustments and any periodic maintenance shall be limited to only those procedures prescribed in the manual referred to in § 53.4(b)(3). The submitted records shall clearly indicate when any manual adjustment or periodic maintenance was made and shall describe the operations performed.

(d) *Sampler malfunctions.* If a test sampler malfunctions during any of the applicable tests that test run shall be repeated. A detailed explanation of all malfunctions and the remedial actions taken shall be submitted as part of the equivalent method application.

(e) *Particle concentration measurements.* All measurements of particle concentration must be made such that the relative error in measurement is less than 5.0 percent. Relative error is defined as (s x 100 percent)/(X), where s is the sample standard deviation of the particle concentration detector, X is the measured concentration, and the units of s and X are identical.

(f) *Operation of test measurement equipment.* All test measurement equipment shall be setup, calibrated, and maintained according to the manufacturer's instructions by qualified personnel only. All appropriate calibration information and manuals for this equipment shall be kept on file.

(g) *Aerosol generation parameters.* This section prescribes conventions regarding aerosol generation techniques. Size-selective performance tests outlined in §§ 53.62, 53.63, 53.64, and 53.65 specify the use of the vibrating orifice aerosol generator (VOAG) for the production of test aerosols. The volatility test in § 53.66 specifies the use of a nebulized polydisperse aerosol.

(1) *Particle aerodynamic diameter.* The VOAG produces near-monodisperse droplets through the controlled breakup of a liquid jet. When the liquid solution consists of a non-volatile solute dissolved in a volatile solvent, the droplets dry to form particles of near-monodisperse size.

(i) The physical diameter of a generated spherical particle can be calculated from the operating parameters of the VOAG as:

$$D_p = \left(\frac{6\ Q\ C_{vol}}{\Pi\ f} \right)^{1/3} \quad (1)$$

where:

D_p=particle physical diameter, μm

Q=liquid volumetric flow rate, μm^3/sec

C_{vol}=volume concentration (particle volume produced per drop volume), dimensionless

f=frequency of applied vibrational signal, sec^{-1}.

(ii) A given particle's aerodynamic behavior is a function of its physical particle size, particle shape, and density. Aerodynamic diameter is defined as the diameter of a unit density (ρ_o=1 g/m^3) sphere having the same settling velocity as the particle under consideration. For converting a spherical particle of known density to aerodynamic diameter, the governing relationship is:

$$D_{ae} = \frac{\sqrt{\rho_p}\,\sqrt{C_{D_p}}\,D_p}{\sqrt{\rho_o}\,\sqrt{C_{D_{ae}}}} \quad (2)$$

where

D_{ae}=particle aerodynamic diameter, µm

ρ_p=particle density, g/cm^3

ρ_o=aerodynamic particle density=1 g/m^3

C_{Dp}=Cunningham's slip correction factor for physical particle diameter, dimensionless

C_{Dae}=Cunningham's slip correction factor for aerodynamic particle diameter, dimensionless.

(iii) At room temperature and standard pressure, the Cunningham's slip correction factor is solely a function of particle diameter:

$$C_{Dae} = 1 + \frac{0.1659}{D_{ae}} + \frac{0.053}{D_{ae}} \exp\left(-8.33\, D_{ae}\right) \quad (3)$$

or

$$C_{D_p} = 1 + \frac{0.1659}{D_p} + \frac{0.053}{D_p} \exp\left(-8.33\, D_p\right) \quad (4)$$

(iv) Since the slip correction factor is itself a function of particle diameter, the aerodynamic diameter cannot be solved directly but can be determined by iteration.

(2) *Solid particle generation.* As specified in Table F–2 of this subpart, all solid particle tests in this subpart shall be conducted using particles composed of ammonium fluorescein. For use in the VOAG, liquid solutions of known volumetric concentration can be prepared by diluting fluorescein powder ($C_{20}H_{12}O_5$, FW=332.31, CAS 2321–07–5) with aqueous ammonia. Guidelines for preparation of fluorescein solutions of the desired volume concentration (C_{vol}) are presented by Vanderpool and Rubow (1988) (Reference 2 in Appendix A of this subpart). For purposes of converting particle physical diameter to aerodynamic diameter, an ammonium fluorescein density of 1.35 g/cm^3 shall be used. Mass deposits of ammonium fluorescein shall be extracted and analyzed using solutions of 0.01 N ammonium hydroxide.

(3) *Liquid particle generation.* (i) *Oleic acid particles.* (A) Tests prescribed in § 53.63 for inlet aspiration require the use of liquid particle tests composed of oleic acid tagged with uranine to enable subsequent fluorometric quantitation of collected aerosol mass deposits. Oleic acid ($C_{18}H_{34}O_2$, FW=282.47, CAS 112–80–1) has a density of 0.8935 g/cm^3. Because the viscosity of oleic acid is relatively high, significant errors can occur when dispensing oleic acid using volumetric pipettes. For this reason, it is recommended that oleic acid solutions be prepared by quantifying dispensed oleic acid gravimetrically. The volume of oleic acid dispensed can then be calculated simply by dividing the dispensed mass by the oleic acid density.

(B) Oleic acid solutions tagged with uranine shall be prepared as follows. A known mass of oleic acid shall first be diluted using absolute ethanol. The desired mass of the uranine tag should then be diluted in a separate container using absolute ethanol. Uranine ($C_{20}H_{10}O_5Na_2$, FW=376.3, CAS 518–47–8) is the disodium salt of fluorescein and has a density of 1.53 g/cm^3. In preparing uranine tagged oleic acid particles, the uranine content shall not exceed 20 percent on a mass basis. Once both oleic acid and uranine solutions are properly prepared, they can then be combined and diluted to final volume using absolute ethanol.

(C) Calculation of the physical diameter of the particles produced by the VOAG requires knowledge of the liquid solution's volume concentration (C_{vol}). Because uranine is essentially insoluble in oleic acid, the total particle volume is the sum of the oleic acid volume and the uranine volume. The volume concentration of the liquid solution shall be calculated as:

$$C_{vol} = \frac{V_u + V_{oleic}}{V_{sol}} = \frac{(M_u/\rho_u) + (M_{oleic}/\rho_{oleic})}{V_{sol}} \quad (5)$$

where:

V_u=uranine volume, ml

V_{oleic}=oleic acid volume, ml

V_{sol}=total solution volume, ml

M_u=uranine mass, g

ρ_u=uranine density, g/cm^3

M_{oleic}=oleic acid mass, g

ρ_{oleic}=oleic acid density, g/cm^3

(D) For purposes of converting the particles' physical diameter to aerodynamic diameter, the density of the generated particles shall be calculated as:

$$\rho_p = \frac{M_u + M_{oleic}}{(M_u/\rho_u) + (M_{oleic}/\rho_{oleic})} \quad (6)$$

(E) Mass deposits of oleic acid shall be extracted and analyzed using solutions of 0.01 N sodium hydroxide.

(ii) *Glycerol.* Tests prescribed in § 53.66 for conducting volatility tests shall be conducted using ACS reagent grade glycerol ($C_3H_8O_3$, FW=92.09, CAS 56–81–5) with a minimum purity of 99.5 percent.

§ 53.62 Test Procedure: Full wind tunnel test.

(a) *Overview.* The full wind tunnel test evaluates the effectiveness of the candidate sampler at 2 km/hr and 24 km/hr for aerosols of the size and type specified in Table F–2 of this subpart (under the heading, ''Full Wind Tunnel Test''). For each wind speed, a smooth curve is fit to the effectiveness data and corrected for the presence of multiplets in the wind tunnel calibration aerosol. The cutpoint diameter (Dp_{50}) at each wind speed is then be determined from the corrected effectiveness curves. The two resultant penetration curves are then numerically integrated with three idealized ambient particle size distributions to provide an estimate of measured mass concentration. Critical parameters for these idealized distributions are presented in Table F–3 of this subpart.

(b) *Technical definitions.* Effectiveness is the ratio (expressed as a percentage) of the mass concentration of particles of a specific size reaching the sampler filter or filters to the mass concentration of particles of the same size approaching the sampler.

(c) *Facilities and equipment required.* (1) *Wind tunnel.* The particle delivery system shall consist of a blower system and a wind tunnel having a test section of sufficiently large cross-sectional area such that the test sampler, or portion thereof, as installed in the test section for testing, blocks no more than 15 percent of the test section area. The wind tunnel blower system must be capable of maintaining uniform wind speeds at the 2 km/hr and 24 km/hr.

(2) *Aerosol generation system.* A vibrating orifice aerosol generator shall be used to produce monodisperse solid particles of ammonium fluorescein with equivalent aerodynamic diameters as specified in Table F–2 of this subpart. The geometric standard deviation for each particle size and type generated shall not exceed 1.1 (for primary particles) and the proportion of multiplets (doublets and triplets) in all test particle atmosphere shall not exceed 10 percent. The aerodynamic particle diameter, as established by the operating parameters of the vibrating orifice aerosol generator, shall be within the tolerance specified in Table F–2 of this subpart.

(3) *Particle size verification equipment.* The size of the test particles shall be verified during this test by use of a suitable instrument (e.g., scanning electron microscope, optical particle counter, time-of-flight apparatus). The instrument must be capable of measuring solid and liquid test particles with a size resolution of 0.1 μm or less. The accuracy of the particle size verification technique shall be 0.15 μm or better.

(4) *Wind speed measurement.* The wind speed in the wind tunnel shall be determined during the tests using an appropriate technique capable of a precision of 5 percent or better (e.g., hot-wire anemometry). For the wind speeds specified in Table F–2 of this subpart, the wind speed and turbulence intensity (longitudinal component and macro scale) shall be measured at a minimum of 12 test points in a cross-sectional area of the test section of the wind tunnel. The mean wind speed in the test section must be within ±10 percent of the value specified in Table F–2 of this subpart, and the variation at any test point in the test section may not exceed 10 percent of the measured mean.

(5) *Aerosol rake.* The cross-sectional uniformity of the particle concentration in the sampling zone of the test section shall be established during the tests using an array of isokinetic samplers, referred to as a rake. Not less than five evenly spaced isokinetic samplers shall be used to determine the particle concentration spatial uniformity in the sampling zone. The sampling zone shall be a rectangular area having a horizontal dimension not less than 1.2 times the width of the test sampler at its inlet opening and a vertical dimension not less than 25 centimeters.

(6) *Total aerosol isokinetic sampler.* A single isokinetic sampler may be used in place of the array of isokinetic samplers for the determination of particle mass concentration used in the calculation of sampling effectiveness of the test sampler in § 53.62(e)(5). In this case, the array of isokinetic samplers must be used to demonstrate particle concentration uniformity prior to the replicate measurements of sampling effectiveness.

(7) *Fluorometer.* A series of calibration standards shall be prepared to encompass the minimum and maximum concentrations measured during size-selective tests. Prior to each calibration and measurement, the fluorometer shall be zeroed using an aliquot of the same solvent used for extracting aerosol mass deposits.

(8) *Sampler flow rate measurements.* All flow rate measurements used to calculate the test atmosphere concentrations and the test results must be accurate to within ±2 percent, referenced to a NIST-traceable primary standard. Any necessary flow rate measurement corrections shall be clearly documented. All flow rate measurements shall be performed and reported in actual volumetric units.

(d) *Test procedures.* (1) Establish and verify wind speed.

(i) Establish a wind speed specified in Table F–2 of this subpart.

(ii) Measure the wind speed and turbulence intensity (longitudinal component and macro scale) at a minimum of 12 test points in a cross-sectional area of the test section of the wind tunnel using a device as described in § 53.62(c)(4).

(iii) Verify that the mean wind speed in the test section of the wind tunnel during the tests is within 10 percent of the value specified in Table F–2 of this subpart. The wind speed measured at any test point in the test section shall not differ by more than 10 percent from the mean wind speed in the test section.

(2) *Generate aerosol.* Generate particles of a size and type specified in Table F–2 of this subpart using a vibrating orifice aerosol generator. Check for the presence of satellites and adjust the generator as necessary. Calculate the physical particle size using the operating parameters of the vibrating orifice aerosol generator and record. Determine the particle's aerodynamic diameter from the calculated physical diameter and the known density of the generated particle. The calculated aerodynamic diameter must be within the tolerance specified in Table F–2 of this subpart.

(3) *Introduce particles into the wind tunnel.* Introduce the generated particles into the wind tunnel and allow the particle concentration to stabilize.

(4) *Verify the quality of the test aerosol.* (i) Extract a representative sample of the aerosol from the sampling test zone and measure the size distribution of the collected particles using an appropriate sizing technique. If the measurement instrumentation does not provide a direct measure of aerodynamic diameter, calculate the geometric mean aerodynamic diameter using the known density of the particle type in conjunction with the measured mean physical diameter. The determined mean aerodynamic diameter of the test aerosol must be within 0.15 μm of the aerodynamic diameter calculated from the operating parameters of the vibrating orifice aerosol generator. The geometric

standard deviation of the primary particles must not exceed 1.1.

(ii) Determine the population of multiplets in the collected sample. The multiplet population of the particle test atmosphere must not exceed 10 percent of the total particle population.

(5) *Aerosol uniformity and concentration measurement.* (i) Install an array of five or more evenly spaced isokinetic samplers in the sampling zone [§ 53.62(c)(5)]. Collect particles on appropriate filters over a time period such that the relative error of the measured particle concentration is less than 5.0 percent.

(ii) Determine the quantity of material collected with each isokinetic sampler in the array using a calibrated fluorometer. Calculate and record the mass concentration for each isokinetic sampler as:

$$C_{iso(ij)} = \frac{M_{iso(ij)}}{Q_{(ij)} \times t_{(ij)}} \quad (7)$$

Where

i=replicate number

j=isokinetic sampler number

M_{iso}=mass of material collected with the isokinetic sampler

Q=isokinetic sampler volumetric flow rate

t=sampling time.

(iii) Calculate and record the mean mass concentration as:

$$\overline{C}_{iso(i)} = \frac{\sum_{j=1}^{n} C_{iso(ij)}}{n} \quad (8)$$

Where

I=replicate number

j=isokinetic sampler number

n=total number of isokinetic samplers.

(iv) Precision calculation. (A) Calculate the coefficient of variation of the mass concentration measurements as:

$$CV_{iso(i)} = \sqrt{\frac{\sum_{j=1}^{n} C^2_{iso(ij)} - \frac{1}{n}\left(\sum_{j=1}^{n} C_{iso(ij)}\right)^2}{n-1}} \Big/ \overline{C}_{iso(i)} \times 100\% \quad (9)$$

Where

i=replicate number

j=isokinetic sampler number

n=total number of isokinetic samplers.

(B) If the value of CViso(I) for any replicate exceeds 10 percent, the particle concentration uniformity is unacceptable and step 5 must be repeated. If adjustment of the vibrating orifice aerosol generator or changes in the particle delivery system are necessary to achieve uniformity, steps 2 through 5 must be repeated. When an acceptable aerosol spatial uniformity is achieved, remove the array of isokinetic samplers from the wind tunnel.

(6) *Alternative measure of wind tunnel total concentration.* If a single isokinetic sampler is used to determine the mean aerosol concentration in the wind tunnel, install the sampler in the wind tunnel with the sampler nozzle centered in the sampling zone [§ 53.62(c)(6)].

(i) Collect particles on an appropriate filter over a time period such that the relative error of the measured concentration is less than 5.0 percent.

(ii) Determine the quantity of material collected with the isokinetic sampler using a calibrated fluorometer.

(iii) Calculate and record the mass concentration as $C_{iso(I)}$ as in § 53.62(e)(4)(ii).

(iv) Remove the isokinetic sampler from the wind tunnel.

(7) *Measure the aerosol with the candidate sampler.* (i) Install the test sampler (or portion thereof) in the wind tunnel with the sampler inlet opening centered in the sampling zone. To meet the maximum blockage limit of § 53.62(c)(1) or for convenience, part of the test sampler may be positioned external to the wind tunnel provided that neither the geometry of the sampler nor the length of any connecting tube or pipe is altered. Collect particles for a time period such that the relative error of the measured concentration is less than 5.0 percent.

(ii) Remove the test sampler from the wind tunnel.

(iii) Determine the quantity of material collected with the test sampler using a calibrated fluorometer. Calculate and record the mass concentration for each replicate as:

$$C_{cand(i)} = \frac{M_{cand(i)}}{Q_{(i)} \times t_{(i)}} \quad (10)$$

Where

i=replicate number

M_{cand}=mass of material collected with the candidate sampler

Q=candidate sampler volumetric flow rate

t=sampling time.

(iv) (A) Calculate and record the sampling effectiveness of the candidate sampler as:

$$E_{(i)} = \frac{C_{cand(i)}}{\overline{C}_{iso(i)}} \times 100\% \quad (11)$$

Where:

i = replicate number.

(B) If a single isokinetic sampler is used for the determination of particle mass concentration, replace $C_{iso(I)}$ with C_{iso}.

(8) *Obtain a minimum of three replicate measures of sampling effectiveness and calculate the mean sampling effectiveness.* (i) Repeat steps in paragraphs (d) (5) through (7) of this section, as appropriate, to obtain a

minimum of three valid replicate measurements of sampling effectiveness.

(ii) Calculate and record the average sampling effectiveness of the test sampler for the particle size and type as:

$$\bar{E} = \frac{\sum_{i=1}^{n} E_{(i)}}{n} \quad (12)$$

Where:
i = replicate number
n = number of replicates.

(iii) *Sampling effectiveness precision.* (A) Calculate and record the coefficient of variation for the replicate sampling effectiveness measurements of the test sampler as:

$$CV_E = \sqrt{\frac{\sum_{i=1}^{n} E_{(i)}^2 - \frac{1}{n}\left(\sum_{i=1}^{n} E_{(i)}\right)^2}{n-1}} \; \frac{1}{\bar{E}} \times 100\% \quad (13)$$

Where:
i = replicate number
n = number of replicates.

(B) If the value of CV_E exceeds 10 percent, the test run (steps in paragraphs (d)(2) through (8) of this section) must be repeated until an acceptable value is obtained.

(9) *Repeat for each particle size and type for the selected wind speed.* Repeat steps in paragraphs (d)(2) through (8) of this section until the sampling effectiveness has been measured for all particle sizes and types specified in Table F–2 of this subpart.

(10) *Repeat for each wind speed.* Repeat steps in paragraphs (d)(1) through 9 of this section until tests have been successfully conducted for both wind speeds of 2 km/hr and 24 km/hr.

(e) *Calculations.* (1) Graphical treatment of effectiveness data. For each wind speed given in Table F–2 of this subpart, plot the particle sampling effectiveness of the test sampler as a function of aerodynamic particle diameter (D_{ae}) on semi-logarithmic graph paper where the aerodynamic particle diameter is the particle size established by the parameters of the VOAG in conjunction with the known particle density. Construct a best-fit, smooth curve through the data by extrapolating the sampling effectiveness curve through 100 percent at an aerodynamic particle size of 0.5 µm and 0 percent at an aerodynamic particle size of 10 µm. Correction for the presence of multiplets shall be performed using the techniques presented by Marple, et al (1987).

(2) *Cutpoint determination.* For each wind speed determine the sampler Dp50 cutpoint defined as the aerodynamic particle size corresponding to 50 percent effectiveness from the multiplet corrected smooth curve.

(3) *Expected mass concentration calculation.* For each wind speed, calculate the estimated mass concentration measurement for the test sampler under each particle size distribution (Tables F–4, F–5, and F–6 of this subpart) and compare it to the mass concentration predicted for the reference sampler, as follows:

(i) Determine the value of corrected effectiveness using the best-fit curve at each of the particle sizes specified in the first column of Table F–4 of this subpart. Record each corrected effectiveness value as a decimal between 0 and 1 in column 2 of Table F–4 of this subpart.

(ii) Calculate the interval estimated mass concentration measurement by multiplying the values of corrected effectiveness in column 2 by the interval mass concentration values in column 3 and enter the products in column 4 of Table F–4 of this subpart.

(iii) Calculate the estimated mass concentration measurement by summing the values in column 4 and entering the total as the estimated mass concentration measurement for the test sampler at the bottom of column 4 of Table F–4 of this subpart.

(iv) Calculate the estimated mass concentration ratio between the candidate method and the reference method as:

$$R_c = \frac{C_{cand(est)}}{C_{ref(est)}} \times 100\% \quad (14)$$

Where:

$C_{cand(est)}$=estimated mass concentration measurement for the test sampler, µg/m³; and

$C_{ref(est)}$=estimated mass concentration measurement for the reference sampler, µg/m³ (calculated for the reference sampler and specified at the bottom of column 7 of Table F–4 of this subpart).

(v) Repeat steps in paragraphs (e) (1) through (3) of this section for Tables F–5 and F–6 of this subpart.

(f) *Evaluation of test results.* The candidate method passes the wind tunnel effectiveness test if the Rc value for each wind speed meets the specification in Table F–1 of this subpart for each of the three particle size distributions.

§ 53.63 Test Procedure: Wind tunnel inlet aspiration test.

(a) *Overview.* This test applies to a candidate sampler which differs from the reference method sampler only with respect to the design of the inlet. The purpose of this test is to compare the aspiration of a Class II candidate sampler to that of the reference method sampler's inlet. This wind tunnel test uses a 3.5-micron liquid aerosol in conjunction with wind speeds of 2 km/hr and 24 km/hr. The test atmosphere concentration is alternately measured with the candidate sampler and a reference method device, both of which are operated without the 2.5-micron fractionation device installed. The test conditions are summarized in Table F–2 of this subpart (under the heading of wind tunnel inlet aspiration test). The candidate sampler must meet or exceed the acceptance criteria given in Table F–1 of this subpart.

(b) *Technical definition.* Relative aspiration is the ratio (expressed as a percentage) of the aerosol mass concentration measured by the candidate sampler to that measured by a reference method sampler.

(c) *Facilities and equipment required.* The facilities and equipment are identical to those required for the full wind tunnel test [§ 53.62(c)].

(d) *Test procedure.* (1) Establish the wind tunnel test atmosphere. Follow the procedures in § 53.62(e)(1) through § 53.62(e)(4) to establish a test atmosphere for one of the two wind speeds specified in Table F–2 of this subpart.

(2) *Measure the aerosol concentration with the reference sampler.* (i) Install the reference sampler (or portion thereof) in the wind tunnel with the sampler inlet opening centered in the sampling zone. To meet the maximum blockage limit of § 53.62(c)(1) or for convenience, part of the test sampler may be positioned external to the wind tunnel provided

that neither the geometry of the sampler nor the length of any connecting tube or pipe is altered. Collect particles for a time period such that the relative error of the measured concentration [as defined in § 53.61(5)] is less than 5.0 percent.

(ii) Determine the quantity of material collected with the reference method sampler using a calibrated fluorometer. Calculate and record the mass concentration as:

$$C_{ref(i)} = \frac{M_{ref(i)}}{Q_{(i)} \times t_{(i)}} \quad (15)$$

Where:

i=replicate number

M_{ref}=mass of material collected with the reference method sampler

Q=reference method sampler volumetric flowrate

t=sampling time.

(iii) Remove the reference method sampler from the tunnel.

(3) *Measure the aerosol concentration with the candidate sampler.* (i) Install the candidate sampler (or portion thereof) in the wind tunnel with the sampler inlet centered in the sampling zone. To meet the maximum blockage limit of § 53.62(c)(1) or for convenience, part of the test sampler may be positioned external to the wind tunnel provided that neither the geometry of the sampler nor the length of any connecting tube or pipe is altered. Collect particles for a time period such that the relative error of the measured concentration is less than 5.0 percent.

(ii) Determine the quantity of material collected with the candidate sampler using a calibrated fluorometer. Calculate and record the mass concentration as:

$$C_{cand(i)} = \frac{M_{cand(i)}}{Q_{(i)} \times t_{(i)}} \quad (16)$$

Where:

i=replicate number

M_{cand}=mass of material collected with the candidate sampler

Q=candidate sampler volumetric flow rate

t=sampling time.

(iii) Remove the candidate sampler from the wind tunnel.

(4) Repeat steps in paragraphs (d) (2) and (3) of this section. Alternately measure the tunnel concentration with the reference sampler and the candidate sampler until four reference sampler and five candidate sampler measurements of the wind tunnel concentration are obtained.

(e) *Calculations.* (1) *Aspiration ratio.* Calculate aspiration ratio for each candidate sampler run as:

$$A_{(i)} = \frac{C_{cand(i)}}{(C_{ref(i)} + C_{ref(i+1)}) \times \frac{1}{2}} \quad (17)$$

where

i=replicate number.

(2) *Precision of aspiration ratio.* Calculate the precision of aspiration ratio measurements as the coefficient of variation for each aspiration ratio:

$$CV_A = \sqrt{\frac{\sum_{i=1}^{n} A_{(i)}^2 - \frac{1}{n}\left(\sum_{i=1}^{n} A_{(i)}\right)^2}{n-1}} \Big/ \bar{A}_{(i)} \times 100\% \quad (18)$$

where:

i=replicate number

n=total number of measurements of aspiration ratio.

(f) *Evaluation of test results.* The candidate method passes the inlet aspiration test if all values of A and CV_A meet the acceptance criteria specified in Table F–1 of this subpart.

§ 53.64 Test Procedure: Static fractionator test.

(a) *Overview.* This test applies only to those candidate methods in which the sole deviation from the reference method is in the design of the 2.5-micron fractionation device. The purpose of this test is to ensure that the fractionation characteristics of the candidate fractionator are acceptably similar to that of the reference method sampler. It is recognized that various methodologies exist for quantifying fractionator effectiveness. The following commonly-employed techniques are provided for purposes of guidance. Other methodologies for determining sampler effectiveness may be used contingent upon prior approval by the Agency.

(1) *Wash-off method.* Effectiveness is determined by measuring the aerosol mass deposited in the candidate sampler's afterfilter versus the aerosol mass deposited in the fractionator. The material deposited in the fractionator is recovered by washing its internal surfaces. For these wash-off tests, a fluorometer must be used to quantitate the aerosol concentration. Note that if this technique is chosen, the candidate must be reloaded with coarse aerosol prior to each test point when reevaluating the curve as specified in the loading test.

(2) *Static chamber method.* Effectiveness is determined by measuring the aerosol mass concentration sampled by the candidate's sampler's afterfilter versus that which exists in a static chamber. A calibrated fluorometer must be used to quantify the collected aerosol deposits. The aerosol concentration is calculated as the measured aerosol mass divided by the sampled air volume.

(3) *Divided flow method.* Effectiveness is determined by comparing the aerosol concentration upstream of the candidate sampler's fractionator versus that concentration which exists downstream of the candidate fractionator. These tests may utilize either fluorometry or a real-time aerosol measuring device to determine the aerosol concentration.

(b) *Technical definition.* Effectiveness under static conditions is the ratio (expressed as a percentage) of the mass concentration of particles of a given size reaching the sampler filter to the mass concentration of particles of the same size approaching the sampler.

(c) *Facilities and equipment required.*

(1) *Aerosol generation.* Methods for generating aerosols shall be identical to those prescribed in § 53.62(c)(2).

(2) *Particle delivery system.* Acceptable apparatus for delivering the generated aerosols to the candidate fractionator is dependent on the effectiveness measurement methodology and are defined as follows:

(i) *Wash-off test apparatus.* The aerosol may be delivered to the candidate fractionator through direct piping (with or without an in-line mixing chamber). Particle size and quality validation shall be conducted at the point where the fractionator attaches.

(ii) *Static chamber test apparatus.* The aerosol shall be introduced into a chamber and sufficiently mixed such that the aerosol concentration within the chamber is spatially uniform. The chamber must be of sufficient size to house at least four total filter samplers, as well as the inlet of the candidate size discriminator. Particle size validation and quality validation shall be conducted on representative aerosol samples extracted from the chamber.

(iii) *Divided flow test apparatus.* The apparatus shall allow the aerosol concentration to be measured upstream and downstream of the fractionator. The particles shall be delivered to the divided flow apparatus via a symmetrical flow path.

(3) *Particle concentration measurement.*

(i) *Fluorometry.* Fluorometers used for quantifying extracted aerosol mass deposits shall be set up, maintained, and calibrated according to the manufacturer's instructions. A series of calibration standards shall be prepared to encompass the minimum and maximum concentrations measured during size-selective tests. Prior to each calibration and measurement, the fluorometer shall be zeroed using an aliquot of the same solvent used for extracting aerosol mass deposits.

(ii) *Number concentration measurement.* A number counting device may be used in conjunction with the divided flow test apparatus as described above. This device must have a resolution and accuracy such that primary particles may be distinguished from multiplets for all test aerosols. The measurement of number concentration shall be accomplished by integrating the primary particle peak.

(d) *Setup.* (1) *Remove the inlet from the candidate fractionator.* All tests procedures shall be conducted with the inlet removed from the candidate sampler.

(2) *Surface treatment of the fractionator.* Rinsing aluminum surfaces with alkaline solutions has been found to adversely affect subsequent fluorometric quantitation of aerosol mass deposits. If wash-off tests are to be used for quantifying aerosol penetration, internal surfaces of the fractionator must first be plated with electroless nickel. Specifications for this plating are specified in MIL.C–26074 Grade B, Class 4 (Reference 4 in appendix A of Subpart E).

(e) *Test Procedure: Wash off method.* (1) *Clean and dry internal surfaces.* Thoroughly clean and dry all internal surfaces of the candidate particle size fractionator. The internal surfaces of the fractionator shall then be prepared in strict accordance with the operating instructions specified in the samplers operating manual. Note: The procedures in this paragraph must be omitted if this test is being used to evaluate the fractionator after being loaded as specified in § 53.65.

(2) *Generate aerosol.* Follow the procedures for aerosol generation prescribed in § 53.62(e)(2).

(3) *Verify the quality of the test aerosol.* Follow the procedures for verification of test aerosol size and quality prescribed in § 53.62(e)(4).

(4) *Determine effectiveness for the particle size and type being produced.* (i) Collect particles downstream of the fractionator on an appropriate filter over a time period such that the relative error of the measurement is less than 5.0 percent.

(ii) Determine the quantity of material collected on the afterfilter of the candidate method using a calibrated fluorometer. Calculate and record the aerosol mass concentration for the sampler filter as:

$$C_{cand(i)} = \frac{M_{cand(i)}}{Q_{(i)} \times t_{(i)}} \quad (19)$$

where:

i=replicate number

M_{cand}=mass of material collected with the candidate sampler

Q=candidate sampler volumetric flowrate

t=sampling time.

(iii) Wash all interior surfaces upstream of the filter and determine the quantity of material collected using a calibrated fluorometer. Calculate and record the fluorometric mass concentration of the sampler wash as:

$$C_{wash(i)} = \frac{M_{wash(i)}}{Q_{(i)} \times t_{(i)}} \quad (20)$$

where:

i=replicate number

M_{wash}=mass of material washed from the interior surfaces of the fractionator

Q=candidate sampler volumetric flowrate

t=sampling time.

(iv) Calculate and record the sampling effectiveness of the test sampler for this particle size as:

$$E_{(i)} = \frac{C_{wash(i)}}{C_{cand(i)} + C_{wash(i)}} \times 100\% \quad (21)$$

where i=replicate number.

(v) Repeat steps in paragraphs (e)(4)(9) through (iv) of this section, as appropriate, to obtain a minimum of three replicate measurements of sampling effectiveness.

(vi) Calculate and record the average sampling effectiveness of the test sampler as:

$$\overline{E} = \frac{\sum_{i=1}^{n} E_{(i)}}{n} \quad (22)$$

where:

i=replicate number

n=number of replicates.

(vii) (A) Calculate and record the coefficient of variation for the replicate sampling effectiveness measurements of the test sampler as:

$$CV_E = \sqrt{\frac{\sum_{i=1}^{n} E_{(i)}^2 - \frac{1}{n}\left(\sum_{i=1}^{n} E_{(i)}\right)^2}{n-1}} \times \frac{1}{\overline{E}} \times 100\% \quad (23)$$

where:

i=replicate number

n=total number of measurements.

(B) If the value of CV_E exceeds 10 percent, then steps in paragraphs (e) (2) through (4) of this section must be repeated. Note that the sampler must be loaded according to the test procedures in § 53.65 prior to retesting each point if this test is being used as a post-evaluation to satisfy the requirements of § 53.65.

(5) Repeat steps in paragraphs (e) (1) through (4) of this section for each particle size and type specified in Table F–2 of this subpart.

(f) *Test procedure: Static chamber method.*

(1) *Generate aerosol.* Follow the procedures for aerosol generation prescribed in § 53.62(e)(2).

(2) *Verify the quality of the test aerosol.* Follow the procedures for verification of test aerosol size and quality prescribed in § 53.62(e)(4).

(3) *Introduction of particles into chamber.* Introduce the particles into the static chamber and allow the particle concentration to stabilize.

(4) *Install and operate the candidate sampler and at least four total filters.* (i) Install the fractionator and an array of four or more equally spaced filter samplers such that the filters surround and are in the same plane as the inlet of the fractionator.

(ii) Collect particles on an appropriate filter for a time period such that the relative error of the measured concentration is less than 5.0 percent.

(5) *Calculate the aerosol spatial uniformity in the chamber.* (i) Determine the quantity of material collected with each total filter sampler in the array using a calibrated fluorometer. Calculate and record the mass concentration for each total filter sampler as:

$$C_{total(ij)} = \frac{M_{total(ij)}}{Q_{(ij)} \times t_{(ij)}} \quad (24)$$

where:

i=replicate number

j=total filter sampler number

M_{total}=mass of material collected with the total filter sampler

Q=total filter sampler volumetric flowrate

t=sample time.

(ii) Calculate and record the mean mass concentration as:

$$\overline{C}_{total(i)} = \frac{\sum_{j=1}^{n} C_{total(ij)}}{n} \quad (25)$$

where:

n=total number of samplers

i=replicate number

j=filter sampler number.

(iii) (A) Calculate and record the coefficient of variation of the total mass concentration as:

$$CV_{total} = \sqrt{\frac{\sum_{j=1}^{n} C_{total(ij)}^2 - \frac{1}{n}\left(\sum_{j=1}^{n} C_{total(ij)}\right)^2}{n-1}} \times \frac{1}{\overline{C}_{total(i)}} \times 100\% \quad (26)$$

where:

i=replicate number

j=total filter sampler number

n=number of total filter samplers.

(B) If the value of CV_{total} exceeds 10 percent, then the particle concentration uniformity is unacceptable, alterations to the static chamber test apparatus must be made, and steps in paragraphs (f) (1) through (5) of this section must be repeated.

(6) *Calculate the effectiveness of the candidate sampler.* (i) Determine the quantity of material collected on the candidate sampler's afterfilter using a calibrated fluorometer. Calculate and record the mass concentration for the candidate sampler as:

$$C_{cand(i)} = \frac{M_{cand(i)}}{Q_{(i)} \times t_{(i)}} \quad (27)$$

where:

i=replicate number

M_{cand}=mass of material collected with the candidate sampler

Q=candidate sampler volumetric flowrate

t=sample time.

(ii) Calculate and record the sampling effectiveness of the candidate sampler as:

$$E_{(i)} = \frac{C_{cand(i)}}{\overline{C}_{total(i)}} \times 100\% \quad (28)$$

where i=replicate number.

(iii) Repeat step in paragraph (f)(4) through (6) of this section, as appropriate, to obtain a minimum of three replicate measurements of sampling effectiveness.

(iv) Calculate and record the average sampling effectiveness of the test sampler as:

$$\overline{E} = \frac{\sum_{i=1}^{n} E_{(i)}}{n} \quad (29)$$

where i=replicate number.

(v)(A) Calculate and record the coefficient of variation for the replicate sampling effectiveness measurements of the test sampler as:

$$CV_E = \sqrt{\frac{\sum_{i=1}^{n} E_{(i)}^2 - \frac{1}{n}\left(\sum_{i=1}^{n} E_{(i)}\right)^2}{n-1}} \times \frac{1}{\bar{E}} \times 100\% \quad (30)$$

where:
i = replicate number
n = number of measurements of effectiveness.

(B) If the value of CV_E exceeds 10 percent, then the test run (steps in paragraphs (f) (2) through (6) of this section).

(7) Repeat steps in paragraphs (f) (1) through (6) of this section for each particle size and type specified in Table F–2 of this subpart.

(g) *Test procedure: Divided flow method.*—(1) *Generate calibration aerosol.* Follow the procedures for aerosol generation prescribed in § 53.62(e)(2).

(2) *Verify the quality of the calibration aerosol.* Follow the procedures for verification of calibration aerosol size and quality prescribed in § 53.62(e)(4).

(3) *Introduce the calibration aerosol into the static chamber and allow the particle concentration to stabilize.*

(4) *Validate that transport is equal for the divided flow option.*

(i) With fluorometry (this applies only if fluorometry is used for detection of particles):

(A) Install a total filter on each leg of the divided flow apparatus.

(B) Collect particles simultaneously through both legs at 16.7 aLpm onto an appropriate filter for a time period such that the relative error of the measured concentration is less than 5.0 percent.

(C) Determine the quantity of material collected on each filter using a calibrated fluorometer. Calculate and record the mass concentration measured in each leg as:

$$C_i = \frac{M_i}{Q_i \times t_i} \quad (31)$$

where:
i = replicate number
M = mass of material collected with the total filter
Q = candidate sampler volumetric flowrate.

(D) Repeat steps in paragraphs (g)(4)(i) (A) through (C) of this section at until a minimum of three replicate measurements are performed.

(ii) With a number counting device such as an aerosol detector:

(A) Remove all flow obstructions from the flow paths of the two legs.

(B) Quantify the aerosol concentration of the primary particles in each leg of the apparatus.

(C) Repeat steps in paragraphs (g)(4)(i) (A) through (B) of this section at until a minimum of three replicate measurements are performed.

(iii) (A) Calculate the mean concentration and coefficient of variation as:

$$\bar{C} = \frac{\sum_{i=1}^{n} C_{(i)}}{n} \quad (32)$$

$$CV = \sqrt{\frac{\sum_{i=1}^{n} C_{(i)}^2 - \frac{1}{n}\left(\sum_{i=1}^{n} C_{(i)}\right)^2}{n-1}} \times \frac{1}{\bar{C}} \times 100\% \quad (33)$$

where:
i = replicate number
n = number of replicates.

(B) If the coefficient of variation is not less than 10 percent, then adjustments may be made in the setup, and this step must be repeated.

(5) *Determine the sampling effectiveness of the test sampler with the inlet removed by one of the following procedures.* (i) With fluorometry as a detector:

(A) Install the particle size fractionator. Install a filter downstream of one leg and a total filter on the bypass leg of the flow dividing apparatus.

(B) Collect particles simultaneously through both legs at 16.7 aLpm onto appropriate filters for a time period such that the relative error of the measured concentration is less than 5.0 percent.

(C) Determine the quantity of material collected on each filter using a calibrated fluorometer. Calculate and record the mass concentration measured by the total filter and that measured after penetrating through the candidate fractionator as follows:

$$C_{total(i)} = \frac{M_{total(i)}}{Q_{(i)} \times t_{(i)}} \quad (34)$$

$$C_{cand(i)} = \frac{M_{cand(i)}}{Q_{(i)} \times t_{(i)}} \quad (35)$$

where i= replicate number.

(ii) With a number counting device as a detector:

(A) Install the particle size fractionator into one of the legs of the divided flow apparatus.

(B) Quantify and record the aerosol number concentration of the primary particles passing through the fractionator as $C_{cand(I)}$.

(C) Divert the flow from the leg containing the candidate fractionator to the bypass leg. Allow sufficient time for the aerosol concentration to stabilize.

(D) Quantify and record the aerosol number concentration of the primary particles passing through the bypass leg as $C_{total(I)}$.

(iii) Calculate and record sampling effectiveness of the candidate sampler as:

$$E_{(i)} = \frac{C_{cand(i)}}{\bar{C}_{total(i)}} \times 100\% \quad (36)$$

where i = replicate number.

(6) Repeat step in paragraph (g)(5) of this section, as appropriate, to obtain a minimum of three replicate measurements of sampling effectiveness.

(7) Calculate the mean and CV for replicate measurements.

(i) Calculate and record the mean sampling effectiveness of the candidate sampler as:

$$\overline{E} = \frac{\sum_{i=1}^{n} E_{(i)}}{n} \quad (37)$$

Where i=replicate number.

(ii)(A) Calculate and record the coefficient of variation for the replicate sampling effectiveness measurements of the candidate sampler as:

$$CV_E = \sqrt{\frac{\sum_{i=1}^{n} E_{(i)}^2 - \frac{1}{n}\left(\sum_{i=1}^{n} E_{(i)}\right)^2}{n-1}} \times \frac{1}{\overline{E}} \times 100\% \quad (38)$$

Where:
i=replicate number
n=number of replicates.

(B) If the coefficient of variation is not less than 10 percent, then the test run must be repeated (steps in paragraphs (g) (1) through (7) of this section).

(8) Repeat steps in paragraphs (g) (1) through (7) of this section for each particle size and type specified in Table F–2 of this subpart.

(h) *Calculations.* (1) *Treatment of multiplets.* For all measurements made by fluorometric analysis, data shall be corrected for the presence of multiplets as described in § 53.62(f)(1). Data collected using a real-time device with sufficient resolution to discriminate primary particles from multiplets will not require multiplet correction.

(2) *Cutpoint determination.* For each wind speed determine the sampler Dp_{50} cutpoint defined as the aerodynamic particle size corresponding to 50 percent effectiveness from the multiplet corrected smooth curve.

(3) *Graphical analysis and numerical integration with ambient distributions.* Follow the steps outlined in § 53.62(f)(3) through § 53.62(f)(4) to calculate the estimated concentration measurement ratio between the candidate sampler and a reference method sampler.

(i) *Test evaluation.* The candidate method passes the static fractionator test if the values of R_c and Dp_{50} for each distribution meets the specifications in Table F–1 of this subpart.

§ 53.65 Test Procedure: Loading Test

(a) *Overview.* (1) The loading tests are designed to quantify any appreciable changes in a candidate method's performance as a function of coarse aerosol collection. This test is divided into two phases:

(i) A mandatory demonstration that the candidate method is capable of single-day sampling with periodic maintenance after each 24 hours of operation; and

(ii) An optional demonstration that the candidate is capable of multi-day sampling with the periodic maintenance schedule as defined by the manufacturer.

(2) In the first phase, the candidate sampler is first exposed to a laboratory-generated aerosol equivalent to sampling a nominal concentration of 150 μg/m^3 over a 24-hour time period. Following this initial loading, the candidate sampler's effectiveness as a function of particle aerodynamic diameter must then be evaluated using by performing the test in § 53.62 (full wind tunnel test). A sampler which fits the category of fractionator deviation in § 53.60(e)(2) may opt to perform the test in § 53.64 (static fractionator test) in lieu of the full wind tunnel test. The candidate sampler is approved for single day sampling with maintenance after each 24 hours of operation if the criteria in Table F–1 of this subpart are met for the 24-hour loading test.

(3) In the test for extended periodic maintenance, the candidate sampler is exposed to a mass of coarse aerosol equivalent to sampling a mass concentration of 150 μg/m^3 over the time period that the manufacturer has specified between periodic cleaning. The candidate sampler's effectiveness as a function of particle aerodynamic diameter must then be evaluated by performing the test in § 53.62 (full wind tunnel test). A sampler which fits the category of fractionator deviation in § 53.60(e)(2) may opt to perform the test in § 53.64 (static fractionator test) in lieu of the full wind tunnel test. If the criteria presented in Table F–1 of this subpart are met for this test, the candidate sampler is approved for multi-day sampling with the periodic maintenance schedule as specified by the manufacturer. For example, if the candidate sampler passes the reevaluation tests following loading with an aerosol mass equivalent to sampling a 150 μg/m^3 aerosol continuously for 7 days, then the sampler is approved for 7 day field operation before cleaning is required.

(b) *Technical Definitions.* (1) *Effectiveness after loading.* Effectiveness after loading is the ratio (expressed as a percentage) of the mass concentration of particles of a given size reaching the sampler filter to the mass concentration of particles of the same size approaching the sampler.

(2) *Effectiveness after extended loading.* Effectiveness after extended loading is the ratio (expressed as a percentage) of the mass concentration of particles of a given size reaching the sampler filter to the mass concentration of particles of the same size approaching the sampler.

(c) *Facilities and equipment required.* (1) *Particle delivery system.* The particle delivery system shall consist of a static chamber or a low velocity wind tunnel having a sufficiently large cross-sectional area such that the test sampler, or portion thereof, may be installed in the test section. At a minimum, the system must have a sufficiently large cross section to house the candidate sampler inlet as well as a collocated isokinetic nozzle for measuring total aerosol concentration. The mean velocity in the test section of the static chamber or wind tunnel shall not exceed 2 km/hr.

(2) *Aerosol generation equipment.* For purposes of these tests, the test aerosol shall be produced from commercially available, bulk Arizona road dust. To provide direct interlaboratory comparability of sampler loading characteristics, the bulk dust is specified as 0–10 μm ATD available from Powder Technology Incorporated (Burnsville, MN). To efficiently deagglomerate the bulk test dust, either a fluidized bed aerosol generator, Wright dust feeder, or sonic nozzle shall be used for the aerosol generation. Other dust generators may be used contingent upon prior approval by the Agency.

(3) *Isokinetic sampler.* Mean aerosol concentration within the static chamber or wind tunnel shall be established using a single isokinetic sampler containing a preweighed high-efficiency total filter.

(d) *Test Procedure: 24 hour loading test.* (1) *Clean the candidate sampler.* Internal surfaces of the candidate sampler shall be thoroughly cleaned and dried prior to performing these tests. The internal fractionator surfaces shall then be prepared in strict accordance

with the operating instructions in the sampler's operating manual referred to in § 53.4(b)(3). Install the candidate sampler's inlet and the isokinetic sampler within the test chamber or wind tunnel.

(2) *Generate a dust cloud.* Generate a dust cloud composed of Arizona test dust and introduce the dust cloud into the chamber. Allow sufficient time for the particle concentration to become steady within the chamber.

(3) *Sample aerosol with a total filter and the candidate sampler.* Sample the aerosol for a sufficient time to produce an equivalent time weighted concentration (TWC) of 3600 μg hr /m^3. For example, this TWC level may be achieved by sampling a 150 μg/m^3 mean concentration for 24 hours. Alternatively, a 900 μg/m^3 concentration may be sampled for a 4-hour time period to produce an equivalent TWC value. Following shutdown of the system, record the sampling time and all aerosol generation parameters.

(4) *Determine the time-weighted concentration.* (i) Weigh the isokinetic sampler's total filter on a gravimetric balance such that the relative error is less than 5.0 percent. Subtract the filter's initial mass from the final mass to determine the collected aerosol mass.

(ii)(A) Calculate and record the TWC as:

$$TWC = \frac{M \times t}{Q} \quad (39)$$

where:
M=collected aerosol mass, μg
Q=candidate volumetric flowrate, m^3/hr
t=sampling time, hr.

(B) If the value of TWC deviates from 3600 μg hr /m^3 ± 15 percent, then the loaded mass is unacceptable and steps in paragraphs (d) (1) through (3) of this section must be repeated.

(5) *Determine the candidate's performance after loading.* The candidate sampler's effectiveness as a function of particle aerodynamic diameter must then be evaluated using by performing the test in § 53.62 (full wind tunnel test). A sampler which fits the category of fractionator deviation in § 53.60(e)(2) may opt to perform the test in § 53.64 (static fractionator test) in lieu of the full wind tunnel test.

(e) *Test Procedure: Extended loading test.* (1) *Calculate the target loading mass.* Calculate and record the time weighted concentration of Arizona road dust which is equivalent to exposing the sampler in an environment of 150 μg/m^3 over the time specified by the vendor as:

$$Target\ TWC = 150\ \mu g/m^3 \times t \quad (40)$$

where t = the number of hours specified by the manufacturer prior to periodic cleaning.

(2) *Clean the candidate sampler.* Internal surfaces of the candidate sampler shall be cleaned and dried prior to performing these loading tests. The internal fractionator surfaces shall then be prepared in strict accordance with the operating instructions specified in the sampler's operating manual referred to in § 53.4(b)(3). Install the candidate sampler's inlet and the isokinetic sampler within the test chamber or wind tunnel.

(3) *Generate a dust cloud.* Generate a dust cloud composed of Arizona test dust and introduce the dust cloud into the chamber. Allow sufficient time for the particle concentration to become steady within the chamber.

(4) *Sample aerosol with a total filter and the candidate sampler.* Sample the aerosol for a time sufficient to produce an equivalent TWC equal to that of the target TWC ±15 percent. Following shutdown of the system, record the sampling time and all aerosol generation parameters.

(5) *Determine the time weighted concentration.* Weigh the isokinetic sampler's total filter on a gravimetric balance such that the relative measurement error is less than 5.0 percent. Subtract the filter's initial mass from the final mass to determine the collected aerosol mass.

(i) (A) Calculate and record the TWC as:

$$TWC = \frac{M \times t}{Q} \quad (41)$$

(B) If the value of TWC deviates from the target TWC ± 15 percent, then the loaded mass is unacceptable and steps in paragraphs (e) (1) through (4) of this section must be repeated.

(6) *Determine the candidate's effectiveness after extended loading.* The candidate sampler's effectiveness as a function of particle aerodynamic diameter must then be evaluated by performing the test in § 53.62 (full wind tunnel test). A sampler which fits the category of fractionator deviation in § 53.60(e)(2) may opt to perform the test in § 53.64 (static fractionator test) in lieu of the full wind tunnel test.

(f) *Test results.* (1) *24-hour test results.* If the ΔC's determined in the effectiveness evaluation pass the criteria established in Table F–1 of this subpart for the 24-hour loading test, then the candidate passes this test with the stipulation that the sampling train be cleaned after each 24 hours of operation.

(2) *Extended test results.* If the ΔC's determined in the effectiveness evaluation pass the criteria established in Table F–1 of this subpart for the extended loading test, then the candidate sampler passes this test with the stipulation that the sampling train be cleaned at least of often as the frequency tested.

§ 53.66 Test Procedure: Volatility test.

(a) *Overview.* This test procedure is designed to ensure that the candidate sampler's volatility losses when sampling semi-volatile ambient aerosol will be comparable to that of a federal reference method sampler. The candidate sampler must meet or exceed the acceptance criteria in Table F- 1 of this subpart.

(b) *Technical definition.* Residual mass (RM) is defined as the difference between the final filter weight following the blow-off phase and the initial filter weight preceding the loading phase.

(c) *Facilities and equipment required.* (1) *Chambers and test atmosphere.* This test requires two chambers, one inside the other. The internal chamber is used to produce a well-mixed test atmosphere from which the sampling is performed. The air velocity in the chamber shall be 2.0 km/hr ± 10 percent, perpendicular to the sampling inlet. The test section shall be sufficiently large such that the inlet, or portion installed thereof, shall block no more than 15percent of the chamber cross section in the test area. At least one reference and one candidate sampler must be tested simultaneously. Such a configuration is designated as a case. Each case needs to be repeated three times for each of the different blow-off phases (1, 2, 3, 4 hours in duration). The external chamber is used to condition, handle and weigh filters. The temperature in both chambers shall be maintained at 22 ± 0.5 °C. The relative humidity (RH) in both chambers shall be maintained at 40 percent ± 3 percent.

(2) *Aerosol generation system.* A pressure nebulizer shall be used to produce a polydisperse aerosol at a mass median diameter of less than 2.5 μm. The polydisperse aerosol shall be generated from A.C.S. reagent grade glycerol of 99.5 percent minimum purity. To provide direct interlaboratory comparability of sampler volatility characteristics, the required nebulizer is Part # 5207, manufactured by Seamless, a division of Professional Medical Products, Inc (Greenwood, SC). The concentration of the aerosol inside the internal chamber shall not exceed 2 mg/m^3, or any concentration that would overload the filters; (such overloading can be observed as ''wetted areas'). The concentration inside the chamber shall be at least 1 mg/m^3 to obtain significant filter loading.

(3) *Air velocity verification.* The chamber air velocity must be measured using an appropriate technique capable of 5 percent precision or better.

(d) *Test procedures.* (1) This procedure shall be used to test the performance of candidate equivalent methods of type I and type II in which suspended particulate matter is collected on a filter. Two candidate samplers and two reference method samplers must be tested. One reference method sampler and one candidate sampler must be simultaneously subjected to the entire test procedure to ensure that both samplers are exposed to the identical aerosol. This can be achieved by using a manifold which allows connection of two samplers outside the internal chamber.

(2) This method consists of three consecutive phases. In the first phase designated as A, temperature, relative humidity inside and outside the internal chamber must be maintained at the levels in paragraph (d)(1) of this section and the aerosol concentration and size distribution inside the internal chamber must be stabilized at the level prescribed in paragraph (d)(1) of this section. The samplers'' filters are conditioned dynamically by drawing aerosol-free air. Such air can be produced by filtering air from the external chamber through the absolute (HEPA) filter. The duration of filter conditioning shall be sufficient to obtain complete filter equilibration. In the second phase, designated as B, both samplers shall draw aerosol-laden air at a constant flow rate for 30 minutes. In the third phase designated as C, samplers draw aerosol-free and aerosol compound vapor free air, to produce partial volatilization of the collected aerosol, over single time periods of 1, 2, 3, and 4 hours. In each test, phase C is preceded by phase A and phase B using a new set of filters. Phase C shall be conducted immediately after completion of the phase B. The setup used in phase A can be used to produce air needed in phase C.

(e) *Filter handling.* Careful handling of the filter during sampling, conditioning, and weighing is necessary to avoid errors due to damaged filters or loss of collected particles from the filters. All filters must be weighed immediately after phase A and phase C.

(f) *Temperature, humidity, and static charge considerations.*—(1) *Temperature and humidity.* The effects of temperature and humidity can be minimized by equilibrating the test filters at conditions inside the external chamber. Total dynamic conditioning can be established by sequential filter weighing every 30 minutes following repetitive dynamic conditioning. The filters are considered sufficiently conditioned if the sequential weights are repeatable to ±3μg. The temperature and relative humidity changes in which the filter is exposed during the entire procedure must not exceed ±+ 0.5 °C for the temperature and ± 3 percent RH, respectively.

(2) *Static charge.* The following procedure is suggested for minimizing charge effects. Place six or more Polonium static control devices (PSCD) inside the microbalance weighing chamber, (MWC). Two of them must be placed horizontally on the floor of the MWC and the remainder placed vertically on the back wall of the MWC. Taping two PSCD's together or using double-sided tape will help to keep them from falling. Place the filter that is to be weighed on the horizontal PSCDs facing aerosol coated surface up. Close the MWC and wait 1 minute. Open the MWC and place the filter on the balance dish. Wait 1 minute. If the charges have been neutralized the weight will stabilize within 30–60 seconds. Repeat the procedure of neutralizing charges and weighing as prescribed above several times (typically 2–4 times) until consecutive weights will differ by no more than 3 micrograms. Record the last measured weight and use this value for all subsequent calculations.

(g) *Artifacts.* Additional negative or positive artifacts in collected mass during the first sampling period may occur. Such artifacts shall be minimized by producing and preserving the chemical composition of the air inside the internal chamber to provide thermodynamic and physicochemical states of equilibrium for the particles.

(h) *Calculations.* Filters shall be weighed before the aerosol loading phase and immediately after the blow-off phase. The latter weight is subtracted from the former weight to calculate the residual mass (RM). The mass on the filter from the tested candidate sampler is multiplied by the volumetric sampling flows ratio, i.e., Frm flow rate/Candidate flow rate, to produce a corrected residual mass (CRM).

(i) *Test for comparability.* Comparability of the candidate method shall be established by calculating regression parameters for the regression of the CRMs obtained using candidate devices on RMs obtained using FRM devices. If the linear regression parameters [slope, intercept and correlation] meet the following values: Slope=1 ± 0.1, intercept=0 ± 0.15, correlation r ≥0.97, the candidate method passes this test for comparability.

Tables to Subpart F of Part 53

TABLE F–1.—PERFORMANCE SPECIFICATIONS FOR $PM_{2.5}$ CLASS II EQUIVALENT SAMPLERS

Performance test	Specifications	Acceptance criteria
Full Wind Tunnel Evaluation § 53.62.	VOAG produced aerosol at 2 km/hr and 24 km/hr	Dp_{50} = 2.5 μm ± 0.2 μm; Numerical Analysis Results: 95% ≤R_c≤105% for distributions presented in Tables F–4, F–5, and F–6.
Wind Tunnel Inlet Aspiration Test § 53.63.	3.5 μm liquid VOAG produced aerosol size in conjunction with wind speeds of 2 km/hr and 24 km/hr.	Relative Aspiration: 95% ≤Means≤105%, CV ≤ 10%.
Static Fractionator Test § 53.64.	Evaluation of the fractionator under static conditions. See Table F–2 for specifications regarding particles sizes and particle types.	Dp_{50} = 2.5 μm ± 0.2 μm; Numerical Analysis Results: 95% ≤R_c≤105% for distributions presented in Tables F–4, F–5, and F–6.

TABLE F–1.—PERFORMANCE SPECIFICATIONS FOR $PM_{2.5}$ CLASS II EQUIVALENT SAMPLERS—Continued

Performance test	Specifications	Acceptance criteria
Loading Test § 53.65	Loading of the clean candidate under laboratory conditions: 24 hour test, extended test.	24 hour test and Extended test; Dp_{50} = 2.5 μm ± 0.2 μm; Numerical Analysis Results: 95% $\leq R_c \leq$105% for distributions presented in Tables F–4, F–5, and F–6.
Volatility Test § 53.66	Polydisperse liquid aerosol produced by air nebulization of A.C.S. reagent grade glycerol, 99.5% minimum purity.	Regression Parameters Slope = 1 ± 0.1, Intercept = 0 ± 0.15 r ≥ 0.97.

TABLE F–2.—PARTICLE SIZES AND WIND SPEEDS FOR FULL WIND TUNNEL EVALUATION, WIND TUNNEL INLET ASPIRATION TEST, AND STATIC CHAMBER TEST

Primary partical mean size [a] (μm)	Full wind tunnel test		Inlet aspiration test		Static fractionator test	Volatility test
	2 km/hr	24 km/hr	2 km/hr	24 km/hr		
1.5±0.25	S	S			S	
2.0±0.25	S	S			S	
2.5±0.25	S	S			S	
2.8±0.25	S	S			S	
3.5±0.25	S	S	L	L	S	
4.0±0.5	S	S			S	
Polydisperse Glycerol Aerosol						L

[a] Aerodynamic diameter.
S=solid particles. L=liquid particles.

TABLE F–3.—CRITICAL PARAMETERS OF IDEALIZED AMBIENT PARTICLE SIZE DISTRIBUTIONS

Idealized distribution	Fine particle mode			Coarse particle mode			$PM_{2.5}$/PM_{10} ratio	FRM sampler expected mass conc. (μg/m³)
	MMD (μm)	Geo. std. Dev.	Conc. (μg/m³)	MMD (μm)	Geo. std. Dev.	Conc. (μg/m³)		
Coarse	0.50	2	12.0	10	2	88.0	0.27	13.814
"Typical"	0.50	2	33.3	10	2	66.7	0.55	34.284
Fine	0.85	2	85.0	15	2	15.0	0.94	78.539

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TABLE F-4.—ESTIMATED MASS CONCENTRATION MEASUREMENT OF $PM_{2.5}$ FOR IDEALIZED COARSE AEROSOL SIZE DISTRIBUTION.

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	6.001		1.000	6.001	6.001
0.625		2.129		0.999	2.129	2.127
0.750		0.982		0.998	0.982	0.980
0.875		0.730		0.997	0.730	0.728
1.000		0.551		0.995	0.551	0.548
1.125		0.428		0.991	0.428	0.424
1.250		0.346		0.987	0.346	0.342
1.375		0.294		0.980	0.294	0.288
1.500		0.264		0.969	0.264	0.256
1.675		0.251		0.954	0.251	0.239
1.750		0.250		0.932	0.250	0.233
1.875		0.258		0.899	0.258	0.232
2.000		0.272		0.854	0.272	0.232
2.125		0.292		0.791	0.292	0.231
2.250		0.314		0.707	0.314	0.222
2.375		0.339		0.602	0.339	0.204
2.500		0.366		0.480	0.366	0.176
2.625		0.394		0.351	0.394	0.138
2.750		0.422		0.230	0.422	0.097
2.875		0.449		0.133	0.449	0.060
3.000		0.477		0.067	0.477	0.032
3.125		0.504		0.030	0.504	0.015
3.250		0.530		0.012	0.530	0.006
3.375		0.555		0.004	0.555	0.002
3.500		0.579		0.001	0.579	0.001
3.625		0.602		0.000	0.602	0.000
3.750		0.624		0.000	0.624	0.000
3.875		0.644		0.000	0.644	0.000
4.000		0.663		0.000	0.663	0.000
4.125		0.681		0.000	0.681	0.000
4.250		0.697		0.000	0.697	0.000
4.375		0.712		0.000	0.712	0.000
4.500		0.726		0.000	0.726	0.000
4.625		0.738		0.000	0.738	0.000
4.750		0.750		0.000	0.750	0.000
4.875		0.760		0.000	0.760	0.000
5.000		0.769		0.000	0.769	0.000
5.125		0.777		0.000	0.777	0.000
5.250		0.783		0.000	0.783	0.000
5.375		0.789		0.000	0.789	0.000
5.500		0.794		0.000	0.794	0.000
5.625		0.798		0.000	0.798	0.000
5.75		0.801		0.000	0.801	0.000
		$C_{sam(exp)}$ =			$C_{ideal(exp)}$ =	13.814

Table F-5.—Estimated Mass Concentration Measurement of $PM_{2.5}$ for Idealized "Typical" Coarse Aerosol Size Distribution.

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	16.651		1.000	16.651	16.651
0.625		5.899		0.999	5.899	5.893
0.750		2.708		0.998	2.708	2.703
0.875		1.996		0.997	1.996	1.990
1.000		1.478		0.995	1.478	1.471
1.125		1.108		0.991	1.108	1.098
1.250		0.846		0.987	0.846	0.835
1.375		0.661		0.980	0.661	0.648
1.500		0.532		0.969	0.532	0.516
1.675		0.444		0.954	0.444	0.424
1.750		0.384		0.932	0.384	0.358
1.875		0.347		0.899	0.347	0.312
2.000		0.325		0.854	0.325	0.277
2.125		0.314		0.791	0.314	0.248
2.250		0.312		0.707	0.312	0.221
2.375		0.316		0.602	0.316	0.190
2.500		0.325		0.480	0.325	0.156
2.625		0.336		0.351	0.336	0.118
2.750		0.350		0.230	0.350	0.081
2.875		0.366		0.133	0.366	0.049
3.000		0.382		0.067	0.382	0.026
3.125		0.399		0.030	0.399	0.012
3.250		0.416		0.012	0.416	0.005
3.375		0.432		0.004	0.432	0.002
3.500		0.449		0.001	0.449	0.000
3.625		0.464		0.000	0.464	0.000
3.750		0.480		0.000	0.480	0.000
3.875		0.494		0.000	0.494	0.000
4.000		0.507		0.000	0.507	0.000
4.125		0.520		0.000	0.520	0.000
4.250				0.000	0.532	0.000
4.375				0.000	0.543	0.000
4.500				0.000	0.553	0.000
4.625				0.000	0.562	0.000
4.750				0.000	0.570	0.000
4.875				0.000	0.577	0.000
5.000				0.000	0.584	0.000
5.125				0.000	0.590	0.000
5.250				0.000	0.595	0.000
5.375				0.000	0.599	0.000
5.500				0.000	0.603	0.000
5.625				0.000	0.605	0.000
5.75				0.000	0.608	0.000
		$C_{sam(exp)}$ =			$C_{ideal(exp)}$ =	34.284

Table F-6—Estimated Mass Concentration Measurement of $PM_{2.5}$ for Idealized Fine Aerosol Size Distribution.

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)	Fractional Sampling Effectiveness	Interval Mass Concentration (μg/m³)	Estimated Mass Concentration Measurement (μg/m³)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	18.868		1.000	18.868	18.868
0.625		13.412		0.999	13.412	13.399
0.750		8.014		0.998	8.014	7.998
0.875		6.984		0.997	6.984	6.963
1.000		5.954		0.995	5.954	5.924
1.125		5.015		0.991	5.015	4.970
1.250		4.197		0.987	4.197	4.142
1.375		3.503		0.980	3.503	3.433
1.500		2.921		0.969	2.921	2.830
1.675		2.438		0.954	2.438	2.326
1.750		2.039		0.932	2.039	1.900
1.875		1.709		0.899	1.709	1.536
2.000		1.437		0.854	1.437	1.227
2.125		1.212		0.791	1.212	0.959
2.250		1.026		0.707	1.026	0.725
2.375		0.873		0.602	0.873	0.526
2.500		0.745		0.480	0.745	0.358
2.625		0.638		0.351	0.638	0.224
2.750		0.550		0.230	0.550	0.127
2.875		0.476		0.133	0.476	0.063
3.000		0.414		0.067	0.414	0.028
3.125		0.362		0.030	0.362	0.011
3.250		0.319		0.012	0.319	0.004
3.375		0.282		0.004	0.282	0.001
3.500		0.252		0.001	0.252	0.000
3.625		0.226		0.000	0.226	0.000
3.750		0.204		0.000	0.204	0.000
3.875		0.185		0.000	0.185	0.000
4.000		0.170		0.000	0.170	0.000
4.125		0.157		0.000	0.157	0.000
4.250		0.146		0.000	0.146	0.000
4.375		0.136		0.000	0.136	0.000
4.500		0.129		0.000	0.129	0.000
4.625		0.122		0.000	0.122	0.000
4.750		0.117		0.000	0.117	0.000
4.875		0.112		0.000	0.112	0.000
5.000		0.108		0.000	0.108	0.000
5.125		0.105		0.000	0.105	0.000
5.250		0.102		0.000	0.102	0.000
5.375		0.100		0.000	0.100	0.000
5.500		0.098		0.000	0.098	0.000
5.625		0.097		0.000	0.097	0.000
5.75		0.096		0.000	0.096	0.000
		$C_{sam(exp)}$ =			$C_{ideal(exp)}$ =	78.539

Figures to Subpart F of Part 53

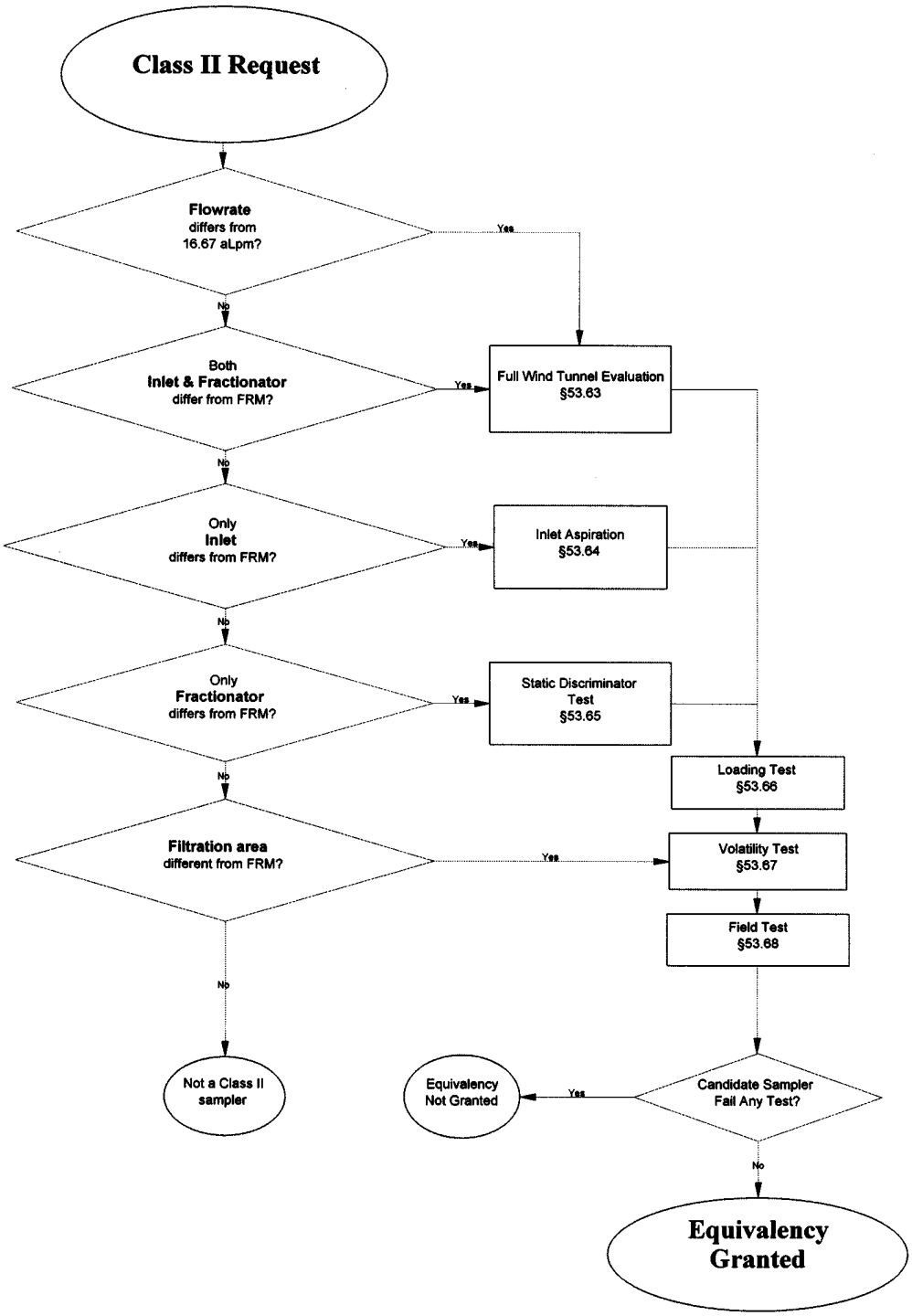

Figure F-1. Flowchart for determining requirements for Class II Sampler uivalency

DESIGNATION TESTING CHECKLIST FOR CLASS II

Auditee _____ Auditor signature _____ Date _____

Compliance Status: Y = Yes N = No NA = Not applicable/Not available				
Verification			**Verified by Direct Observation of Process or of Documented Evidence: Performance, Design or Application Spec.** *Corresponding to Sections of 40 CFR Part 53 Subpart F*	**Verification Comments** (Includes documentation of who, what, where, when, why) (Doc. #, Rev. #, Rev. Date)
Y	N	NA		
Subpart E: PERFORMANCE SPECIFICATIONS				
			Evaluation completed according to Subpart E §53.50 to §53.56	
Subpart E: Class I Sequential Tests				
			Class II samplers that are also Class I (sequentialized) have passed the tests in §53.57	
Subpart F: PERFORMANCE SPEC/TEST				
			Evaluation of Physical Characteristics of Clean Sampler - One of these tests must be performed §53.62 - Full Wind Tunnel §53.63 - Inlet Aspiration §53.64 - Static Fractionator	
			Evaluation of Physical Characteristics of Loaded Sampler **24 hour loading** §53.65(d) must be performed one of the following tests must be performed for evaluation after loading §53.62, §53.63, §53.64 **Extended loading** (optional) §53.65(e) must be performed one of the following tests must be performed for evaluation after loading §53.62, §53.63, §53.64	
			Evaluation of the Volatile Characteristics of the Class II Sampler §53.66	

Figure F-2. Designation testing checklist

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Appendix A to Subpart F of Part 53—References

1. Marple, V.A., K.L. Rubow, W. Turner, and J.D. Spangler, Low Flow Rate Sharp Cut Impactors for Indoor Air Sampling: Design and Calibration., JAPCA, 37: 1303–1307 (1987).
2. Vanderpool, R.W. and K.L. Rubow, ''Generation of Large, Solid Calibration Aerosols'', J. of Aer. Sci. and Tech., 9:65–69 (1988).

PART 58—[AMENDED]

1. The authority citation for part 58 continues to read as follows:

Authority: 42 U.S.C. 7410, 7601(a), 7613, and 7619.

2. Section 58.1 is amended by revising paragraph (s) and adding paragraphs (jj) through (vv) to read as follows:

§ 58.1 Definitions.

* * * * *

(s) *Traceable* means that a local standard has been compared and certified, either directly or via not more than one intermediate standard, to a National Institute of Standards and Technology (NIST)-certified primary standard such as a NIST-Traceable Reference Material (NTRM) or a NIST-certified Gas Manufacturer's Internal Standard (GMIS).

* * * * *

(jj) *Consolidated Metropolitan Statistical Area* means the most recent area as designated by the U.S. Office of Management and Budget and population figures from the Bureau of the Census. The Department of Commerce provides ''that within metropolitan complexes of 1 million or more population, separate component areas are defined if specific criteria are met. Such areas are designated primary metropolitan statistical areas (PMSAs; and any area containing PMSAs is designated consolidated metropolitan statistical area (CMSA).''

(kk) *Core $PM_{2.5}$ SLAMS* means SLAMS sites which are the basic component sites of the $PM_{2.5}$ SLAMS regulatory network. Population-oriented core sites are intended to reflect community-wide exposure to air pollution.

(ll) *Equivalent method* means a method of sampling and analyzing the ambient air for an air pollutant that has been designated as an equivalent method in accordance with this part; it does not include a method for which an equivalent method designation has been canceled in accordance with 40 CFR 53.11 or 53.16.

(mm) *Metropolitan Statistical Area (MSA)* means the most recent area as designated by the U.S. Office of Management and Budget and population figures from the U.S. Bureau of the Census. The Department of Commerce defines a metropolitan area as ''one of a large population nucleus, together with adjacent communities which have a high degree of economic and social integration with that nucleus.''

(nn) *Monitoring Planning Area (MPA)* means a contiguous geographic area with established, well defined boundaries, such as a metropolitan statistical area, county or State, having a common area that is used for planning monitoring locations for $PM_{2.5}$. MPAs may cross State boundaries, such as the Philadelphia PA–NJ MSA, and be further subdivided into spatial averaging zones. MPAs are generally oriented toward areas with populations greater than 250,000, but for convenience, those portions of a State that are not part of MSAs can be considered as a single MPA. MPAs must be defined, where applicable, in a State monitoring plan.

(oo) *Particulate Matter Monitoring Plan* means a detailed plan, prepared by control agencies and submitted to EPA for approval, that describes their $PM_{2.5}$ and PM_{10} air quality surveillance network.

(pp) *$PM_{2.5}$* means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on appendix L of part 50 of this chapter and designated in accordance with part 53 of this chapter or by an equivalent method designated in accordance with part 53 of this chapter.

(qq) *Population oriented monitoring or sites* applies to residential areas, commercial areas, recreational areas, industrial areas where workers from more than one company are located, and other areas where a substantial number of people may spend a significant fraction of their day.

(rr) *Primary Metropolitan Statistical Area (PMSA)* is a separate component of a consolidated metropolitan statistical area. For the purposes of this regulation, PMSA is used interchangeably with MSA.

(ss) *Reference method* means a method of sampling and analyzing the ambient air for an air pollutant that is specified as a reference method in an appendix to part 50 of this chapter, or a method that has been designated as a reference method in accordance with this part; it does not include a method for which a reference method designation has been canceled in accordance with 40 CFR 53.11 or 53.16.

(tt) *Spatial averaging zone (SAZ)* means an area with established, well defined boundaries, such as a county or census block, within a MPA that has relatively uniform concentrations of $PM_{2.5}$. Monitors within a SAZ that meet certain requirements as set forth in Appendix D of this part are used to compare with the primary annual $PM_{2.5}$ NAAQS using a spatial averaging procedure specified in Appendix K of 40 CFR Part 50. A SAZ may have one or more monitors. An MPA must have at least one SAZ and may have several SAZs.

(uu) *SPM monitors* is a generic term used for all monitors other than SLAMS, NAMS, PAMS, and PSD monitors included in an agency's monitoring plan or for monitors used in special study whose data are officially reported to EPA.

(vv) *Annual State Air Monitoring Report (ASAMR)* is an annual report, prepared by control agencies and submitted to EPA for approval, that consists of an annual data summary report for all pollutants and a detailed report describing any proposed changes to their air quality surveillance network.

3. Section 58.13 is amended by revising paragraph (d) and adding new paragraphs (e) and (f) as follows:

§ 58.13 Operating schedule.

* * * * *

(d) For PM_{10} samplers—a 24-hour sample must be taken a minimum of every sixth day.

(e) For $PM_{2.5}$ samplers, everyday sampling is required for all core SLAMS, including NAMS and PAMS core stations, except during seasons or as otherwise exempted by the Regional Administrator in accordance with EPA guidance. For other SLAMS, a minimum frequency of 1 in 6 day sampling schedule is allowed and suggested. Alternative sampling frequencies are also allowed for SLAMS sites which are principally intended for comparisons to the 24-hour NAAQS. Such modifications must be approved by the EPA Administrator in accordance with EPA guidance.

(f) *Alternatives to everyday sampling.* (1) $PM_{2.5}$ core SLAMS sites located in monitoring planning areas (as described in section 2.8 of Appendix D of this subpart) are required to sample every day with a reference or equivalent method operating in accordance with 40 CFR part 53 and Section 2 of Appendix C to this part. However, in accordance with the monitoring priority as defined in paragraph (f)(2) of this section, established by the control agency and approved by EPA, a core SLAMS monitor may operate with a reference or equivalent method on a 1 in 3 day schedule and produce data that may be compared to the NAAQS, provided that

it is collocated with an acceptable continuous fine particle PM analyzer that is correlated with the reference or equivalent method. If the alternative sampling schedule is selected by the control agency and approved by EPA, the alternative schedule shall be implemented on January 1 of the year in which everyday sampling is required. The selection of correlated acceptable continuous PM analyzers and procedures for correlation with the intermittent reference or equivalent method shall be in accordance with procedures to be established and included in EPA guidance. Unless the continuous fine particle analyzer satisfies the requirements of Section 2 of Appendix C to 40 CFR Part 58, however, the data derived from the correlated acceptable continuous monitor are not eligible for direct comparisons to the NAAQS in accordance with Part 50.

(2) A Metropolitan Statistical Area (or primary metropolitan statistical area) with greater than 1 million population and high concentrations of $PM_{2.5}$ (greater than or equal to 80 percent of the NAAQS) shall be a Priority 1 PM monitoring area. Other monitoring planning areas may be designated as Priority 2 PM monitoring areas.

(3) Core SLAMS having a correlated acceptable continuous analyzer collocated with a reference or equivalent method in a Priority 1 PM monitoring area may operate on the 1 in 3 sampling frequency only after reference or equivalent data are collected for at least two complete years and the area is determined to be attainment with the $PM_{2.5}$ NAAQS in accordance with Appendix K to 40 CFR Part 50. See Figure below. After this time and for as long as the area is in attainment with the $PM_{2.5}$ NAAQS, the correlated acceptable continuous option may be used in conjunction with 1 in 3 day intermittent sampling. Other core SLAMS may utilize correlated acceptable continuous monitors in conjunction with intermittent sampling on a 1 in 3 schedule for the first year of required $PM_{2.5}$ sampling.

(4) After one complete year of $PM_{2.5}$ sampling, if a violation of the NAAQS is determined (in accordance with Appendix K to 40 CFR part 50), then everyday sampling with reference or equivalent method would be required subsequently. Otherwise, the core SLAMS in this area may continue to sample a minimum of 1 in 3 days using a reference or equivalent method together with the correlated acceptable continuous monitor. Background and transport $PM_{2.5}$ core SLAMS in States with population-oriented core monitors may sample with correlated acceptable continuous alternative in accordance with the highest priority $PM_{2.5}$ core SLAMS for the State. In States without population-oriented core monitors or where operation of population-oriented core monitors has been exempted by the Regional Administrator, the background and transport $PM_{2.5}$ core SLAMS may also sample a minimum of 1 in 3 days. Background $PM_{2.5}$ sites which are downwind of areas without anthropogenic sources of $PM_{2.5}$, (e.g., the Pacific Ocean) may also sample 1 in 3 days.

(5) In all monitoring situations, with a correlated acceptable continuous alternative, FRM samplers or filter-based equivalent analyzers should preferably accompany the correlated acceptable continuous monitor.

4. Section 58.14 is revised as follows:

§ 58.14 Special purpose monitors.

(a) Except as specified in paragraph (b) of this section, any ambient air quality monitoring station other than a SLAMS or PSD station from which the State intends to use the data as part of a demonstration of attainment or nonattainment or in computing a design value for control purposes of the National Ambient Air Quality Standards (NAAQS) must meet the requirements for SLAMS as described in § 58.22 and, after January 1, 1983, must also meet the requirements for SLAMS described in § 58.13 and Appendices A and E of this part.

(b) $PM_{2.5}$ NAAQS violations shall not be made based on data produced at an SPM site during the first 3 years following the effective date of the final rule. However, a notice of NAAQS violations resulting from SPMs shall be reported to EPA in the State's annual monitoring plan and be considered by the State in the design of its overall SLAMS network, and should be considered to become permanent SLAMS during the annual network review in accordance with § 58.25.

(c) Any ambient air quality monitoring station other than a SLAMS or PSD station from which the State intends to use the data for SIP-related functions other than as described in paragraph (a) of this section is not necessarily required to comply with the requirements for a SLAMS station under paragraph (a) of this section but must be operated in accordance with a monitoring schedule, methodology, quality assurance procedures, and probe or instrument-siting specifications approved by the Regional Administrator.

5. A new § 58.15 is added to read as follows:

§ 58.15 Designation of monitoring sites eligible for comparison to the $PM_{2.5}$ NAAQS.

(a) SLAMS and SPM monitors that will be used to make comparisons with the 24-hour and annual NAAQS for $PM_{2.5}$ shall be identified in the State's monitoring plan, subject to annual review and approval by the Regional Administrator, and designated as code ''B'' in EPA's AIRS monitoring site file.

(b) SLAMS and SPM monitors that will be used to make comparisons only with the 24-hour NAAQS for $PM_{2.5}$ shall be identified in the States monitoring plan, subject to annual review and approval by the Regional Administrator, and designated as code ''D'' in EPA's AIRS monitoring site file.

(c) All other $PM_{2.5}$ sites would be designated as code ''O'' sites in EPA's AIRS monitoring site file.

6. Section 58.20 is amended by revising paragraphs (d), (e) introductory text, and (e)(5); by redesignating paragraph (f) as (g); and adding a new paragraph (f) to read as follows:

§ 58.20 Air quality surveillance: Plan control.

* * * * *

(d) Provide for the review of the air quality surveillance system on an annual basis to determine if the system meets the monitoring objectives defined in § 2.8 of appendix D to this part as well as the minimum requirements for networks of SLAMS stations for $PM_{2.5}$ described in § 2.8.2 of appendix D of this part. Such review must identify needed modifications to the network such as termination or relocation of unnecessary stations or establishment of new stations which are necessary. For $PM_{2.5}$, the review must identify needed changes to core stations, monitoring planning areas, spatial averaging zones, or monitoring sites which are eligible for comparison to the NAAQS.

(e) Provide for having a SLAMS network description, including monitoring planning areas and spatial averaging zones for $PM_{2.5}$, available for public inspection and submission to the Administrator upon request. The network description must be available at the time of plan revision submittal except for PM_{10} and $PM_{2.5}$, which must be available by 6 months after the effective date of promulgation and must contain the following information for each SLAMS:

* * * * *

(5) The monitoring objective, spatial scale of representativeness, and for $PM_{2.5}$, the monitoring planning area, spatial averaging zone, and the site code designation to identify which site will be used to determine violations of the appropriate PM NAAQS (annual or 24-

hour), as defined in appendix D to this part.

(f) Provide for having a list of all $PM_{2.5}$ monitoring locations including SLAMS, NAMS and SPMs, which are included in the State's monitoring plan and are intended for comparison to the NAAQS, available for public inspection

* * * * *

7. Section 58.23 is amended by revising the introductory text and adding a new paragraph (c) to read as follows:

§ 58.23 Monitoring network completion.

By January 1, 1983, with the exception of PM_{10} samplers which shall be within 6 months of the date of publication of the final rule and with the exception of $PM_{2.5}$ samplers which shall be as described in paragraph (c) of this section.

* * * * *

(c) Each $PM_{2.5}$ station in the SLAMS network must be in operation in accordance with the minimum requirements of appendix D of this part, be sited in accordance with the criteria in appendix E to this part, and be located as described on the station's AIRS site identification form, according to the following schedule:

(1) Within 1 year of the effective date of promulgation, the required core $PM_{2.5}$ SLAMS for at least one MPA must be in operation;

(2) Within 2 years of promulgation, all other required core-population oriented sites and core background and transport sites must be in operation; and

(3) Within 3 years of promulgation, a continuous PM monitor in areas with greater than 1 million population, all NAMS sites and all additional required $PM_{2.5}$ SLAMS must be in operation.

8–9. In § 58.26, revise the section heading paragraph (b) introductory text and add paragraphs (d) and (e) to read as follows:

§ 58.26 Annual State Air Monitoring Report.

* * * * *

(b) The SLAMS annual data summary report must contain:

* * * * *

(d) For PM—

(1) The State shall submit a summary to the appropriate Regional Office (for SLAMS) or Administrator (through the Regional Office) (for NAMS) which details proposed changes to the PM Monitoring Plan and to be in accordance with the annual network review requirements § 58.25. This shall discuss the existing PM networks, including modifications to the number, size or boundaries of monitoring planning areas and spatial averaging zones; number and location of PM SLAMS; number or location of core $PM_{2.5}$ SLAMS; alternative sampling frequencies proposed for $PM_{2.5}$ SLAMS (including core $PM_{2.5}$ SLAMS and $PM_{2.5}$ NAMS), core $PM_{2.5}$ SLAMS to be designated $PM_{2.5}$ NAMS; and PM SLAMS to be designated PM NAMS.

(2) the State shall submit an annual summary to the appropriate Regional Office of all the ambient air quality monitoring PM data from all special purpose monitors which are described in the States monitoring plan and are intended for SIP purposes. These include those population oriented SPMs which are eligible for comparison to the PM NAAQS. The State shall certify the data in accordance with paragraph (c) of this section.

(e) The Annual State Air Monitoring Report shall be submitted to the Regional Administrator by July 1 or by alternative annual date to be negotiated between the State and Regional Administrator. The Region shall provide review and approval/disapproval within 45 days. After the first 3 years following effective promulgation of the $PM_{2.5}$ NAAQS or once a SAZ has been determined to violate the NAAQS, then changes to an MPA shall require public review and notification.

§ 58.30 NAMS network establishment.

10. In § 58.30, paragraph (a) introductory text is revised to read as follows:

(a) By January 1, 1980, with the exception of PM_{10} samplers, which shall be by 6 months after the effective date of the final rule, and $PM_{2.5}$, which shall be by 3 years after the effective date of promulgation, the State shall:

* * * * *

11. In § 58.31, paragraph (f) is revised to read as follows:

§ 58.31 NAMS network description.

* * * * *

(f) The monitoring objective, spatial scale of representativeness, and for $PM_{2.5}$, the monitoring planning area, spatial averaging zone, and the site code designation to identify which site will be used to determine violations of the appropriate NAAQS (annual or 24-hour), as defined in appendix D to this part.

* * * * *

12. In § 58.34, the introductory text is revised to read as follows:

§ 58.34 NAMS network completion.

By January 1, 1981, with the exception of PM_{10} samplers, which shall be by 6 months after the effective date of final rule, and $PM_{2.5}$, which shall be by 3 years after the effective date of final rule:

* * * * *

13. In § 58.35, the first sentence of paragraph (b) is revised to read as follows:

§ 58.35 NAMS data submittal.

* * * * *

(b) The State shall report to the Administrator all ambient air quality data for SO_2, CO, O_3, NO_2, Pb, PM_{10}, and $PM_{2.5}$, and information specified by the AIRS Users Guide (Volume II, Air Quality Data Coding, and Volume III, Air Quality Data Storage) to be coded into the AIRS–AQS format.

* * * * *

14. Revise Appendix A of part 58 to read as follows:

Appendix A to Part 58—Quality Assurance Requirements for State and Local Air Monitoring Stations (SLAMS)

1. General Information.

1.1 This appendix specifies the minimum quality assurance/quality control requirements applicable to SLAMS air monitoring data submitted to EPA. State and local agencies are encouraged to develop and maintain quality assurance programs more extensive than the required minimum.

1.2 To assure the quality of data from air monitoring measurements, two distinct and important interrelated functions must be performed. One function is the control of the measurement process through broad quality assurance activities, such as establishing policies and procedures, assigning roles and responsibilities, conducting oversight and reviews, and implementing corrective actions. The other function is the control of the measurement process through the implementation of specific quality control procedures, such as calibrations, checks, replicates, routine self-assessments, etc. In general, the greater the control of a given monitoring system, the better will be the resulting quality of the monitoring data. The results of quality assurance reviews and assessments indicate whether the control efforts are adequate or need to be improved.

1.3 Documentation of all quality assurance and quality control efforts implemented during the data collection, analysis, and reporting phases is important to data users, who can then consider the impact of these control efforts on the data quality (see Reference 1 of this appendix). Both qualitative and quantitative assessments of the effectiveness of these control efforts should identify those areas most likely to impact the data quality and to what extent.

1.4 Periodic assessments of SLAMS data quality are required to be reported to EPA. To provide national uniformity in this assessment and reporting of data quality for all SLAMS networks, specific assessment and reporting procedures are prescribed in detail in sections 3, 4, and 5 of this appendix. On the other hand, the selection and extent of the quality assurance and quality control

activities used by a monitoring agency depend on a number of local factors such as the field and laboratory conditions, the objectives of the monitoring, the level of the data quality needed, the expertise of assigned personnel, the cost of control procedures, pollutant concentration levels, etc. Therefore, the quality system requirements, in section 2 of this appendix, are specified in general terms to allow each State to develop a quality assurance program that is most efficient and effective for its own circumstances.

2. Quality System Requirements

2.1 Each State and local agency must develop and implement a quality assurance program consisting of policies, procedures, specifications, standards, and documentation necessary to:

(1) Provide data of adequate quality to meet monitoring objectives, and

(2) Minimize loss of air quality data due to malfunctions or out-of-control conditions. This quality assurance program must be described in detail, suitably documented, and approved by the appropriate Regional Administrator, or the Administrator's designee. The Quality Assurance Program will be reviewed during the systems audits described in section 2.5 of the appendix.

2.2 Primary guidance for developing the quality assurance program is contained in References 2–7 of this appendix, which also contain many suggested procedures, checks, and control specifications. Reference 7 of this appendix describes specific guidance for the development of a Quality Assurance Program for SLAMS. Many specific quality control checks and specifications for manual methods are included in the respective reference methods described in part 50 of this chapter or in the respective manual equivalent method descriptions available from EPA (see Reference 8 of this appendix). Similarly, quality control procedures related to specifically designated reference and equivalent method analyzers are contained in the respective operation or instruction manuals associated with those analyzers. Quality assurance guidance for meteorological systems at PAMS is contained in Reference 9. Quality assurance procedures for VOC, NOx (including NO and NO_2), O_3, and carbonyl measurements at PAMS must be consistent with EPA guidance. Quality assurance and control programs must follow the requirements established by ANSI E–4 (Reference 2 of this appendix) and must undergo systems audits demonstrating attainment of the requirements. This guidance, and any other pertinent information from appropriate sources, should be used by the agencies in developing their quality assurance programs. As a minimum, each quality assurance program must include operational procedures for each of the following activities:

(1) Selection of methods, analyzers, or samplers;

(2) Training;

(3) Installation of equipment;

(4) Selection and control of calibration standards;

(5) Calibration;

(6) Zero/span checks and adjustments of automated analyzers;

(7) Control checks and their frequency;

(8) Control limits for zero, span and other control checks, and respective corrective actions when such limits are surpassed;

(9) Calibration and zero/span checks for multiple range analyzers (see section 2.6 of Appendix C of this part);

(10) Preventive and remedial maintenance;

(11) Quality control procedures for air pollution episode monitoring;

(12) Recording and validating data;

(13) Data quality assessment (precision and accuracy);

(14) Documentation of quality assurance and quality control information; and

(15) Control of pertinent documents and records in print and electronic forms.

2.3 Pollutant Concentration and Flow Rate Standards.

2.3.1 Gaseous pollutant concentration standards (permeation devices or cylinders of compressed gas) used to obtain test concentrations for CO, SO_2, NO, and NO_2 must be traceable to either a National Institute of Standards and Technology (NIST) NIST-Traceable Reference Material (NTRM) or a NIST-certified Gas Manufacturer's Internal Standard (GMIS), certified in accordance with one of the procedures given in Reference 10.

2.3.2 Test concentrations for O_3 must be obtained in accordance with the UV photometric calibration procedure specified in appendix D of part 50 of this chapter, or by means of a certified ozone transfer standard. Consult References 11 and 12 for guidance on primary and transfer standards for O_3.

2.3.3 Flow rate measurements must be made by a flow measuring instrument that is traceable to an authoritative volume or other applicable standard. Guidance for certifying some types of flowmeters is provided in Reference 7.

2.4 National Performance Audit Program. Agencies operating SLAMS are required to participate in EPA's National Performance Audit Program. These audits are described in sections 2.0.10 and 2.0.11 of Reference 7. For further instructions, agencies should contact either the appropriate EPA Regional Quality Assurance Coordinator or the National Performance Audit Program Coordinator, Quality Assurance Branch (MD–77B), National Exposure Research Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711.

2.5 Systems Audit Programs. Systems audits of the ambient air monitoring programs of agencies operating SLAMS shall be conducted at least every three years by the appropriate EPA Regional Office. Quality assurance and control programs must follow the requirements established by ANSI E–4 (Reference 2 of this appendix) and described in Reference 7. For further instructions, agencies should contact either the appropriate EPA Regional Quality Assurance Coordinator or the Systems Audit Quality Assurance Coordinator, Office of Air Quality Planning and Standards, Emissions Monitoring and Analysis Division (MD–14), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711.

3. Data Quality Assessment Requirements.

3.0.1 All ambient monitoring methods or analyzers used in SLAMS shall be tested periodically, as described in this section, to quantitatively assess the quality of the SLAMS data being routinely produced. Measurement accuracy and precision are estimated for both automated and manual methods. The individual results of these tests for each method or analyzer shall be reported to EPA as specified in section 4. EPA will then calculate quarterly integrated estimates of precision and accuracy applicable to the SLAMS data as described in section 5 of this appendix. Data assessment results should be reported to EPA only for methods and analyzers approved for use in SLAMS monitoring under appendix C of this part.

3.0.2 The integrated estimates of the data quality will be calculated on the basis of ''reporting organizations'' and may also be calculated for each region and for the entire nation. These estimates will primarily pool all methods for each pollutant, but estimates may also be made for specific instrument types identified by EPA method code, which is uniquely related to each reference and equivalent method designated by the EPA under part 53 of this chapter. A ''reporting organization'' is defined as a State, subordinate organization within a State, or other organization that is responsible for a set of stations that monitors the same pollutant and for which precision or accuracy assessments can be pooled. States must define one or more reporting organizations for each pollutant such that each monitoring station in the State SLAMS network is included in one, and only one, reporting organization.

3.0.3 Each reporting organization shall be defined such that precision or accuracy among all stations in the organization can be expected to be reasonably homogeneous, as a result of common factors. Common factors that should be considered by States in defining reporting organizations include:

(1) Operation by a common team of field operators;

(2) Common calibration facilities; and

(3) Support by a common laboratory or headquarters. Where there is uncertainty in defining the reporting organizations or in assigning specific sites to reporting organizations, States shall consult with the appropriate EPA Regional Office for guidance. All definitions of reporting organizations shall be subject to final approval by the appropriate EPA Regional Office.

3.0.4 Assessment results shall be reported as specified in section 4 of this Appendix. Concentration and flow rate standards must be as specified in sections 2.3 or 3.4 of this Appendix. In addition, working standards and equipment used for accuracy audits must not be the same standards and equipment used for routine calibrations. Additional information and guidance in the technical aspects of conducting these tests may be found in Reference 7 or in the operation or instruction manual associated with the analyzer or sampler. Concentration measurements reported from analyzers or analytical systems (indicated concentrations) should be based on stable readings and must

be derived by means of the same calibration curve and data processing system used to obtain the routine air monitoring data (see Reference 1 and Reference 7 of this Appendix). Table A–1 of this Appendix provides a summary of the minimum data quality assessment requirements, which are described in more detail in the following sections.

3.1 Precision of Automated Methods.

3.1.1 Methods for SO_2, NO_2, O_3 and CO. A one-point precision check must be performed at least once every two weeks on each automated analyzer used to measure SO_2, NO_2, O_3 and CO. The precision check is made by challenging the analyzer with a precision check gas of known concentration (effective concentration for open path analyzers) between 0.08 and 0.10 ppm for SO_2, NO_2, and O_3 analyzers, and between 8 and 10 ppm for CO analyzers. To check the precision of SLAMS analyzers operating on ranges higher than 0 to 1.0 ppm SO_2, NO_2, and O_3, or 0 to 100 ppm for CO, use precision check gases of appropriately higher concentration as approved by the appropriate Regional Administrator or the Regional Administrator's designee. However, the results of precision checks at concentration levels other than those specified above need not be reported to EPA. The standards from which precision check test concentrations are obtained must meet the specifications of section 2.3 of this Appendix.

3.1.1.1 Except for certain CO analyzers described below, point analyzers must operate in their normal sampling mode during the precision check, and the test atmosphere must pass through all filters, scrubbers, conditioners and other components used during normal ambient sampling and as much of the ambient air inlet system as is practicable. If permitted by the associated operation or instruction manual, a CO point analyzer may be temporarily modified during the precision check to reduce vent or purge flows, or the test atmosphere may enter the analyzer at a point other than the normal sample inlet, provided that the analyzer's response is not likely to be altered by these deviations from the normal operational mode. If a precision check is made in conjunction with a zero or span adjustment, it must be made prior to such zero or span adjustments. Randomization of the precision check with respect to time of day, day of week, and routine service and adjustments is encouraged where possible.

3.1.1.2 Open path analyzers are tested by inserting a test cell containing a precision check gas concentration into the optical measurement beam of the instrument. If possible, the normally used transmitter, receiver, and as appropriate, reflecting devices should be used during the test, and the normal monitoring configuration of the instrument should be altered as little as possible to accommodate the test cell for the test. However, if permitted by the associated operation or instruction manual, an alternate local light source or an alternate optical path that does not include the normal atmospheric monitoring path may be used. The actual concentration of the precision check gas in the test cell must be selected to produce an ''effective concentration'' in the range specified above. Generally, the precision test concentration measurement will be the sum of the atmospheric pollutant concentration and the precision test concentration. If so, the result must be corrected to remove the atmospheric concentration contribution. The ''corrected concentration'' is obtained by subtracting the average of the atmospheric concentrations measured by the open path instrument under test immediately before and immediately after the precision check test from the precision test concentration measurement. If the difference between these before and after measurements is greater than 20 percent of the effective concentration of the test gas, discard the test result and repeat the test. If possible, open path analyzers should be tested during periods when the atmospheric pollutant concentrations are relatively low and steady.

3.1.1.3 Report the actual concentration (effective concentration for open path analyzers) of the precision check gas and the corresponding concentration measurement (corrected concentration, if applicable, for open path analyzers) indicated by the analyzer. The percent differences between these concentrations are used to assess the precision of the monitoring data as described in section 5.1.

3.1.2 Methods for particulate matter. A one-point precision check must be performed at least once every two weeks on each automated analyzer used to measure PM_{10} and $PM_{2.5}$. The precision check is made by checking the operational flow rate of the analyzer. If a precision flow rate check is made in conjunction with a flow rate adjustment, it must be made prior to such flow rate adjustment. Randomization of the precision check with respect to time of day, day of week, and routine service and adjustments is encouraged where possible.

3.1.2.1 Standard procedure: Use a flow rate transfer standard certified in accordance with section 2.3.3 to check the analyzer's normal flow rate. Care should be used in selecting and using the flow rate measurement device such that it does not alter the normal operating flow rate of the analyzer. Report the actual analyzer flow rate measured by the transfer standard and the corresponding flow rate measured, indicated, or assumed by the analyzer.

3.1.2.2 Alternative procedure:

3.1.2.2.1 It is permissible to obtain the precision check flow rate data from the analyzer's internal flow meter without the use of an external flow rate transfer standard, provided that—

3.1.2.2.1.1 the flow meter is audited with an external flow rate transfer standard at least every 6 months;

3.1.2.2.1.2 records of at least the 3 most recent flow audits of the instrument's internal flow meter over at least several weeks confirm that the flow meter is stable, verifiable and accurate to ±4%; and

3.1.2.2.1.3 the instrument and flow meter give no indication of improper operation.

3.1.2.2.2 With suitable communication capability, the precision check may thus be carried out remotely. For this procedure, report the *set-point flow rate* as the ''actual flow rate'' along with the flow rate measured or indicated by the analyzer flow meter.

3.1.2.2.3 For either procedure, the percent differences between the actual and indicted flow rates are used to assess the precision of the monitoring data as described in section 5.1 of this Appendix A (using flow rates in lieu of concentrations). The percent differences between these concentrations are used to assess the precision of the monitoring data as described in section 5.1.

3.2 Accuracy of Automated Methods.

3.2.1 Methods for SO_2, NO_2, O_3, or CO.

3.2.1.1 Each calendar quarter (during which analyzers are operated), audit at least 25 percent of the SLAMS analyzers that monitor for SO_2, NO_2, O_3, or CO such that each analyzer is audited at least once per year. If there are fewer than four analyzers for a pollutant within a reporting organization, randomly reaudit one or more analyzers so that at least one analyzer for that pollutant is audited each calendar quarter. Where possible, EPA strongly encourages more frequent auditing, up to an audit frequency of once per quarter for each SLAMS analyzer.

3.2.1.2 The audit is made by challenging the analyzer with at least one audit gas of known concentration (effective concentration for open path analyzers) from each of the following ranges applicable to the analyzer being audited:

Audit level	Concentration range, ppm		
	SO_2, O_3	NO_2	CO
1	0.03–0.08	0.03–0.08	3–8
2	0.15–0.20	0.15–0.20	15–20
3	0.35–0.45	0.35–0.45	35–45
4	0.80–0.90	.....	80–90

NO_2 audit gas for chemiluminescence-type NO_2 analyzers must also contain at least 0.08 ppm NO.

3.2.1.3 NO concentrations substantially higher than 0.08 ppm, as may occur when using some gas phase titration (GPT) techniques, may lead to audit errors in chemiluminescence analyzers due to inevitable minor NO–NO_X channel imbalance. Such errors may be atypical of routine monitoring errors to the extent that such NO concentrations exceed typical ambient NO concentrations at the site. These errors may be minimized by modifying the GPT technique to lower the NO concentrations remaining in the NO_2 audit gas to levels closer to typical ambient NO concentrations at the site.

3.2.1.4 To audit SLAMS analyzers operating on ranges higher than 0 to 1.0 ppm for SO_2, NO_2, and O_3 or 0 to 100 ppm for CO, use audit gases of appropriately higher concentration as approved by the appropriate Regional Administrator or the Administrators's designee. The results of audits at concentration levels other than those shown in the above table need not be reported to EPA.

3.2.1.5 The standards from which audit gas test concentrations are obtained must meet the specifications of section 2.3. The gas standards and equipment used for auditing must not be the same as the standards and equipment used for calibration or calibration span adjustments. The auditor should not be the operator or analyst who conducts the routine monitoring, calibration, and analysis.

3.2.1.6 For point analyzers, the audit shall be carried out by allowing the analyzer to analyze the audit test atmosphere in its normal sampling mode such that the test atmosphere passes through all filters, scrubbers, conditioners, and other sample inlet components used during normal ambient sampling and as much of the ambient air inlet system as is practicable. The exception provided in section 3.1 for certain CO analyzers does not apply for audits.

3.2.1.7 Open path analyzers are audited by inserting a test cell containing the various audit gas concentrations into the optical measurement beam of the instrument. If possible, the normally used transmitter, receiver, and, as appropriate, reflecting devices should be used during the audit, and the normal monitoring configuration of the instrument should be modified as little as possible to accommodate the test cell for the audit. However, if permitted by the associated operation or instruction manual, an alternate local light source or an alternate optical path that does not include the normal atmospheric monitoring path may be used. The actual concentrations of the audit gas in the test cell must be selected to produce ''effective concentrations'' in the ranges specified in this section 3.2. Generally, each audit concentration measurement result will be the sum of the atmospheric pollutant concentration and the audit test concentration. If so, the result must be corrected to remove the atmospheric concentration contribution. The ''corrected concentration'' is obtained by subtracting the average of the atmospheric concentrations measured by the open path instrument under test immediately before and immediately after the audit test (or preferably before and after each audit concentration level) from the audit concentration measurement. If the difference between the before and after measurements is greater than 20 percent of the effective concentration of the test gas standard, discard the test result for that concentration level and repeat the test for that level. If possible, open path analyzers should be audited during periods when the atmospheric pollutant concentrations are relatively low and steady. Also, the monitoring path length must be reverified to within ±3 percent to validate the audit, since the monitoring path length is critical to the determination of the effective concentration.

3.2.1.8 Report both the actual concentrations (effective concentrations for open path analyzers) of the audit gases and the corresponding concentration measurements (corrected concentrations, if applicable, for open path analyzers) indicated or produced by the analyzer being tested. The percent differences between these concentrations are used to assess the accuracy of the monitoring data as described in section 5.2.

3.2.2 Methods for particulate matter.

3.2.2.1 Each calendar quarter, audit the flow rate of each SLAMS $PM_{2.5}$ analyzer and at least 25 percent of the SLAMS PM_{10} analyzers such that each PM_{10} analyzer is audited at least once per year. If there are fewer than four PM10 analyzers within a reporting organization, randomly re-audit one or more analyzers so that at least one analyzer is audited each calendar quarter. Where possible, EPA strongly encourages more frequent auditing, up to an audit frequency of once per quarter for each SLAMS analyzer.

3.2.2.2 The audit is made by measuring the analyzer's normal operating flow rate, using a flow rate transfer standard certified in accordance with section 2.3.3. The flow rate standard used for auditing must not be the same flow rate standard used to calibrate the analyzer. However, both the calibration standard and the audit standard may be referenced to the same primary flow rate or volume standard. Great care must be used in auditing the flow rate to be certain that the flow measurement device does not alter the normal operating flow rate of the analyzer. Report the audit (actual) flow rate and the corresponding flow rate indicated or assumed by the sampler. The percent differences between these flow rates are used to calculate accuracy as described in section 5.4.1.

3.3 *Precision of Manual Methods.*

3.3.1 For each network of manual methods other than for $PM_{2.5}$, select one or more monitoring sites within the reporting organization for duplicate, collocated sampling as follows: for 1 to 5 sites, select 1 site; for 6 to 20 sites, select 2 sites; and for over 20 sites, select 3 sites. For each network of manual methods for $PM_{2.5}$, select one or more monitoring sites within the reporting organization for duplicate, collocated sampling as follows: for 1 to 10 sites, select 1 site; for 11 to 20 sites, select 2 sites; and for over 20 sites, select 3 sites. Where possible, additional collocated sampling is encouraged. For purposes of precision assessment, networks for measuring TSP, PM_{10}, and $PM_{2.5}$ shall be considered separately from one another. Sites having annual mean particulate matter concentrations among the highest 25 percent of the annual mean concentrations for all the sites in the network must be selected or, if such sites are impractical, alternative sites approved by the Regional Administrator may be selected.

3.3.2 In determining the number of collocated sites required for PM_{10}, monitoring networks for lead should be treated independently from networks for particulate matter, even though the separate networks may share one or more common samplers. However, a single pair of samplers collocated at a common-sampler monitoring site that meets the requirements for both a collocated lead site and a collocated particulate matter site may serve as a collocated site for both networks.

3.3.3 In determining the number of collocated sites required for $PM_{2.5}$, monitoring networks for visibility should not be treated independently from networks for particulate matter, as the separate networks may share one or more common samplers. However, for class I visibility areas, EPA will accept visibility aerosol mass measurement in lieu of a $PM_{2.5}$ measurement if the latter measurement is unavailable.

3.3.4 The two collocated samplers must be within 4 meters of each other, and particulate matter samplers must be at least 2 meters apart to preclude airflow interference. Calibration, sampling, and analysis must be the same for both collocated samplers and the same as for all other samplers in the network.

3.3.5 For each pair of collocated samplers, designate one sampler as the primary sampler whose samples will be used to report air quality for the site, and designate the other as the duplicate sampler. The paired samplers must each have the same designation number. Each duplicate sampler must be operated concurrently with its associated routine sampler at least once per week. The operation schedule should be selected so that the sampling days are distributed evenly over the year and over the seven days of the week. The every-6-day schedule used by many monitoring agencies is recommended. Report the measurements from both samplers at each collocated sampling site, including measurements falling below the limits specified in 5.3.1. The percent differences in measured concentration ($\mu g/m^3$) between the two collocated samplers are used to calculate precision as described in section 5.3.

3.4 *Accuracy of Manual Methods.* The accuracy of manual sampling methods is assessed by auditing a portion of the measurement process. For particulate matter methods, the flow rate during sample collection is audited. For SO_2 and NO_2 methods, the analytical measurement is audited. For Pb methods, the flow rate and analytical measurement are audited.

3.4.1 Methods for $PM_{2.5}$ and PM_{10}.

3.4.1.1 Each calendar quarter, audit the flow rate of each $PM_{2.5}$ sampler and audit at least 25 percent of the PM_{10} samplers such

that each PM_{10} sampler is audited at least once per year. If there are fewer than four PM_{10} samplers within a reporting organization, randomly reaudit one or more samplers so that one sampler is audited each calendar quarter. Audit each sampler at its normal operating flow rate, using a flow rate transfer standard certified in accordance with section 2.3.3. The flow rate standard used for auditing must not be the same flow rate standard used to calibrate the sampler. However, both the calibration standard and the audit standard may be referenced to the same primary flow rate standard. The flow audit should be scheduled so as to avoid interference with a scheduled sampling period. Report the audit (actual) flow rate and the corresponding flow rate indicated by the sampler's normally used flow indicator. The percent differences between these flow rates are used to calculate accuracy as described in section 5.4.1.

3.4.1.2 Great care must be used in auditing high-volume particulate matter samplers having flow regulators because the introduction of resistance plates in the audit flow standard device can cause abnormal flow patterns at the point of flow sensing. For this reason, the flow audit standard should be used with a normal filter in place and without resistance plates in auditing flow-regulated high-volume samplers, or other steps should be taken to assure that flow patterns are not perturbed at the point of flow sensing.

3.4.2 SO_2 Methods.

3.4.2.1 Prepare audit solutions from a working sulfite-tetrachloromercurate (TCM) solution as described in section 10.2 of the SO_2 Reference Method (appendix A of part 50 of this chapter). These audit samples must be prepared independently from the standardized sulfite solutions used in the routine calibration procedure. Sulfite-TCM audit samples must be stored between 0 and 5 °C and expire 30 days after preparation.

3.4.2.2 Prepare audit samples in each of the concentration ranges of 0.2–0.3, 0.5–0.6, and 0.8–0.9 µg SO_2/ml. Analyze an audit sample in each of the three ranges at least once each day that samples are analyzed and at least twice per calendar quarter. Report the audit concentrations (in µg SO_2/ml) and the corresponding indicated concentrations (in µg SO_2/ml). The percent differences between these concentrations are used to calculate accuracy as described in section 5.4.2.

3.4.3 NO_2 Methods. Prepare audit solutions from a working sodium nitrite solution as described in the appropriate equivalent method (see Reference 8). These audit samples must be prepared independently from the standardized nitrite solutions used in the routine calibration procedure. Sodium nitrite audit samples expire in 3 months after preparation. Prepare audit samples in each of the concentration ranges of 0.2–0.3, 0.5–0.6, and 0.8–0.9 µg NO_2/ml. Analyze an audit sample in each of the three ranges at least once each day that samples are analyzed and at least twice per calendar quarter. Report the audit concentrations (in µg NO_2/ml) and the corresponding indicated concentrations (in µg NO_2/ml). The percent differences between these concentrations are used to calculate accuracy as described in section 5.4.2.

3.4.4 Pb Methods.

3.4.4.1 For the Pb Reference Method (appendix G of part 50 of this chapter), the flow rates of the high-volume Pb samplers shall be audited as part of the TSP network using the same procedures described in Section 3.4.1. For agencies operating both TSP and Pb networks, 25 percent of the total number of high-volume samplers are to be audited each quarter.

3.4.4.2 Each calendar quarter, audit the Pb Reference Method analytical procedure using glass fiber filter strips containing a known quantity of Pb. These audit sample strips are prepared by depositing a Pb solution on unexposed glass fiber filter strips of dimensions 1.9 cm by 20.3 cm (¾ inch by 8 inch) and allowing them to dry thoroughly. The audit samples must be prepared using batches of reagents different from those used to calibrate the Pb analytical equipment being audited. Prepare audit samples in the following concentration ranges:

Range	Pb concentration, µg/strip	Equivalent ambient Pb concentration, µg/m³ [1]
1	100–300	0.5–1.5
2	600–1000	3.0–5.0

[1] Equivalent ambient Pb concentration in µg/m³ is based on sampling at 1.7 m³/min for 24 hours on a 20.3 cm×25.4 cm (8 inch×10 inch) glass fiber filter.

3.4.4.3 Audit samples must be extracted using the same extraction procedure used for exposed filters.

3.4.4.4 Analyze three audit samples in each of the two ranges each quarter samples are analyzed. The audit sample analyses shall be distributed as much as possible over the entire calendar quarter. Report the audit concentrations (in µg Pb/strip) and the corresponding measured concentrations (in µg Pb/strip) using unit code 77. The percent differences between the concentrations are used to calculate analytical accuracy as described in section 5.4.2.

3.4.4.5 The accuracy of an equivalent Pb method is assessed in the same manner as for the reference method. The flow auditing device and Pb analysis audit samples must be compatible with the specific requirements of the equivalent method.

4. Reporting Requirements

For each pollutant, prepare a list of all monitoring sites and their AIRS site identification codes in each reporting organization and submit the list to the appropriate EPA Regional Office, with a copy to AIRS–AQS. Whenever there is a change in this list of monitoring sites in a reporting organization, report this change to the Regional Office and to AIRS–AQS.

4.1 Quarterly Reports. For each quarter, each reporting organization shall report to AIRS–AQS directly (or via the appropriate EPA Regional Office for organizations not direct users of AIRS) the results of all valid precision and accuracy tests it has carried out during the quarter. The quarterly reports of precision and accuracy data must be submitted consistent with the data reporting requirements specified for air quality data as set forth in § 58.35(c). Each organization shall report all collocated measurements including those falling below the levels specified in section 5.3.1. Report results from invalid tests, from tests carried out during a time period for which ambient data immediately prior or subsequent to the tests were invalidated for appropriate reasons, and from tests of methods or analyzers not approved for use in SLAMS monitoring networks under Appendix C of this part. Such data should be flagged so that it will not be utilized for quantitative assessment of precision and accuracy.

4.2 Annual Reports.

4.2.1 When precision and accuracy estimates for a reporting organization have been calculated for all four quarters of the calendar year, EPA will calculate the properly weighted probability limits for precision and accuracy for the entire calendar year. These limits will then be associated with the data submitted in the annual SLAMS report required by § 58.26.

4.2.2 Each reporting organization shall submit, along with its annual SLAMS report, a listing by pollutant of all monitoring sites in the reporting organization.

5. Calculations for Data Quality Assessment

Calculation of estimates of integrated precision and accuracy are carried out by EPA according to the following procedures. Reporting organizations should report the results of individual precision and accuracy tests as specified in sections 3 and 4 of this appendix even though they may elect to perform some or all of the calculations in this section on their own.

5.1 Precision of Automated Methods. Estimates of the precision of automated methods are calculated from the results of biweekly precision checks as specified in section 3.1. At the end of each calendar quarter, an integrated precision probability interval for all SLAMS analyzers in the organization is calculated for each pollutant.

5.1.1 Single Analyzer Precision.

5.1.1.1 The percent difference (d_i) for each precision check is calculated using equation 1, where Y_i is the concentration indicated by the analyzer for the I-th precision check and X_i is the known concentration for the I-th precision check.

$$d_i = \frac{Y_i - X_i}{X_i} \times 100 \quad (1)$$

5.1.1.2 For each analyzer, the quarterly average (d_j) is calculated with equation 2, and the standard deviation (S_j) with equation 3, where n is the number of precision checks on the instrument made during the calendar quarter. For example, n should be 6 or 7 if precision checks are made biweekly during a quarter.

$$d_j = \frac{1}{n} \sum_{i=1}^{n} d_i \quad (2)$$

$$S_j = \sqrt{\frac{1}{n-1}\left[\sum_{i=1}^{n} d_i^2 - \frac{1}{n}\left(\sum_{i=1}^{n} d_i\right)^2\right]} \quad (3)$$

5.1.2 Precision for Reporting Organization.

5.1.2.1 For each pollutant, the average of averages (D) and the pooled standard deviation (S_a) are calculated for all analyzers audited for the pollutant during the quarter, using either equations 4 and 5 or 4a and 5a, where k is the number of analyzers audited within the reporting organization for a single pollutant.

$$D = \frac{1}{k}\sum_{j=1}^{k} d_j \quad (4)$$

$$D = \frac{n_1 d_1 + n_2 d_2 + \ldots + n_j d_j + \ldots + n_k d_k}{n_1 + n_2 + \ldots + n_j + \ldots + n_k} \quad (4a)$$

$$S_a = \sqrt{\frac{1}{k}\sum_{j=1}^{k} S_j^2} \quad (5)$$

$$S_a = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2 + \ldots + (n_j - 1)S_j^2 + \ldots + (n_k - 1)S_k^2}{n_1 + n_2 + \ldots + n_j + \ldots + n_k - k}} \quad (5a)$$

5.1.2.2 Equations 4 and 5 are used when the same number of precision checks are made for each analyzer. Equations 4a and 5a are used to obtain a weighted average and a weighted standard deviation when different numbers of precision checks are made for the analyzers.

5.1.2.3 For each pollutant, the 95 Percent Probability Limits for the precision of a reporting organization are calculated using equations 6 and 7.

Upper 95 Percent Probability

Limit=D+1.96 S_a (6)

Lower 95 Percent Probability

Limit=D−1.96 S_a (7)

5.2 Accuracy of Automated Methods. Estimates of the accuracy of automated methods are calculated from the results of independent audits as described in section 3.2. At the end of each calendar quarter, an integrated accuracy probability interval for all SLAMS analyzers audited in the reporting organization is calculated for each pollutant. Separate probability limits are calculated for each audit concentration level in section 3.2.

5.2.1 Single Analyzer Accuracy. The percentage difference (d_i) for each audit concentration is calculated using equation 1, where Y_i is the analyzer's indicated concentration measurement from the I-th audit check and X_i is the actual concentration of the audit gas used for the I-th audit check.

5.2.2 Accuracy for Reporting Organization.

5.2.2.1 For each audit concentration level of a particular pollutant, the average (D) of the individual percentage differences (d_i) for all n analyzers audited during the quarter is calculated using equation 8.

$$D = \frac{1}{n}\sum_{i=1}^{n} d_i \quad (8)$$

5.2.2.2 For each concentration level of a particular pollutant, the standard deviation (S_a) of all the individual percentage differences for all n analyzers audited during the quarter is calculated, using equation 9.

$$S_a = \sqrt{\frac{1}{n-1}\left[\sum_{i=1}^{n} d_i^2 - \frac{1}{n}\left(\sum_{i=1}^{n} d_i\right)^2\right]} \quad (9)$$

5.2.2.3 For reporting organizations having four or fewer analyzers for a particular pollutant, only one audit is required each quarter. For such reporting organizations, the audit results of two consecutive quarters are required to calculate an average and a standard deviation, using equations 8 and 9. Therefore, the reporting of probability limits shall be on a semiannual (instead of a quarterly) basis.

5.2.2.4 For each pollutant, the 95 Percent Probability Limits for the accuracy of a reporting organization are calculated at each audit concentration level using equations 6 and 7.

5.3 Precision of Manual Methods. Estimates of precision of manual methods are calculated from the results obtained from collocated samplers as described in section 3.3. At the end of each calendar quarter, an integrated precision probability interval for all collocated samplers operating in the reporting organization is calculated for each manual method network.

5.3.1 Single Sampler Precision.

5.3.1.1 At low concentrations, agreement between the measurements of collocated samplers, expressed as percent differences, may be relatively poor. For this reason, collocated measurement pairs are selected for use in the precision calculations only when both measurements are above the following limits:

TSP: 20 μg/m³;
SO_2: 45 μg/m³;
NO_2: 30 μg/m³;
Pb: 0.15 μg/m³;
PM_{10}: 20 μg/m³; and
$PM_{2.5}$: 6 μg/m³.

5.3.1.2 For each selected measurement pair, the percent difference (d_i) is calculated, using equation 10,

$$d_i = \frac{Y_i - X_i}{(Y_i + X_i)/2} \times 100 \quad (10)$$

where Y_i is the pollutant concentration measurement obtained from the duplicate sampler and X_i is the concentration measurement obtained from the primary sampler designated for reporting air quality for the site. For each site, the quarterly average percent difference (d_j) is calculated from equation 2 and the standard deviation (S_j) is calculated from equation 3, where n=the number of selected measurement pairs at the site.

5.3.2 Precision for Reporting Organization.

5.3.2.1 For each pollutant, the average percentage difference (D) and the pooled standard deviation (S_a) are calculated, using equations 4 and 5, or using equations 4a and 5a if different numbers of paired measurements are obtained at the collocated sites. For these calculations, the k of equations 4, 4a, 5 and 5a is the number of collocated sites.

5.3.2.2 The 95 Percent Probability Limits for the integrated precision for a reporting organization are calculated using equations 11 and 12.

Upper 95 Percent Probability

$$\text{Limit}=D + 1.96\ S_a/\sqrt{2} \quad (11)$$

Lower 95 Percent Probability

$$\text{Limit}=D \pm 1.96\ S_a/\sqrt{2} \quad (12)$$

5.4 Accuracy of Manual Methods. Estimates of the accuracy of manual methods are calculated from the results of independent audits as described in section 3.4. At the end of each calendar quarter, an integrated accuracy probability interval is calculated for each manual method network operated by the reporting organization.

5.4.1 Particulate Matter Samplers other than $PM_{2.5}$ (including reference method Pb samplers).

5.4.1.1 Single Sampler Accuracy. For the flow rate audit described in Section 3.4.1, the percentage difference (d_i) for each audit is calculated using equation 1, where X_i represents the known flow rate and Y_i represents the flow rate indicated by the sampler.

5.4.1.2 Accuracy for Reporting Organization. For each type of particulate matter measured (e.g., TSP/Pb), the average (D) of the individual percent differences for all similar particulate matter samplers audited during the calendar quarter is calculated using equation 8. The standard deviation (S_a) of the percentage differences for all of the similar particulate matter samplers audited during the calendar quarter is calculated using equation 9. The 95 percent probability limits for the integrated accuracy for the reporting organization are calculated using equations 6 and 7. For reporting organizations having four or fewer particulate matter samplers of one type, only one audit is required each quarter, and the audit results of two consecutive quarters are required to calculate an average and a standard deviation. In that case, probability limits shall be reported semi-annually rather than quarterly.

5.4.2 Analytical Methods for SO_2, NO_2, and Pb.

5.4.2.1 Single Analysis-Day Accuracy. For each of the audits of the analytical methods for SO_2, NO_2, and Pb described in sections 3.4.2, 3.4.3, and 3.4.4, the percentage difference (d_j) at each concentration level is calculated using equation 1, where X_j represents the known value of the audit sample and Y_j represents the value of SO_2, NO_2, or Pb indicated by the analytical method.

5.4.2.1 Accuracy for Reporting Organization. For each analytical method, the average (D) of the individual percent differences at each concentration level for all audits during the calendar quarter is calculated using equation 8. The standard deviation (S_a) of the percentage differences at each concentration level for all audits during the calendar quarter is calculated using equation 9. The 95 percent probability limits for the accuracy for the reporting organization are calculated using equations 6 and 7.

6.0 Annual Operational Evaluation of $PM_{2.5}$ Methods.

All $PM_{2.5}$ monitoring methods or analyzers used in SLAMS shall be evaluated annually, as described in this section, to quantitatively assess the quality of the SLAMS data being routinely produced. This evaluation is derived from the results of collocated $PM_{2.5}$ measurements made at each monitoring station at least 6 times per year and applies to both automated and manual methods. Individual samplers or monitors are screened for bias and excessive imprecision. Estimates of integrated measurement precision and accuracy, in the form of 95 percent probability limits, for each designated $PM_{2.5}$ method are determined for each reporting organization and on a national basis. Reporting organizations are defined as in section 3 of this Appendix. The results of the latter evaluation shall be used to review instrument and reporting organization performance. The absolute value of the 95 percent probability limits on a national basis for each designated method must be within 15 percent for the method to maintain its reference or equivalent method designation.

6.1 Operational field test audits. For each SLAMS $PM_{2.5}$ monitor, collocate a $PM_{2.5}$ reference method sampler, referred to as an ''audit sampler,'' and operate it simultaneously with the SLAMS monitor at least 6 times per year. These collocated audits are required even for SLAMS $PM_{2.5}$ monitors located at sites that have a collocated $PM_{2.5}$ monitor as required under section 3.3 of this appendix, unless the collocated monitor is a $PM_{2.5}$ reference method sampler and is a designated audit device as described in the Section 2.12 of the Quality Assurance Handbook (Reference 7). The collocated audit sampler shall be located between 2 and 4 meters from the SLAMS monitor, with its inlet at the same height above ground as the inlet of the SLAMS monitor. Calibration and operation of the audit sampler and analysis of the audit sample filter shall be as specified in the sampler's operation or instruction manual and in general accordance with the guidance provided in Section 2.12 of Reference 7. Calibration and operation of the SLAMS monitor shall be the same as for its routine SLAMS operation, and it shall not receive any special or non-scheduled service immediately prior to, or specifically associated with, the collocated sample collection. The 6 or more collocated $PM_{2.5}$ measurement pairs shall be obtained at approximately equal intervals over the year, such as every other month, and shall be reported to the EPA as set forth in Section 4 of this Appendix for other precision and accuracy test results. All collocated measurements shall be reported, even those which might be considered invalid because of identified malfunctions or other problems occurring during the sample collection period. Collocated measurements shall be reported to EPA only for methods and analyzers approved for use in SLAMS monitoring under part 58 of this chapter. The EPA will calculate annual evaluations from the reported test measurements, as described in sections 6.2 and 6.3.

6.2 Screening Test for Bias and Excessive Imprecision of Individual Monitors. This section describes a simple test, based on the

binomial distribution, that checks for gross bias or inadequate precision in the field operation of either the SLAMS monitor or the audit sampler. However, since the audit sampler is a reference method, the test results apply primarily to the SLAMS monitor. The test uses the collocated audit measurements described in section 6.1, and may be used with 4 to 12 measurement pairs.

6.2.1 (1) For the annual evaluation, the EPA will calculate the relative percent difference (RPD) for each measurement pair obtained for the year as:

$$RPD = 100 \times (C - C_{audit}) / [0.5 \times (C + C_{audit})] \quad (13)$$

where

C = the concentration measured by the SLAMS monitor, and

C_{audit} = the concentration measured by the audit sampler.

(2) All collocated measurements will be used for this test, even those which might be considered invalid because of identified malfunctions or other problems occurring during the sample collection period.

6.2.2 There are three situations that can develop from analyzing the collocated data:

Situation A: All the RPD's are within 15% in absolute value. For situation A, the SLAMS monitor shows no indication of bias or inadequate precision and therefore passes this screening test.

Situation B: Some or all of the RPD's are extreme in that they exceed 15% in absolute value, and the extreme RPD's all have the same sign (for example, −19, −21, −16). This may indicate a bias. For situation B, Table A–2 specifies the minimum number of extreme RPD's, all having the same sign, that indicates that the SLAMS monitor has a significant, unacceptable bias with respect to the audit reference method.

Situation C: Some or all of the RPD's are extreme in that they exceed 15% in absolute value, and the extreme RPD's do not all have the same sign (for example, −17, +19, −18). This may indicate unacceptable precision. For situation C, Table A–2 specifies the minimum number of extreme RPD's, all not having the same sign, that indicate that the SLAMS monitor has excessive imprecision with respect to the audit reference method.

6.2.3 If either bias (Situation B) or excessive imprecision (Situation C) is indicated by this screening test for a particular SLAMS monitor, the reporting organization will be notified by the EPA within 60 days after the end of the year that no monitors of the type (identified by its reference or equivalent method designation number) that failed the screening test shall be used for further SLAMS monitoring at any SLAMS site in the reporting organization unless and until the probable cause or causes of the test failure have been identified and corrected, the correction has been appropriately addressed in the applicable quality assurance plan, and the organization has received approval by the EPA Regional Office to resume use of monitors of the type identified for SLAMS purposes. General guidance in identifying and correcting common or typical types of such quality assurance problems for reference methods and Class I equivalent methods is provided in section 2.12 of Reference 7 of this appendix.

TABLE A–2.—TABLE FOR DETERMINING BIAS OR EXCESSIVE INADEQUATE PRECISION FOR SCREENING TEST

Number of measurement pairs	Situation B Number of RPD's of absolute value over 15%—all having the same sign—that indicate significant bias of the SLAMS monitor	Situation C Number of RPD's of absolute value over 15%—all not having the same sign—that indicate excessive imprecision of the SLAMS monitor
4	2	3
5	2	3
6	3	4
7	3	4
8	3	4
9	3	5
10	4	5
11	4	5
12	4	6

6.2.4 The basis of this test is as follows:

6.2.4.1 For both instruments, the precision is assumed to be a percentage of the concentration being measured. The distributions of the instruments measurements are assumed to be normal, with an operating precision (1.96 × standard deviation) of no more than 15%. The relative percent difference (RPD) is then approximately normally distributed, with a standard deviation of about 15 × sqrt(2)/1.96 = 10.7%. Thus, the absolute value of RPD will exceed 15% approximately 20% of the time.

6.2.4.2 In the first situation (situation A), all the RPD's are within 15% in absolute value, and the performance is acceptable.

6.2.4.3 When encountering a situation where RPD's are to one extreme or the other (situation B), one can set up the following hypotheses. Null Hypothesis: The mean measurements of both instruments are the same. Alternative Hypothesis: The mean of measurement of the SLAMS instrument is higher (lower) than the mean measurement of the audit instrument. The test of these hypotheses is based on the binomial distribution. Table A–2 gives the number of extreme values, for various numbers of measurement pairs, that would lead to a rejection of the null hypothesis in favor of the alternative hypothesis.

6.2.4.4 When encountering the situation where RPD's are extreme in both directions (situation C), one can set up the following hypotheses. Null Hypothesis: The precisions of both instruments are less than or equal to 15% (2-sigma). Alternative Hypothesis: The precision of at least one instrument exceeds 15%. Again, the test is based on the binomial distribution, and Table A–2 gives the number of extreme values, for various numbers of measurement pairs, that would lead to a rejection of the null hypothesis in favor of the alternative hypothesis.

6.2.4.5 These tests described above are stringent, using p=0.01, meaning that less than 1 time out of 100 would one expect to find the result randomly.

6.2.4.6 As an example, suppose one takes 6 pairs of simultaneous measurements and finds that 4 of the 6 RPD's for the SLAMS monitor are greater than 15% and *none* of the remaining two RPD's are below—15%. Since there are 4 RPD's with absolute value above 15% and they all have the same sign (*i.e.* they are all above 15%), this example would be situation B. Table A–2 indicates that for situation B with 6 measurement pairs, 3 or more extreme RPD's means that the SLAMS monitor is biased (in this case, higher) than the audit (reference) method.

6.3 Integrated Precision and Accuracy for Reporting Organizations and for Specific Methods.

This section describes how integrated estimates of monitoring data quality are calculated for specific monitoring methods (as identified by a unique reference or equivalent method designation number) on a national basis and for each reporting organization. These estimates are based on the collocated audit measurements described in section 6.1.

6.3.1 Annual evaluation. Using the collocated measurement pair data, as described in Section 6.1 for the applicable year, the EPA shall determine the operating precision for each designated method, on a national basis and for each reporting organization, as follows:

6.3.1.1. For each monitoring station for which $PM_{2.5}$ data has been reported to AIRS during the year, calculate the percent difference (d_i) for each measurement pair using equation 1 in section 5.1.1 of this Appendix, where Y_i is the concentration measurement from the SLAMS monitor for the I-th audit measurement pair, X_i is the concentration measurement from the audit sampler. Include only stations at which at least 4 collocated measurement pairs are available for the year, and only measurement pairs in which X_i is above the limit for $PM_{2.5}$ specified in section 5.3.1 of this Appendix.

6.3.1.2 For each monitoring station for which $PM_{2.5}$ data has been reported to AIRS, calculate the average (d_j) and the standard deviation (S_j) for the year for each station at which the method is used for SLAMS monitoring, using equations 2 and 3

(respectively) in section 5.1.1 of this Appendix, where n is the number of measurement pairs reported for the year. Include only stations at which at least 4 collocated measurement pairs are available for the year.

6.3.1.3 For each designated method and for each reporting organization, calculate the average of averages (D) and the pooled estimate of standard deviation (S_a), using equations 4a and 5a (respectively) of Section 5.1.2, where k in this case is the number of stations in the reporting organization at which the method is used for SLAMS monitoring (and at least 4 measurement pairs are reported). Call these estimates $D_{R,M}$ and $S_{R,M,}$ where R identifies the reporting organization and M identifies the designated method.

6.3.1.4 For each designated method, calculate the average of averages (D) and the pooled standard deviation (S_a) at the national level using equations 4a and 5a (respectively) of Section 5.1.2, where k in this case is the number of sites nationwide at which the method is used for SLAMS monitoring (and at least 4 measurement pairs are reported). Call these estimates $D_{national,\ M}$ and $S_{national,\ M,}$ where M identifies the designated method. A 95 percent confidence interval shall also be determined for each national pooled standard deviation.

6.3.1.5 For each designated method, calculate the 95 percent probability limits for each reporting organization, using equations 6 and 7 of Section 5.1.2, where $D=D_{R,M}$ and $S_a=S_{R,M}$. Similarly, calculate the 95 percent probability limits for each method on a national basis, using equations 6 and 7 of Section 5.1.2, where $D=D_{national,M}$ and $S_a=S_{national,M}$.

Note: Pooling individual site estimates of precision across a reporting organization or across the nation using equation 5a assumes that the individual site estimates of precision using equation 3 are reasonably homogeneous across the year for a designated method.

6.3.2 Reporting organization method operational performance. A summary of the results calculated in section 6.3.1.5 shall be reported annually to the appropriate EPA Regional Office. If the absolute value of either the upper or lower probability limit for a reporting organization calculated in section 6.3.1.5 for any designated method is found to be greater than 15 percent or substantially higher than the corresponding limits calculated for the method on the national basis, the reporting organization shall be identified and notified by the EPA that its quality assurance in the operation of the particular $PM_{2.5}$ method may be inadequate. Each reporting organization so identified and notified must demonstrate, through an appropriate quality assurance plan or modified plan, that it will achieve better performance in future monitoring operations using the method. General guidance in identifying and correcting common or typical types of such quality assurance problems for reference methods and Class I equivalent methods is provided in section 2.12 of Reference 7 of this appendix.

6.3.3 National method operational performance. If the absolute value of either the upper or lower probability limit calculated in section 6.3.1.5 for any designated method on a national basis is found to be greater than 15 percent, the method shall be deemed to have failed the annual operational performance assessment test. This result shall constitute a ground for cancellation of the reference or equivalent method in accordance with § 53.11 of this chapter, and the EPA shall take the actions specified in that section within 150 days.

References in Appendix A of Part 58

1. Rhodes, R.C. Guideline on the Meaning and Use of Precision and Accuracy Data Required by 40 CFR part 58 appendices A and B. EPA–600/4–83/023. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, June, 1983.

2. ''American National Standard—Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs.'' ANSI/ASQC E4–1994. January 1995. Available from American Society for Quality Control, 611 East Wisconsin Avenue, Milwaukee, WI 53202.

3. ''EPA Requirements for Quality Management Plans.'' EPA QA/R–2. August 1994. Available from U.S. Environmental Protection Agency, ORD Publications Office, Center for Environmental Research Information (CERI), 26 W. Martin Luther King Drive, Cincinnati, OH 45268.

4. ''EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations.'' EPA QA/R–5. August 1994. Available from U.S. Environmental Protection Agency, ORD Publications Office, Center for Environmental Research Information (CERI), 26 W. Martin Luther King Drive, Cincinnati, OH 45268.

5. ''Guidance for the Data Quality Objectives Process.'' EPA QA/G–4. September 1994. Available from U.S. Environmental Protection Agency, ORD Publications Office, Center for Environmental Research Information (CERI), 26 W. Martin Luther King Drive, Cincinnati, OH 45268.

6. ''Quality Assurance Handbook for Air Pollution Measurement Systems, Volume 1—A Field Guide to Environmental Quality Assurance.'' EPA–600/R–94/038a. April 1994. Available from U.S. Environmental Protection Agency, ORD Publications Office, Center for Environmental Research Information (CERI), 26 W. Martin Luther King Drive, Cincinnati, OH 45268.

7. ''Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II—Ambient Air Specific Methods (Interim Edition).'' EPA–600/R–94/038b. April 1994. Available from U.S. Environmental Protection Agency, ORD Publications Office, Center for Environmental Research Information (CERI), 26 W. Martin Luther King Drive, Cincinnati, OH 45268. [Note: Section 2.12 of Volume II is currently under development and will not be available from the CERI address until it is published as an addition to EPA/600/R–94/038b. Prepublication draft copies of section 2.12 will be available from Department E (MD–77B), U.S. EPA, Research Triangle Park, NC 27711, or from the contact identified at the beginning of this proposed rule].

8. ''List of Designated Reference and Equivalent Methods.'' Available from U.S. Environmental Protection Agency, National Exposure Research Laboratory, Quality Assurance Branch, MD–77B, Research Triangle Park, NC 27711.

9. Technical Assistance Document for Sampling and Analysis of Ozone Precursors. Atmospheric Research and Exposure Assessment Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. EPA 600/8–91–215. October 1991.

10. ''EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards.'' EPA–600/R–93/224. September 1993. Available from U.S. Environmental Protection Agency, ORD Publications Office, Center for Environmental Research Information (CERI), 26 W. Martin Luther King Drive, Cincinnati, OH 45268.

11. Paur, R.J. and F.F. McElroy. Technical Assistance Document for the Calibration of Ambient Ozone Monitors. EPA–600/4–79–057. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, September, 1979.

12. McElroy, F.F. Transfer Standards for the Calibration of Ambient Air Monitoring Analyzers for Ozone. EPA–600/4–79–056. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, September, 1979.

Tables to Appendix A of Part 58

TABLE A–1.—MINIMUM DATA ASSESSMENT REQUIREMENTS

Method	Assessment method	Coverage	Minimum frequency	Parameters reported
Precision:				
Automated methods for SO_2, NO_2, O_3, and CO.	Response check at concentration between .08 and .10 ppm (8 & 10 ppm for CO) [2].	Each analyzer	Once per 2 weeks	Actual concentration [2] and measured concentration [3].

TABLE A–1.—MINIMUM DATA ASSESSMENT REQUIREMENTS—Continued

Method	Assessment method	Coverage	Minimum frequency	Parameters reported
Manual methods: All methods except PM_{25}.	Collocated samplers	1 site for 1–5 sites; 2 sites for 6–20 sites; 3 sites >20 sites; (sites with highest conc.).	Once per week	Two concentration measurements.
PM_{25} methods	Collocated samplers	1 site for 1–10 sites; 2 sites for 11–20 sites; 3 sites >20 sites; (sites with highest conc.).	Once per week	Two concentration measurements.
Accuracy:				
Automated methods for SO_2, NO_2, O_3, and CO.	Response check at .03–.08 ppm,[1,2] .15–.20 ppm;[1,2] .35–.45 ppm;[1,2] ,80–.90 ppm;[1,2] (if applicable).	1. Each analyzer; 2. 25% of analyzers (at least 1).	1. Once per year; 2. Each calendar quarter.	Actual concentration[2] and measured (indicated) concentration[3] for each level.
Manual methods for SO_2, and NO_2.	Check of analytical procedure with audit standard solutions.	Analytical system	Each day samples are analyzed, at least twice per quarter.	Actual concentration and measured (indicated) concentration for each audit solution.
TSP, PM_{10}	Check of sampler flow rate	1. Each sampler; 2. 25% of samplers (at least 1).	1. Once per year; 2. Each calendar quarter.	Actual flow rate and flow rate indicated by the sampler.
PM_{25}	1. Check of sampler flow rate.	1. Each sampler, all locations.	1. Minimum of every calendar quarter, 4 checks per year.	1. Actual flow rate and flow rate indicated by sampler.
	2. Audit with reference method.	2. Each sampler, all locations.	2. Minimum of every other month, 6 measurements per year.	2. Particle mass concentration indicated by sampler and by audit reference sampler.
Lead	1. Check of sampler flow rate as TSP;.	1. Each sampler	1. Include with TSP	1. Same as for TSP.
	2. Check of analytical system with Pb audit strips.	2. Analytical system	2. Each quarter	2. Actual concentration and measured (indicated) concentration of audit samples (µg Pb/strip).

[1] Concentration times 100 for CO.
[2] Effective concentration for open path analyzers.
[3] Corrected concentration, if applicable, for open path analyzers.

Appendix C—[Amended]

15. Appendix C, is amended by revising section 2.2 and adding sections 2.2.1 through 2.2.2.2 to read as follows:

2.2 Substitute PM samplers.

2.2.1 Substitute PM_{10} samplers.

2.2.1.1 For purposes of showing compliance with the NAAQS for particulate matter, a high volume TSP sampler described in Appendix B of part 50 of this chapter may be used in a SLAMS in lieu of a PM_{10} monitor as long as the ambient concentrations of particles measured by the TSP sampler are below the PM_{10} NAAQS. If the TSP sampler measures a single value that is higher than the PM_{10} 24-hour standard, or if the annual average of its measurements is greater than the PM_{10} annual standard, the TSP sampler operating as a substitute PM_{10} sampler must be replaced with a PM_{10} monitor. For a TSP measurement above the 24-hour standard, the TSP sampler should be replaced with a PM_{10} monitor before the end of the calendar quarter following the quarter in which the high concentration occurred. For a TSP annual average above the annual standard, the PM_{10} monitor should be operating by June 30 of the year following the exceedance.

2.2.1.2 In order to maintain historical continuity of ambient particulate matter trends and patterns for PM_{10} NAMS that were previously TSP NAMS, the TSP high volume sampler must be operated concurrently with the PM_{10} monitor for a one-year period beginning with the PM_{10} NAMS start-up date. The operating schedule for the TSP sampler must be at least once every six days regardless of the PM_{10} sampling frequency.

2.2.2 Substitute $PM_{2.5}$ samplers.

2.2.2.1 For purposes of showing compliance with the NAAQS for particulate matter, a PM_{10} monitor designated as a reference or equivalent method for PM_{10} under part 53 of this chapter may be used in a SLAMS in lieu of a $PM_{2.5}$ monitor as long as the ambient concentration of particles measured by the PM_{10} monitor is below the $PM_{2.5}$ NAAQS. If the PM_{10} monitor measures a single value that is higher than the $PM_{2.5}$ 24-hour standard, or the annual average of its measurements is greater than the $PM_{2.5}$ annual standard, the PM_{10} monitor operating as a substitute $PM_{2.5}$ monitor must be replaced with a $PM_{2.5}$ monitor. For a PM_{10} measurement above the 24-hour $PM_{2.5}$ standard, the PM_{10} monitor should be replaced with a $PM_{2.5}$ monitor before the end of the calendar quarter following the quarter in which the high concentration occurred. For a PM_{10} annual average above the annual $PM_{2.5}$ standard, the $PM_{2.5}$ monitor should be operating by June 30 of the year following the exceedance.

2.2.2.2 In order to maintain historical continuity of ambient particulate matter trends and patterns for $PM_{2.5}$ NAMS that were previously PM_{10} NAMS, the PM_{10} monitor must be operated concurrently with the $PM_{2.5}$ monitor for a one-year period beginning with the $PM_{2.5}$ NAMS start-up date. The operating schedule for the PM_{10} monitor must be at least once every six days regardless of the $PM_{2.5}$ sampling frequency.

16. Appendix C amended by adding a new sections 2.4 through 2.4.6 to read as follows:

2.4 Approval of non-designated $PM_{2.5}$ methods operated at specific individual sites. A method for $PM_{2.5}$ that has not been designated as a reference or equivalent method as defined in § 50.1 of this chapter may be approved for use for purposes of section 2.1 of this Appendix at a particular SLAMS under the following stipulations.

2.4.1 The method must be demonstrated to meet the comparability requirements (except as provided in this section 2.4.1) set forth in § 53.34 of this chapter in each of the four seasons at the site at which it is intended to be used. For purposes of this

section 2.4.1, the requirements of 40 CFR 53.34 shall be modified as follows:

2.4.1.1 The method shall be tested at the site at which it is intended to be used, and there shall be no requirement for tests at any other test site.

2.4.1.2 For purposes of this section 2.4, the seasons shall be defined as follows: spring shall be the months of March, April, and May; summer shall be the months of June, July, and August; fall shall be the months of September, October, and November; and winter shall be the months of December, January, and February.

2.4.1.3 No PM_{10} samplers shall be required for the test, as determination of the $PM_{2.5}/PM_{10}$ ratio at the test site shall not be required.

2.4.1.4 The specifications given in Table C–4 of part 53 of this chapter for Class I methods shall apply, except that there shall be no requirement for any minimum number of sample sets with R_j above 40 $\mu g/m^3$ for 24-hour samples or above 30 $\mu g/m^3$ for 48-hour samples.

2.4.2 The monitoring agency wishing to use the method must develop and implement appropriate quality assurance procedures for the method.

2.4.3 The monitoring agency wishing to use the method must develop and implement appropriate procedures for assessing and reporting the precision and accuracy of the method comparable to the procedures set forth in Appendix A of this part for designated reference and equivalent methods.

2.4.4 The assessment of network operating precision using collocated measurements with reference method ''audit'' samplers required under section 6 of Appendix A of this section shall be carried out semi-annually rather than annually (*i.e.*, monthly audits with assessment determinations each 6 months).

2.4.5 Requests for approval under this section 2.4 must meet the general submittal requirements of sections 2.7.1 and 2.7.2.1 of this appendix and must include the requirements in sections 2.4.5.1 through 2.4.5.7 of this appendix.

2.4.5.1 A clear and unique description of the site at which the method or sampler will be used and tested, and a description of the nature or character of the site and the particulate matter that is expected to occur there.

2.4.5.2 A detailed description of the method and the nature of the sampler or analyzer upon which it is based.

2.4.5.3 A brief statement of the reason or rationale for requesting the approval.

2.4.5.4 A detailed description of the quality assurance procedures that have been developed and that will be implemented for the method.

2.4.5.5 A detailed description of the procedures for assessing the precision and accuracy of the method that will be implemented for reporting to AIRS.

2.4.5.6 Test results from the comparability tests required above.

2.4.5.7 Such further supplemental information as may be necessary or helpful to support the required statements and test results.

2.4.6 Within 120 days after receiving a request for approval of the use of a method at a particular site under this section 2.4 and such further information as may be requested for purposes of the decision, the Administrator will approve or disapprove the method by letter to the person or agency requesting such approval.

17. Appendix C is amended by adding a new section 2.5 to read as follows:

2.5 Approval of non-designated methods under § 58.13(f). An automated (continuous) method for $PM_{2.5}$ that is not designated as either a reference or equivalent method as defined in § 50.1 of this chapter may be approved under § 58.13(f) for use at a SLAMS for the limited purposes of § 58.13(f). Such an analyzer that is approved for use at a SLAMS under § 58.13(f), identified as correlated acceptable continuous (CAC) monitors, shall not be considered a reference or equivalent method as defined in § 50.1 of this chapter by virtue of its approval for use under § 58.13(f), and the $PM_{2.5}$ monitoring data obtained from such a monitor shall not be otherwise used for purposes of part 50 of this chapter.

18. Appendix C is amended by revising the section 2.7.1 to read as follows:

2.7.1 Requests for approval under sections 2.4, 2.6.2, or 2.8 must be submitted to: Director, National Exposure Assessment Laboratory, Department E, (MD–77B), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

19. Appendix C is amended by adding a new section 2.9 to read as follows:

2.9 Use of IMPROVE Samplers at a SLAMS. ''IMPROVE'' samplers may be used in SLAMS for monitoring of regional background concentrations of fine particulate matter. The IMPROVE samplers were developed for use in the Interagency Monitoring of Protected Visual Environments (IMPROVE) network to characterize all of the major components and many trace constituents of the particulate matter that impair visibility in Federal Class I Areas. These samplers are routinely operated at about 70 locations in the United States. IMPROVE samplers consist of four sampling modules that are used to collect twice weekly 24-hour duration simultaneous samples. Modules A, B, and C collect $PM_{2.5}$ on three different filter substrates that are compatible with a variety of analytical techniques, and module D collects a PM_{10} sample. $PM_{2.5}$ mass and elemental concentrations are determined by analysis of the 25mm diameter stretched Teflon filters from module A. More complete descriptions of the IMPROVE samplers and the data they collect are available elsewhere (References 5.2, 5.3, and 5.4 of this Appendix).

20. Appendix C, section 6.0 amended by adding references, 4 through 6 to read as follows:

6.0 References

* * * * *

4. Eldred, R.A., Cahill, T.A., Wilkenson, L.K., et al., ''Measurements of fine particles and their chemical components in the IMPROVE/NPS networks,'' in ''Transactions of the International Specialty Conference on Visibility and Fine Particles,'' Air and Waste Management Association: Pittsburgh, PA, 1990; pp 187–196.

5. Sisler, J.F., Huffman, D., and Latimer, D.A.; ''Spatial and temporal patterns and the chemical composition of the haze in the United States: An analysis of data from the IMPROVE network, 1988–1991,'' ISSN No. 0737–5253–26, National Park Service, Ft. Collins, CO, 1993.

6. Eldred, R.A., Cahill, T.A., Pitchford, M., and Malm, W.C.; ''IMPROVE—a new remote area particulate monitoring system for visibility studies,'' Proceedings of the 81st Annual Meeting of the Air Pollution Control Association, Dallas, Paper 88–54.3, 1988.

Appendix D—[Amended]

21. In Appendix D the first three paragraphs and Table 1 of section 1 are revised as follows:

1. SLAMS Monitoring Objectives and Spatial Scales

The purpose of this appendix is to describe monitoring objectives and general criteria to be applied in establishing the State and Local Air Monitoring Stations (SLAMS) networks and for choosing general locations for new monitoring stations. It also describes criteria for determining the number and location of National Air Monitoring Stations (NAMS), Photochemical Assessment Monitoring Stations (PAMS), and core Stations for $PM_{2.5}$. These criteria will also be used by EPA in evaluating the adequacy of the SLAMS/NAMS/PAMS and core $PM_{2.5}$ networks.

The network of stations which comprise SLAMS should be designed to meet a minimum of six basic monitoring objectives. These basic monitoring objectives are:

(1) To determine highest concentrations expected to occur in the area covered by the network;

(2) To determine representative concentrations in areas of high population density;

(3) To determine the impact on ambient pollution levels of significant sources or source categories;

(4) To determine general background concentration levels;

(5) To determine the extent of Regional pollutant transport among populated areas; and in support of secondary standards; and

(6) To determine the welfare-related impacts in more rural and remote areas (such as visibility impairment and effects on vegetation).

It should be noted that this appendix contains no criteria for determining the total number of stations in SLAMS networks, except that a minimum number of lead SLAMS and $PM_{2.5}$ are prescribed and the minimal network introduced in 58.20 is explained. The optimum size of a particular SLAMS network involves trade offs among data needs and available resources which EPA believes can best be resolved during the network design process.

* * * * *

TABLE 1.—RELATIONSHIP AMONG MONITORING OBJECTIVES AND SCALE OF REPRESENTATIVENESS

Monitoring objective	Appropriate siting scales
Highest concentration	Micro, Middle, neighborhood (sometimes urban[a]). Neighborhood, urban.
Population	Micro, middle, neighborhood.
Source impact	Neighborhood, urban, regional.
General/background	Urban/regional.
Regional transport	
Welfare-related impacts.	Urban/regional.

[a] Urban denotes a geographic scale applicable to both cities and rural areas.

* * * * *

22. In Appendix D, section 2 is amended by revising the second paragraph and adding a new paragraph to the end of the section before section 2.1 to read as follows:

2. SLAMS Network Design Procedures

* * * * *

The discussion of scales in sections 2.3 through 2.8 does not include all of the possible scales for each pollutant. The scales which are discussed are those which are felt to be most pertinent for SLAMS network design.

* * * * *

Information such as emissions density, housing density, climatological data, geographic information, traffic counts, and the results of modeling will be useful in designing regulatory networks. Air pollution control agencies have shown the value of screening studies, such as intensive studies conducted with portable samplers, in designing networks. In many cases, in selecting sites for core $PM_{2.5}$ or carbon monoxide SLAMS, and for defining the boundaries of $PM_{2.5}$ spatial averaging zone, air pollution control agencies will benefit from using such studies to evaluate the spatial distribution of pollutants.

* * * * *

23. Section 2.8 is revised as follows:

2.8 Particulate Matter Design Criteria for SLAMS

As with other pollutants measured in the SLAMS network, the first step in designing the particulate matter network is to collect the necessary background information. Various studies in References 11, 12, 13, 14, 15, and 16 of this appendix have documented the major source categories of particulate matter and their contribution to ambient levels in various locations throughout the country.

2.8.0.1 Sources of background information would be regional and traffic maps, and aerial photographs showing topography, settlements, major industries and highways. These maps and photographs would be used to identify areas of the type that are of concern to the particular monitoring objective. After potentially suitable monitoring areas for particulate matter have been identified on a map, modeling may be used to provide an estimate of particulate matter concentrations throughout the area of interest. After completing the first step, existing particulate matter stations should be evaluated to determine their potential as candidates for SLAMS designation. Stations meeting one or more of the six basic monitoring objectives described in section 1 of this appendix must be classified into one of the five scales of representativeness (micro, middle, neighborhood, urban and regional) if the stations are to become SLAMS. In siting and classifying particulate matter stations, the procedures in reference 17 should be used.

2.8.0.2 The most important spatial scales to effectively characterize the emissions of particulate matter from both mobile and stationary sources are the middle and neighborhood scales. For purposes of establishing monitoring stations to represent large homogenous areas other than the above scales of representativeness and to characterize Regional transport, urban or regional scale stations would also be needed.

2.8.0.3 Microscale—This scale would typify areas such as downtown street canyons and traffic corridors where the general public would be exposed to maximum concentrations from mobile sources. In some circumstances, the microscale is appropriate for particulate stations; core SLAMS on the microscale should, however, be limited to urban sites that are representative of long-term human exposure and of many such microenvironments in the area. In general, microscale particulate matter sites should be located near inhabited buildings or locations where the general public can be expected to be exposed to the concentration measured. Emissions from stationary sources such as primary and secondary smelters, power plants, and other large industrial processes may, under certain plume conditions, likewise result in high ground level concentrations at the microscale. In the latter case, the microscale would represent an area impacted by the plume with dimensions extending up to approximately 100 meters. Data collected at microscale stations provide information for evaluating and developing ''hot spot'' control measures. Unless these sites are indicative of population-oriented monitoring, they may be more appropriately classified as SPMs.

2.8.0.4 Middle Scale—Much of the measurement of short-term public exposure to particulate matter is on this scale and on the neighborhood scale; core SLAMS especially should represent community-wide air pollution. People moving through downtown areas, or living near major roadways, encounter particles that would be adequately characterized by measurements of this spatial scale. Thus, measurements of this type would be appropriate for the evaluation of possible short-term public health effects of particulate matter pollution. This scale also includes the characteristic concentrations for other areas with dimensions of a few hundred meters such as the parking lot and feeder streets associated with shopping centers, stadia, and office buildings. In the case of PM_{10}, unpaved or seldom swept parking lots associated with these sources could be an important source in addition to the vehicular emissions themselves.

2.8.0.5 Neighborhood Scale—Measurements in this category would represent conditions throughout some reasonably homogeneous urban subregion with dimensions of a few kilometers and of generally more regular shape than the middle scale. Homogeneity refers to the particulate matter concentrations, as well as the land use and land surface characteristics. Much of the $PM_{2.5}$ exposures are expected to be associated with this scale of measurement. In some cases, a location carefully chosen to provide neighborhood scale data would represent not only the immediate neighborhood but also neighborhoods of the same type in other parts of the city. Stations of this kind provide good information about trends and compliance with standards because they often represent conditions in areas where people commonly live and work for periods comparable to those specified in the NAAQS. This category also may include industrial and commercial neighborhoods especially in districts of diverse land use where residences are interspersed.

2.8.0.6 Neighborhood scale data could provide valuable information for developing, testing, and revising models that describe the larger-scale concentration patterns, especially those models relying on spatially smoothed emission fields for inputs. The neighborhood scale measurements could also be used for neighborhood comparisons within or between cities. This is the most likely scale of measurements to meet the needs of planners.

2.8.0.7 Urban Scale—This class of measurement would be made to characterize the particulate matter concentration over an entire metropolitan or rural area ranging in size from 4 to 50 km. Such measurements would be useful for assessing trends in area-wide air quality, and hence, the effectiveness of large scale air pollution control strategies.

2.8.0.8 Regional Scale—These measurements would characterize conditions over areas with dimensions of as much as hundreds of kilometers. As noted earlier, using representative conditions for an area implies some degree of homogeneity in that area. For this reason, regional scale measurements would be most applicable to sparsely populated areas with reasonably uniform ground cover. Data characteristics of this scale would provide information about larger scale processes of particulate matter emissions, losses and transport. Especially in the case of $PM_{2.5}$, transport contributes to particulate concentrations and may affect multiple urban and State entities with large populations such as in the Eastern United States. Development of effective pollution control strategies requires an understanding at regional geographical scales of the emission sources and atmospheric processes that are responsible for elevated $PM_{2.5}$ levels and may also be associated with elevated ozone and regional haze.

24. New sections 2.8.1, 2.8.2, 2.8.3, and 2.8.4 are added after Section 2.8 to read as follows:

2.8.1 Monitoring Planning Areas and Spatial Averaging Zones

2.8.1.1 Monitoring planning areas (MPA's) and spatial averaging zones (SAZ's) shall be used to conform to the population-oriented, spatial averaging approach used for the $PM_{2.5}$ NAAQS given in 40 CFR Part 50. MPA's are required to include all metropolitan statistical areas (MSA's) with population greater than 500,000, and all other areas determined to be in violation of the $PM_{2.5}$ NAAQS.[1] Although not required, MPA's should generally be designated to also include all MSA's with population greater than 250,000 which have measured or modeled $PM_{2.5}$ concentrations greater than 80 percent of the $PM_{2.5}$ NAAQS. Monitoring planning areas for other designated parts of the State are optional.

2.8.1.2 The SAZs shall define the area within which monitoring data will be averaged for comparison with the annual $PM_{2.5}$ NAAQS. This approach is directly related to epidemiological studies used as the basis for the $PM_{2.5}$ NAAQS. A SAZ should characterize an area of relatively similar annual average air quality (e.g., the annual average concentrations at individual sites should not exceed the spatial average by more than +/− 20 percent) and exhibit similar day to day variability (e.g., the monitoring sites should not have low correlations, say less than 0.8). Moreover, the entire SAZ should principally be affected by the same major emission sources of particulate matter.

2.8.1.3 Each monitoring planning area shall have at least one spatial averaging zone, which may or may not cover the entire MPA. In metropolitan statistical areas (MSA's) for which MPA's are required, the SAZ's shall completely cover the entire MSA. Exceptions to the requirement are allowed (say for areas with low population density) provided that it receives approval from the appropriate EPA Regional Administrator. In MPA's for other areas, the SAZ's are not required to completely cover the entire MPA. All MPA's and SAZ's shall be defined on the basis of existing, delineated mapping data limited to State boundaries, county boundaries, zip codes, census blocks, or census block groups; however, SAZ's shall not overlap in their geographical coverage.

2.8.1.4 Spatial averaging zones should generally include a minimum of 250,000 and not more than two million population, but all areas in the ambient air may become a spatial averaging zone. The SAZ should emphasize population that spends a substantial portion of time within the zone to reflect exposure from multiple spatial locations, but does not need to account for all day-night population shifts. Consequently, large MSA's with population greater than one million should be subdivided into smaller portions, such as counties, to better reflect the variability in exposure to the average population for large numbers of people.

2.8.1.5 A SAZ can be represented by a single monitoring location, but in most cases multiple locations will be needed. For example, a single monitor may not be adequate to characterize the average air quality in a large geographic area; in large areas of relatively low population or population density, population centers and monitoring sites may be geographically disjoint. In such cases, the spatial representativeness of the monitoring site should be considered in defining the SAZ boundaries. Until more monitoring stations are established, the monitored air quality in areas outside of SAZ's is unknown. Accordingly, a station that is established in the ambient air outside the boundaries of a SAZ but that is in or near a populated area, meets siting criteria, and produces quality-assured data (i.e., meets the requirements of Part 58, 58.13, and Appendices A, C, and E) can also be presumed to produce data that is eligible for comparison to both the 24-hour and annual NAAQS for $PM_{2.5}$ and to represent some zone. At the discretion of the responsible air pollution control agency, such a zone should be defined as a SAZ during the annual network review. In this way, the network coverage of the population can be gradually improved.

2.8.2 $PM_{2.5}$ Monitoring Sites within the State PM Monitoring Plan

2.8.2.0.1 The minimum required number and type of monitoring sites and sampling requirements for $PM_{2.5}$ are based on monitoring planning areas and spatial averaging zones for each MPA, which must be included in a monitoring plan and proposed by the States in accordance with § 58.20.

2.8.2.0.2 As stated in § 58.15, comparisons to the $PM_{2.5}$ NAAQS may be based on data from SPMs in addition to SLAMS (including NAMS, core SLAMS and collocated $PM_{2.5}$ sites at PAMS), which meet the requirements of part 58, 58.13, and appendices A, C and E, which are population-oriented and which are included in the monitoring plan. Figure 1 of this Appendix shows a conceptual (Venn) diagram illustrating which $PM_{2.5}$ sites in an MPA and SAZ are eligible for comparison with the $PM_{2.5}$ NAAQS. Special purpose monitors which meet part 58 requirements will be exempt from NAAQS comparisons with the $PM_{2.5}$ NAAQS for 3 years following promulgation of the $PM_{2.5}$ NAAQS to encourage $PM_{2.5}$ monitoring initially. After this time, however, any SPM which records a violation of the $PM_{2.5}$ NAAQS must be seriously considered as a potential SLAMS site during the annual SLAMS network review in accordance with § 58.25. If such SPM's are not established as a SLAMS the agency must document in its annual report, the technical basis for excluding it as a SLAMS.

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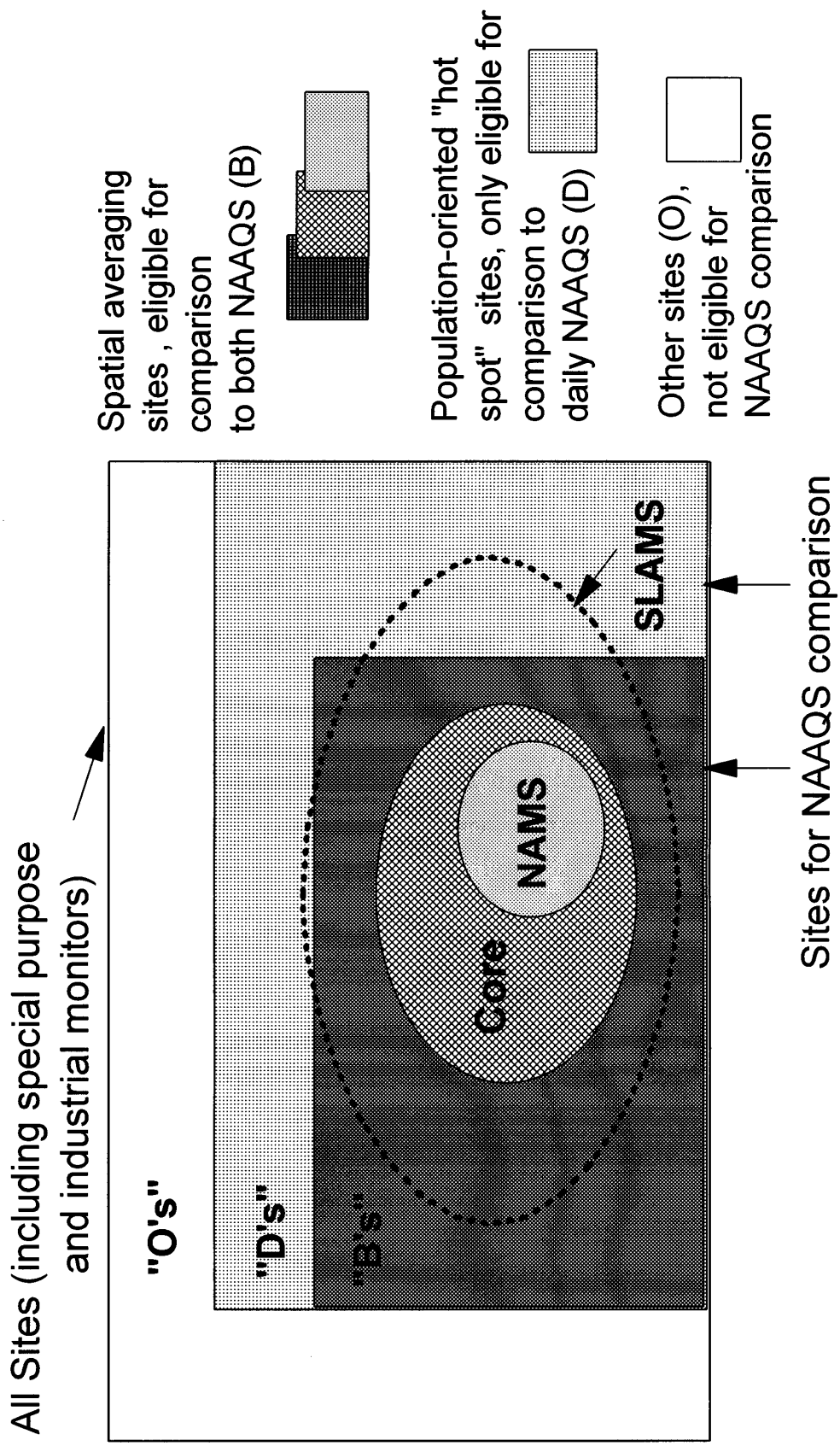
[1] The boundaries of MPA's do not have to necessarily correspond to those of MSA's and existing intra or interstate air pollution planning districts may be utilized.

Figure 1. *Sites in a Spatial Averaging Zone Eligible for Comparison to PM-2.5 NAAQS (Conceptual Venn Diagram)*



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2.8.2.0.3 Figure 1 is intended to show the relationship between NAAQS eligible sites to the entire monitoring network. Sites eligible for comparison to both standards and only the daily (i.e, 24-hour) standard are shown. The diagram applies to all the sites in a Monitoring Planning Area including special purpose, industrial as well as the NAMS/SLAMS/Core networks. The sub-areas shown do not necessarily represent contiguous geographic regions.

2.8.2.0.4 All sites eligible for $PM_{2.5}$ NAAQS comparisons would be designated ''B'' or ''D'', and all other sites would be designated ''O.'' Sites ''B'' and ''D'' must be NAMS/SLAMS or other population-oriented sites, be included in the State's Monitoring Plan and meet requirements of Part 58 .13 and Appendices A, C and E. The codes ''B,'' ''D'' and ''O'' would become new pollutant specific codes on the AIRS monitoring site file to identify PM–2.5 sites eligible for NAAQS comparisons. The codes could distinguish between State submitted codes and those receiving EPA Regional Office approval (as currently done with Exceptional Event data codes). This will reflect EPA review and approval of the site information presented in the State's annual Monitoring Plan.

2.8.2.0.5 Within each MPA and SAZ, the responsible air pollution control agency shall install core SLAMS, other required SLAMS and as many $PM_{2.5}$ stations judged necessary to satisfy the SLAMS requirements and monitoring objectives of this appendix.

2.8.2.1 Core Monitoring Stations for $PM_{2.5}$

Core monitoring stations or sites are a subset of the SLAMS network for $PM_{2.5}$ for which more frequent (daily) sampling of $PM_{2.5}$ is required. These core sites fall into three categories:

Population-oriented SLAMS monitors, background and transport sites, and sites to be collocated at PAMS.

2.8.2.1.2 Within each monitoring planning area, the responsible air pollution control agency shall install:

(a) At least two population-oriented core stations for $PM_{2.5}$, unless exempted by the Regional Administrator, including at least one station in a population oriented area of expected maximum concentration; (b) At least one station in an area of poor air quality and representative of maximum population impact and (c) At least one additional core monitor collocated at a PAMS site if the MPA is also a PAMS area.[2]

2.8.2.1.3 The site situated in the area of expected maximum concentration is analogous to NAMS ''category a.''[3] This will henceforth be termed a category a core SLAMS site. The site located in the area of poor air quality with high population density or representative of maximum population impact is analogous to NAMS, ''category b.''[4] This second site will be called a category b core SLAMS site.

2.8.1.1.4 Those MPA's which are substantially impacted by several different and geographically disjoint local sources of fine particles should have separate core sites to monitor each influencing source region.

2.8.2.1.5 Each spatial averaging zone in a required MPA shall have at least one core monitor; the SAZ for an optional MPA should have at least one core monitor; and there should be one core site for each SAZ with four or more SLAMS. Rural MPA's and areas with disperse towns and small cities may have a single core station per MPA but may have additional $PM_{2.5}$ stations of other categories.

2.8.2.1.6 The State shall also install at least one core SLAMS to monitor for regional background and at least one core SLAMS to monitor regional transport. These core monitoring stations may be population oriented and their requirement may be satisfied by a corresponding core monitoring in a representative area having similar air quality in another State.

2.8.2.1.7 Within each monitoring planning area, one core monitor may be exempted by the Regional Administrator. This may be appropriate in areas where the highest concentration is expected to occur at the same location as the area of maximum or sensitive population impact, or areas with low concentrations (e.g. highest concentrations are less than 80 percent of the NAAQS). When only one population-oriented core monitor for $PM_{2.5}$ may be included in a MPA/SAZ, however, a ''type b'' core site is strongly preferred to determine representative $PM_{2.5}$ concentrations in areas of high population density.

2.8.2.1.8 A subset of the core $PM_{2.5}$ SLAMS shall be designated NAMS as discussed in section 3.7 of this appendix. The selection of core monitoring sites in relation to MPA's and SAZs is discussed further in section 2.8.3 of this appendix.

2.8.2.2. Other $PM_{2.5}$ SLAMS locations

In addition to the required core sites described in section 2.8.2.1 of this appendix, the State shall also be required to establish a minimum number of additional SLAMS. The number of stations shall be based on the total population outside the monitoring planning areas which contain population-oriented core SLAMS. There shall be one such additional SLAMS for each 250,000 people. This number of monitors are in addition to the core SLAMS required for monitoring planning areas. This may be satisfied, in part, by the regional background and regional transport core SLAMS if the latter sites are population-oriented. The minimum number of SLAMS may be developed anywhere in the State to satisfy the SLAMS monitoring objectives described in Section 1 of this appendix. Other SLAMS may also be established and are encouraged in a State $PM_{2.5}$ network.

2.8.2.3 Continuous fine particle monitoring at Core SLAMS

At least one continuous fine particle analyzer (e.g., beta attenuation analyzer; tapered-element, oscillating microbalance (TEOM); transimissometer; nephelometer; or other acceptable continuous fine particle monitor) shall be located at a core monitoring $PM_{2.5}$ site in each metropolitan area with a population greater than 1 million. The analyzer shall preferably sample the ambient air of the same spatial averaging zone as a category (b) core SLAMS. These analyzers shall be used to provide improved temporal resolution to better understand the processes and causes of elevated $PM_{2.5}$ concentrations and to facilitate public reporting of $PM_{2.5}$ air quality. The methodology and QA/QC requirements will be provided in supplementary EPA guidance.

2.8.2.4 Additional $PM_{2.5}$ Analysis Requirements

Air pollution control agencies shall archive $PM_{2.5}$ filters from all SLAMS sites for a minimum of one year after collection. All $PM_{2.5}$ filters from core NAMS sites shall be archived for a minimum of 5 years. These filters shall be made available for supplemental analyses at the request of EPA or to provide information to State and local agencies on the composition and trends for $PM_{2.5}$. The filters shall be archived in accordance with EPA guidance.

2.8.3 Selection of Monitoring locations within SAZs and MPA's

2.8.3.1 Figure 2 of this appendix illustrates a hypothetical monitoring planning area and shows the location of monitors in relation to population and areas of poor air quality. Figure 3 of this appendix shows the same hypothetical MPA as Figure 2 of this appendix and illustrates potential spatial averaging zones and the location of core monitoring sites within them. Figure 4 of this appendix illustrates which sites within the SAZs of the same MPA may be used for comparison to the $PM_{2.5}$ NAAQS.

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[2] The core monitor to be collocated at a PAMS site shall not be considered a part of the PAMS as described in section 4 of this appendix, but shall instead be considered to be a component of the particular MPA $PM_{2.5}$ network

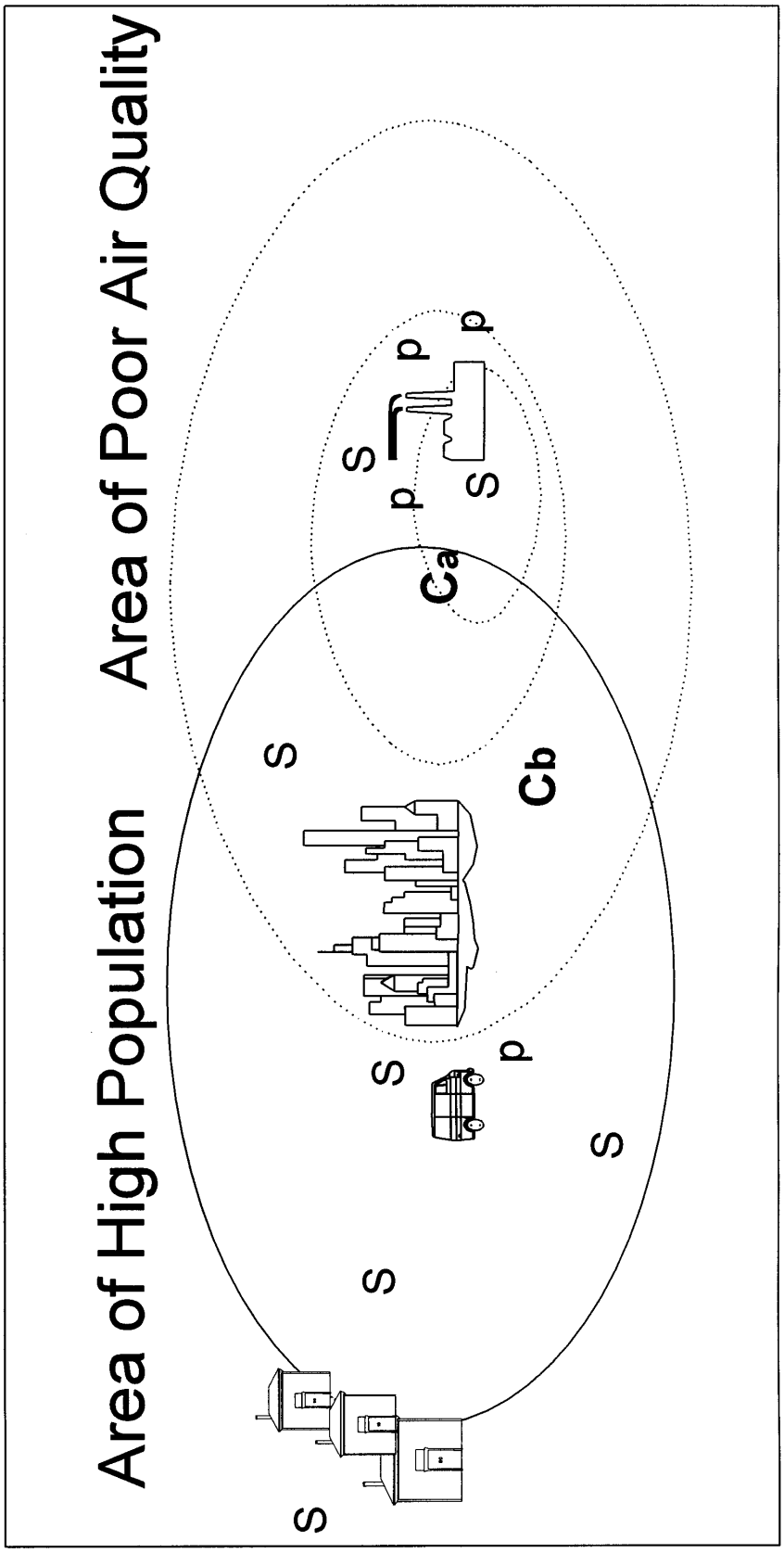
[3] The measured maximum concentrations at core population-oriented sites should be consistent with the averaging time of the NAAQS. Therefore, sites only with high concentrations for shorter averaging times (say 1-hour) should not be core SLAMS monitors and may in fact be more appropriately designated special purpose monitors.

[4] Population-oriented sites are representative of residential, recreational and business locations where people are present for a substantial portion of the NAAQS averaging time period or locations indicative of ambient air to which the population can be expected to be exposed.

Figure 2. Hypothetical Monitoring Planning Area

Eastern Urban Model - showing location of monitors in relation to population and area of poor air quality

C=Core site S=other SLAMS site p=Special Purpose Monitor



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2.8.3.2 In Figure 2 of this appendix, a hypothetical monitoring planning area is shown representing a typical Eastern US urban areas. The ellipses represent zones with relatively high population and poor air quality, respectively. Concentration isopleths are also depicted. The highest population density is indicated by the urban icons, while the area of worst air quality is presumed to be near the industrial symbols. Each monitoring planning area is required to have at least two core population-oriented monitors (with PAMS areas requiring three) and may have as many other SLAMS and SPMS as necessary. All SLAMS should generally be population-oriented, while the SPMs can focus more on other monitoring objectives, e.g. identifying source impacts and the area boundaries with maximum concentration. ''Ca'' denotes ''category a'' core SLAMS site (populated-oriented site in area of expected maximum concentration); shown within the populated area and closest to the area with highest concentration. '' Cb'' denotes a ''category b'' core SLAMS site (area of poor air quality with high population density or representative of maximum population impact); it is shown in the area of poor air quality, closest to highest population density. ''S'' denotes other SLAMS sites (monitoring for any objective: max concentration, population exposure, source-oriented, background, or regional transport or in support of secondary NAAQS). Finally, '' p'' denotes a Special Purpose Monitor (a specialized monitor which may use a non-reference sampler).

2.8.3.3 A Monitoring Planning Area would have one or more Spatial Averaging Zones (SAZ) for aggregation of data for comparison to the annual NAAQS. The planning area has large gradients of average air quality and, as shown in Figure 3 is assigned 3 SAZs: an industrial zone, a downtown central business district (CBD) and a residential area. (If there is not a large difference between downtown concentrations and other residential areas, a separate CBD zone would not be necessary). If a required Monitoring Planning Area has multiple SAZ's, then each SAZ must have at least one core location. Therefore, in this example with 3 SAZ's, the MPA must have at least one additional core site (i.e. one SLAMS in the downtown CBD must be a core site).

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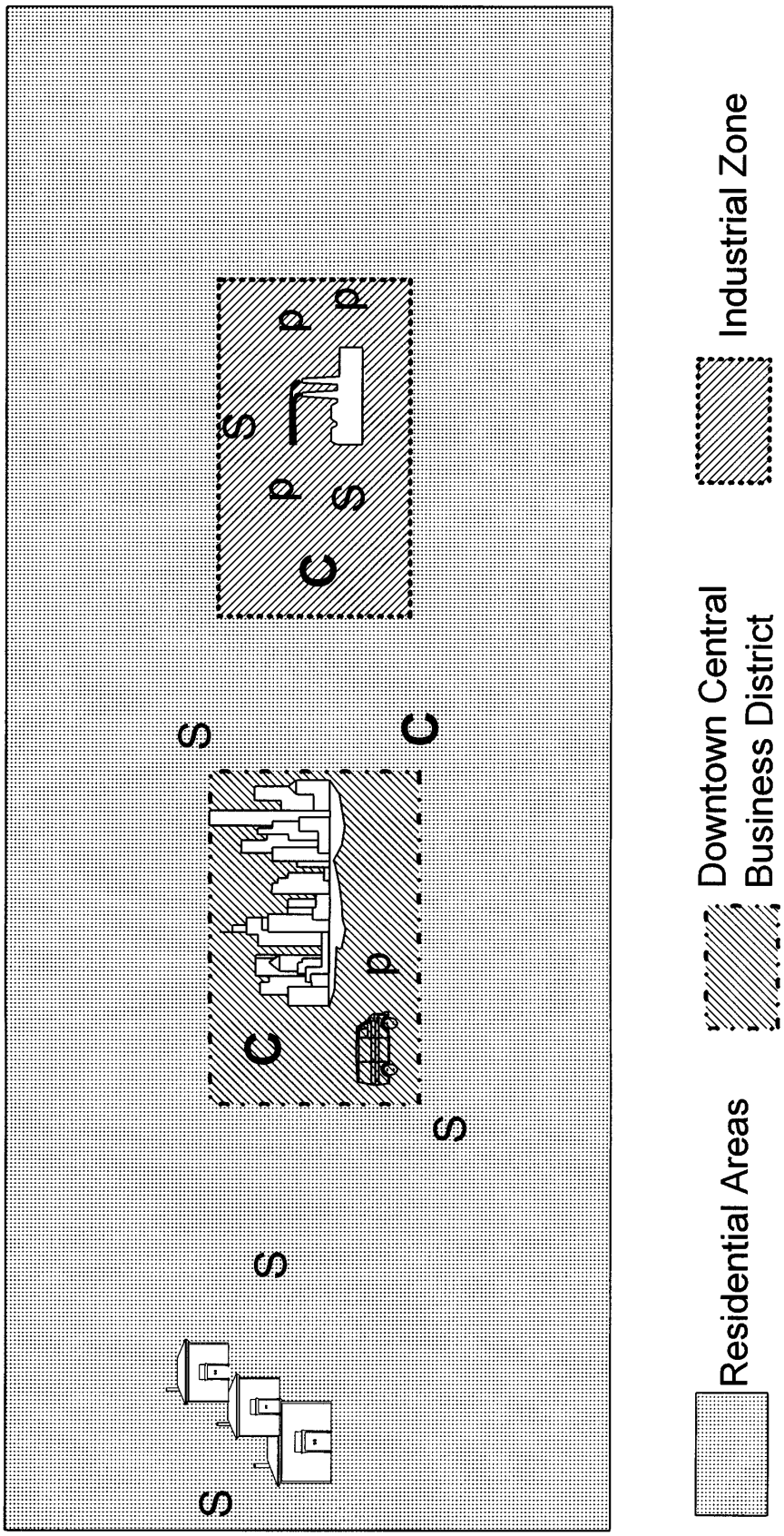
Figure 3. Hypothetical Monitoring Planning Area

Potential Spatial Averaging Zones

C=Core site S=other SLAMS site p=Special Purpose Monitor



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2.8.3.4 The Figure 4 of this appendix diagram shows the designation of monitoring sites according to the eligible NAAQS with which comparisons are permitted. Note that site type ''B'' can be core, SLAMS or SPMs. D's may be SLAMS or SPMs. Within the residential zone, all monitors shown represent areawide air quality and can be averaged for comparison to the annual $PM_{-2.5}$ NAAQS and also be used for comparison to the daily $PM_{-2.5}$ standard. In the downtown CBD, one site is a local ''hot spot,'' used for comparison to the daily NAAQS only. The other site is typical of the CBD and can by itself represent this zone for comparison to the annual NAAQS. In this example area, the State might need to further subdivide the CBD into additional sub-zones: if concentration gradients are large or are associated with large areas/populations (e.g. Madison Avenue NYC with diesel buses). Then one or more sites in each sub-zone would be averaged and be eligible for comparison to the annual NAAQS. In the industrial zone shown, three sites shown are averaged for comparison to the annual NAAQS and are also used individually for comparison to the daily NAAQS. One site is additionally used for comparison to the daily standard and the remaining two special study sites shown either do not satisfy Part 58 requirements or are not in the Monitoring Plan and therefore are not eligible for comparison to either $PM_{2.5}$ NAAQS. One of the sites identified as ''B'' was a SPM. Finally note that all SPM's would be subject to the 3-year moratorium against data comparison to the NAAQS.

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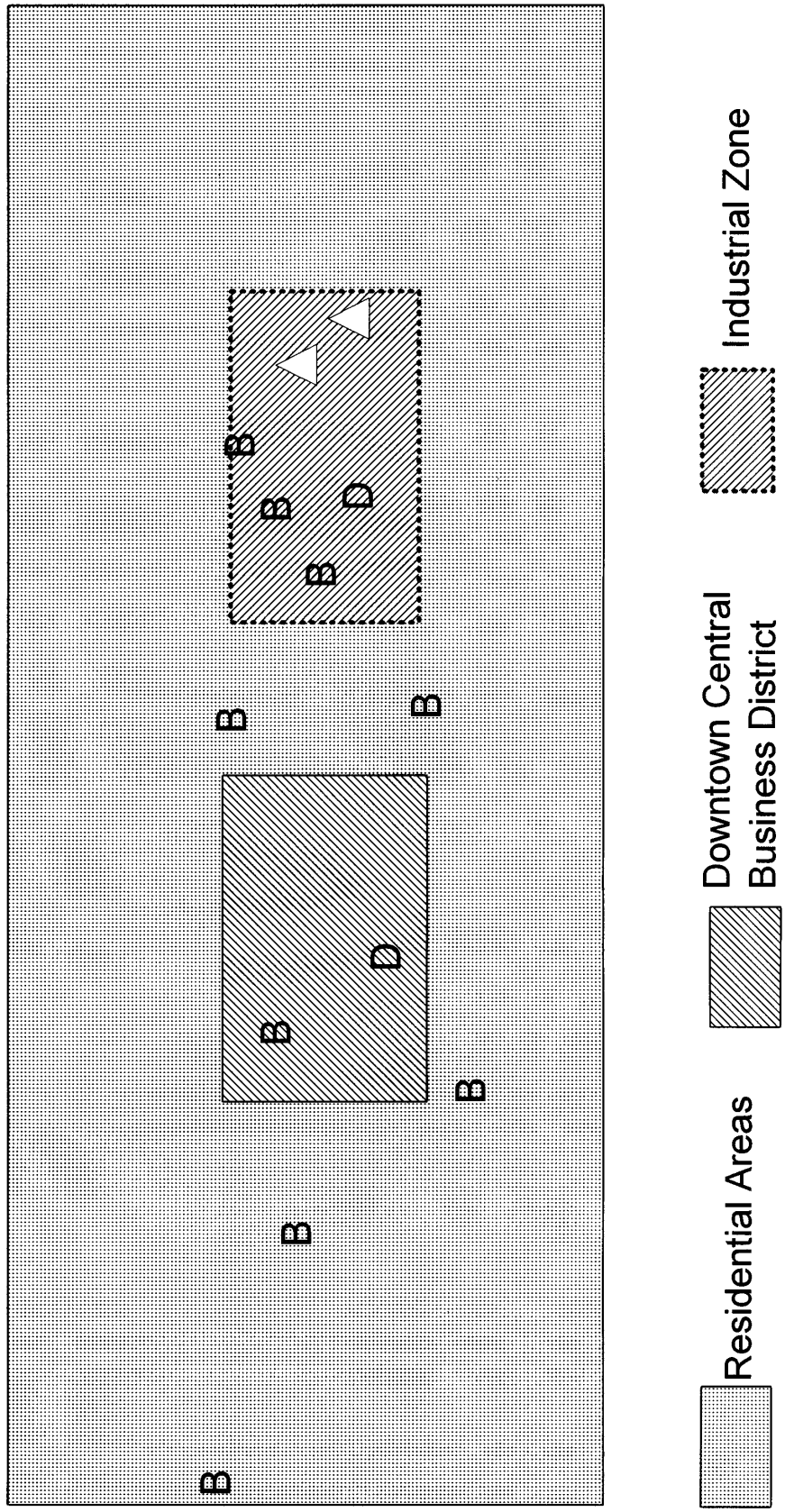
Figure 4. Hypothetical Monitoring Planning Area

Designated Sites for Comparison to the PM-2.5 NAAQS

B =Population oriented sites eligible for comparison to both annual and 24-hr NAAQS

D = Population-oriented sites only eligible for comparison to 24-hr (daily) NAAQS

△ = Other special study sites



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2.8.3.5 Figure 5 of this appendix illustrates how potential SAZs and $PM_{2.5}$ monitors might be located in a hypothetical MPA typical of a Western State. Figure 6 of this appendix shows how the MPA's, SAZs, and $PM_{2.5}$ monitors might be distributed within a hypothetical State. Western States with more localized sources of PM and larger geographic area could require a different mix of SLAMS and SPM monitors and may need more spatial averaging areas. Figure 5 of this appendix illustrates a monitoring planning area for a hypothetical western State in which ''B's'' and ''D's'' represent the sites which are eligible for comparison the both NAAQS or the daily NAAQS only. Triangles are other special study sites. Spatial averaging zones are shown by shaded areas. As the networks are deployed, the available monitors may not be sufficient to completely represent all geographic portions of the Monitoring Planning Area. Due to the distribution of pollution and population and because of the number and spatial representativeness of monitors, the MPA's and SAZ's may not cover the entire State. NAAQS are indicated by ''X.'' The appropriate monitors within an SAZ would be averaged for comparison to the annual NAAQS and examined individually for comparison to the daily NAAQS. Other monitors are only eligible for comparison to the daily NAAQS. Both within the MPA's and in the remainder of the State, some special study monitors might not satisfy applicable part 58 requirements or will not be included in the State Monitoring Plan and will not be eligible for comparison to the NAAQS. The latter may include SLAMS monitors designated to study regional transport or to support secondary NAAQS in unpopulated areas.

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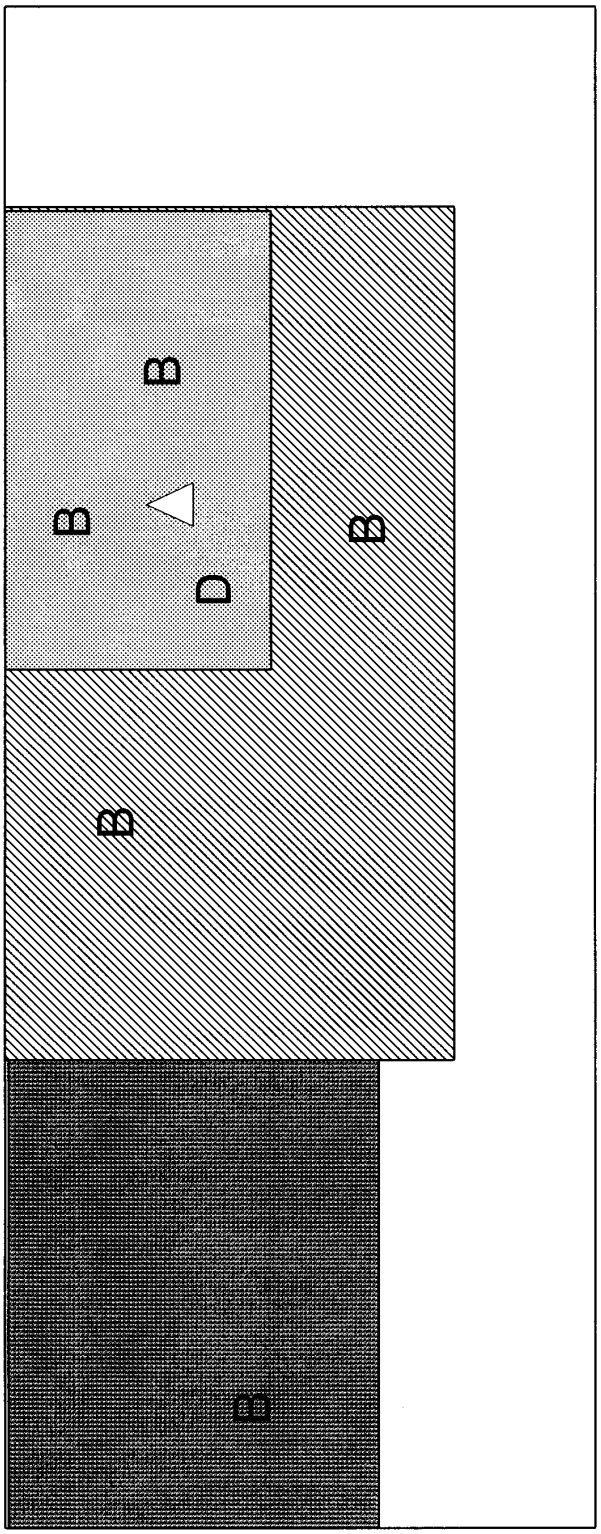
Figure 5. Hypothetical Monitoring Planning Area

Potential Spatial Averaging Zones in Western MPA

B =Population oriented sites eligible for comparison to both annual and 24-hr NAAQS

D = Population-oriented sites only eligible for comparison to 24-hr (daily) NAAQS

△ = Other special study sites



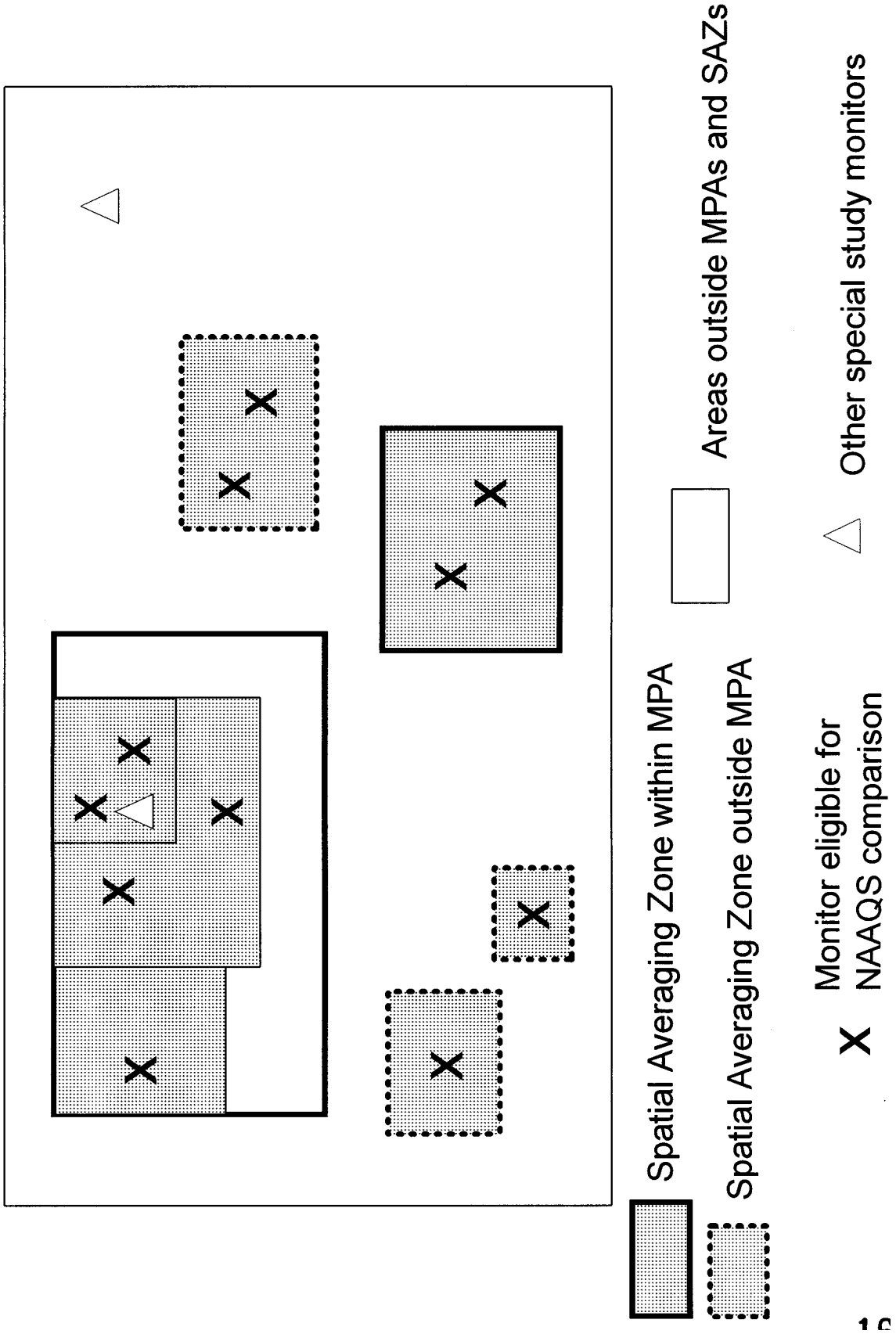
Industrial Zone

Area Source Impact ResidentialArea

Wood Smoke Impact Residential Area

Area not covered by monitoring and not included in a Spatial Averaging Zone

Figure 6. MPAs and SAZs in Hypothetical State



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2.8.4 Substitute PM Monitoring Sites

2.8.4.1 Appendix C (section 2.2) to part 58 describes conditions under which $PMPM_{10}$ samplers may be used as substitutes for $PM_{2.5}$ samplers and when such PM10 samplers must be replaced with $PM_{2.5}$ samplers. Analogous rules are described for TSP samples which can be used as substitutes for PM_{10}. This provision is intended to be used when PM concentrations are low and substitute samplers can be used to satisfy the minimum number of PM samplers needed for an adequate PM network. This may be most appropriate when sufficient resources to purchase new PM samplers may not exist and existing samplers can be temporarily used to serve a new PM network.

2.4.4.2 Monitoring sites at which PM_{10} samplers are intended to be used as substitute $PM_{2.5}$ samplers must be identified in the PM monitoring plan. In order for a PM_{10} sampler to be used as a substitute for $PM_{2.5}$, the existing PM_{10} samplers must meet the quality assurance requirements of appendix A of this part, the siting requirements of appendix E of this part, and are located in areas of suspected maximum concentrations as described in section 3 of this appendix, and if the PM_{10} levels are below the ambient $PM_{2.5}$ standards, analogous language applies to substitute TSP samplers for PM_{10}. Moreover, if existing TSP sites satisfy these criteria, the TSP samplers may continue to be used as substitutes for PM_{10} SLAMS samplers under the provisions of section 2.2 of Appendix C of this part.

2.4.4.3 If data produced by substitute PM samplers exceed the concentration levels described in Appendix C of this part, then this sampler shall be converted to a PM_{10} or $PM_{2.5}$ sampler, whichever is indicated. If the State does not believe that a PM_{10} or $PM_{2.5}$ sampler should alternatively be sited in a different location, the State shall submit documentation to EPA as part of its annual PM report to justify this decision. If a PM site is not designated as a substitute site in the PM monitoring plan, then high concentrations at this site would not necessarily cause this site to become a PM_{10} site.

2.4.4.4 Consistent with § 58.1, combinations of SLAMS PM_{10} or $PM_{2.5}$ monitors and other monitors may occupy the same structure without any mutual effect on the regulatory definition of the monitors.

25. Section 3 is amended by revising the third and fifth paragraphs to read as follows:

3. Network Design for National Air Monitoring Stations (NAMS)

* * * * *

Category (a): Stations located in area(s) of expected maximum concentrations (generally microscale for CO, microscale or middle scale for Pb, middle scale or neighborhood scale for population oriented particulate matter, urban or regional scale for Regional transport $PM_{2.5}$, neighborhood scale for SO_2, and NO_2, and urban scale for O_3.

* * * * *

For each MSA where NAMS are required, both categories of monitoring stations must be established. In the case of SO_2 if only one NAMS is needed, then category (a) must be used. In the case of $PM_{2.5}$, category (b) is strongly. The analysis and interpretation of data from NAMS should consider the distinction between these types of stations as appropriate.

* * * * *

26. Section 3.7 is revised and section 3.7.1 through 3.7.6.4 are added to read as follows:

3.7 Particulate Matter Design Criteria for NAMS

3.7.1 Table 4 indicates the approximate number of permanent stations required in MSA's to characterize national and regional PM_{10} air quality trends and geographical patterns. The number of PM_{10} stations in areas where MSA populations exceed 1,000,000 must be in the range from 2 to 10 stations, while in low population urban areas, no more than two stations are required. A range of monitoring stations is specified in Table 4 because sources of pollutants and local control efforts can vary from one part of the country to another and therefore, some flexibility is allowed in selecting the actual number of stations in any one locale.

3.7.2 Through promulgation of the NAAQS for $PM_{2.5}$, the number of PM_{10} SLAMS is expected to decrease, but requirements to maintain PM_{10} NAMS remain in effect. The PM_{10} NAMS are retained to provide trends data, to support national assessments and decisions, and in some cases to continue demonstration that a NAAQS for PM_{10} is maintained as a requirement under a State Implementation Plan.

3.7.3 The $PM_{2.5}$ NAMS shall be a subset of the core SLAMS network. The $PM_{2.5}$ NAMS are planned as long-term monitoring stations concentrated in metropolitan areas. A target range of 200 to 300 stations shall be designated nationwide. The largest metropolitan areas (those with a population greater than approximately one million) shall have at least two $PM_{2.5}$ NAMS stations.

3.7.4 The number of total $PM_{2.5}$ NAMS per Region will be based on recommendations of the EPA Regional Offices, in concert with their State and local agencies, in accordance with the network design goals described in sections 3.7.5 and 3.7.6 of this Appendix. The selected stations should represent the range of conditions occurring in the Regions and will consider factors such as total number or type of sources, ambient concentrations of particulate matter, and regional transport.

3.7.5 The approach is intended give State and local agencies maximum flexibility while apportioning a limited national network. By advancing a range of monitors per Region, EPA intends to balance the national network with respect to geographic area and population. Table 5 presents the target number of NAMS per Region to meet the national goal of 200 to 300 stations. These numbers consider a variety of factors such as Regional differences in metropolitan population, population density, land area, sources of particulate emissions, and the numbers of PM_{10} NAMS.

3.7.6 Since emissions associated with the operation of motor vehicles contribute to urban area particulate matter levels, consideration of the impact of these sources must be included in the design of the NAMS network, particularly in MSA's greater than 500,000 population. In certain urban areas particulate emissions from motor vehicle diesel exhaust currently is or is expected to be a significant source of particulate matter ambient levels. The actual number of NAMS and their locations must be determined by EPA Regional Offices and the State agencies, subject to the approval of the Administrator as required by Sec. 58.32. The Administrator's approval is necessary to insure that individual stations conform to the NAMS selection criteria and that the network as a whole is sufficient in terms of number and location for purposes of national analyses.

TABLE 4.—PM_{10} NATIONAL AIR MONITORING STATION CRITERIA

[Approximate Number of Stations per MSA]

Population category	High concentration (b)	Medium concentration (c)	Low concentration (d)
>1,000,000	6–10	4–8	2–4
500,000–1,000,000	4–8	2–4	1–2
250,000–500,000	3–4	1–2	0–1
100,000–250,000	1–2	0–1	0

3.7.6.1 Selection of urban areas and actual number of stations per area will be jointly determined by EPA and the State agency.

3.7.6.2 High concentration areas are those for which: Ambient PM_{10} data show ambient

concentrations exceeding either PM_{10} NAAQS by 20 percent or more.

3.7.6.3 Medium concentration areas are those for which: Ambient PM_{10} data show ambient concentrations exceeding either 80 percent of the PM_{10} NAAQS.

3.7.6.4 Low concentration areas are those for which: Ambient PM_{10} data show ambient concentrations less than 80 percent of the PM_{10} NAAQS.

TABLE 5.—GOALS FOR NUMBER OF $PM_{2.5}$ NAMS BY REGION

EPA region	Number of NAMS [1]	Percent of national total
1	15 to 20	6 to 8.
2	20 to 30	8 to 12.
3	20 to 25	8 to 10.
4	35 to 50	14 to 20.
5	35 to 50	14 to 20.
6	25 to 35	10 to 14.
7	10 to 15	4 to 6.
8	10 to 15	4 to 6.
9	25 to 40	10 to 16.
10	10 to 15	4 to 6.
Total	205–295	100.

[1] Each region will have one to three NAMS having the monitoring of regional transport as a primary objective.

27. Section 4.2 is amended by redesignating Figures 1 and 2 as Figures 7 and 8.

28. Section 5 is revised to read as follows:

5. Summary

Table 6 of this appendix shows by pollutant, all of the spatial scales that are applicable for SLAMS and the required spatial scales for NAMS. There may also be some situations, as discussed later in appendix E of this part, where additional scales may be allowed for NAMS purposes.

TABLE 6.—SUMMARY OF SPATIAL SCALES FOR SLAMS AND REQUIRED SCALES FOR NAMS

Spatial scale	SO_2	CO	O_3	NO_2	Pb	PM_{10}	$PM_{2.5}$
Scales applicable for SLAMS							
Micro		✔			✔	✔	✔
Middle	✔	✔	✔	✔	✔	✔	✔
Neighborhood	✔	✔	✔	✔	✔	✔	✔
Urban	✔		✔	✔	✔	✔	✔
Regional	✔		✔		✔	✔	✔
Scales required for NAMS							
Micro		✔			✔	✔	[1] ✔
Middle					✔	✔	✔
Neighborhood	✔	✔	✔	✔	✔	✔	✔
Urban			✔	✔			[2] ✔
Regional							[2] ✔

[1] Only permitted if representative of many such micro-scale environments.
[2] Either urban or regional scale for regional transport sites.

28. Section 6 is amended by revising reference 18 to read as follows:

6. References

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18. Network Design and Siting Criteria for $PM_{2.5}$ prepared for U.S. Environmental Protection Agency, Research Triangle Park, NC. In preparation.

29. Appendix E is amended by revising the heading of section 8, adding a sentence to the last paragraph of section 8.1 to read as follows, and in section 8.3 removing the term PM_{10} and adding in its place ''PM.''

Appendix E—Probe and Open Path Siting Criteria for Ambient Air Quality Monitoring

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8. Particulate Matter (PM_{10} and $PM_{2.5}$)

8.1 Vertical Placement

* * * Although microscale stations are not the preferred spatial scale for $PM_{2.5}$ sites, there are situations where microscale sites representative of several locations within an area where large segments of the population may live or work (*e.g.*, mid-town Manhattan in New York City). In these cases, the sampler inlet for such microscale $PM_{2.5}$ stations must also be 2–7 meters above ground level.

Appendix F—[Amended]

30. Appendix F is amended by redesignating section 2.7.3 as section 2.7.4 and adding a new section 2.7.3 to read as follows:

2.7.3 Annual Summary Statistics. Annual arithmetic mean (μg/m³) as specified in appendix K of 40 CFR part 50. All daily PM-fine values above the level of the 24-hour PM-fine NAAQS and dates of occurrence. Sampling schedule used such as once every 6 days, everyday, etc. Number of 24-hour average concentrations in ranges:

Range	Number of values
0 to 15 (μg/m³)	
16 to 30	
31 to 50	
51 to 70	
71 to 90	
91 to 110	
Greater than 110	

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Friday
December 13, 1996

Part VII

Department of Defense

Department of the Army

Corps of Engineers

Final Notice of Issuance, Reissuance, and Modification of Nationwide Permits; Notice

DEPARTMENT OF DEFENSE

Department of the Army

Corps of Engineers

Final Notice of Issuance, Reissuance, and Modification of Nationwide Permits

AGENCY: Army Corps of Engineers, DOD.

ACTION: Final Notification.

SUMMARY: The Corps of Engineers is reissuing the existing nationwide permits (NWP) and conditions, some with modifications, and issuing two new NWPs. As with all general permits, NWPs include specific project limitations which ensure that adverse effects will be no more than minimal and that the aquatic environment will be protected. At the same time, if a permit applicant can design a project in a way that meets the limitations of the NWP, the Corps will provide an expedited review and decision for the project. General permits, including NWPs, are an essential part of the Corps regulatory program, and provide us with the method we use to authorize 80% of the activities we regulate. An effective NWP program is essential to administration of the Corps regulatory program. The Corps, however, is increasingly aware of the concerns regarding the level of adverse effects being authorized by NWPs, particularly NWP 26. As a result, we have taken a critical look at the NWP program to better ensure that projects that truly have minimal impacts will continue to be authorized, while ensuring that only minimal individual and cumulative adverse effects will result from the Corps authorizing projects under the program. For example, we have made substantial changes to NWP 26, with an ultimate approach of more clearly defining the activities regulated through activity-specific replacement general permits. The interim changes to NWP 26 we have made will greatly increase environmental protection while increasing the review time for a relatively small percentage of the total number of activities authorized each year. We have also become increasingly aware of the concerns that NWPs, particularly NWP 26, need to be modified to reflect regional differences in aquatic ecosystem functions and values and to more effectively reflect the desire of the states to develop partnerships to protect the aquatic environment. We, therefore, have directed our districts to carefully review all of the NWPs, particularly NWP 26, to revoke applicable NWPs in high value aquatic ecosystems, and to add regional conditions to limit the applicability of the NWPs to ensure that no more than minimal adverse effects occur in each district. We are also directing the districts to work with the states to develop mutually agreeable conditions that will result in a greater level of state Section 401 water quality certifications being issued for the NWPs. We are directing our districts to develop local procedures with their counterparts in the U.S. Fish and Wildlife Service and National Marine Fisheries Service which will ensure that the Corps bases its ''affect'' and ''jeopardy'' decisions on the best available information. We are also initiating formal programmatic consultation under section 7 of the Endangered Species Act regarding the procedures associated with administering the NWP program. We believe that the changes described above, along with many others we have included in this reissuance of the NWPs, will substantially increase protection of the aquatic environment, ensure that no more than minimal adverse effects will occur, and maintain the regulatory flexibility necessary to administer a reasonable regulatory program.

EFFECTIVE DATE: February 11, 1997.

ADDRESS: Information can be obtained by writing to: Office of the Chief of Engineers, ATTN: CECW–OR, 20 Massachusetts Avenue NW., Washington, DC 20314–1000.

FOR FURTHER INFORMATION: Contact Mr. Sam Collinson or Mr. John Studt, at (202) 761–0199 or access the U.S. Army Corps of Engineers Regulatory Home Page at: http//:wetland.usace.mil/

SUPPLEMENTARY INFORMATION:

Background

The White House Office on Environmental Policy announced the President's Wetlands Plan on August 24, 1993. The plan sets forth a comprehensive package of improvements to Federal wetlands protection programs. A major goal of the plan is that the programs be fair, flexible, and effective. To achieve this goal, the Corps regulatory program must continue to provide effective protection for wetlands and other aquatic resources, while conveying to the public a clear understanding of regulatory requirements. In its implementation, the regulatory program must be administratively efficient, flexible yet predictable, and avoid unnecessary impacts to private property, the regulated public, and the environment.

There were 37 existing nationwide permits. Thirty-six of the NWPs were published in the November 22, 1991, Federal Register (FR) at 33 CFR part 330, appendix A (56 FR 59110). They became effective on January 21, 1992, and expire on January 21, 1997. One additional NWP, the Single-Family Housing NWP (NWP 29), was proposed in the Federal Register on July 27, 1995, (60 FR 38650) and became effective on September 25, 1995. NWP 29 would expire on September 25, 2000.

In the preamble of the Final Rule at 33 CFR part 330, as published in the Federal Register (56 FR 59110) on November 22, 1991, we indicated that upon expiration of the existing NWPs, we would issue the NWPs separately from the regulations governing their use and rescind 33 CFR part 330, appendix A. The NWPs will now be published using the procedures adopted on November 22, 1991, for issuance, re-issuance, modification, and revocation of NWPs (see 33 CFR 330.5). The NWPs will no longer appear in the Code of Federal Regulations (CFR) but will be published in the Federal Register and announced, with regional conditions, in the public notices issued by Corps district offices, and included on the Internet.

We are reissuing all the existing NWPs; however, several have been modified, as have several NWP conditions as published in the Federal Register (56 FR 59110) on November 22, 1991. Many of the proposed clarifications are a result of the modification of the definition of ''discharge of dredged material'' at 33 CFR 323.2(d), as published in the Federal Register (58 FR 45008) on August 25, 1993 (i.e., the excavation rule). The definition was revised to include the following language that clarified which excavation activities are regulated: ''(iii) Any addition, including any redeposit, of dredged material, including excavated material, into waters of the United States which is incidental to any activity, including mechanized landclearing, ditching, channelization, or other excavation'' (See 33 CFR 323.2(d) for the complete definition of ''discharge of dredged material'').

We are also issuing, in accordance with the President's Wetlands Plan, two new NWPs to authorize those additional regulated activities with minimal adverse effects that resulted from the excavation rule. These new NWPs include: NWP 30, Moist Soil Management for Wildlife; and NWP 31, Maintenance of Existing Flood Control Projects.

The Corps believes that, when the changes to the nationwide permits and their conditions are considered as a whole, the average approval time for

projects requiring a Department of the Army permit will not substantially change. However, the individual approval time for some projects will be longer while for others it may be shorter. In addition, we believe that the approval time for a vast majority of activities authorized by nationwide permits will not be affected by these changes.

We have made a final determination that this action does not constitute a major Federal action significantly affecting the quality of the human environment. Environmental documentation and a Finding of No Significant Impact (FONSI) have been prepared for each NWP. This documentation includes an environmental assessment and, where relevant, a section 404(b)(1) Guidelines compliance review. Copies of these documents are available for inspection at the office of the Chief of Engineers, at each Corps district office, and on the Corps Home Page at http://wetland.usace.mil/. Based on these documents the Corps has determined that the proposed NWPs comply with the requirements for issuance under general permit authority.

The 36 nationwide permits issued or reissued effective January 21, 1991 will expire on January 21, 1997; however, all of these permits are being reissued with an effective date of February 11, 1997. There will be a period between January 21, 1997 and February 11, 1997 where these 36 NWPs will not be in effect. Between today and February 11, 1997 the permittee may submit Pre-construction Notifications (PCNs) required by the terms of certain NWPs, in accordance with the NWP ''Notification'' General Condition. However, the 30 day (45 day for NWP 26) time period in the notification condition will not start until February 11, 1997. Further, Corps districts will review PCNs during this period and will verify projects as soon as possible after February 11, 1997. Nationwide Permit 29, Single Family Housing, is revoked and reissued with new conditions on the same effective date, February 11, 1997, and therefore, there will not be a period of time where NWP 29 is not in effect. Permittees may submit PCNs at any time, however, the 30 day time period for the reissued NWP 29 will not start until February 11, 1997. In addition, two new nationwide permits, NWP 30 and 31, are being issued with the same effective date. All of the issued and reissued nationwide permits, with the exception of NWP 26, will expire in 5 years on February 11, 2002 unless otherwise modified, reissued or revoked. Nationwide Permit 26 will automatically expire 2 years from today's date unless otherwise modified or revoked.

Many of the nationwide permits have been modified in the course of reissuance. The continued adequacy of an authorization under a nationwide permit, following its expiration, is dependant upon whether that permit has been reissued with or without modification. A nationwide permit is considered to have been modified if either the permit scope or limitations have been modified, or if one of the nationwide permit conditions which applies directly to the activity has been modified. In those cases where the nationwide permit is being reissued without change, and General Condition 4 does not directly apply, the verification remains valid as issued. In those cases where the previously used nationwide permit is being reissued with modification (NWPs 6, 12, 14, 21, 26, 27, 32) or General Condition 4 directly applies to the activity, activities which commence (i.e., under construction, or are under contract to commence) in reliance upon the earlier NWP, prior to January 21, 1997, will remain authorized provided the activity is completed prior to January 21, 1998, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). Activities completed under the authorization of a nationwide permit that was in effect at the time the activity was completed continue to be authorized by that nationwide permit. DE's will, in accordance with 33 CFR 330.6(a), provide applicants with the above information in their responses to requests for verification of compliance with nationwide permits. These procedures are specified in 33 CFR 330.6(b).

Discussion of Public Comments and Changes

I. Overview

Approximately 4,000 comment documents addressing the proposed nationwide permits were received in response to the June 17, 1996, Federal Register announcement (61 FR 30780), district public notices, one national public hearing, and 6 regional public hearings. The Corps has reviewed and considered all the comments. Many of the comments expressed support for the nationwide permit program while many others opposed the program. Most comment letters provided permit specific comments, providing information and recommending changes to both the permits and permit conditions. A few commenters provided comments specific to 33 CFR part 330, our regulations governing implementation of the nationwide permit program. These comments were also reviewed and have been made a part of the record. However, no changes have been proposed for 33 CFR part 330 and, therefore, it is not being revised at this time.

II. General Comments

Regionalization of Nationwide Permits

The Corps proposed a process to regionalize the nationwide permits, particularly NWP 26, in order to reflect the differences in aquatic ecosystem functions and values that exist across the country. We envisioned a process where we would solicit the views of the various stakeholders regarding the nationwide permits and develop region-specific approaches for each district to best protect the environment while providing fair, reasonable, and timely decisions for the regulated public. The final permits we are issuing today reflect a clear decision to proceed in a way that does regionalize the program, particularly NWP 26. We are issuing NWP 26 for an interim period of two years, during which we will gather interested parties at the national level as well as the district and division levels, to develop replacement permits for NWP 26. The replacement permits will be activity-specific rather than the geographic based approach of NWP 26. By developing activity-specific NWPs to replace the existing NWP 26, we will be able to more clearly and effectively address the potential impacts to the aquatic environment, as well as more effectively address specific applicant group needs.

Once the Corps establishes activity-specific replacement permits that have clear national conditions to ensure the aquatic environment is protected and the impacts will be no more than minimal, each district, working with the Corps divisions, will establish regional conditions for the activity specific replacement permits. This may result in the revocation of certain NWPs in aquatic environments of particularly high value, and the addition of regional limitations to specifically address needs for protection of specific environmental assets. Of course, we will continue to encourage all districts to develop programmatic general permits (PGP) with states and other regional authorities that effectively regulate the waters of the United States. When such permits are developed and issued, it is often appropriate for the Corps district

to revoke the nationwide permits in the area covered by the (PGP), provided the PGP provides at least the level of protection of the aquatic environment that the Corps does through its administration of the NWP program.

During the next two years, as the Corps develops the activity-specific replacement permits, the revised NWP 26 will be in effect. We have substantially changed NWP 26, with additional nationwide limitations and conditions, in order to provide substantially improved protection of the aquatic environment, and to ensure that only minimal adverse effects will result from use of the NWP. These additional limitations and conditions are discussed in detail in the preamble for NWP 26 below, as are the specific means by which we have directed the districts and divisions to regionalize NWP 26. In summary, we have directed our districts working with the divisions and Federal and state natural resource agencies to add region-specific conditions to all NWPs, paying particular attention to NWP 26, which will add an additional layer of protection to the changes we have put into place at the national level. This process will also involve public notice and comment to ensure that all interested parties have the opportunity to be involved in the process.

Reissuance Process

A few commenters also commented on the process we used for reissuance of the NWPs. One commenter felt that the Corps should have requested comments and suggestions from the public prior to issuance of the proposed nationwide permits. A few expressed concern that the Corps Special Public Notices, announcing the proposed nationwide permits and requesting comments, did not include sufficient information to generate meaningful comment by the public. These commenters felt that the public notices should have included such information as: The text of all nationwide permits proposed for reissuance, legal and biological justification for reissuance, the location of records regarding use and impacts of the nationwide permits, potential additional impacts due to reissuance or modification of the permits, the extent and effectiveness of existing mitigation permit conditions, the effect of the proposed changes in the permits, and the possible benefits to the nation of eliminating specific NWPs. These commenters also felt that the comment period was not adequate for so many permits at one time and recommended the Corps publish individual public notices for each permit, three per month, with 90 day review periods for each public notice.

The Corps believes that the process provided adequate information and time for public review and comment. We provided concise information regarding the proposed revisions to the nationwide permits and included the names, addresses and phone numbers of points of contact for requesting additional information. To include the information requested by a few reviewers as outlined above was not considered to be productive and the publication would be too voluminous and costly for publication and distribution to the general public. Information requests received during the review period were given priority and information was provided in as timely a manner as was possible. We extended the original 45 day review period by 14 days and added 6 regional public hearings to the originally scheduled hearing in Washington, D.C., in order to provide as much opportunity for the public to comment as was reasonable. In response we received approximately 4,000 letters of comment, and most of the public hearings were well attended. The Corps also believes it is much more efficient and less burdensome on all parties involved to collectively review all the nationwide permits at one time. To publish three notices a month for 90 days each would require more than a year to address all 39 NWPs and place a continuous review burden on the commenting public for the entire period. Such a process would also result in significant inefficiencies in the utilization of Corps limited resources for implementing the program.

Accounting

A substantial number of commenters stated that the Corps of Engineers should establish a system of record keeping to quantify impacts and mitigation, and that such records would be necessary to document that the nationwide permits have only minimal adverse environmental effects. Many commenters stated that the acreage lost due to nationwide permits is not known and the Corps cannot support a conclusion that the effects of the nationwide permits are not significant. A number of commenters stated that reporting should be required for all nationwide permits while others called for reporting for any permit which might have more than minimal impact. Comments indicated that, at a minimum, data reported should include the location and size of any wetlands, and should be collected by activity, nationwide permit number and acreage for each aquatic type. A large number of commenters asked that the records be published quarterly or annually and one suggested they be made available on the Internet.

The Corps has collected and reviewed specific data to assist in making program-wide determinations and decisions regarding the NWP program. While we believe that the data currently being collected for most nationwide permits is sufficient for these purposes, we are increasing the information we will regularly collect in the future. In particular, we are making changes to NWP 26 that will substantially increase the data base regarding that permit. Many districts also collect additional data relative to the use of nationwide permits for use in regionally conditioning the nationwide permits and evaluating specific actions on a case-by-case basis. We do not have the resources necessary for field verification of all nationwide authorizations and associated mitigation efforts. While we do not believe it is necessary to publish periodic reports regarding the nationwide permit program, information and data collected is available for public review upon request. Each district does periodically publish a ''Permits Issued and Denied'' report which is currently sent to standard mailing lists. The Corps is planning to provide access to such information and data via the Internet.

Enforcement

Most of those who commented on the enforcement of nationwide permits expressed the belief that the Corps has not enforced permit conditions or verified that projects are eligible for the nationwide permit issued. One commenter stated that lax enforcement gives violators an economic advantage over those who comply with the law. Commenters stated that the Corps must develop a system to monitor activities, verify applicant information, and enforce conditions. Several comments suggested conducting random inspections and penalizing violators. Other proposals included recommendations that we develop a process to allow citizens to petition the Corps to address a situation where conditions are not being met, or to allow citizens to sue the Corps to enforce conditions.

The Corps has limited human resources to manage the entire Regulatory Program. Since properly developed and coordinated nationwide permits have minimal individual or cumulative adverse effects, we direct the majority of our efforts to projects with a greater potential for impact to the environment. Every application

received is reviewed and a determination is made whether the project is authorized by an existing general permit or requires a standard individual permit (IP) evaluation process. The Corps does inspect a selected number of permitted activities, including nationwide permit activities, each year to encourage and verify compliance with all terms and conditions of the permit (individual or general). The Corps does follow up on reports of alleged violations of the Clean Water Act (CWA) and/or the Rivers and Harbors Act of 1899 (RHA) and pursues resolution of those actions. The Corps currently accepts and investigates suspected violations reported by citizens. Furthermore, each district has an enforcement program and administers it in a manner to provide the most effective compliance with the CWA, to include spot checks, monitoring, reporting, etc.

Notwithstanding the above, we agree that we need to do more to ensure compliance. Therefore, the Corps is, with the reissuance of the NWPs, instituting a program that will require every verified permittee to certify, in writing, that they constructed the project in accordance with the permitted plans, including any mitigation. The Corps is reviewing its enforcement and compliance program to determine if additional guidance is necessary.

Stacking of NWPs

Many commenters indicated that the use of multiple NWPs for a single project (a practice referred to as ''stacking'') should be eliminated or restricted because it allows opportunity for greater than minimal adverse effects to result under nationwide permit authorizations.

The purpose of the NWP program is to authorize activities that cause only minimal individual and cumulative adverse environmental effects with a minimum of administrative processing. While being responsive to applicants and protective of the aquatic environment are considerations that must be balanced, the Corps understands fully that the statutory threshold of ''minimal adverse effects'' is controlling, whether the action involves the use of one or more NWP. We believe that, under certain circumstances, NWPs can be used in combination and result in only minimal individual and cumulative adverse environmental effects. In this regard, our regulations provide for multiple use of NWPs (but each one only once for a single and complete project) provided that the combined adverse effects are minimal. If an activity, otherwise eligible for a nationwide permit, is an integral part of a project for which a standard individual permit is required, it cannot be authorized by an NWP. Most combinations of NWPs allowing discharges of dredged or fill material in waters of the United States (including wetlands and other special aquatic sites), require a PCN to the District Engineer (DE). The PCN process requires the District Engineer to determine whether the activity or combination of activities will result in more than minimal individual or cumulative adverse environmental effects. With this notice we are directing all District Engineers to conduct very critical reviews of projects involving stacking to ensure that no more than minimal adverse effects will occur.

While the Corps allows, under certain specific circumstances, the multiple use of NWPs for single and complete projects, many NWPs are generally ''stand alone'' project authorizations (e.g., NWP 21 would authorize all activities associated with the project) without the need for other NWPs. Some other NWPs, while they are occasionally used with other NWPs, generally are not (e.g., NWP 28 for modification of an existing marina is mostly used alone); however, occasionally it may be used with NWP 3 for repair of an existing structure or with NWP 13 for some bank stabilization. Generally, only 7 of the 37 NWPs are used more than occasionally with certain other NWPs for authorizing projects. These 7 NWPs are 3, 12, 13, 18, 19, 26, and 33. We believe that of those 7 NWPs, those with the potential to have more than minimal impacts, when used with certain other NWPs, are NWPs 18 and 26 in combination with each other and with NWPs 14 and 29. Consequently, to ensure that the multiple use of nationwide permits does not result in more than minimal adverse effects, the Corps will restrict the multiple use (i.e., stacking of those nationwide permits) as follows. NWP 14 has been modified so that it cannot be combined with NWP 18 or NWP 26 for the purpose of extending the limitations of any of the three permits. For example, NWPs 14 and 26 cannot be combined to authorize a fill of 3⅓ acres. Furthermore, NWP 18 cannot be combined with NWP 26 to increase the threshold or the limitations of NWP 26. NWP 29 is already conditioned that it cannot be used in conjunction with NWP 14, NWP 18, or NWP 26. We have also limited the impacts allowed when stacking any NWP with NWP 26 or NWP 29. Whenever any other NWP is used in conjunction with NWP 26, the total acreage of impacts to waters of the United States, for all NWPs combined, cannot exceed 3 acres. Similarly, whenever any other NWP is used in conjunction with NWP 29, the total acreage of impacts to the waters of the United States, for all NWPs combined, cannot exceed ½ acre. We believe that these limitations will eliminate abuse of stacking while allowing appropriate multiple use of some nationwide permits. For example, the Corps could authorize a 0.3 acre road crossing to a 2.5 acre NWP 26 fill project, with appropriate avoidance and mitigation.

Finally, we have added General Condition 15 ''Multiple Use of Nationwide Permits'' that requires a Corps-only PCN in any case where any NWP 12 through 40 is combined with any other NWP 12 through 40 for a single and complete project. For example, if an applicant wishes to combine the use of NWP 14 for a road that does not involve fill in wetlands and NWP 13 for a bulkhead less than 500 feet in length, a Corps-only notification will be required; even though, the use of these NWPs for the projects described do not require a PCN if constructed independently. However, the change noted above will ensure that for combinations that have the potential to result in more than minimal adverse environmental effects, a Corps-only PCN will be required.

State Section 401 Water Quality Certification

Many commenters expressed opposition to the Corps practice of issuing provisional verifications of authorization under nationwide permits for which section 401 water quality certifications have been denied by the state. They expressed the belief that it put undue pressure on the states to certify the projects. Some also commented that it was unfair to require the states to issue, deny, or waive water quality certification within 60 days of receipt of an individual request for certification. Some felt that if a state denied water quality certification for a nationwide permit, the Corps should not authorize any projects under that particular NWP and that the projects should be evaluated under the individual permit procedures. Others believed that administration of sections 401 and 404 should be merged for NWP 26.

It is important to emphasize at the outset that it is the intent of the Corps to work closely with states and Tribes (or EPA where appropriate) during the next 60 days to facilitate State 401 Water Quality Certification. The Corps is committing to meet with the states

and Tribes at the District level, with the goal of ensuring that issuance of each of the NWPs in today's package is consistent with Water Quality Standards established by the states, Tribes, and EPA. This process will include discussion and incorporation of appropriate terms and conditions that would ensure consistency with state/Tribal Water Quality Standards.

We believe that the procedures in 33 CFR part 330 regarding state 401 water quality certification are appropriate and provide a reasonable approach for the state to ensure their water quality standards will be met. Moreover, we believe denial of a 401 water quality certification for a nationwide permit should not be the sole basis for requiring an individual permit application for activities that would otherwise comply with the terms and conditions of that nationwide permit. Denial of state water quality certification for a nationwide permit does not necessarily mean that unacceptable adverse environmental effects will occur on a case-by-case basis. Rather, it indicates that the state is not confident that state standards will be met in all cases. It follows then that, based on the state's denial, the Corps denies authorization, without prejudice, for those activities for which the state denied section 401 water quality certification. Those activities cannot proceed under an NWP or an IP unless the state subsequently issues or waives a water quality certification for that activity. Thus, when the state determines that state standards are met in a specific case (i.e., an individual 401 water quality certification is issued or is waived), the nationwide permit authorization should be available to the prospective permittee. Finally, this approach is based on our desire to develop effective partnerships with states where workload is shared, regulatory duplication is reduced, and neither the Corps nor the states determine how the other party discharges its regulatory responsibilities.

Given the concern regarding the potential water quality impacts of NWP 26, the Corps will also provide an additional opportunity for review for this NWP. In those circumstances where a state has denied section 401 water quality certification for activities between 1/3 and one acre, EPA may request that the Corps provide EPA with PCNs for those proposed activities in the state. Specifically, if the Regional Administrator requests PCNs in those states that have denied water quality certification, the Corps will provide PCNs to EPA consistent with the notification general condition. EPA will work with the other Federal resource agencies to determine which PCNs they wish to receive, and will forward them as appropriate. We anticipate that in most states the agencies will not be receiving PCNs for discharges between 1/3 and one acre because of the Corps commitment to work with the states to ensure, to the best of our ability, that Section 401 water quality certification will be granted.

Several commenters stated that the Corps ought to prevent the states from requiring verification of authorization from the Corps under section 404 prior to receiving 401 certification or waiver thereof. Other commenters stated that the Corps should limit the states' review under section 401 to only 21 days. The Corps believes it would be inappropriate for us to instruct the states on implementation of their responsibilities under section 401, but rather we will work with the states to resolve concerns regarding impacts to the Nation's waters and implementation of our respective regulatory programs on a programmatic basis. This will include discussions between the states and the Corps on a reasonable period of time for the states to act on an individual Section 401 water quality certification.

One commenter recommended an additional general condition requiring that projects otherwise eligible for nationwide permits also be consistent with the requirements of section 303 of the Clean Water Act. The states, as part of their review and evaluation under section 401 of the Clean Water Act, are responsible for ensuring compliance with several sections of the Clean Water Act, including section 303. Therefore, we have proposed no changes for this provision.

Publication of the Nationwide Permits in the CFR

Many commenters were opposed to publishing the NWPs only in the Federal Register (FR) and suggested that they be published in both the Code of Federal Regulations (CFR) and FR. Many indicated that using the CFR is easier and more accessible and that the FR would make it more difficult and even a burden for the public to obtain a full list of available NWPs. One commenter stated that the Corps failed to provide an explanation of why it proposes to publish the NWPs only in the FR. One comment indicated that most county and university law libraries have the CFR, but not back issues of the FR; that only libraries with Federal document depositories have FRs and very few carry back issues. One commenter pointed out that although FRs are found on databases or CD Rom (e.g., Environmental Law Reporters) they usually have only the prior year on database. Therefore, they would have no access until the nationwide permits are over one year old.

One commenter requested that the final announcement include a summary of nationwide permits valid in each state to provide those who work in multiple states with a ''one-stop reference'' of potential nationwide permits.

The final nationwide permits have not been included in the CFR and are being published herein, following procedures similar to those for individual permits and regional general permits, because NWPs are permits, not regulations, and therefore, are not appropriate for publication in the Code of Federal Regulations. While publication in the CFR would provide a ready reference, publication of the final decisions on the nationwide permits are announced in the Federal Register and will also be published through regional public notices issued by District Engineers. Moreover, publication of the nationwide permits in the CFR does not provide an accurate representation of the nationwide permits for any particular area. Such CFR publication would not include the state 401 position nor regional conditions imposed by the local Corps district and division offices. Furthermore, the CFR is only published once a year. Therefore, the reissued NWPs would not be published until July 1997. In addition, it is our intention to ensure that all of the pertinent statutes, regulations and other guidance, as well as the nationwide permits including district regional conditions, be made available on the Internet in the near future.

Compliance With the National Environmental Policy Act

Numerous commenters stated that issuance of the NWPs in their proposed form would constitute a major Federal action which would have a significant effect on the human environment, thus requiring preparation of an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). Numerous commenters also contended that the Corps decision documents are inadequate, do not provide enough information, and are based on insufficient data to appropriately evaluate the impacts of the NWPs. Many of the comments received indicated the Corps should prepare an EIS to ensure that adverse effects are minimal. One commenter added that, at a minimum, an EIS should be prepared for NWPs 26

and 29. Other commenters listed the following NWPs as needing an EIS: NWPs 12, 13, 14, 21, 34, and 40.

Several commenters requested that the Corps prepare a cumulative impact analysis now and make it part of an EIS. Several different commenters provided the following estimates of cumulative impacts occurring under the existing NWP program as acres of wetlands lost: 70,000 acres per year; 82,000 acres from 1988 to 1996 nationwide from 27 of the 36 Corps districts and only from NWPs that were reported to the Corps (included in this figure was an estimate of 4,333 acres of vernal pools lost in California); in 1994 more than 90,000 wetland filling activities proceeded under Corps general permits; nearly one-half million activities; the sum of the small, 0.5-acre, wet areas, like the prairie potholes and vernal pools, impacted is biologically significant; the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) Pre-construction Notification (PCN) database from 1992 to 1996 indicated a loss of 5,500 acres in the southeast region of the United States (Florida had more than 2,000 acres, Georgia, more than 1,000 and coastal Texas 300 acres in Harris County alone).

Several commenters raised the issue of alternatives analysis. One commenter recommended that a full range of reasonable alternatives be explored in the decision documentation, to include not only alternative formulations of the individual NWPs, but also alternative approaches to NWPs, in general. The commenter states that Programmatic General Permits (PGPs), including state PGPs, have already been demonstrated to be effective in several northeastern states. One commenter requested that the decision documents incorporate the regional conditions.

The Corps has collected data relevant to the usage of nationwide permits and associated impacts and we believe that our data demonstrate that the adverse effects from the previous NWPs were minimal. These data show that for Fiscal Year 1995 (FY95) a total of 43,775 activities were authorized with written Corps verifications under all of the NWPs nationwide (this total does not include those for NWP 27, which allows for creation, enhancement and restoration of wetlands and are, therefore, anomalous to this data set). These authorizations under all of the NWPs adversely affected approximately 6,500 acres of wetlands and the Corps received approximately 7,800 acres of mitigation in return. It is estimated that there were approximately 87,000 activities authorized by all of the NWPs nationwide that did not require a PCN, or were otherwise verified in writing by the Corps. We estimate that these unverified authorizations adversely effected an additional 4,300 acres of wetlands. Although this is less than many have suggested, we are consciously striving to reduce this loss through the changes to the program set forth here today. Moreover, the provisions and limitations of the nationwide permit program ensure that those activities authorized by NWPs will have less than minimal adverse environmental effects. Notwithstanding our continued belief that adverse effects of the NWP program have been minimal and the fact that the NWPs we are issuing today will substantially reduce potential effects, the Corps will collect additional data on the reissued NWPs, to document more fully the impacts. For all NWPs that involve a PCN, we will collect data on the acreage of impact and acreage of mitigation. We are also adding a condition to NWP 26 that will require all permittees to notify the Corps of the acres of impact of their project.

The Corps evaluation of the impacts on the aquatic environment resulting from the Nationwide Permit (NWP) program indicates that the cumulative adverse environmental effects are minimal and not significant. This is based on our belief that cumulative impacts must be viewed in the context of the individual watersheds. We believe that past regional conditions placed on NWPs, particularly NWP 26, in many districts have substantially reduced cumulative impacts on a watershed basis. Districts have revoked NWP 26 in many high value watersheds and placed additional notification or other limitations on NWP 26 to ensure minimal adverse environmental effects to specific watersheds. Although these past regional protections have substantially reduced adverse environmental impacts, we believe additional protections are needed to continue to ensure that only minimal adverse environmental effects will occur. Some of the additional protections we are implementing include substantially reducing the acreage limits under NWP 26, ensuring that stacking of NWPs impacts a maximum of 3 acres and only after a review by the Corps, substantially increasing the number of instances where a Corps review is necessary, and requiring increased and more detailed data collection to better monitor NWP activity. Moreover, we are more strongly directing the Corps districts and divisions to add regional conditions for high value watersheds, and additional generalized regional conditions that will ensure that only minimal impacts will occur. This will also ensure that cumulative impacts will not be significant.

In that the adverse effects will be less than minimal, it also follows that they will not result in ''significant impacts on the human environment,'' the threshold requiring an EIS as defined within regulations implementing NEPA. Thus, no EIS is required prior to finalization of these nationwide permits. Formal documentation of the Corps analysis and determinations have been prepared in compliance with NEPA and the Clean Water Act. This documentation includes an environmental assessment and, where relevant, a section 404(b)(1) Guidelines compliance analysis. Copies of these documents are available for inspection at the office of the Chief of Engineers and at each Corps district office. Additionally, Division Engineers will supplement the national NWP decision documentation to discuss regional conditions and regional revocation requirements, which further ensure that the impacts are minimal. These supplements will be available for inspection at the appropriate district offices. We have prepared a programmatic alternatives analysis for each NWP which discusses administrative alternatives to issuing each NWP.

General Permit Criteria

Several commenters requested that the Corps define what constitutes ''minimal'' adverse effects and ''similar in nature'' and prove or guarantee that the NWPs meet the legal requirement that wetland fills have no more than minimal adverse effects before the NWPs are reissued. One commenter stated that the Corps simply ignores the requirement of section 404(e) for activities that are ''similar in nature'' and have no more than minimal adverse effects on aquatic resources such as wetlands. Another commenter recognized that generally the NWPs are conditioned to ensure that adverse effects will be minimal, but was nevertheless concerned that there are many serious exceptions, noting NWPs 26, 29, 34, and 40. One commenter argued that some of the NWPs covering activities that are similar in nature could affect wetlands that were not similar, including NWPs 7, 12, 13, 14, 16, 17, 19, 21, 25, 26, 29, 33, 34, 37, and 40. Most commenters indicated that NWP 26 was of most concern and others commented that, without mitigation, there could be a cumulative effect. Several commenters recommended that

the Corps first obtain data to determine the extent of the project impacts. Without such data, they maintain that it is difficult to accurately assess if wetland fills authorized by the NWPs comply with the Clean Water Act requirements for no more than minimal individual or cumulative adverse environmental effects.

We have determined that it is not appropriate to define the term ''minimal'' at the national level, because what constitutes minimal adverse environmental effects can vary significantly from resource to resource, state to state, county to county, and watershed to watershed, as well as district to district. Moreover, the term ''minimal'' must be defined based on the effects of the specific project in the immediate vicinity, and in the watershed where the activity will occur. Simply listing the acres lost nationally is not instructive regarding minimal adverse effects. Therefore, the determination of ''minimal'' adverse environmental effects is left to the discretion of the DE. The district represents the most knowledgeable office concerning the aquatic resources within that particular region, and the DE is therefore the most capable of assessing relative impacts that would result from activities authorized under the NWP program. We believe that each nationwide permit authorizes similar activities within the definition for general permits as defined in 33 CFR 322.2(f) and 323.2(h), and with each district's capability to identify impacts associated with these activities and the ability of the DE to require project specific mitigation or to exercise discretionary authority, activities authorized under these NWPs will have less than minimal adverse effects. The Corps divisions have had the authority, based on recommendations from the Corps districts, to reduce potential adverse effects by imposing regional conditions or revoking the applicability of specific NWPs in high value aquatic areas. The Corps divisions have used this authority in many cases. However, we are, in this notice, further emphasizing to all Corps districts and divisions that they should use this authority within their geographical areas to further ensure that only minimal individual and cumulative adverse effects will occur. We expect that each division will, based on the recommendations from each district, restrict the use of several nationwide permits to ensure protection of high value aquatic systems under its authority. Moreover, districts will ensure that adverse effects under NWP 26 are minimal by requiring mitigation for most projects above ⅓ acre. This determination is further reinforced by the NEPA and Section 404 evaluations discussed above. The collection of detailed data for the purpose of addressing cumulative impacts is also addressed above under ''Compliance with the National Environmental Policy Act.''

Endangered Species

The Corps believes that the procedures that we have in place ensure proper coordination under section 7 of the Endangered Species Act (ESA) as well as ensuring that threatened and endangered species will not be jeopardized and their critical habitat will not be destroyed. We also believe that current local procedures in Corps districts are effective in ensuring that the ESA is fully complied with under the nationwide permit program. Finally, we have incorporated several additional assurances into the program which have resulted from informal consultation with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS).

Under the current Corps regulations for our NWP program (33 CFR 330.4(f)), each district must consider all information made available to it, and information that it has in its own records, to determine whether any listed threatened or endangered species or critical habitat may be affected by a specific permit action. Based upon this consideration and evaluation, the district will initiate consultation with the FWS or NMFS, as appropriate, if the district determines that the regulated activity may affect, or if the district believes that the action is not likely to adversely affect, any endangered species. Consultation may occur under the NWP process or the district may assert its discretionary authority to require an individual permit for the action and initiate ESA consultation during the individual permit process. If the ESA consultation is conducted under the NWP process without the district asserting its discretionary authority and require an IP, then the applicant will be notified that he cannot proceed until the consultation is complete. If the district determines that the activity would have no effect on any endangered species, then the district would proceed to issue a NWP verification letter. The Corps verification letter will explicitly state that the Corps has made a determination of no affect on endangered species.

Corps districts have, in most cases, established informal or formal procedures with their local counterparts in the FWS and NMFS through which the agencies share information regarding endangered species. Information developed, shared, and used by the local Corps and FWS/NMFS offices result in the Corps becoming aware of potential adverse effects on ESA-listed species. In most cases, maps and computer data bases are available on the local level that identify locations of populations of endangered or threatened species and their critical habitat. Moreover, for cases which involve a level of potential adverse effects that require a PCN process of coordination with the other agencies, the Corps is now specifically requesting any information that the FWS or NMFS may have on endangered species as part of the PCN consultation. Thus, based on location of the project, an additional level of review now exists for these types of projects. Furthermore, the Corps is now requiring additional PCNs in additional areas and for additional types of activities to ensure that the potential NWP effects will be minimal, for example, the lowered threshold levels of NWP 26. This provides for an additional level of review for many more activities. Any information provided through the PCN process will be used by the district to make its ''may affect,'' ''not likely to adversely affect'' or ''no affect'' determination.

In addition to the procedures listed above, each NWP verification includes General Condition 11, which states that ''no activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species * * * or which is likely to destroy or adversely modify the critical habitat of such species.'' Also, to avoid possible confusion on the part of some applicants, Condition 11 has been modified to clarify that this NWP does not authorize the taking of Federally listed threatened or endangered species. This should help ensure that applicants do not mistake the Corps permit as a Federal authorization that would allow the taking of Federally listed threatened or endangered species.

Although the Corps continues to believe that these existing procedures ensure that the Nationwide Permit Program complies with the ESA, we will take the following additional steps to provide further assurance. First, although not required, the Corps will initiate programmatic formal section 7 consultation with the FWS and NMFS as a precaution to further ensure that there is no adverse effect on listed species. We intend that formal consultation will be concluded as soon as possible but not to exceed two years from the date of issuing the revised and

reissued NWPs. Second, the Corps will direct the district offices, in writing, to meet with appropriate local representatives of the FWS and NMFS and to establish or modify existing procedures to ensure that the Corps has the latest information regarding the existence and location of any Federally listed threatened or endangered species or their critical habitat in its district. This will ensure that districts have the best information available to make decisions regarding whether an activity may affect an endangered species and thus whether or not to initiate consultation. The Corps districts can also establish through local procedures, regional conditions or other means of additional consultation for areas of particular concern that a permitted activity may affect an endangered species. The Corps believes that the procedures that we have in place ensure proper coordination under section 7 of the ESA, as well as ensuring that threatened and endangered species will not be jeopardized, and that their critical habitat will not be destroyed.

While we are issuing/reissuing this entire package of NWPs (except for NWP 26) for a period of five years, we will be working over the next twenty-four months to collect data, monitor use of these NWPs, and conduct formal consultation under section 7 of the ESA. This two year process is intended to provide us with more detailed information on the types of activities being authorized, the nature and extent of wetlands and other waters being affected by the NWPs, and potential effects to the Nation's Federally listed threatened and endangered species. Immediately following the conclusion of this two year process, we will use the results of this data collection, analysis, and consultation to reevaluate the NWPs being issued/reissued today to determine what modifications are necessary. We will provide to the public, by notice in the Federal Register, the results of our data collection and consultation. In addition, we will provide the opportunity for public comment on changes to the NWP program that might be necessary to ensure compliance with the CWA, ESA and NEPA. In the interim, we would welcome any comments or information that the public might wish to provide relevant to our data collection and consultation process.

III. Comments and Responses on Specific Nationwide Permits

1. Aids to Navigation: Two commenters supported reissuance of this NWP and no changes were proposed. NWP 1 is reissued without change.

2. Structures in Artificial Canals: No changes to this permit were proposed by the Corps. One commenter suggested the term ''artificial canal'' be defined and that the definition exclude historic sloughs or channels. Another commenter suggested that the term ''structures'' is too vague and requested clarification on the interpretation of ''principally residential canals,'' whether this NWP authorizes the removal of structures, and whether it can be used in place of or in association with NWP 13 for bank stabilization.

While the term artificial canal could be misinterpreted by some to include channelized natural areas, this is clearly not the Corps interpretation. Should a Corps district find that individuals are using NWP 2 in such areas, the district would take appropriate action to bring such activities into compliance through proper procedures. In accordance with 33 CFR 322.5(g), structures in previously authorized canals would have been considered under applications for the original canal work. In grandfathered canals or in cases were structures may not have been considered, the DE may use discretionary authority to evaluate structures if more than minimal adverse effects are anticipated. Artificial canals within principally residential developments would be used primarily for personal or recreational egress and ingress rather than for commercial use. The Corps procedures, as outlined in the general condition for historic properties, comply with the requirements of 33 CFR part 325 appendix C, which implements 36 CFR part 800 and fully satisfies the requirements of National Historic Preservation Act (NHPA). This nationwide permit is not to be used for bank stabilization projects; such projects should be reviewed for authorization under NWP 13. In case(s) of independent utility, NWP 2 may be used in conjunction with NWP 13 provided individual or cumulative adverse effects are not more than minimal. We anticipate that the impacts resulting from the removal of structures in artificial canals would be similar to the impacts derived from the original installation. Consequently, removal activities are authorized by this NWP. NWP 2 is reissued without change.

3. Maintenance: The Corps proposed no changes to this nationwide permit. One commenter recommended that the NWP not allow restoration that clearly adversely affects fish and wildlife. Several commenters recommended that no deviation from the original design be authorized by the permit since changes could result in significant adverse effects, while one commenter suggested eliminating the qualification for ''minor deviation in the structure's configuration.'' Another commenter requested a list of types of authorized activities and that ''minor'' be defined. Another commenter asked for inclusion of bridge/culvert replacement that complies with flood-proofing and structural design standards.

The experience with NWP 3 has been very good; navigable waters have not been obstructed and impacts are very minor. Furthermore, in many cases, use of NWP 3 actually enhances the aquatic environment. For example, replacing a seawall that is damaged often results in eliminating chronic turbidity caused by erosion. Because all structures and fills require maintenance periodically and because infrastructure repair following national disasters is critical to the public welfare, we believe this nationwide permit is necessary. We are retaining the provision allowing ''minor deviations'' in order to provide the flexibility necessary to keep pace with construction technology, building codes and public safety. Activities with deviations resulting in more than minimal adverse effects would not be authorized by this nationwide permit, nor would activities having more than minimal adverse effects on fish and wildlife. The qualifications attached to the ''minor deviations'' provision are considered necessary in order to ensure adverse effects are avoided and minimized to the extent possible. This NWP is not limited by type of facility. ''Minor'' is not specifically defined, because the variety of structures and fills included makes defining the word impracticable. ''Minor'' is meant to refer to a level of project deviation which will result in a level of adverse environmental effects associated with the change that are no more than minimal. Bridge and culvert replacement in compliance with local requirements and design standards would normally be authorized under the permit if they meet the limitations and conditions of the permit.

One commenter requested that NWP 3 authorize activities previously authorized by 33 CFR 330.3 and equivalent authorizations at the state level or constructed prior to the excavation rule. NWP 3 specifically states in the first sentence that 33 CFR 330.3-authorized activities are included. Similar authorizations under state laws can vary considerably and may not be consistent with NWP 3; thus a blanket authorization is not appropriate. This nationwide permit is tied to structures

and fills only, and cannot be used to authorize the repair, rehabilitation or replacement of excavated facilities. The term ''structure'' does not include unconfined waterways, such as streams and non-lined drainage ditches. The term does include such activities as bank protection measures, ditches and canals lined with man-made and placed materials.

Several commenters recommended that fills and structures required by special conditions in a previously issued permit be covered. The NWP does authorize maintenance of such structures or fills that were previously authorized. This NWP does not authorize activities that were not previously authorized by the Corps.

Another commenter suggested that ESA coordination occur after catastrophic events when new habitat can be created but then damaged by repair activities. General Condition 11 and ESA section 7 require coordination for endangered species. Consideration of improved habitat is made under section 7.

Another commenter felt maintenance/operation plans should be approved before the work is conducted. We believe that this would create an unnecessary burden on the applicant and the Corps for authorization of maintenance and repair activities with less than minimal adverse effects.

One commenter believed that the two year construction time period should be extended, while another felt that two years is long enough. In our judgment, two years has proven to be a reasonable period that does not jeopardize environmental protection due to changing conditions. The permit includes provisions for the DE to extend the period if warranted.

Another commenter felt that this NWP should not be allowed in floodplains. We believe the floodplain capacity would not be appreciably changed for structures or fill maintenance and repair within the limits of this NWP.

One commenter suggested limiting the impact area and another suggested the PCN procedure be applied to this NWP. Since NWP 3 only authorizes structures and fills that are existing, the impacts have already occurred. Maintaining them creates little or no added adverse effects, which ensures that effects would be less than minimal. Therefore, we believe neither of these limitations should be applied. NWP 3 is reissued without change.

4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities: As part of the proposed modification of this permit, we were clarifying that the permit does not authorize the use of covered oyster trays or clam racks. One commenter questioned whether the prohibition on clam racks included ''clam bags'' and was concerned about the scope of ''covered oyster trays and clam racks.'' This commenter was also concerned about the harvesting of natural live rock, the inclusion of open water pens in the definition of ''impoundments or semi-impoundments for culture of motile specimens,'' or qualitative limitations to define ''small fish attraction devices''; and whether bottom dredging of sea grass areas or ''bottom tending gear'' for commercial purposes were authorized by this permit. One commenter suggested that the permit should specifically exclude commercial scale net pen culture in addition to oyster trays and clam racks. Another commenter asserted that shellfish beds should not be authorized under this permit. This commenter also stated that the exclusion of authorization of covered racks and the location of racks in wetlands of sites that support aquatic vegetation was not sufficient. The commenter cited information that described changes in species diversity associated with the location of racks on and in intertidal mudflats. One commenter stated that the permit should be modified to authorize the releases of scallop and hard clam seed into eelgrass cover. One commenter urged that small aquaculture projects be excluded from this permit, while another commenter stated that fish hatcheries should be specifically excluded. A few commenters suggested that the installation of fish ladders be included under the permit. One commenter was concerned about issuance of permits in areas that have been customary boating channels.

Each of the comments on this nationwide permit are expressions of concern for unique situations in specific regions of the Nation. It is not possible to address all the possible limitations and conditions that may be appropriate at a local or regional level. Nor can we address all the possible variations in terminology, such as ''clam bags.'' Therefore, we believe it is more reasonable and practicable for such comments to be addressed through regional conditions and the provisions for discretionary authority at the division and district levels. Corps districts have the authority, working with the divisions, to restrict use of this NWP in high value areas, such as particularly vulnerable seagrass beds, if they deem such restrictions to be necessary. The one change proposed by the Corps was not objected to and received some comments of support. Therefore, that change has been made to the permit in its reissuance.

Another commenter suggested that the permit be modified to include ''sites where submerged aquatic vegetation may not be present in a given year.''

Although we believe that the NWP language includes such sites in the terminology ''* * * or sites that support submerged aquatic vegetation * * *'' (i.e., a site may not have submerged aquatic vegetation present, but could support such vegetation), we have clarified this in the NWP. NWP 4 is reissued with the proposed changes and the clarification stated above.

5. Scientific Measurement Devices: The Corps proposed no changes to this NWP. A few commenters were concerned that the structures permitted by this NWP could preclude or substantially obstruct movement of aquatic organisms including migratory fish. One commenter was concerned that this NWP does not provide any limit on the size or use of the structures authorized and suggested that a maximum size be included (e.g., 1000 square feet). This commenter also recommended that the NWP be conditioned that the structure be used exclusively for purposes associated with scientific measurement to preclude anyone from using this NWP to circumvent the permit process. One commenter recommended that the 25 cubic yard threshold be maintained but to eliminate the PCN requirement.

We believe the concern for impeding the passage of fish or shellfish is addressed by General Condition 4. Due to the varying structures involved in scientific measuring devices, imposing a size limitation would be difficult and unwarranted. A condition will be added stating that any structure authorized by this NWP must be exclusively used for purposes associated with scientific measurements. We have also modified the PCN requirement so that applicants will need to notify only the Corps. NWP 5 is reissued with the modifications described above.

6. Survey Activities: The Corps-proposed changes to this nationwide included allowing discharges associated with the placement of structures necessary to complete a survey for historic resources and soil surveys. Most commenters supported the proposed changes. A few commenters requested that the placement of survey markers such as benchmarks and monuments be authorized under this NWP. One commenter felt that mechanical clearing of survey lines should be included, but limited to 8 to 10 foot widths. A few

commenters requested that limited discharges and structures necessary for the recovery of artifacts and information be included in the NWP rather than excluded as proposed. Many commenters asked for the exclusion of seismic exploratory operations involving the use of explosives, such as ''3–D'' operations, due to the extensive scope and environmental impacts of such activities. It was proposed that the term ''core sampling'' be changed to ''soil, rock and sediment sampling'' and changing ''exploratory-type bore holes'' to ''exploratory-type holes'' because while most sampling of rock may be by coring, much of the soil sampling is by other methods (i.e., augering, hand shovel, backhoe, etc). Other commenters asked that the permit language specifically indicate that no permanent structures are authorized, all fills be removed and that the area be restored to its original state.

The placement of survey markers such as benchmarks and monuments is authorized under NWP 18 within limitations. Activities necessary for the recovery of artifacts and information are not authorized by this NWP which is intended for authorization of survey activities only to ensure the minimal adverse effects limitation is not exceeded. Operations involving the use of explosives such as 3–D operations with blast shock during seismic tests, or mechanical landclearing activities, have not been categorically excluded. These activities are either unique to, or differ between, geographical regions of the Nation; therefore, regional conditions are the best way to address concerns about minimizing the effects of 3–D seismic surveying. Corps districts will be directed to coordinate with any Federal, state, or tribal authority expressing a concern about 3–D seismic surveying for the purpose of developing regional conditions to address those concerns, as appropriate. Of course, use of towed explosive, pneumatic or seismic devices that do not involve construction, excavation or other work in sediments do not require any permit from the Corps. We have conditioned this NWP to clarify that it does not authorize any permanent structures or fills. The current wording of the NWP does include, but is not limited to, the use of augers, shovels, backhoes, and other small equipment, as well as core drills. NWP 6 is reissued with the proposed changes and the clarification stated above.

7. Outfall Structures: The Corps proposed no changes to this NWP. A number of commenters objected to re-authorization of this NWP or stated that work in tidal wetlands or areas supporting anadromous fishes should be excluded. Commenters stated that outfalls have caused the loss of wetlands and may trap or entrain fish. Several commenters stated that the NWP should contain a requirement to include measures in the design to prevent such fish loss. One comment indicated that work in areas that may be contaminated should be excluded. Another stated that activities authorized by this NWP have significant adverse environmental effects.

Regional conditioning of the nationwide permit and the provisions for discretionary authority at the division and district levels will provide tools necessary to protect fish, wetlands, and water quality, and to address any other environmental effects that potentially are more than minimal.

One commenter requested elimination of the notification requirement when the construction of the outfall requires less than 25 cubic yards. Several commenters called for retaining the notification requirement.

The notification requirement will be retained to allow review of proposed projects for greater than minimal adverse environmental effects and impacts to navigation.

Several commenters stated that this permit violates section 404(e) of the Clean Water Act because the discharge structures may not be similar in size or in the material discharged. One commenter called for authorizing all intake structures under this NWP.

The activities authorized by this NWP are similar because they are similar in scope and purpose and are reviewed and approved pursuant to the National Pollutant Discharge Elimination System (NPDES) under section 402 of the Clean Water Act. The relationship of these projects to section 402 assists the Corps in arriving at a minimal adverse effects determination. The inclusion of all intake structures under the NWP would make such a determination not possible. NWP 7 is reissued without change.

8. Oil and Gas Structures: The Corps proposed minor changes to this nationwide permit to clarify that Corps review for taking discretionary authority is limited to the effects on navigation and national security. One commenter was concerned that work could occur in environmentally sensitive areas. Another commenter suggested that pipelines be excluded from use of this NWP. A few commenters believed that this NWP should not be reissued because of potential impacts associated with oil and gas exploration and that this NWP does not meet the ''similar in nature'' or ''minimum effects'' threshold of section 404(e) of the Clean Water Act. One commenter recommended that a PCN be required for this NWP. A few commenters believed that individual state 401 water quality certification should be required for these activities.

The Corps believes this NWP is very restrictive. The only structures that can be authorized under this NWP are those within areas leased by the Department of the Interior, Minerals Management Service. The general environmental concerns are addressed in the required NEPA documentation the Service must prepare prior to issuing a lease. Further, the Corps involvement is only to review impacts on navigation and national security as stated in 33 CFR 322.5(f). NWP 8 is reissued with the proposed clarifications.

9. Structures in Fleeting and Anchorage Areas: The Corps proposed no changes to this NWP. One commenter requested clarification of the term ''structures'' and the definition of ''fleeting and anchorage areas,'' and expressed concern for secondary impacts of vessel discharges, and impacts from shading submerged aquatic vegetation by the structures.

The NWP is specific to the purpose of moorage of vessels, thus structures will be small compared to the vessels. Fleeting and anchorage areas are determined by the U.S. Coast Guard and indicated on navigation charts. They are for concentrating vessels in an area that minimizes navigation impacts to other vessels while the former vessels wait for unloading cargo, etc. Shading impacts are not expected as these areas are usually in deep water and the structures and buoys seldom produce measurable shading. NWP 9 is reissued without change.

10. Mooring Buoys: The Corps did not propose changes to this NWP. One commenter expressed concerns about the limitations or specifications on the size or number of mooring buoys, and the environmental restrictions on location.

Comments regarding specific areas that should be excluded or other special restrictions that are needed to protect special areas such as shellfish beds or submerged aquatic vegetation should be dealt with by contacting the appropriate district and requesting the addition of regional conditions. Based on our experience, we do not anticipate that the mooring buoys and anchorage systems will have more than minimal adverse effects, either individually or cumulatively. NWP 10 is reissued without change.

11. Temporary Recreational Structures: The Corps proposed no changes to this NWP. A few commenters were concerned that the NWP may

cause removal of riparian vegetation and alter the nearby shore aquatic environment, and that the Corps should define ''temporary,'' ''small floating docks'' and ''seasonal''. A commenter requested that the NWP be expanded for certain commercial activities other than jet ski, parasailing, and similar rentals, provided the activity is of temporary duration.

We disagree with the approach of attempting to define national time limitations on temporary or seasonal structures because of the seasonal variations for different recreational activities from region to region. Regional conditions can be developed for the NWP and/or the District Engineer may use discretionary authority, on a case-by-case basis, if duration, structure size, or location require such action. Limiting the NWP to discrete events would greatly reduce its utility. This nationwide permit was proposed to authorize temporary recreational structures which overall would have only minimal adverse effects. Given this, and the discretionary authority provisions, the Corps believes that the NWP adequately balances the need for temporary recreational structures in waters of the United States, while protecting riparian and aquatic resources. NWP 11 is reissued without change.

12. Utility Line Backfill and Bedding: The Corps proposed rewording of this NWP to include discharge of dredged material from the trench excavation, and requested comments establishing limitations for special aquatic sites. A large number of comments addressed NWP 12. Based on the comments we received and the Corps internal evaluation of the implementation of NWP 12, we have made substantial changes to this permit. We have added a PCN review for four situations: for any activity that would be authorized under NWP 12 that involves more than 500 linear feet in waters of the United States; for any project that involves mechanized landclearing of forested areas; for any utility line that is placed parallel to a water of the United States; and for any activity involving authorization under section 10 of the Rivers and Harbors Act of 1899. We believe that these increased limitations will ensure that no more than minimal adverse effects to the aquatic environment will occur.

The comments were closely split between supporting issuance without changes and supporting issuance with limitations. Several commenters were opposed to reissuance based on environmental impacts. Many commenters, requesting limitations, made suggestions on those limits: 200 linear feet, 1,000 linear feet in forested wetlands, 6 inch diameter utility line, 0.33 and 0.5 of an acre. Some commenters suggested PCN procedures above particular limits: 6 inch diameter line, 0.5 of an acre. The allowed duration of side casting also received suggestions: no side casting, 14 days, 30 days. Work with a maximum width of 30 feet was suggested by two commenters.

The variation in wetland values across the nation dictates that a limitation, or threshold for PCN, not overly restrict use of the NWP or unnecessarily add administrative burden to any large geographic area. Potential impacts will vary with the construction methods. The acreage limitation presents the possibility that high value wetlands could suffer more adverse effect at less acreage than the limitation/PCN threshold, but low value or easily recovering wetlands would require unnecessary added administrative procedure when exceeding an acreage limitation/threshold. An acreage limit of 0.33 acres would allow a nearly 2½ mile long utility line trench that was one foot wide. This could be a minimal impact in some areas, but may require an individual permit in other geographic areas and/or wetland types or values.

Based on careful review of all the comments, we have determined that certain limitations should be established and that certain activities will require a Corps-only PCN. We have added section 10 to this permit to allow districts to authorize projects that cross navigable waters. To ensure the navigable capacity of such waters will not be adversely affected, we have also established a PCN for any authorization that involves work in section 10 waters. We have also explicitly stated that mechanized landclearing, including landclearing of forested wetlands, for overhead utility lines may be authorized under NWP 12. To ensure that only minimal adverse effects will occur, we have established a PCN requirement for any utility line that will require landclearing of forested wetlands. We have also included the requirement for a PCN whenever a utility line is placed parallel to a stream bed. Finally, in order to ensure that only minimal adverse effects will occur, we have established a PCN requirement for any use of NWP 12 that exceeds 500 linear feet in waters of the United States.

Several commenters recommended that stream crossings be allowed only if perpendicular to the stream. One commenter suggested that bank stabilization must occur by segments rather than at the completion of the entire project. Another stated that laying utility lines on bottoms of streams should be discouraged. Several recommended that alternative routes be examined more thoroughly. We have added several PCN requirements, including one for situations where a utility line is proposed to be placed parallel to a stream bed. Generally, utility lines are placed perpendicular to a stream and we are, with this notice, directing the Corps districts to critically evaluate any projects that may be proposed to be placed parallel to a water of the United States. Moreover, we believe that it should be an exceptional case where a district authorizes a utility line within, or within wetlands parallel to, a stream bed for more than 100 feet. With the added PCN review, by the Corps, for any project that should be subject to a generalized alternative analysis (i.e., more than simply adjusting the alignment slightly to ensure minimal adverse effects), the district will use its discretionary authority to require an IP.

Several commenters believe that this permit should not be used in combination with other permits (see additional discussion on stacking permits). This restriction would be too limiting for many projects that have minimal adverse effects for the entire project including utility lines. At times, utility lines are considered ''single and complete projects'' as they support existing developments but will also support other future development. We have added a PCN for any stacking of NWP 12 with any other NWP.

Several commenters appeared to be confused with the word ''subaqueous''. Two commenters suggested slightly different wordings and deleting ''subaqueous''. The term subaqueous referred to below the surface of the ground (wetland) or water surface; a line laid on the surface does not require a section 404 permit but any mechanized landclearing to lay such a line would. We have dropped ''subaqueous'' as we feel the reference is not needed and confusing. One commenter desired authorizing maintenance of landclearing. Most maintenance consists of cutting the wetland vegetation above the soil, which is not regulated under section 404 when the soil is not disturbed. If maintenance of a utility line corridor involves landclearing as defined in 33 CFR 323.2(d)(1), it would require additional authorization.

One commenter was confused about the ''single and complete project'' requirement for an NWP combined with an individual permit in relation to the required section 10 permit for utility

lines crossing navigable waters. The NWP authorization covers the excavation and backfill portion in conjunction with the remaining single and complete portion of the line that continues beyond the navigable water, usually in wetlands. ''Single and complete'' for a linear project under the NWPs is defined at 33 CFR 330.2(i); briefly, a linear project is single and complete at each widely separate water crossing. Also, the navigable water portion of the structure (utility line) required a permit under section 10 because it was not included in NWP 12 authorization. Although we have added section 10 to NWP 12, the single and complete provision for linear projects remains in effect.

In the past, NWP 12 has not included Section 10 authorization, which has added an individual permit procedure (usually a Letter of Permission) to the authorization of a utility line in navigable waters. The Corps has decided to add section 10 authorization to minimize the administrative procedures and decrease the time needed for authorization. However, we are requiring a PCN for review of navigation impacts and requiring procedures for notifying the National Oceanic Atmospheric Administration for charting the utility line to protect navigation.

A few commenters were confused by the term ''parallels a water.'' The Corps had suggested, in the proposal, that care should be taken during the placement of a utility line parallel to a waterbody. We are concerned with the potential adverse effects associated with the placement of a utility line parallel to a waterbody and, therefore, have modified and clarified this language. We have removed the proposed language and have added a PCN requirement for the placement of a utility line within a water of the United States parallel to a stream and have clarified that ''parallel to a stream'' means installation of a utility line lengthwise to the bed of the stream. Furthermore, we have added a PCN requirement for proposed projects that would involve placing utility lines along stream beds (see discussion above). Two commenters suggested clarifying whether the NWP included discharges for access roads and foundations for structures supporting overhead transmission lines. Structural fills for overhead utility line supports are often permitted by NWP 25. Access roads could be authorized by NWP 14 or 26 in some cases. The Corps has clarified that mechanized landclearing is authorized for overhead utility lines as long as the width is kept to the minimum necessary. Furthermore, as discussed above, we have added a Corps-only PCN for landclearing forested areas. Access roads and foundations for overhead lines are not authorized. NWP 12 is reissued with modifications as discussed above.

13. Bank Stabilization: The Corps proposed no changes to this NWP. Two commenters wanted to keep the current language of the nationwide permit with no changes, while another expressed general support. Several commenters objected to limitations on length of project area or quantities of fill, particularly for flood control structures. A few commenters stated that the limitation of one cubic yard of fill per linear foot should not include any earthen backfill to return the bank to a former footprint, and that the limitation should apply only to fills that encroach into the pre-existing waterway. Their reasoning is that this would allow reconstruction of failed levees and road embankments and would not result in a loss of wetlands or jurisdiction relative to the pre-failure condition. These commenters also note that the prohibition of any fill in any special aquatic site is a restriction that unduly constrains projects and often renders this NWP inapplicable. They recommend that impacts to special aquatic sites of up to 0.1 acres be allowed without notification, and that greater acreage be allowed with notification. These commenters further recommend that use of biotechnological slope protection or other methods relying on vegetative stabilization be allowed greater PCN thresholds to encourage such usage.

We believe expansion of the scope of this NWP would result in a potential for more than minimal adverse effects. The permit is designed specifically for the protection of existing bank lines at the time of protection and does not authorize filling to restore the original bank line or any other intermediate alignment of the bank. Adjustment in the alignment of the bank is allowed only for reasonable and practical design and construction considerations within the limitations of NWP 13.

Two commenters recommended removing the special aquatic site restriction for ephemeral watercourses when there is no flow under the premise that such areas are defined as wetlands under a broad definition. These commenters also recommend that the nationwide permit recognize that there is likely to be a construction zone 30 feet or greater along the bank within jurisdictional areas where project impacts will be incurred for installation of bank protection.

We disagree that wetlands in ephemeral systems are necessarily of lesser value than other waters simply because they do not contain water at all times of the year. Therefore, removal of special aquatic site restrictions is not warranted. We do recognize that certain bank stabilization projects necessitate keying in the toe of the slope to ensure adequate protection, and that such work requires a construction footprint that will impact additional areas beyond the waters of the United States. If any such adverse effects are likely to be more than minimal for a particular waterbody, the Corps will add regional conditions to ensure that only minimal adverse effects will occur.

One commenter stated that notification is an unnecessary level of Federal review, and that it usurps the states' authority to assess site-specific impacts to water quality under section 401.

This is not an expansion of authority because notification has been a condition of this nationwide permit since its last re-authorization in January 1991. Likewise, it does not usurp the authorities of the states pursuant to section 401 of the Clean Water Act. A state may condition its 401 water quality certification for this NWP so that it will review projects over 500 feet in length, and issue or deny site-specific section 401 certification.

Many commenters were opposed to the reissuance of this nationwide permit because they perceived it to be used in ways inappropriate to its intended use, such as a precursor to channelization of watercourses. Specifically, they suggested that permittees might use this nationwide permit to construct flood control works, and how riprapping affects existing hydrology with adverse effects on habitat and adjoining properties. Several commenters stated that this nationwide permit should specifically exclude channelization, noting that bank stabilization projects can adversely affect habitats adjacent to jurisdictional waters that may support plant or animal populations that are equally limited. We agree that channelization is an inappropriate use of this nationwide permit. It is the responsibility of each district to determine whether a particular project is contributing to greater than minimal cumulative adverse effects, and to exercise discretionary authority if they believe such effects are occurring.

Several commenters noted that this nationwide permit should be used selectively on a regional or watershed basis to prevent cumulative adverse effects in sensitive habitats. Others stated that this nationwide permit needs

better monitoring and compensatory mitigation, or should always require compensatory mitigation. One commenter stated that this nationwide permit should not be used in conjunction with any other nationwide permit.

We believe the provisions for regional conditioning and asserting discretionary authority will ensure that greater than minimal adverse effects do not occur. Mitigation is being required where appropriate to achieve minimal adverse effects, but we do not believe that all bank stabilization projects require mitigation because many projects have minimal effects, in fact often positive effects, on aquatic resources without mitigation. For example, riprap on an eroding barren bank will typically increase habitat diversity and reduce turbidity in downstream waters.

One commenter stated that because erosion has occurred after some projects permitted under this nationwide permit were constructed, the Corps should not reissue it unless it can demonstrate that such projects will perform as expected. Another commenter noted how some projects of inadequate design integrity would eventually wash downstream with potentially adverse effects on water quality, aquatic habitat, public safety, and aesthetics.

The Corps evaluates projects to determine if they are in compliance with Clean Water Act requirements, including whether the project will only result in minimal adverse effects for NWPs, and to ensure that they are not contrary to public health or safety. We believe that the bank stabilization methods employed are generally effective even in cases where there is no reporting to the Corps. Although a washout of shore protection could occur, such unusual flows would also wash out unprotected shorelines and structures or natural features such as trees, rocks, and the like, all of which would wash downstream.

One commenter questioned whether this nationwide permit could be used in lieu of NWP 2 for stabilization projects in artificial canals. Another commenter recommended that this nationwide permit should be used only on artificial canals.

NWP 13 can be used in lieu of NWP 2 where appropriate. However, restricting its use only to artificial canals would unduly restrict its utility.

Several commenters recommended retaining the notification requirements, particularly for those projects in excess of 500 linear feet. Several commenters called for lowering the PCN threshold to 100, 200 or 300 feet to more appropriately address cumulative impacts. One commenter suggested that the cubic yardage limit for notification be 100,000 cubic yards. Several commenters stated that the nationwide permit should specifically mention the types of bank stabilization allowed, with an emphasis on methods that did not include landscaping. Many others recommended excluding certain materials such as gravel, asphalt, tires, automobiles, building rubble, poured concrete, driven sheet piles, and structural timber bulkheads. Two commenters stated that projects authorized under this nationwide permit should not include seawalls or bulkheads on open or natural shorelines and should not allow backfilling for the purpose of creating fast land or reclamation. Three commenters stated that use of concrete rubble should only be used if it meets acceptable riprap standards for size and density, is free of contaminants, is faced with acceptable rock riprap, and has all rebar cut flush with the surface.

We believe the terms and conditions that prohibit discharges in special aquatic sites (including wetlands) prohibit the use of unsuitable and toxic materials, limit the shore stabilization to 1 cubic yard per linear foot, and require that the proposed stabilization be the minimum necessary, are sufficient to alleviate these concerns. In some cases where the adverse effects could be more than minimal (i.e., discharges on more than 500 feet of shoreline, and/or greater than one cubic yard per linear foot of shoreline) notification to the DE is required. Also, where potentially high value aquatic resources may be impacted with less than 500 feet of bank protection, the Corps division can regionally condition NWP 13. The intent is to accommodate a wide range of users, techniques and materials with minimal time delay and maximum protection of valuable wetland resources. NWP 13 is reissued without change.

14. Road Crossing: The Corps proposed no changes to this NWP. Many commenters suggested that this NWP should not be reissued or should be modified for a number of reasons including the following: it should not be used for large road projects with multiple wetland crossings; the breadth of the road crossings are not constrained; the acreage allowance should be reduced; and this NWP is most frequently stacked with other NWPs, causing adverse effects to exceed minimal. A few commenters recommended that a maximum acreage impact limit be applied to large road projects with multiple crossings of waters of the United States (including wetlands and other special aquatic sites).

The Corps regulatory policy regarding linear projects and what constitutes a single and complete crossing is well established (RGL 88–6). Individual channels in a braided stream or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies. For linear projects, the single and complete project requirement for individual NWPs will be applied to a waterbody at a single location. That is, each waterbody impacted by a roadway will be considered a single and complete crossing at that location. Where a roadway intersects a single waterbody such as a meandering river at separate but distinct locations, each crossing is considered a single and complete crossing. The purpose of the ''single and complete'' language is to preclude situations where one project will repeatedly crisscross one waterbody when such multiple crossings can be practicably avoided.

Several commenters expressed support for this NWP as proposed. Others indicated that there should be no limits on the length or area of a crossing. Two commenters suggested that the NWP 26, 1 to 10 acre provision be incorporated and that acreage be the only controlling limit. Two other commenters recommended the length be increased to 400 linear feet and one suggested that the acreage be increased to acre. A few commenters opposed the inclusion of the ''Notification'' general condition in this NWP.

We carefully considered the suggestions to limit the width of the roadway as well as to expand the length and maximum acreage for the roadway. We concluded, however, that the limits in the NWP as proposed represent a tested balance. With regard to stacking NWP 14 with other NWPs, we have conditioned this NWP to not allow NWP 18 or NWP 26 to be combined with it for the purpose of expanding the allowable road crossing footprint. In addition, a Corps-only PCN is required any time this NWP is combined with any other NWP. (See discussion on ''Stacking of NWPs'' in section II above.). NWP 14 is reissued with the modification discussed above.

15. U.S. Coast Guard Approved Bridges: The Corps proposed no changes to this NWP. A few commenters expressed concerns about the impacts associated with the construction of access fills, fill removal, and restoration of preconstruction grades. Another commenter was concerned about revegetation with native species after completion of such preconstruction

grade restoration activities. One commenter encouraged inclusion of conditions to require excavation and removal of old approach fills when they have been replaced. Another commenter stated that the impacts related to Coast Guard bridges can be significant and that issuance of the NWP contributes to an incomplete and less than thorough review by the Coast Guard. A few commenters felt that the Corps had inappropriately delegated Section 404 responsibility to another agency.

Based on the requirement of this NWP and the ability of the DE to assert discretionary authority should the nature of the impacts warrant, we believe that this NWP is an efficient means to regulate the construction of bridges. The regulations also allow for the development and inclusion of conditions to address particular project aspects such as removal of old approach fills, revegetation specifications, etc. The comments regarding the delegation of regulatory authority are apparently based on the misinterpretation of the permit language. The Coast Guard has been given the task of reviewing such bridge construction pursuant to section 9 of the Rivers and Harbors Act of 1899. A Department of the Army permit pursuant to section 404 of the Clean Water Act is still required for the discharge of dredged or fill material into waters of the United States associated with the construction of the proposed bridges and causeways. NWP 15 is reissued without change.

16. Return Water From Upland Contained Disposal Areas: The only change the Corps proposed to this NWP was a change in wording to note that, in certain circumstances, dredging may now require a section 404 permit. One commenter requested that the NWP require an NPDES permit. A couple of commenters recommended that the NWP not be applicable to dredged material taken from areas of known sediment contamination or where there is reason to believe that the discharge is contaminated. A few commenters stated that water quality violations could result from the NWP unless it is limited to the activities authorized by, and operating in conformance with, currently valid permits or exemptions. One commenter suggested that all return water be tested for contaminants. A couple of commenters thought that the original text and the clarification were unclear without specifying when the activity may require a section 404 permit relative to the excavation rule, or when a section 10 permit may be required.

This NWP authorizes the return of effluent to waters of the United States from upland contained disposal areas, and is not intended to address the dredging activity. However, a Department of the Army permit pursuant to section 10 is required for structures or work in, or affecting, navigable waters of the United States, as that term is defined in 33 CFR parts 322 and 329. A Section 404 permit is required for any addition or redeposition of dredged material associated with any activity that destroys or degrades a water of the United States as defined in parts 323 and 328, unless the discharger demonstrates to the satisfaction of the Corps or EPA, as appropriate, prior to the discharge, that the activity will not have such an effect. The effluent subject to NWP 16 has been administratively defined as a discharge of dredged material. Based upon Corps experience and knowledge of dredging and disposal operations, we believe that the technology is readily available to control the quality of the return water from contained upland disposal sites. Any adverse environmental effects resulting from this type of activity would be minimal, provided the effluent meets established water quality standards and adequate monitoring of the activity is performed to assure compliance with these standards. With this in mind, it is our intent to provide the states an opportunity to review each activity under this NWP authorization to assure compliance with state water quality standards. We see no need to require additional state review unless the water quality certification for the NWP has been denied. The prospective permittee must receive an individual certification or waiver from states that have denied water quality certification for the NWP authorization. The Corps has no authority to determine NPDES program requirements. NWP 16 is reissued with the proposed changes.

17. Hydropower Projects: The Corps proposed no changes to this NWP. The comments received addressing NWP 17 were all related to the potential impacts associated with hydropower projects and stated the position that NWP 17 is contrary to the NWP program's provision allowing only activities of similar nature and of minimal impacts.

We are maintaining the notification requirement for this NWP to enable us to assess the nature of the impacts associated with each project and whether to exert discretionary authority. In addition, the Federal Energy Regulatory Commission has the responsibility of examining environmental impacts for those small hydropower projects at existing reservoirs. NWP 17 is reissued without change.

18. Minor Discharges: The Corps proposed a modification to the wording of this NWP to clarify how the Corps measures excavation activities for the purpose of determining compliance with the NWP. This was based on existing guidance developed after the Corps revised the definition of ''discharge of dredged material'' at 33 CFR 323.2(d) to clarify when the Corps regulates incidental discharges of dredged material associated with excavation activities. (See August 25, 1993, Federal Register, 58 FR 45008.) Based on this existing procedure, this clarification does not affect the number and type of activities that are regulated under this NWP. When measuring the quantity of the discharge of dredged or fill material, the Corps will include the volume of any excavated area (i.e., the volume of the substrate excavated) which is below the plane of the ordinary high water mark (OHWM) or high tide line (HTL). Many commenters expressed uncertainty regarding how to measure the 25 cubic yards of discharge authorized by this NWP. Some commenters requested that the allowable area of impact be increased to 2/10 acres. The Corps continues to believe that the current volume and acreage limits are, and have proven to be, appropriate to ensure that the adverse effects are no more than minimal for the purpose of authorization by this NWP and is not changing those limits. We are providing the following guidance to clarify how NWP 18 quantities are measured.

How to determine quantities under NWP 18: NWP 18 applies to all waters of the United States. For projects that are;

Below and waterward of the OHWM or HTL:

Volume: The cubic yardage of any dredged or fill material placed; plus,

The cubic yardage of the substrate excavated.

Acreage: The acreage of any areas that are filled, excavated, flooded and drained.

Landward of the OHWM or HTL:

Volume: Not applicable. Only acreage limits apply.

Acreage: The acreage of any areas that are filled, excavated, flooded and drained.

For projects that are both below and waterward of the OHWM or HTL and that are landward of the OHWM or HTL, the acreage is the sum of the two acreages as determined above, while the volume is that measured below and waterward of the OHWM or HTL. For example, a permittee may place 50

cubic yards in a wetland landward of the OHWM provided the fill does not exceed 1/10 of an acre and the District Engineer determines that the impacts are minimal. In this example, there was no material placed below and waterward of the OHWM or HTL, therefore the cubic yard (volume) limit was zero and not exceeded. Furthermore, the total acreage was less than 1/10 acres. NWP 18 may be combined with NWP 19 to authorize activities in navigable waters of the United States (i.e., Section 10 waters). NWP 18 is issued as proposed.

19. Minor Dredging: The Corps proposed a modification to this NWP to authorize, under section 404 of the Clean Water Act, the incidental discharges associated with the dredging activities in navigable waters of the United States. This was necessary after the Corps revised the definition of ''discharge of dredged material'' at 33 CFR 323.2(d) to clarify when the Corps regulates incidental discharges of dredged material associated with excavation activities. (See August 25, 1993, Federal Register, 58 FR 45008.) This clarification does not affect the number and type of activities that are regulated under this NWP. Many commenters supported keeping the quantity limit at the existing level. We agree and continue to believe that the 25 cubic yard limit is acceptable. We have allowed and will continue to allow NWPs 18 and 19 to be used for the same project in section 10 navigable waters of the United States. NWP 19 cannot be used in section 404-only waters. We believe that the requirement of NWP 19 that prohibits excavation in wetlands, coral reefs, sites supporting submerged aquatic vegetation, and anadromous fish spawning areas, and the requirement of NWP 18 that requires notification in special aquatic sites, including wetlands, and the requirement of NWP 18 that requires notification in excess of 10 cubic yards, will ensure that impacts resulting from these activities will be minimal. For example no more than 35 cubic yards could be excavated from navigable waters of the United States without a notification to the Corps. Furthermore, no activity between 35 and 50 cubic yards of combined excavation and discharge could occur without a notification to the Corps and a Corps determination that the adverse effects would be minimal. NWP 19 is issued as proposed.

20. Oil Spill Cleanup: The Corps proposed no changes to this NWP. One commenter suggested a regional condition to require that activities be conducted in conformance with the National Response Team Integrated Contingency Plan Guidance. Even though this guidance is used to assist an applicant to develop one plan to satisfy several applicable laws, it is strictly voluntary on the applicant's part to develop one consolidated response plan. The Corps believes it is most important to verify that the response is conducted in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 and any existing state contingency plan, and that the regional response team (if one exists) concurs with the proposed containment and cleanup effort. This NWP authorizes the structures and fills used to effect the oil spill cleanup. Other Federal and state agencies have lead responsibility to administer oil pollution laws. NWP 20 is reissued without change.

21. Surface Coal Mining Activities: The Corps proposed the consideration of expanding this NWP for mining activities on previously mined lands that have not been subject to restoration. Several comments supported the proposed inclusion of previously mined areas and a few expressed opposition. Some commenters stated that this proposal should not apply to wetlands restored under the Surface Mining Control and Reclamation Act (SMCRA) of 1977 or NWP 27. Another commenter questioned whether the NWP applies to pre-1977 SMCRA. Comments about mitigation presented a wide range of possibilities: Support for on-site mitigation after completion of mining; mitigation ratio should be set at 1:1 on-site as proposed; flexibility is needed to apply mitigation on-site and/or off-site; and mitigate off-site before mining begins; mitigate concurrent with mining. One commenter stated that restricting the mitigation to on-site would economically stop a mining operation. Many commenters opposed the bond, stating that this is already required by the SMCRA and at least some state agencies.

The remining of abandoned areas requires application under Title V of the SMCRA. As with new mining, the Office of Surface Mining (OSM) coordinates such proposals with the Federal and state resource agencies and determines whether or what mitigation is required. The Corps has decided that specific language referencing remining abandoned mines is not required within the nationwide permit text. The NWP, as worded, will allow remining of abandoned mines. The Corps will strongly encourage remining of abandoned mines where the wetlands are of low value, rather than mining new areas with wetlands that were not previously disturbed. The Corps will review the Title V application for compliance with the NWP. The Corps will only require a bond for mitigation when OSM or the state agency has not required a bond. Requiring a bond in certain cases is consistent with existing policy. (See 33 CFR 325.4).

One commenter expressed concern over the area impacted (i.e., ancillary activities). The NWP specifically applies only to the coal excavation area. Additionally, any facilities, such as buildings, to be placed in waters of the United States would require separate authorization by the Corps.

Several commenters desired restrictions such as set-backs, no stream relocations, no impacts to wetlands which would be difficult to replace, and acreage limits. Another requested an exemption from mitigation for certain chemical compositions of the wetland soil. We believe that each case will be so specific that it is best reviewed case-by-case.

A couple of commenters stated that the Corps was delegating its authority to the OSM and that this NWP did not comply with section 404(e). Minimizing duplication of Federal regulation is one of the goals of the President's Wetland Plan and is one of the principal purposes of NWP 21. We believe that the Corps should not duplicate the intensive review performed by OSM in coordination with other Federal and state resource agencies. OSM complies with the same Federal environmental laws, such as National Environmental Policy Act, Fish and Wildlife Coordination Act, Endangered Species Act, and National Historic Preservation Act as the Corps does in executing its regulatory program. The Corps reviews the Title V information to assure that the impact analysis and mitigation are in compliance with the Corps policy and regulations. The NWP authorization is not valid until the mining activity has been authorized by OSM or by a state with an approved Title V program. To assure that the Corps receives a complete application, we have revised the NWP to include a requirement for an OSM or state-approved mitigation plan. NWP 21 is reissued with the modifications described above.

22. Removal of Vessels: The Corps proposed no changes to this NWP. However, a few commenters requested that the term ''minor fills'' be the same as that for Nationwide Permit 18, and one commenter requested that this NWP require a PCN that would specifically require contacting the State Historic Preservation Officer (SHPO) to ensure against damage to vessels potentially eligible for listing in the National Register. Another commenter requested

notification to the SHPO since the Abandoned Shipwreck Act gives states title to, and management authority of, certain shipwrecks.

The criteria described in Nationwide Permit 18 for minor discharges of dredged or fill material could be used as a guide in evaluating the environmental impacts, but is not meant to be a definition of ''minor fill''. This term is intended to be subject to the DE's interpretation on a case-by-case basis as a project is being evaluated. The existing language of NWP 22 does not allow its use for any ship or vessel that is listed or eligible for listing unless the district determines that the activity complies with the National Historic Preservation Act. The Corps will, in any particular case, coordinate with the SHPO regarding historic properties, including concerns with regard to the Abandoned Shipwreck Act. We believe that the restrictions within this NWP in conjunction with General Condition 12 and the Corps regulations at 33 CFR 330.4(g), are sufficient to protect against damage to historic properties. NWP 22 is reissued with no changes.

23. Approved Categorical Exclusions: The Corps proposed no changes to this NWP. A few commenters supported expansion of Nationwide Permit 23 to cover state environmental program approvals, especially for flood control work, and all emergency work by a public agency.

State programs are not required to comply with NEPA and states have varying environmental protection programs. Therefore, the Corps cannot base a nationwide permit on state approvals as NEPA Categorical Exclusions (CE). Regional and programmatic general permits are effective tools that can be developed at the district level for state programs that meet or exceed the Federal CWA requirements. Emergency work can normally be authorized under other nationwide permits such as NWP 3 and 37, or the Corps emergency permit authority.

A few commenters requested the NWP be regionalized with regional conditions and asked that districts publish public notices for proposed CEs and lists of approved CEs. The Division Engineers have the authority to add regional conditions to any nationwide permit and are currently in the process of considering recommendations for conditions on these nationwide permits. All CEs are available in the Federal Register and we intend to make them available on our Internet homepage which is currently being developed.

A number of commenters opposed continuation of the existing nationwide permit. They stated that the permit is often misused, especially by the Highway Departments. Most of these commenters called for revision of NWP 23 to require periodic review (every 5 years at the renewal of the general permit) and assessment of approved CEs (citing new knowledge and outdated agency Environmental Assessments), limits on the area of wetlands that may be impacted (similar to Nationwide Permit 26), and limiting (to 25–50 feet) or excluding stream channelization. Some commenters called for excluding bridges and culverts in those streams that support fish, and excluding stacked concrete slabs that create low water dams.

The Corps does, upon being furnished a notice of an agency's CE, solicit public comment, and review the CE for approval for authorization by this nationwide permit. We may include conditions for authorization as a part of that approval. This is an ongoing process and the U.S. Coast Guard has recently updated their CEs and requested approval for authorization under the NWP. RGL 96–1 has already been issued for Coast Guard CEs and we will soon publish our findings and determinations in the Federal Register. We will continue to monitor the CEs approved for authorization under this nationwide permit and make adjustments through changes in conditions, new approvals, and removal of previously approved CEs when warranted. General Condition 4 prohibits substantial disruption of movement of aquatic life species indigenous to the waterbody.

Some commenters called for not renewing Nationwide Permit 23 due to misuse, violations of 404(e), and illegal delegation to other agencies of the Corps determination of which projects are subject to Clean Water Act review.

We believe the Corps current review process of the lead agency's decision ensures that the CE is not misapplied. The Corps does not necessarily approve all of an agency's CEs. Only those consistent with the NWP program are approved. Furthermore, in the recent action on the Coast Guard CEs, the Corps requires a PCN for some actions with the potential to result in more than minimal impacts.

One commenter requested that we require a cultural resources inventory before approving CEs.

Compliance with cultural resource requirements is the responsibility of the lead Federal agency. CEs are developed in accordance with NEPA. All other Federal environmental laws and regulations, including the cultural resource and historic preservation laws, must still be satisfied by the agency proposing the CE. NWP 23 is reissued without change.

24. State Administered Section 404 Programs: The Corps proposed no changes to this NWP and the only commenter providing comments specific to the permit expressed support for this nationwide permit as written. NWP 24 is reissued without change.

25. Structural Discharge: Corps proposed clarification that this NWP may be utilized for general navigation purposes. A few commenters recommended issuance of this NWP as proposed. One commenter stated that this NWP should not be reissued because it has not been demonstrated that the adverse environmental effects are only minimal, and that individual permits provide greater protection to environmental resources. We believe the impacts resulting from the portion of these projects regulated by the Corps are typically very small and localized. Any project can be further conditioned to ensure that adverse effects are minimal or mitigated appropriately, if necessary. If it is determined that any particular project would not qualify for this NWP because adverse effects are not minimal, the DE can exercise discretionary authority and instruct the applicant on the procedures to seek authorization under an IP.

One commenter requested clarification of the significance of changing the previously worded ''piers and docks'' to ''mooring cells''. Another commenter stated that ''docks and piers'' should be specifically included, noting the current authorization does include such wording.

We recognize that piers and docks are not mentioned in this NWP; however, they would be covered if their construction methods entailed discharge of material into tightly sealed forms or cells. We do not feel it necessary to specifically include piers and docks, because their construction often requires driving piles, which typically does not require a Section 404 permit. The structure itself may require a Section 10 permit if located in navigable waters of the United States.

One commenter stated that this NWP should include well pads for monitoring, and surveillance wells used for monitoring pollutants and groundwater parameters of aquifers.

We do not believe it is necessary or appropriate to include such uses under this NWP, because Nationwide Permit 18, covering Minor Discharges, would be more suitable.

One commenter noted that this NWP does not propose any limitations. Several others recommended limitations

on this NWP, including no more than 20 mooring cells, size thresholds such as less than 8,000 square feet for pile-supported structures, or spacing between piles of at least six feet. Two commenters stated that this NWP should authorize the side-casting of material for placement of the forms or construction of pile caps. One commenter stated that mechanized landclearing for access to the project site for the placement of structural members should be authorized by this NWP. One commenter recommended that this NWP specifically not authorize river boat mooring cells for gambling purposes.

We believe that the actual footprint of project impacts typical of the types discussed in the NWP are limited sufficiently such that further limitations are not necessary. However, each district may implement special conditions or regional general conditions on a case-by-case basis as deemed necessary. We agree that side-casting of material for construction of pile caps is appropriate provided it is kept to the minimum necessary, that material is not placed in such a manner that it is dispersed by currents or other forces, and that preconstruction contours are maintained. However, we do not believe that mechanized landclearing to access the project site should be authorized under this NWP. Finally, we do not see the significance of differentiating between mooring cells used for general navigation purposes versus those that may be used for mooring of gambling vessels. NWP 25 is reissued with the proposed clarification.

26. Headwaters and Isolated Waters Discharges: The Corps proposed two options to change the previous thresholds associated with this NWP and committed to regional conditioning of the NWP to ensure minimal adverse effects. Numerous comments were received and are addressed by categories in the following text. Based on the recommendations from the public and other agencies, as well as the Corps internal review of implementation of NWP 26 over the past 5 years, we have made substantial changes to the permit. We have reduced the thresholds of NWP 26 to ⅓ and 3 acres, added a limitation for linear waterbodies of 500 linear feet, and stated that we believe that most projects above ⅓ acre will result in mitigation requirements to offset adverse effects to the aquatic environment. We believe that these additional limitations that we have placed on NWP 26 will greatly improve the environmental protection afforded by Corps review of projects under this NWP and will better ensure that no more than minimal adverse effects will occur. In addition to the substantial limitations that we have placed within the terms and limitations of the NWP 26 at the national level, we are directing our districts to carefully evaluate the aquatic systems in their districts and, working with the Corps divisions and the other Federal and state agencies, add additional limitations as necessary for added protection of the aquatic environment. These changes are detailed below in our discussion of the comments we received.

General: More than 500 commenters provided comments specifically addressing NWP 26. Numerous commenters expressed opposition to NWP 26, expressing concern that NWP 26 authorizes activities that are not similar in nature and activities that have greater than minimal impacts both individually and cumulatively, concluding that NWP 26, in many cases, is therefore, ''illegal''. Many of these commenters believe that the NWP should be deleted while many acknowledge a necessity for such a nationwide permit, but feel that the NWP must be modified to respond to the growing concerns for the potential cumulative effects resulting from activities authorized by this permit.

Many of these commenters also expressed concern that wetlands impacted by NWP 26 (those above headwaters and isolated wetlands) are as valuable, if not more so, than other wetlands to which NWP 26 does not apply. These commenters state that there is no scientific evidence that supports the concept that these wetlands are of less value and refer to a 1995 National Academy of Sciences' National Research Council Report, which states: ''the scientific basis for policies that attribute less importance to headwater areas and isolated wetlands than to other wetlands is weak.'' Some of these commenters also commented that there is no scientific basis for the threshold limits.

Numerous commenters expressed the view that the NWP has worked well, that there is no evidence to indicate that it is resulting in more than minimal adverse effects and that the loss or further limiting of NWP 26 would result in increased regulatory burdens on the public, less regulatory certainty, unacceptable work load increases for the Corps, increased processing times, project delays, and an overall lessening of the regulatory program's ability to protect waters of the United States.

The Corps proposed 3 options for acreage limits that would define when a PCN must be submitted. These options were:

Option 1: 1 to 10 Acres (no change)
Option 2: ½ to 5 acres
Option 3: ⅓ to 3 acres

Thresholds: Approximately 70% of the more than 400 comment letters on these threshold options expressed a preference for Option 1, no change in the thresholds of 1 and 10 acres.

Many of these commenters suggested that a lowering of the thresholds would result in a lessening of the practice by developers of minimizing their wetland fills to fit under the thresholds because the thresholds would be too low to meet. The result then being, that they would be forced into the PCN or individual permit process and would apply for non-minimized fills. Many commenters also estimated that the Corps work load would increase significantly, thus causing the Corps to be less effective in its mission to protect wetlands. A few commenters believed that in those cases where mitigation is required for all fills (often a state or county requirement), that the effect of causing developers to reduce fill areas to even smaller fills (by lowering the threshold to 1/3 of an acre) could be more, smaller mitigation sites.

A few commenters preferred changing the thresholds to option 2.

Approximately 30% of those commenting on this subject preferred option 3, (⅓ & 3 acres). Most of these commenters expressed the view that the current thresholds are allowing more than minimal adverse effects and that the lower levels would better assure that the NWP would not result in more than minimal adverse effects.

A few commenters recommended that the thresholds be increased to enhance flexibility and program efficiencies.

The Corps acknowledges the concerns, expressed principally by natural resource agencies and environmental groups, for the potential level of adverse effects resulting from NWP 26 in its present form. The Corps also acknowledges the concerns of the regulated public for the potential lessening of regulatory certainty and flexibility in the program through further limitation of the scope of NWP 26.

The Corps agrees that the level of cumulative adverse effects under NWP 26 must be reduced and more effectively mitigated. We will later discuss the manner in which the Corps has addressed the concerns regarding impacts to the aquatic environment. We also believe it is important to understand the history and derivation of the Corps NWP program.

In 1977, the Corps developed the headwaters and isolated waters

nationwide permit (NWP 26) as we extended section 404 jurisdiction to all waters of the United States (including isolated and headwaters areas). Prior to 1977, the Corps did not require Section 404 permits for discharges of dredged or fill material into waters in these geographic areas. Over the past 19 years NWP 26 has been revised in an attempt to ensure that activities are not authorized under NWP 26 if such activities would result in more than minimal adverse effects, either individually or cumulatively, to the waters of the United States, including wetlands. While the Corps had to assure compliance with this statutory requirement (Clean Water Act section 404(e)), it also had to consider the environmental and programmatic implications of an extremely heavy regulatory workload.

The most recent data and scientific literature indicate that isolated and headwater wetlands often play an ecological role that is as important as other types of wetlands in protecting water quality, reducing flood flows, and providing habitat for many species of fish and wildlife. For example, in many parts of the Nation, isolated and headwater wetlands comprise a significant portion of the functioning wetlands that remain in existence. As previously noted, the National Academy of Sciences concluded in its 1995 report on wetlands that there is no scientific basis for policies that attribute less importance to headwater areas and isolated wetlands than to other wetlands.

In light of our internal evaluation of NWP 26, and a careful consideration of all comments regarding its reissuance, we have determined that a modified approach to NWP 26 and eventual replacement of NWP 26 is necessary in order to ensure that in the future no more than minimal adverse effects occur to the waters of the United States, both individually and cumulatively. This determination is supported fully by the majority of comments from the public and other Federal and state resource agencies. Therefore, NWP 26 will be immediately modified and eventually replaced with a new approach to authorizing activities with minimal adverse effects. This new approach will take into account the Corps workload and a desire to reduce unnecessary regulatory burdens.

The approach that we are implementing today will ensure that only activities resulting in minimal adverse effects go forward under NWP 26, while maintaining flexibility and expedited permitting for applicants proposing such projects. Based on the desire to develop a more specific data base on the specific types of activities authorized under NWP 26 and an improved data base on impacts of projects authorized under NWP 26, we have determined that a phased approach to NWP 26 is necessary. In this regard, we are, with this notice, issuing a modified NWP 26 for a period of two years rather than the normal 5 year period for all other nationwide permits. During this two year period, which starts with today's date, the Corps will collect additional data on the types of activities regulated and develop, propose, and issue new nationwide permits to replace the revised NWP 26. Although we recognize the ecological importance of isolated and headwater wetlands and the potential for impacts to these resources by NWP 26, we believe it is necessary to reissue NWP 26, in its more restrictive and environmentally sensitive form, during the two year phase out period to ensure fairness to the regulated public and to allow for development of activity specific replacement NWPs. The replacement permits, which will be activity specific, will be published for public review and comment approximately 18 months from today (approximately May 1998). The Corps is entering this initiative with a completely open view to the final outcome and would welcome any comments from the public over the next six months regarding specific categories of activities that should be considered for new nationwide permits. Such comments should be directed to the address listed in the ADDRESS section of this notice. For example, NWP 29 is an activity-based NWP for single family residences with a ½ acre fill limitation. Another example could be fills associated with the expansion of existing commercial developments, with acreage limit specific conditions, and a PCN to evaluate the potential for more than minimal impacts. In taking this approach, the Corps will evaluate the types of activities that are currently authorized under NWP 26 and identify appropriate limitations for the activity-specific NWPs to ensure that the ''minimal adverse effects'' requirement of section 404 (e) is met. It is also important to note that the public will have an opportunity to formally comment on the proposed replacement permits once they are officially proposed in approximately 18 months.

During the two year period that may be required to issue activity-specific permits to replace NWP 26, we believe that certain modifications to NWP 26 are necessary. Thus, we are changing the threshold limits to ⅓ and 3 acres. Using these thresholds, the maximum fill allowable under NWP 26 will be 3 acres. Discharges over ⅓ acre will require a PCN. Although a number of projects between 3 and 10 acres will now need individual permits, we believe that the increase in workload will be manageable. Moreover, a key element of the Corps' ability to manage the increased workload is the requirement of a Corps-only PCN for fills between ⅓ and 1 acre. While we do not believe that the notification of other agencies is necessary for activities in the ⅓ to 1 acre range, we will provide quarterly NWP 26 data to the Federal resource agencies for their programmatic review. The Corps will also coordinate its evaluation of those proposed activities that involve issues relevant to other Federal agency expertise (e.g., endangered species, water quality standards). In addition, the Federal resource agencies will be provided a copy of the PCN for fills over 1 acre and given an opportunity to comment to the Corps before the work is verified as authorized under NWP 26.

The Corps will continue to work closely with Federal and state resource agencies to add necessary regional conditions and procedures to the revised NWP 26. As with all nationwide permits, we will emphasize the requirement to avoid and minimize impacts on-site.

In summary, the revisions proposed today for NWP 26, and its planned replacement with activity-specific general permits, recognize fully the requirement to ensure that adverse effects to the waters of the United States are no more than minimal and the need to provide an expedited review process for truly minor activities. In taking the phased approach, we allow for an orderly transition from the previous NWP 26 to a set of activity-specific replacement nationwide permits. It is our intent to make this change in a manner that minimizes disruption and confusion for the regulated public, while at the same time improving environmental protection.

To further ensure that geographical areas or waters do not receive greater than minimal adverse effects through the excessive use of NWP 26, we are with this notice directing district and Division Engineers to carefully review areas under their authority with a view toward additional regional limitations to NWP 26. We believe that every district has high value aquatic areas where NWP 26 must be further limited or revoked.

Further, Division Engineers may revoke the NWP for specific geographical areas. District engineers

also have the authority to exercise discretionary authority and require an IP on a case-by-case basis when they determine that the ''minimal adverse effects levels'' will be exceeded. Furthermore, we are directing district and Division Engineers to further reduce impacts by requiring mitigation for most projects from ⅓ to 3 acres through the PCN process. In most cases, mitigation for impacts below 1 acre will be most beneficial through mitigation banks and ''in lieu fee'' programs. In lieu fee programs allow permittees to obtain mitigation through funds paid to groups who will use these funds to restore, create, enhance, and preserve wetlands. Such groups include states, counties and land trusts. Such in lieu fee approach is currently in place and very successful in the state of Ohio. Our Huntington district, in conjunction with the state, established a fee structure for NWP 26 authorizations. The fees go to Ohio Department of Natural Resources and are used to acquire, restore and manage former wetlands.

Review Period: A large percentage of those who commented on the proposal to increase the 30 day pre-construction notification period, expressed opposition to the proposal. They commented that 30 days is adequate and that an increase in the review period would only result in reviewers delaying their review rather than conducting more extensive reviews; that more extensive reviews, if conducted, are unnecessary for projects of NWP 26 magnitude, and that the proposal would result in an unnecessary extension in the processing time of what is currently a good expedited process. Approximately 30% of the commenters felt that the increase should be implemented in order to provide for more thorough review. One commenter recommended the elimination of the ''de facto'' authorization provision, because there is no logic to allowing the elimination of wetlands as a result of administrative situations.

Having given full consideration to the comments received and discussed the topic at length with the resource agencies involved, we have concluded that it is necessary to extend the review period to 45 days while maintaining the ''de facto'' authorization provision. Increasing the review period by only 15 days will, we believe, allow adequate and efficient review of the increased number of NWP 26 applications expected due to the lowering of the PCN thresholds, and will not place an unfair burden on the regulated public. The de facto authorization provision is considered necessary to provide a reasonable control on the review period for these relatively minor actions and to provide as much regulatory certainty as possible to the regulated public.

Regionalization: Many Commenters supported the concept of regionalization of the NWPs by districts either because of the opportunity to provide additional protection to sensitive ecological areas, as well as more appropriately to provide protection for regionally differing environments.

Many commenters were opposed to the concept of regionalization of the NWPs by districts because of concern that districts would, unnecessarily, further limit the applicability of the NWPs when they have been found by the Corps to authorize less than minimal adverse effects nationwide.

The Corps believes there are benefits to be gained through regional conditioning of NWP 26, both for natural resource protection and for the regulated public. Guidance being provided to the districts and divisions will require that the districts provide opportunity for full public review and comment in the process for establishing regional conditions, and will require that they consider modifications of the acreage limits and limitations of use, based on types of aquatic resources and activities. They will also consider potential impacts to the regulated public, to district workloads, and the ability of the district to effectively implement the regulatory program. Further definition of the permit, through regional conditions, will provide the regulated public with increased certainty and predictability while at the same time further ensuring against use of the permit under circumstances that may cause greater than minimal adverse effects. The fact that districts and divisions do regionalize NWP 26 through regional conditions to protect certain aquatic systems is one of the reasons that the Corps has determined that only minimal adverse effects occur nationwide.

Notification: Several commenters felt that all actions permitted under NWP 26 should be reported to the Corps to provide the Corps with full knowledge of the extent and impacts of such actions. In general, these same commenters also suggested that the Corps keep more extensive records of this information and make it readily available to the general public.

One commenter expressed concern for the lack of data collected by the Corps with regard to the use of NWP 26 and the corresponding lack of analysis to support the determination that NWP 26 results in no more than minimal adverse effects. A few commenters expressed the belief that the Corps is not fulfilling an earlier commitment to monitor and evaluate the impacts of NWP 26.

The reduction of the PCN threshold from 1 to ⅓ acre will significantly increase the percentage of activities reported to the Corps and provide an adequate level of information for continued monitoring of authorizations under NWP 26. Notification will have essentially three threshold limits. We have established a reporting requirement for all impacts up to the minimum threshold of ⅓ acre. This report, which will include basic information such as the name of the permittee, location of the activity, description of the work, and the types and size of the impacted area, will be required within 30 days of the completion of the work. We are encouraging support of, and participation in, this important information gathering process so the Corps can better determine ways to protect wetlands in a fair, flexible and effective manner. Next, we will require a ''Corps-only'' notification for impacts between ⅓ and 1 acre. These PCNs will be reviewed by the Corps to assure compliance with permit conditions, and to determine what level and type of mitigation should be required. Finally, authorization under NWP 26 will require full resource agency coordination under the notification procedures for impacts between 1 and 3 acres. For all the PCNs, the Corps review will ensure that no more than minimal adverse effects will occur and that appropriate mitigation will be required.

The Corps collected data from its district offices on the use of all NWPs for Fiscal Year 1995, including NWP 26. The data shows that 13,837 activities were authorized by NWP 26, impacting approximately 5020 acres of wetlands, with an average of 0.36 acres of impact per NWP 26 authorization. The Corps received approximately 5809 acres of mitigation for these impacts, yielding a mitigation ratio of approximately 1.15:1. To ensure continued monitoring of NWP 26 and all other NWPs, the Headquarters office will begin collecting quarterly data from the field beginning in the second quarter of fiscal year 1997. The data parameters will include, at a minimum, the use of the NWPs, both actual and estimated (for those with non-reporting thresholds), impact acreage, resource types, geographic locations (e.g., counties) and mitigation received. These parameters will be further set forth in guidance to the districts following the publication of this Federal Register notice and after coordination with the other Federal resource agencies.

Mitigation: Several commenters suggested that a threshold be set for requiring mitigation. Some recommended a threshold of one acre be set, above which mitigation would be required and one recommended mitigation be provided at a 2:1 ratio. A review of NWP 26 verifications provided in fiscal year 1995 indicates that more than an acre of mitigation was provided for every acre filled. We believe that this fulfills the national goal of no net loss in wetlands. We do not believe it is appropriate to require mitigation in every case or at a standardized ratio nationwide. We believe mitigation determinations are better established on a local and/or case-by-case basis. Therefore, we have not required a specific ratio as a general condition of NWP 26. However, we do believe that most actions involving fill of 1/3 acres or more will have some level of mitigation, based on the Corps determination of aquatic functions and values lost. Corps districts may establish fixed ratios for particular waterbodies or specific types of waters in their areas. Districts may also set specific in lieu fee schedules within their areas.

Many commenters raised concerns that, by applying compensatory mitigation in the context of a NWP, the Corps authorizes activities that, but for the mitigation, may have more than minimal adverse environmental effects. Those commenters were concerned that the CWA requires that only activities with minimal effects may be authorized by a general permit. Activities that have more than minimal adverse effects are subject to the individual permit process and the associated analysis of alternatives, individual public notice procedures, and other aspects of individual review that help to ensure that potential adverse effects are fully avoided and minimized before any activity is approved.

Given these concerns, the Corps will be considering whether or not modifications to the mitigation provisions of the regulations are appropriate and will be meeting with other Federal agencies to discuss this issue. In the interim, the Corps is seeking specific comment on the use of compensatory mitigation in the context of the Nationwide Permit program and any recommendations for modification to the mitigation provisions. Should the Corps determine that revision to this policy is appropriate, a rulemaking process to change the regulations at 33 CFR part 330 may be necessary. This process would include notice and full opportunity for public participation.

Subdivisions: One commenter recommended deleting all wording on subdivisions except that which clarifies the single-use applicability of NWP 26. More specifically the commenter recommends deletion of the exemption provisions of the NWP 26 subdivision rules.

One commenter suggested that ''commercial,'' ''industrial,'' and ''office'' subdivisions should not be held to the same restrictions as residential development because of their more extensive level of planning and design.

One commenter suggested that the October 5, 1984, date for subdivision exception be changed to January 21, 1992.

We have evaluated these comments and continue to believe that the subdivision language in NWP 26 is appropriate. We do not agree that, as a general matter, commercial office or industrial projects are necessarily subject to better planning than many large residential developments.

Environmental Impact Statement: A number of commenters recommended that an Environmental Impact Statement (EIS) or study be conducted prior to the re-issuance of NWP 26, because of their perception that the use of the NWP is causing or will cause extensive impacts to wetlands.

The Corps collected data from its district offices on the use of all NWPs for Fiscal Year 1995, including NWP 26. These data show that 13,837 activities were authorized by NWP 26 impacting approximately 5,020 acres of wetlands, with an average of 0.36 acres of impact per NWP 26 authorization. The Corps received approximately 5,809 acres of mitigation for these impacts, yielding a mitigation ratio of approximately 1.15:1. To ensure continued monitoring of NWP 26 and all other NWPs, the Headquarters office will begin collecting quarterly data from the field beginning in the second quarter of Fiscal Year (FY) 1997. The data parameters will include, at a minimum, the use of the NWPs, both actual and estimated (for those with non-reporting thresholds), impact acreage, resource types, geographic locations (e.g., counties) and mitigation received. These parameters will be further set forth in guidance to the districts following the publication of this Federal Register notice and after coordination with the other Federal resource agencies.

Furthermore, the Corps has conducted an analysis of the environmental impacts associated with the re-authorization of this permit in compliance with the requirements of NEPA. This analysis has been documented in an Environmental Assessment in accordance with NEPA and resulted in a Finding of No Significant Impact in accordance with NEPA. Therefore, an EIS is not required. The Corps believes that the modified NWP 26 structure, along with regional conditions and case specific discretionary authority, will ensure that adverse effects are no more than minimal on a watershed basis. We believe that it is inappropriate to simply sum the total acres of impact nationwide and assume significant impacts. We believe that environmental effects must be viewed on a watershed basis. With the substantial level of mitigation required by the Corps for impacts to the higher value wetlands, we believe that the environmental effects are not significant.

Corps Workload: The Corps agrees with the majority of commenters that a general permit, such as NWP 26, is necessary for fair, effective, and efficient implementation of the Corps regulatory program. Although the final NWP 26 we are issuing today will increase the Corps workload, we believe that overall workload will remain manageable.

To evaluate the effects of the current changes to NWP 26 on Corps workload, we analyzed data collected during surveys of the Corps districts during FY94 and FY95. Additionally, data from quarterly reports was used to determine IP workload. We estimate that the changes we are implementing today will increase the number of PCNs for NWP 26 (due to the lowering of the PCN threshold) by nearly 10,000, compared to the estimated 2,700 evaluated in 1996. However, the vast majority of the additional 10,000 additional PCNs will be Corps-only evaluations. We estimate that the NWP 26 we are issuing will result in approximately 500 additional individual permits nationally (approximately a 10% increase over Fiscal Year 1996). This increase will be due to applicants requesting IP authorization of projects with impacts greater than 3 acres, but which would have qualified for verification under the old NWP 26 guidelines. The Corps would not be in a position to evaluate all, or even a majority, of the activities we currently authorize under NWP 26 without severe impacts to the Corps responsiveness to the regulated public. The Corps regulatory program verified approximately 14,000 NWP 26 actions (including both those projects for which a PCN was required and those for which no PCN was required but verification was requested) and evaluated 5,040 IP actions in FY96. The workload associated with the additional processing of just the 14,000 currently verified NWP 26 cases as IPs, would increase the IP work load by a factor of 4 to approximately 29,000. An IP

workload increase of this magnitude would render the program ineffective, and would be a disservice to the American public and overall environmental protection. Additionally, it is estimated by Corps districts that another 20,000 NWP 26 activities were accomplished during FY96 without the requirement for reporting to the Corps. Complete elimination of NWP 26 would result in an increase in the IP workload by approximately seven fold. This level of increase would greatly extend the processing time for IPs, make Corps resources unavailable for jurisdictional determinations and enforcement actions, and severely reduce our ability to continue to protect the aquatic environment.

Others: The Corps intends to initiate substantial improvements to its data collection for all NWPs, particularly NWP 26. Furthermore, during the two year period that NWP 26 is currently issued, the Corps will collect data on the types of activities as well as impacts to the aquatic environment and mitigation required. We are also instituting a self reporting requirement for fills below 1/3 acre. The Corps will continue to collect data on acres of impact and mitigation on a permanent basis.

A few commenters recommended including a linear footage limitation on headwater systems of 200–500 feet (consistent with other NWP limitations) for application to linear wetlands and headwater streams.

We concur with this comment and have placed such a limitation on NWP 26 for activities directly affecting (filling or excavating) more than 500 linear feet of the stream bed of creeks and streams. Therefore, no activity that adversely effects greater than 500 linear feet of the stream bed can be authorized under NWP 26. The threshold of 500 linear feet was chosen to maintain consistency within the NWP program (500 linear feet is the PCN threshold for NWPs 12 and 13). We believe this additional limitation will enhance the program's ability to ensure that projects with potentially greater than minimal impacts will not be authorized under the NWP.

One commenter suggested that if wetlands are the driving force in lowering acreage limits, then lower acreage limits should only be set for impacts to wetlands and that it may be appropriate to raise the acreage limitations for projects that affect only ephemeral drainage areas. A few other commenters similarly recommended that the term ''headwaters'' include all naturally ephemeral streams regardless of their mean annual flow, in that they only exceed the average annual flow criteria because of high peak flows during the winter months, which artificially skew the average flow rates.

We believe the existing definition for headwaters, as currently written in 33 CFR 330.2(b), adequately provides for the consideration of ephemeral tributary systems and accommodates this comment. In addition, headwaters whether vegetated or not provide important flood storage and water quality values to the overall aquatic system. If some ephemeral drainage areas are truly low value the districts can develop and issue regional general permits to expand coverage.

Several commenters expressed the concern that NWP 26 reduces the program's protection of vernal pools and requested that the filling of vernal pools not be allowed under NWP 26.

We believe the provisions for ''discretionary authority'' at both the division and district levels is adequate to accommodate the concerns for unique waters.

One commenter stated that the NWP does not meet the regulatory requirements of the Natural Resources Conservation Service's Wetland Conservation Provisions (Swampbuster program) and continues the application of inconsistent standards on the communities regulated by the section 404 and Swampbuster programs.

The Corps finds no conflicts between this NWP and programs administered by the Natural Resource Conservation Service and is working closely with the NRCS to provide consistency in our programs. Since the standards for the two programs are different, as are the program goals, some differences will exist. We are committed to minimizing the differences to the extent possible.

One commenter stated that Corps districts differ in the methodologies used to calculate or determine where the ''5 cubic feet per second'' point is on waterways and that the methodology should be standardized. The commenter also recommended that there be a designated record keeping method and that the information be distributed or made available to the public.

We believe that the definition of headwaters is adequate to establish consistency in determination methodologies. The determination is normally an analytical one; however, abbreviated or simplified estimating methods are considered appropriate on a regional basis. We do intend to establish standard reporting methods for data collection.

One commenter felt that there is a need to clarify the definition of ''single and complete project'' for this NWP, suggesting that the permit should be applied differently (perhaps different thresholds) for projects that differ in purpose and size.

The Corps has provided guidance to the field regarding the definition of ''single and complete project'' and believes it would be inappropriate and inconsistent to modify that guidance for this permit. NWP 26 is designed to address minor filling activities with less than minimal impacts. Neither the magnitude of the project, nor the level or public interest, nor the nature of the applicant, are relevant considerations to the decision on whether the project's adverse effects are minimal. Our definition of ''single and complete'' project does not allow piecemealing projects regardless of the type of project.

One commenter requested a definition of special aquatic sites.

The definition of ''special aquatic sites'' is provided in the section 404(b)(1) Guidelines (40 CFR 230.3(q–1)). No further definition is considered necessary for the purposes of this nationwide permit.

A few commenters recommended that the Corps coordinate all applications with natural resources agencies, including applications for activities under one acre in size.

The Corps believes that activities involving less than 1 acre of waters of the United States are generally minor in nature, and that multiple Federal agency review is not necessary. The Corps staff is well trained in the biological and environmental sciences and is fully qualified to assess potential impacts. The Corps experience with agency response to the existing PCN for 1–10 acres indicates that the natural resource agencies, which also have limited human resources, provide very few site specific substantive responses at the lower end of the 1–10 acre range. Thus, we would expect even fewer comments for projects with impacts below 1 acre. Also, the additional administrative workload associated with agency coordination would seriously impact the Corps ability to focus on projects with greater impact.

A few commenters recommended the Corps strictly enforce the requirement for all NWP 26 applicants to submit a wetland delineation with the pre-discharge notification.

The Corps strives to implement the program in as reasonable and flexible a manner as possible so as not to impose unnecessary burdens on members of the regulated public. We do require wetland delineations to the extent necessary to identify the resources being affected and the necessity for adequate mitigation when appropriate. The level of

refinement of such wetland delineations is left to the discretion of the districts on a case-by-case basis. NWP 26 is reissued with modifications as discussed above.

27. Wetland and Riparian Restoration and Creation Activities: The Corps proposed to modify this NWP to allow projects to occur on any Federal lands. We also requested comments on whether to allow creation of wetlands and their subsequent reversion on reclaimed surface coal mined lands, to eliminate the 5 year window of reversion opportunity and allow the reversion to occur at any time in the future, to allow use of NWP 27 for any voluntary restoration/creation project, to include enhancement as an option, and to require a written agreement in all cases.

There were several commenters for and an equal number of commenters against the proposed modification of the permit to allow projects to occur on all Federal lands. One commenter felt that the proposed permit would grant more flexibility on Federal lands. Another commenter felt that the Corps should not require review and approval of an Operation and Maintenance Plan for projects on Federal lands or carried out by Federal agencies since the Corps does not review or approve such plans for projects on private lands. We believe that all Federal agencies should be encouraged to participate in wetland restoration and creation projects and have modified the permit for all Federal lands. Because the permit is limited to restoration, enhancement and creation activities and because authorizations for those projects occurring on Federal land will not provide the opportunity for reversion of the wetlands without a permit from the Corps, we concur that an Operations and Maintenance Plan approval is unnecessary and we have not included this requirement in the final permit.

Several commenters supported the consideration of expanding the permit to allow for the creation of wetlands and their subsequent reversion on reclaimed surface coal mined lands, provided the wetlands were voluntarily created under an OSM permit or an applicable state program permit. A few were opposed to this idea. Some stated that wetlands created due to hydrologic or topographic features of the landscape that may occur during reclamation should not be excluded. One commenter stated that the existence of a Surface Mining Control and Reclaimation Act (SMCRA) permit document and a certification that reclamation has been performed in accordance with permit requirements, should be sufficient to document the fact that the wetland construction was voluntary and non-mitigative. The Corps believes the potential for gaining several thousand acres of additional created wetlands through this provision warrants modification of the permit as outlined in the proposal. The permit wording has been changed to include wetlands voluntarily created under an OSM permit or applicable state program permit, with limitations not allowing its use for wetlands created as mitigation, nor to wetlands or waters that would be created naturally due to hydrologic or topographic features, nor to wetlands created for a mitigation bank. Reversion of such voluntary wetlands in the future is authorized by this NWP subject to the terms and conditions of this NWP.

A few comments were received regarding the consideration for eliminating the 5 year window of reversion opportunity and allowing the reversion to occur at any time in the future. Some commenters felt that the 5 year window of reversion opportunity should be retained, while others felt it should be removed. Some commented that removal of the 5 year limitation on the window would attract more conversion of abandoned coal mining sites to wetlands. The 5 year window for reversion of wetlands was adopted for written agreements that had limited terms, for wetland restoration and creation, between landowners and the Natural Resources Conservation Service (NRCS) and the U.S. Fish and Wildlife Service (FWS). For example, upon the expiration of such a 20 year agreement that landowner could revert the wetland back to the prior condition of that land. In most cases, the reversion would involve activities that require a permit from the Corps. We believe that in order to authorize these reversion activities by the NWP for an agreement that had expired, there needed to be a time limit after the agreement expired, to complete any reversion, or an IP would be necessary. The 1996 Farm Bill (Pub. L. 104–127) has included provisions for NRCS to document voluntary wetland restoration, enhancement, and creation activities that can be reverted to the prior condition at any time. In order to support and encourage such voluntary restoration, enhancement, and creation activities, we are authorizing those activities and the reversion of such wetlands to their prior condition by this NWP. While in these cases there will not be a 5 year reversion limit, since the agreement/documentation does not have a time limit, we are requiring a notice to the Corps with adequate documentation by NRCS of the prior condition.

Some commenters felt that the permit should be expanded to include any voluntary restoration or creation projects, to include private parties on private lands without signed agreements with either the NRCS or the FWS. A large number of commenters expressed opposition and an equally large number of commenters expressed support for allowing the permit to authorize projects on non-Federal public lands. Some commenters stated that activities on state fish and wildlife management areas, conducted by a state agency, should be included in this permit. One commenter felt that the Corps should grant state agencies a statewide exemption for managing wildlife populations. Some stated that they would support expanding use of this permit to voluntary restoration and creation activities by state and local government agencies provided those agencies demonstrate a long-term commitment to maintenance of the created or restored area. The Corps believes that including authorization for all creation, enhancement, and restoration activities on any lands (Federal, non-Federal public lands and private lands) would provide a less burdensome permit process and provide additional incentives for wetland creation, enhancement, and restoration projects. The nationwide permit has been modified to include authorization for public and private entities to conduct creation, enhancement, and restoration activities on any lands, but with no opportunity for reversion of those wetlands without a permit from the Corps, provided the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. This NWP cannot be used to authorize the reversion of such wetlands.

With regard to whether or not to include enhancement as an option, one commenter stated that while most enhancement projects have little adverse effect to wetland functions, measures considered by some parties to be enhancement may at times be considered by others to have unacceptable negative effects on wetland functions and values. Another commenter stated that the inclusion of enhancement without technical criteria for project review may increase the risk of existing areas of wetland being converted to other wetland types. The existing NWP provided for enhancement of wetlands, but this was not clearly stated, by providing for ''restoration of * * * degraded non-tidal wetlands.'' Further, we believe that

this NWP should authorize the enhancement of degraded wetlands. We agree, and do not intend, for this NWP to allow ''enhancement'' for the conversion of one wetland type to another. We have included enhancement projects but have limited enhancement under this NWP to improving degraded wetlands.

We concur with these comments and believe that to ensure no more than minimal impacts will result from the authorization, we cannot include enhancement within the scope of this NWP.

Several commenters felt that there was a need for a binding agreement in all cases, even where voluntary restoration is occurring under other Federal or state programs without a written agreement, while others felt that binding agreements were not necessary. One commenter stated that the written agreements do not have to be easements or contracts, which may dissuade many landowners from participating, that the agreements could be management agreements which become conditions to the permit. One commenter stated that for voluntary restoration and creation projects involving a Federal or state agency, an agreement should be required, and for a voluntary project that does not include Federal or state cost sharing or technical assistance, no agreement should be required provided hydrologic and vegetative baseline conditions are documented. We have concluded that the requirement for a binding agreement is not necessary in all cases. However, where the authorization provides opportunity for reversion of the created or restored wetland to its non-wetland state (i.e., in those cases involving private parties entering into contracts/agreements with, or documentation of prior condition by, the NRCS or FWS under special wetland programs or an OSM or applicable state program permit), then a binding agreement, documentation, or permit by NRCS, FWS, or OSM or applicable state agency, which clearly documents the prior condition, must be required. We have clarified in the NWP that reversion can only occur where such instruments, which clearly document the prior condition, are excepted. In all other cases, where the reversion opportunity is not included and a permit will be required for alteration of the restored, enhanced or created wetland or no binding agreement or documentation of the prior conditions will be required.

A few commenters stated that there was no need to document baseline conditions. Some commenters felt that in cases of purely voluntary efforts, there does not appear to be a compelling need for rigorous documentation of the baseline conditions. Others felt that this permit should include conditions that require documentation of existing use, hydrology and vegetation baseline conditions and allow reversion to previous use provided it does not exceed the previous conditions. Some felt that the format for documenting baseline conditions should be standardized, while others felt that the baseline condition could be documented in a predischarge notification, by way of a wetlands and waters of the United States delineation. Some commenters suggested that this permit should not authorize conversion to pre-restoration conditions where baseline conditions cannot be documented. The Corps believes it is only necessary to document prior (baseline) conditions for those cases where there would be an opportunity for reversion of the restored or created wetland to their original condition. Furthermore, for those cases where the opportunity to revert the wetland to a non-wetland status is available, documentation of the prior condition is required though NRCS, FWS or OSM programs. The Corps agrees that the prior condition must be documented in such cases. Consequently, prior conditions will be documented in those cases allowing reversion of wetland to non-wetlands. If that documentation cannot be provided at the time the reversion is requested, then an IP would be required for any reversion. In those cases where a permit from the Corps will be required for alteration of the created or restored wetland, we do not believe that the prior condition need be documented.

Some commenters stated that notification to all resource agencies should be included with this permit and further that the Corps should be required to notify all interested persons that could be affected by the restoration or creation activities. Others advocated limitations such as requiring notification with agency coordination for activities exceeding ⅓ acre. Some commenters were afraid that restoration of wetlands to create waterfowl feeding areas could, as an example, adversely impact other species, which could be identified through agency coordination. The Corps believes, based on the changes and modifications discussed above and the scope of the authorized activities, that the activities and impacts authorized by this NWP will not only be minor in nature, but will result in positive contributions to the national goal of increasing wetland areas. We believe notifications to the agencies and all affected parties would be unnecessarily burdensome to all the parties and would be excessively duplicative governmental review without commensurate environmental benefits.

One commenter suggested that the permit not authorize discharges into open water. The Corps has not limited the permit to not apply to open water. To do so would excessively limit the use of the nationwide permit. It is anticipated that most activities authorized under this permit will be in channels, ditches and some small impacted streams. It is unlikely that fills in larger open water areas such as lakes or rivers would occur, particularly with the requirement that impacts be less than minimal.

Another asked that this preamble clarify the relationship between this NWP and the proposed new NWPs A for Moist Soil Management and NWP B for Food Security Act Minimal Effect Exemptions. This NWP is for the restoration, enhancement, or creation of wetlands while NWP 30 Moist Soil Management (proposed NWP A) is for management of wetlands and proposed NWP B is for wetland mitigation created for the loss of wetlands on agricultural lands.

Another commenter suggested clarification of the term ''non-tidal'' in the context of this permit, suggesting that term should only apply to naturally non-tidal wetlands and not to formerly tidal wetlands which have been diked and are now freshwater wetlands. The term tidal is defined in the Corps regulations at 33 CFR 328.3. Non-tidal refers to the existing conditions and would include former tidal areas that no longer meet the definition of tidal waters.

One commenter also suggested that this NWP apply to compensatory wetland mitigation for Federal aid transportation projects, and another recommended that this permit not apply to projects that are primarily stormwater treatment projects. Compensatory wetland mitigation activities required under Corps permits (such as those for FHWA projects) are normally authorized by the permit requiring the compensatory mitigation and this NWP would generally not apply. This NWP authorizes the restoration, enhancement, and creation of wetlands and does not address their need. If wetlands are created for stormwater treatment projects they would be authorized, if they meet the terms and conditions of this NWP. However, generally reversion of such wetlands would normally not be authorized by

this NWP. NWP 27 is reissued with changes discussed above.

28. Modifications of Existing Marinas: The Corps proposed no changes to this NWP. One commenter stated that compliance with state permits or exemptions would be required where submerged state-owned lands were included in the modification of an existing facility. The intent is not to allow any additional slips or docks, thus additional water quality, navigational or safety impacts would not occur. We recognize the need for compliance with all existing applicable regulations. The issuance of this NWP would not obviate the need to obtain other Federal, state, or local authorizations required by law. NWP 28 is reissued without change.

29. Single-Family Housing NWP: The Corps proposed modifying the notification process for this nationwide permit to provide for resource agency coordination during the notification review process.

General: A large number of commenters opposed reissuance of NWP 29, expressing the opinion that the permit does not conform to the requirements for general permits, violates the Fish and Wildlife Coordination Act and is not in compliance with the National Environmental Policy Act. One commenter stated the belief that the permit is inconsistent with Florida statutes.

The Corps believes that NWP 29 is in compliance with all Federal laws and regulations. The permit is for actions that are similar in nature, both in size and type (less than ½ acre, single family residences). With the general, regional, and specific conditions, the district's opportunity to review each case through the notification process, and the district's opportunity to exercise discretionary authority, we are confident that individual and cumulative adverse effects will not exceed minimal. Initial development and issuance of the permit along with this reissuance has been done in full compliance with 33 CFR part 330, which includes compliance with the Fish and Wildlife Coordination Act and NEPA. If the permit is in some way not consistent with state law, the state can deny its section 401 water quality certification. Furthermore, issuance of any Corps permit does not allow applicants to violate state, local or other Federal laws.

One commenter opposed the NWP because the program usually prohibited houses in wetlands before this NWP. Another commenter expressed opposition based on the belief that the issuance of the permit will increase property values and cause taxes to increase.

The Corps regulatory program has never prohibited fills for the construction of homes. IPs were required, however, which in some cases may have resulted in denials due to the availability of practicable alternatives available to the applicant. However, most projects were permitted following the review and analysis associated with the IP process for single family residences. Moreover, virtually every IP that was issued involved only on-site avoidance, minimization, and, in a few cases, compensatory mitigation, because offsite alternatives for this type of project are not generally viewed as practicable. The IP process continues to be required for proposals which exceed the ½ acre or the minimal effects limitations of the permit or where the Corps district uses its discretionary authority. The effects of the permit on property values relative to state and local taxation programs are unknown to the Corps and is not an issue for consideration by the Corps regulatory program.

A couple of commenters expressed the opinion that the NWP was created only for political reasons in that there was no natural resource protection basis for its creation. The permit was initially issued and is being reissued to provide regulatory relief to small landowners for projects with minimal adverse effects on the aquatic environment. While an important goal of the Corps regulatory program is to protect the Nation's aquatic resources, providing timely and efficient decision-making and rendering fair and reasonable decisions for the applicant are also established goals of the program. We believe this permit is consistent with the goals of the regulatory program, including protection of the aquatic environment. Virtually every single family residence application for fill was, in the past, authorized as long as impacts on-site were minimized. The Corps assures this same level of protection of the aquatic environment through the NWP 29 PCN process.

Many commenters supported reissuance of NWP 29, but these commenters were split with regard to whether the notification of the actions should be provided to resource agencies prior to authorization. One commenter recommended that we carefully avoid unnecessary regulatory oversight with notification. The Corps has concluded that the notification procedures for this permit should include agency coordination. The permit has been reworded to effect this change.

Some commenters recommended that the permit be temporary because it attempts to assist small landowners who had unknowingly purchased wetlands or purchased the land prior to wetlands regulation. The commenters recommended we not reissue the permit after the year 2001, at which time the regulatory program will have been in place for almost 30 years. The Corps is reissuing for a period of 5 years and all NWPs will be reviewed for reissuance prior to their expiration in the year 2001.

Permit Limitations & Definitions: Several commenters suggested the modifying the limits of the permit and recommended the following: Limit fills to ¼ and 1/10 of an acre; exclude use in open water areas; require mitigation for fills over 50 cubic yards; and, disallow use for fills in mitigation sites. One commenter recommended the permit be limited to a specific number of ½ acre authorizations allowed per wetland. Another suggested establishing limits based on ecosystem rather than ownership. Two commenters recommended that we prohibit discharges within 100 feet of streams supporting anadromous fish. One commenter recommended excluding certain regional waters. One commenter stated that it was a major oversight to allow this NWP to apply to non-tidal wetlands adjacent to the ocean. One commenter commented that the permit should be limited to authorization of primary residences only and another recommended that mitigation be required as a condition of the permit.

After careful consideration of all the comments, and based on our experience with NWP 29 over the past year, the Corps has determined that the acreage limitation should be retained at ½ acre, a limit should be imposed to require a ''no fill'' buffer between the fill and any free flowing stream, river, or other flowing waterbody and/or the normal spring high tide in tidal areas. Data collected on the use of NWP 29 over the last year has shown that the average impact per NWP 29 across the nation was approximately 0.19 acres. The data also shows that during none of the quarters did the average impact acreage go above 0.25 acres. Additionally, it should be noted that the average acreage requested was only 0.31. For all of Fiscal year 1996, the Corps authorized 333 projects for a total of 62 acres of fill nationwide. The total acreage of fill requested by applicants was 101 acres, thus the Corps review reduced the requested impacts by 40%. Furthermore, mitigation may be required for higher value wetlands. Of course, as with all NWPs, the Corps

districts will ensure that the fill is the minimum needed on a case-by-case basis. If additional levels of protection are necessary, Corps District and Division Engineers will add regional conditions as they did in several districts in 1995. As with other NWPs, such regional conditions could revoke NWP 29 in certain high value aquatic areas or add region specific limitations on the use of NWP 29.

One commenter requested a clearer definition of ''non-tidal'' to ensure adequate protection of marine and estuarine habitats. The commenter pointed out that the definition differs between the Rivers and Harbors Act (mean high water) and the Clean Water Act (Spring high tides or other high tides with periodic frequency), and recommended the adoption of the CWA definition.

The definition of tidal waters can be found in 33 CFR 328.3(f) and is defined as those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun (the high tide line). Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects. The high tide line includes the normal spring high tides. The limits of Corps jurisdiction in non-tidal waters of the United States can be found in 33 CFR 328.4(c). This regulation does not mean that wetlands adjacent to tidal wetlands are also tidal wetlands, but rather that in coastal areas, Corps jurisdiction extends to the limits of these ''non-tidal wetlands'' that are adjacent to tidal wetlands. Consequently, this NWP is applicable to wetlands that are adjacent to wetlands subject to spring high tides. However, divisions can, as some did in 1995, provide regional conditions to exclude high value wetlands adjacent to tidal waters.

Several commenters requested either elimination or a more detailed definition of the term ''attendant features''. They suggested that swimming pools, tennis courts, barns, small businesses and septic fields should not be allowed. The purpose of this permit is to reduce the regulatory burden associated with the construction of single-family homes while maintaining environmental protection. When building single-family homes we recognize that, besides the foundation of the house itself, there are activities associated with a house that are considered necessary, customary, or normal to home sites. We believe these ''attendant features'' should normally be authorized with the house. We would not accomplish the purpose of this permit if we were to authorize the house only and process an IP for the attendant features. Attendant features, for the purpose of this permit, include features that are reasonable, necessary appurtenances constructed in conjunction with single-family housing activities. Examples include a garage, driveway, storage shed, septic field, and yard. Examples of inappropriate attendant features not covered by this permit include a barn, which may be covered by NWP 40, or a small business. Such features would not be directly related to a single-family home. While we believe that a yard is an appropriate attendant feature of a single-family home, we have not identified a size that will work for all NWP 29s. Therefore, we will work with the applicant to ensure that acceptable, but not excessive, yards are authorized. This NWP only authorizes activities from the perspective of the Corps regulatory authorities, other Federal, state, and local permits, approval, or authorizations may also be required. The permittee would be responsible for obtaining all necessary authorizations, including building permits, prior to placing a septic system, yard, or any other fills in wetlands. Additionally, water quality is a concern addressed by applicable state agencies as well as the Corps. It is the permittee's responsibility to obtain any necessary water quality approvals or authorizations prior to the discharge of fill. Furthermore, while properly designed, constructed, and operated septic systems can be placed on fill in many wetlands, the septic system must be approved by the appropriate state or local agency. The Corps has determined the extent of the attendant features to be applied on a nationwide basis. If an individual district concludes that a particular feature should not be authorized under this permit, then the Division Engineer must regionally condition the permit to exclude the feature. Furthermore, additional restrictions may be placed by states in 401 water quality certification or CZM consistency determination. On a case-by-case basis, where a particular feature is not appropriate at a specific site, the District Engineer may condition the NWP or require an individual permit.

As a Corps district evaluates each request under NWP 29, they will consider the proposed home and attendant features in the context of the functions and values of the waters of the United States as well as local zoning and regulatory set-backs and requirements. If uplands are available on the applicant's property to reasonably accommodate the home and attendant features, after considering property line set-backs and other requirements, the Corps will not authorize the project under NWP 29 and instruct the applicant to apply for an IP. If fill for the home and for attendant features is needed, the Corps will determine the amount of fill based on the aquatic functions and values to be impacted. Specifically, attendant features such as a yard, tennis court, or swimming pool may be limited, or not authorized, if the project is located in high value wetlands. The Corps will generally require septic systems to be located as far as possible from open waters, and will otherwise attempt to ensure that septic systems will not adversely affect the quality of surface waters.

Effects & Cumulative Effects: One commenter expressed concerns for adverse effects on floodplains resulting from issuance of the permit. Two commenters expressed concern for water quality impacts due to the typical location of NWP 29 activities within watersheds. Several commenters expressed the belief that this permit encourages housing development in wetlands, and several expressed general concerns for the cumulative impacts.

Because the activities associated with the use of this permit could be located within the floodplain or a waterbody, there is potential for increased flooding and reduced flow. The notification process allows the district to evaluate the proposed impacts, including potential flooding impacts, compare them to existing impacts within the wetland system or watershed, and determine if the project has more than minimal individual or cumulative adverse effects. The district will use its discretionary authority to place conditions on a proposed activity to avoid or minimize these potential impacts. If the activity is determined to have more than minimal adverse effects, the district will require mitigation or an individual permit. The district and division offices may identify specific geographic areas, such as a subdivision, or a particular aquatic system, where there may be concerns regarding cumulative impacts to a watershed. If such impacts are identified, the division will revoke this NWP in specific geographic areas or develop regional conditions that apply to that specific area. Many districts and divisions have already revoked NWPs, including NWP 29, or imposed such regional conditions in many geographic areas or wetland or water types.

Coordination: One commenter asked that we require Endangered Species Act and Historic Preservation Act coordination prior to authorization under this permit. One commenter requested that we require compliance with Federal, state, and local regulations. The Corps believes that the provisions of Nationwide Permit Conditions 11 and 12, which address endangered species and historic properties, as well as the procedures in 33 CFR part 330, are adequate for guarding against unacceptable impacts in these areas of concern. Moreover, by issuing a verification letter the Corps has made a determination of ''no affect'' on endangered species and ''no adverse affect'' on historic properties. The issuance of a Federal permit does not obviate the need for applicants to comply with all other Federal, state and local laws and regulations, and it is incumbent upon the applicant to comply with all applicable requirements.

Subdivisions: One commenter suggested applying the current ½ acre limitation for subdivisions created on or after November 22, 1991, to all subdivisions regardless of the date they were created. One commenter requested a more elaborate discussion on what constitutes a subdivision. Another recommended the subdivision date be 1977 when the scope of the Corps regulatory jurisdiction was expanded and 404(e) was first enacted, or 1984 when many property owners were made aware of the need to obtain permits. Another commenter suggested limiting the permit to those persons who purchased their properties prior to enactment of Section 404 of the Clean Water Act. One commenter asked what constitutes ''creation'' of a subdivision, is it the date the subdivision was first drawn on a piece of paper or the date it was approved by a planning jurisdiction? One commenter requested the addition of a subdivision rule (interpreted to mean a more detailed discussion of subdivisions within the permit).

November 22, 1991, is the date on which the current NWP program regulations, including issuance of, reissuance of and modifications to the previous NWPs were published in the Federal Register. It was in these regulations that the terms surrounding subdivisions for the purpose of NWP 26 were outlined and awareness of the subdivision clause was heightened. With few exceptions, we believe this date would be fair to all parties. We do not believe that the November 22, 1991, date penalizes any one group of individuals and that is the date which has been in use since issuance of the nationwide permit on September 25, 1995. The subdivision date refers to when a parcel was subdivided into smaller parcels, not when the subdivided smaller parcels are sold. Therefore, individual parcel owners are not penalized based on when they purchased property. The term ''creation'' refers to the date the tract of land, after being subdivided, is officially approved by the appropriate state or local governing agency. The conceptual subdivision of land is not acceptable.

One commenter recommended that the permit be conditioned to not allow for multiple ownerships by family members to circumvent the subdivision clause. We believe that the conditions limiting the use of this permit to single-family residences, personal residence, once per parcel, and not more than ½ acre total per subdivision created after November 22, 1991, are adequate conditions to limit use of the permit and ensure compliance with the ''minimal effects'' criteria for general permits. Multiple ownership by the same family within a subdivision created after November 22, 1991, would not allow for any greater fill than single ownership of the subdivision, in that the total aggregate fill could not exceed ½ acre. NWP 29 is reissued with the modifications discussed above.

30. Moist Soil Management for Wildlife: This NWP was proposed by the Corps as a new nationwide permit (proposed new nationwide permit A) to authorize activities necessary to manage, construct, and/or maintain habitat and feeding areas for wildlife on Federally-owned or managed and state-owned or managed property.

Many commenters supported the NWP as proposed. Several of the commenters felt that the NWP should include activities on privately-owned lands managed by Federal agencies. These are agencies with expertise in the subject area and are responsible for managing the lands in concert with the objectives of the Federal wetlands programs such as NRCS and FWS or state plans. A few commenters stated that wetland areas under permanent easement and deed restrictions should be covered by the NWP. One commenter stated that privately-owned lands should not be included. This permit was proposed by the Corps specifically for application to Federal and state resource agency activities. It is intended that the permit apply to managed lands as well as lands owned by these Federal and state agencies. The techniques listed in the permit are not ''all inclusive,'' but meant to be representative of the types of activities included. The list has not been expanded for the sake of brevity.

A few commenters asserted that discing or plowing are activities that are not, and should not be, subject to regulation. Mowing and bush hogging are two examples of vegetation removal, which if done so as not to substantially disturb the root system, are not regulated under section 404. (See 33 CFR 323.2(d)(2)(I)). While discing and plowing activities are exempt from regulation pursuant to CWA section 404(f)(1) when conducted in conjunction with ongoing farming activities, such activities are not exempt for the purposes of wildlife management. Thus, this permit specifically authorizes these activities.

A few commenters were concerned about implementing adequate review measures and suggested that the Corps include a Federal and state wildlife agency PCN to ensure that any conversion of wetland types would be minimal or an IP would be required. Because these agencies have extensive expertise in wetland management and are responsible for managing the lands in concert with the objectives of Federal and state wetlands programs, we believe the PCN processes would result in unnecessary and duplicative governmental review. Furthermore, we have added an additional restriction to the NWP to not authorize converting wetlands to open waterbodies. Proposed Nationwide Permit A is issued as proposed and discussed above as NWP 30.

31. Maintenance of Existing Flood Control Projects. General: This NWP was proposed by the Corps as a new nationwide permit (proposed new nationwide permit D) to authorize the excavation and removal of accumulated sediment and associated vegetation for maintenance of existing flood control facilities. The majority of those commenting on this proposed NWP were in support of its issuance. Most viewed this permit as one that would greatly improve the local sponsor's ability to perform critical flood control maintenance activities. Several commenters felt that, especially for some projects, using this NWP would violate 404(e) because maintenance work would have more than minimal adverse effects on fish and wildlife resources. Their concern was for use of the permit for older flood control projects now supporting fish and wildlife habitat. Many of these commenters felt that maintenance dredging in some areas could result in perpetuating past mistakes and, for older projects, it may be impossible to determine the original dimensions.

Many commenters felt that flood control channels that develop and support wildlife need public review and agency comment and a PCN requirement will not substitute for public review as required by the Clean Water Act.

We believe that with the limitations and conditions included within the final permit, the NWP will comply with the ''minimal effects'' criteria for general permits. Safeguards for the protection of valuable habitat have been included within the permit, particularly in the procedure for the District Engineer (DE) to determine the maintenance baseline and the provisions allowing for the DE to require mitigation.

Recommendation for Expanding the Permit's Scope: Numerous comments recommended expanding the scope of this NWP. Some of the recommended inclusions were state and city flood control maintenance activities; maintenance of stormwater management facilities; water conservation facilities; retention/detention basins and channels constructed by municipalities, watershed management organizations, and watershed districts (in compliance with surface water management practices required by the state); any Federal, state, or locally funded flood control project; irrigation facilities; any facility where an NEPA document has been prepared; drainage system inlets and outlets; manmade channels or structural projects developed under authorization of Federal or state governments; and any facility that was constructed through excavation prior to the Excavation Rule. One commenter stated that any ''improved channel'' or detention facility constructed before July 1975 or after July 1975 if it met exemption from 404 regulations or fell under 404 regulations and was authorized by the Corps should qualify for this NWP.

Many of the facilities included in the above recommendations would be included in the final wording, which authorizes maintenance of existing flood control facilities previously authorized by the Corps regulatory program or constructed by the Corps and transferred to a local sponsor for operation and maintenance. However, this NWP was proposed for maintenance of ''flood control'' facilities. In order to expand the scope of this NWP to include other types of facilities such as irrigation and drainage projects, we would need to propose such a change for public comment and opportunities for a public hearing. Therefore, we are not expanding the scope of this NWP to include other types of facilities. However, we will seek public comment regarding other types of activities that should be authorized by NWP and, if appropriate, we would propose an NWP for such facilities.

Two commenters suggested that this NWP include construction of cofferdams and access roads necessary to conduct maintenance of the flood control facilities rather than require separate notification under NWP 33. We believe this permit should be limited to maintenance activities of existing flood control facilities and that temporary construction activities would more appropriately be authorized by IPs or NWP 33, which has a specific notification requirement for a restoration plan.

Recommendation for Limiting the Permit's Scope: A few commenters recommended restricting this NWP to only on-going flood control projects. One of these commenters specifically suggested that the NWP should be worded to state that for a project to qualify for this NWP, it must have been maintained within the past 3 years unless otherwise stated in the original permit. One commenter suggested using the safeguards contained in NWP 3—that this NWP applies only to the repair, rehabilitation, or replacement of currently serviceable water management projects authorized under Federal, state, or local governments, provided the environmental effects resulting from such repair, rehabilitation, or replacement are minimal. One commenter suggested a 5 acre threshold for this NWP, and another felt that any threshold would be arbitrary and instead recommended that this determination be made based on the quality of the existing aquatic resource and how the site will be impacted by the proposed excavation activity.

We included provisions within the NWP to limit maintenance activities to an established maintenance baseline, to be determined by the DE. The process prescribed for determining the baseline includes consideration of the facility's maintenance history, and other factors designed to identify the purpose and need for the proposed maintenance, and that the proposed maintenance activity is not excessive to achieve that need. We believe that specific threshold limits would be inappropriate and unnecessarily restrict projects that should qualify for this NWP.

Pre-Construction Notification: Many commenters were opposed to having any preconstruction notification requirements. They felt that it would be duplicating the efforts of other entities for the Corps to review flood control projects that adhere to the original schedule for maintaining the facility. One commenter added that requiring a PCN would be contrary to the Corps goals to avoid unnecessary regulatory controls and reduce unnecessary paperwork and delays for permittees. Several commenters were concerned that additional coordination could pose a threat to public health and safety if flood control districts were impeded in any way to maintaining a facility. Two commenters specifically requested that there be no PCN requirement for the facilities designed and constructed to comply with local or state water quantity and/or quality control requirements when the depth and area of dredging is in accordance with the originally approved design plans. Another commenter suggested that no PCN be required for emergency maintenance performed as a result of a local, state or Federally declared disaster.

Numerous commenters provided recommendations for thresholds of when to require a PCN, ranging from 100 to 100,000 cubic yards or at a 1 acre threshold. One commenter suggested that a 25 cubic yards limit be used in streams supporting anadromous fish. Another threshold to require a PCN was whenever previous maintenance activities occurred more than 5 years earlier. One commenter suggested using 50 cubic yards as the PCN threshold stating that under 50 cubic yards the applicant could use NWP 18/19. Another commenter suggested 10 acres or 1 acre/mile of channel/year. Another commenter recommended that the impacted area threshold be 10 acres minimum for each unlined basin and 25 acres minimum for each soft bottom channel reach before a PCN was required. One commenter interpreted the preamble to imply that only unlined basins and channels would require a PCN and that the regulation itself should reiterate that requirement.

Following the DE's determination of the maintenance baseline, which requires a notice to the Corps, a PCN is required for maintenance activities. We believe that there is a need for notification for maintenance activities to ensure compliance with the permit conditions and to monitor maintenance of the flood control facility. The PCN is required prior to each maintenance activity or a maintenance plan can be submitted just not to exceed 5 years. The Corps prefers the submittal of a 5 year maintenance plan. This is a new NWP. The Corps will monitor this NWP. If appropriate, the Corps would consider proposing to reduce or eliminate the PCN requirement. Furthermore, if the project is effectively abandoned due to lack of proper maintenance, a new

determination of a maintenance baseline would be required before this NWP could be used for subsequent maintenance.

Recommendations for Permit Conditions: Several commenters recommended that this NWP be conditioned to preclude maintenance work that would result in wetland and/or riparian habitat impacts. One commenter suggested the following wording be added to both the preamble and the permit itself: ''In circumstances where the DE determines that the channel proposed for maintenance provides other significant social or ecological functions and values that may be jeopardized, the Corps will exercise its discretionary authority to require an individual permit.'' One commenter suggested that the following conditions be added to this NWP: (1) All excavation must have been previously addressed in the project's original EIS; (2) the excavation is still necessary to obtain the project's original goals; and (3) the benefit of attaining those project goals still justify the cost of the environmental impacts that result from the removal at this time (as opposed to the time when the original EIS was completed).

We believe the objectives of these recommendations are essentially achieved through the application of the final wording of the permit, the requirement to establish a maintenance baseline, the nationwide permit general and section 404 only conditions, and the opportunity for the DE to exercise discretionary authority and/or require mitigation for resource impacts.

One commenter requested that the Corps delete the requirement for an applicant to specify the disposal site. The reason for this is that, in many cases, the disposal site is not known until after the bids for the project are submitted, which may occur after the NWP has been verified. This commenter suggested that the requirement be replaced by a commitment from the applicant to dispose of material at an upland site. Other commenters recommended that the NWP be expanded to allow the disposal material in jurisdictional areas where the applicant can show a beneficial use for its disposal. Another commenter recommended that the location of the disposal site be identified only if it is within the Corps jurisdiction. One commenter suggested that the NWP specifically state that this NWP does not authorize side casting excavated material into waters of the United States, agitation dredging, or where dredged material testing is required.

The NWP does not require that the disposal site be specified in advance, however, it does require that dredged material to be placed in upland areas or currently authorized disposal areas in waters of the United States. Use of the disposal site must also be in compliance with all Federal, state and local requirements, as must every aspect of the project, or the NWP is not valid.

One commenter added that should such work be allowed, there should be a requirement to mitigate for unavoidable impacts to fish and wildlife resources. Another commenter was concerned that mitigation would be required for projects, especially for those constructed prior to the enactment of the Clean Water Act in 1972, causing an undue financial burden on applicants.

The final NWP includes provisions for the DE to determine the need for mitigation when determining the maintenance baseline. In determining the need for mitigation, the District Engineer will consider the following factors: any original mitigation required, the current environmental setting and any impacts of the maintenance project that were not mitigated in the original construction. The District Engineer will not delay needed maintenance for completion of any required mitigation, provided the DE and the applicant establish a schedule for the identification, approval, development, construction and completion of such required mitigation.

One commenter requested that they not be required to submit a new wetland delineation every five years because of the significant cost this would cause for local agencies. The Corps general policy is that wetland delineations are verified for no more than 5 years. In those cases where wetland delineations are required, the delineation must have been verified within the 5 year period. Once a delineation has been completed and verified, subsequent updates and verifications should, in most cases, be substantially less costly and time consuming. A wetland delineation would be required to establish the maintenance baseline. However, for normal maintenance, a wetland delineation would not generally be required, but may be on a case-by-case basis.

Time Limits and Maintenance Baseline: Many commenters requested that no time limits be set for maintenance intervals, only demonstration of need. One commenter pointed out that in some cases it may take a flood event to know that a facility needs maintenance, and little would be gained by disqualifying projects on the basis of long maintenance intervals. Another commenter added that it would be unfair to penalize older facilities that have received little maintenance over the years. A few commenters suggested that the baseline should be the design conditions with no set time limits for maintenance cycles, since such a time limit would be arbitrary and would not relate to the ecological value of a local project site. One commenter recommended that the baseline condition for measurement of impacts should be the ''as-built'' or newly constructed condition.

We concur that no time limits should be set for maintenance intervals and that it would be unfair to penalize older facilities. We have included design conditions and the ''as-built'' conditions as considerations in establishing the maintenance baseline. Details on the procedure and considerations for establishing the maintenance baseline are included within the NWP description presented later in this document under the ''Nationwide Permits and Conditions'' section. However, maintenance work to maintain the approved flood control capacity must be accomplished. If the project or the design capacity is effectively abandoned or reduced due to lack of proper maintenance, a new determination of a maintenance baseline would be required.

Regionalization: Two commenters suggested that maintenance of existing flood control projects should be exempted from regulation. A few commenters suggested replacing this NWP with each District developing river specific regional permits. One commenter suggested that this NWP would be more appropriate as a programmatic general permit because it would result in the same streamlining of the process while allowing for a public agency to administer a jurisdiction-wide channel maintenance program under pre-determined criteria for that state.

The activities authorized under this permit are not exempted under the Clean Water Act and are therefore regulated under section 404 of the Clean Water Act. We believe that it is appropriate to authorize the maintenance activities specified in the final NWP; however, districts can and are encouraged to identify appropriate regional conditions to ensure minimal impacts. We also agree that programmatic general permits could be a viable alternative in those cases where another program meets the objectives and requirements of the Corps regulatory program.

Endangered Species Act: A few commenters raised a concern over

possible impacts to Federally threatened and endangered species and recommended that sufficient evaluation with the federal agencies be completed before allowing a project to qualify for this NWP.

We believe the nationwide general permit condition addressing the avoidance of impacts to endangered species and compliance with the Endangered Species act is sufficient for protecting against such impacts. Furthermore, by verifying an activity is authorized under NWP 31, the Corps district will have made a ''no affect'' determination based on review of available data. If a project may affect an individual species, the Corps will initiate consultation under § 330.4(f). Furthermore, endangered species, if not already addressed in a Corps permit or Corps constructed project, would be addressed as a part of the determination of the maintenance baseline.

Definitions and Clarifications: A few commenters suggested that the title of this NWP be changed to ''Maintenance of Existing Flood Control Facilities'' rather than ''Projects'' to avoid any implications that it does not apply to existing or locally funded ''facilities.'' One commenter suggested that the word ''previously'' be deleted from the text because ''previously'' raises the question of whether or not the NWP applies to flood control facilities authorized and constructed subsequent to the effective date of the NWP, or only to those existing ''previously''. One commenter suggested that ''previously authorized'' be changed to ''initially constructed'' since the depths and configurations often have changed from the basic authorization.

We have changed the word ''projects'' to ''facilities'' as suggested. The term ''previously'' has been retained. We intend to include maintenance activities associated with flood control facilities in future Corps standard individual permits. We have modified the NWP to require the DE to consider the difference between the project authorized and actually constructed in his determination of the maintenance baseline.

One commenter felt that the term ''flood control'' project was too vague and needed to be clarified as to what could be considered a flood control project. We believe the term is sufficiently defined within the language of the final NWP.

Several commenters requested that clarifying language be added to the preamble stating that areas that were constructed in uplands are outside the purview of the Corps regulatory process provided they are maintained. Corps regulations for implementation of the regulatory program state that the Corps does not normally regulate artificial water bodies constructed in dry land, but reserves the right on a case-by-case basis to determine that a particular waterbody within this category is within the purview of our regulatory authorities. More detail on these provisions can be found at 33 CFR 328.3 and in the preamble to those regulations in 51 FR 41217. We will continue to monitor this need and provide additional clarification as necessary.

A few commenters requested that ''natural'' channels be defined to avoid misinterpretation. One commenter further suggested that ''natural'' be defined as a watercourse that has not been modified in order to increase its hydraulic capacity or simply a previously unaltered water course. Another commenter suggested that the wording of this NWP be revised to state that ''this NWP authorizes the removal of sediment and associated vegetation from flood control facilities, including natural channels. We believe the text of the final NWP, which reads: ''Only constructed channels within stretches of natural rivers that have been previously authorized as part of a flood control facility could be authorized for maintenance under this NWP,'' sufficiently clarifies those areas which can be maintained under this NWP.

One commenter felt the term ''maintenance'' is vague and that specific types of maintenance activities allowed should be fully described and limited to that which does not impact the environment and water quality. We believe the requirement for establishing a maintenance baseline satisfies this concern. It will establish the limits of the maintenance on a case-by-case basis.

32. Completed Enforcement Actions: The Corps proposed several changes to the NWP. We proposed expanding the scope beyond judicial enforcement actions to include agreements resulting from Corps negotiated settlements. We also proposed clarification that compliance with the underlying judicial or administrative decision or agreement is a condition of the NWP itself, and we proposed that EPA administrative settlement agreements could also be authorized by this permit.

Several commenters favored the addition of Corps non-judicial settlements to the scope of activities authorized by this permit. One commenter specifically stated that it would eliminate unproductive duplication of the Corps evaluation efforts. Another added that it would both streamline the process and expedite restoration work. A few commenters added that little is served by going through an individual permit process once the Corps is satisfied with restoration and mitigation being offered or required to resolve a violation. One commenter saw the benefit of enhanced negotiation with the Corps without judicial actions. A few commenters supported extending NWP 32 coverage to activities authorized under EPA administrative settlements as well as Corps settlements. Conversely, numerous commenters recommended that this NWP not be expanded or reissued. Many commenters were only opposed to the expansion of the NWP. Some believed that by including Corps-negotiated settlement agreements permit approvals would be made behind closed doors without the opportunity for public or resource agency comment and therefore would preclude the due process of public participation. One commenter was concerned that it would eliminate the opportunity for section 401 water quality certification for after-the-fact permit (ATF) activities that may have violated state water quality standards. The Corps will not forego its normal and required enforcement procedures at 33 CFR part 326 and 33 CFR 330.6(d)(2) and 330.6(e) prior to reaching a settlement agreement. The Corps has concluded that including agreements resulting from Corps negotiated settlements and EPA administrative settlement agreements would result in substantial work load reductions and eliminate duplicative efforts without any loss in resource protection. Corps settlement agreements receive thorough evaluation and are normally coordinated with the resource agencies. In those cases where the state does not certify this permit, the applicant will be required to obtain individual section 401 certification prior to the Corps final approval of the resolution.

Several commenters suggested ways to further expand this NWP and one commenter opposed any threshold restriction, provided the net environmental benefit was positive. Another commenter believed the NWP should be expanded to permit future impacts beyond those only for the purpose of mitigation, restoration, or environmental benefit. Some believed the thresholds of five acres of non-tidal or one acre of tidal wetlands were arbitrary and too high. Others believed that authorizing enforcement actions by NWP would violate the ''similar in nature'' and ''minimal impact'' standard of 404(e) of the Clean Water Act. One commenter suggested that unless the Corps settlement involved complete

restoration, it would be impossible to determine that the activities to be authorized under this NWP would be minimal impacts or to assess the cumulative impacts. The Corps has concluded that the existing thresholds and scope of the permit cannot be expanded because we could not ensure compliance with the ''minimal effects'' threshold for general permits. We have also concluded that the five acre and one acre thresholds are adequate for meeting the ''minimal effects'' criteria. The Corps believes that complete restoration will be achieved, except where full restoration is either not practicable or would result in unnecessary adverse environmental effects. Therefore, we do not believe greater than ''minimal adverse effects'' would result from this permit.

One commenter believed that the automatic revocation of the NWP, in case the permittee failed to comply with the settlement agreement or judicial decree, was too harsh and that they should be allowed to follow the normal revocation process. We do not believe this condition is too harsh given that the permittee, who violated the CWA and reached a settlement agreement with the government, once again violated the CWA. We believe that those individuals should be, once again, subject to enforcement/compliance regulations.

One commenter believed NWP 32 encourages citizens to break the law and noted there is no restoration for the impacts created by the violation. A number of commenters opposed this NWP because there were no limits as to potential impacts. One commenter stated this NWP would eliminate the 404(b)(1) needs and alternative analysis for projects up to five-acres. As stated in the proposed NWP, thresholds were established for the maximum size of the impact area and whenever possible, restoration of these areas will be required to minimize the impacts as appropriate and practicable. This NWP is mostly intended for those cases where the enforcement resolution has been reached and an ATF permit process is required. Although a 404(b)(1) off-site alternatives analysis is not required for an NWP authorization, on-site avoidance is required. Further, off-site alternatives may be considered, where appropriate, during the enforcement resolution prior to processing the ATF or this NWP authorization. NWP 32 is reissued with the changes discussed above.

33. Temporary Construction, Access and Dewatering: The Corps proposed adding the provision from recent guidance stating that this NWP could be used for construction activities not subject to either the Corps or U.S. Coast Guard regulations. We also proposed allowing the use of on-site dredged material for temporary fills, and deleting the last sentence of the permit, which stated that the permit did not authorize activities associated with mining activities or construction of marina basins which had not been authorized by the Corps.

The several comments received on this permit were nearly equally split between support for and position to reissue the permit. Many comments expressed concern about adverse impacts from structures and fill remaining in place without monitoring or enforcement. The Corps designed this permit to provide a shortened administrative process for construction-required activities that were not anticipated when the main project was authorized by another Corps permit (usually an individual permit) or by a Coast Guard permit. We have added authorization of activities where neither a Corps nor a Coast Guard permit is required but a temporary impact to waters of the United States occurs in association with work in the immediate area for an otherwise upland project. Structures or fills that remain in place cannot be permitted by this NWP. The NWP now clarifies that all activities authorized by this NWP must be removed or authorized by another permit.

One comment recommended that all fills and restoration be completed within 90 days of project completion. We have clarified the requirements of PCN (General Condition 13) such that the restoration plan will include a timetable for removal of the temporary structures and fills.

One comment concerned the interpretation of ''or for other construction activities not subject to the Corps or U.S. Coast Guard regulations'' as including maintenance which the commenter states is not regulated under 33 CFR 324.4(a)(2). The Corps NWP 33 is clear in its intent to authorize only activities that support some primary activity that has been permitted or does not need a permit. The exemption referenced authorizes maintenance and reconstruction of facilities, which means that it exempts only that part of the facility that was constructed in jurisdictional waters. NWP 33 authorizes access or construction techniques to perform the exempt reconstruction if that access or technique requires structures or fill outside the footprint of the facility.

One commenter recommended a dredging limitation the same as that required for NWP 19. The Corps believes that this is too restrictive for a temporary impact and would excessively lessen the use of this NWP.

A few commenters expressed concern for special aquatic sites with suggestions that: the permit require the impacted wetland be restored in 2 years, the impacted site be self-mitigating, the Corps ensure that wetland impacts can be reversed, and a maximum impact of ½ acre. We believe that all of these restrictions are not necessary. Through the PCN process the Corps will ensure that impacts are minimized to the maximum extent practicable.

Another comment expressed concern regarding downstream flooding. The NWP states that near normal downstream flows must be maintained and flooding minimized. Section 404-only Condition 6 also prohibits altering expected high flows.

One commenter suggested limiting restoration to special aquatic sites. The Corps has not adopted this recommendation because temporary structural fills in other waters of the United States, which are not special aquatic sites, also must be restored under this NWP. Another commenter suggested that there no be a notification for cofferdams and access ramps under some unspecified size. Another asked for the PCN to start at 100 cubic yards or 0.1 of an acre impact. We believe this is inappropriate as another permit has been issued for the main project and cumulative impacts need to be considered, including potential alteration of the purpose of the project. Also, even small cofferdams may have more than minimal impacts depending upon the resources of the waterbody. Construction activities for projects not requiring a permit may be authorized by non-notification NWPs if they apply.

Two other commenters recommended that signs be erected to warn boaters of construction activities and that this NWP not be used for river boat casino construction. These are very localized issues that can be dealt with through regional conditioning by the districts and divisions. If the Corps is aware of high recreation use, placing warning signs may be an appropriate condition for some specific NWP authorizations. NWP 33 is reissued with the proposed changes.

34. Cranberry Production Activities: The Corps proposed no changes to this NWP. Several commenters supported reissuance, but the great majority of those commenting on the permit requested revoking this NWP, based principally on perceived environmental impacts and because, according to the commenters, most cranberry producing states have denied water quality

certification. The Corps realizes that decreases of habitat value and water quality functions may occur in the conversion; however, the NWP requires mitigation to ensure no net loss of wetlands by acreage. Additionally, any district may regionally condition the NWP to restrict its use in particularly valuable wetlands. Some states, as noted by several commenters, have denied 401 water quality certification to ensure that the state can regulate impacts of local concern. Washington State, for example, initially denied certification for all actions under this NWP. Three years ago the state issued certification except for forested wetlands and areas that had never been in cranberry production historically. Denial by many states does not imply that a NWP is causing more than minimal adverse effects, but simply that the state may have concerns regarding water quality.

A few commenters requested removing the no net loss requirement for purposes of water quality and more efficient harvesting through the construction of dikes. The Corps believes that the mitigation required is necessary to ensure that no more than minimal adverse effects will occur. The Corps believes that extensive construction of dikes would likely result in more than minimal adverse effects, and thus requires evaluation through the individual permit process.

One commenter stated that upland alternatives should be selected. Although it has been demonstrated that cranberries can be cultivated in former uplands (cranberry bogs are wetlands because of the hydrology that must be maintained), this is technically difficult and typically would not be practicable. This is particularly true recognizing that many operators are small family businesses.

One commenting organization stated that Section 401 did not apply to cranberry bog construction because it is a non-point pollution source. The activities regulated by the Corps under NWP 34 involve discharges of dredged or fill material associated with expansion, enhancement or modification of the cranberry bogs. These discharges of dredged or fill material are the same as any other fill pad or land leveling operation. These types of activities are point source discharges and a 401 water quality certification is required.

Two commenters recommended adding taro production to this NWP. Taro is grown in Hawaii and other South Pacific islands. We believe this is a region-specific problem and the Corps Honolulu District has the option of developing a regional general permit, if appropriate.

In order to verify compliance with the terms of this NWP, we have added the requirement to provide a wetland delineation with the notification. NWP 34 is reissued with the modifications described above.

35. Maintenance Dredging of Existing Basins: The Corps proposed no changes to this NWP. One commenter indicated that clarification is needed to unambiguously define and limit what is meant by canals, basins and slips. This is a section 10 NWP and the term canal in this instance is related to navigation. Therefore, flood control or other canals that do not normally support navigation are not covered by this NWP. The term basin is also intended to relate to navigation, such as a marina. A marina basin is defined as the open water portion of a marina which is normally bounded on one or more sides by uplands or structures (i.e., bulkheads, walkways, floating or stationary piers and/or breakwaters). A slip is the open water area where an individual boat is moored and is normally bounded on one or more sides by uplands or structures (e.g., bulkheads, walkways, piers, piling, etc.). We have modified the permit by replacing the term ''canals'' with the term ''channels''. We have made this change to clarify our intent to allow maintenance dredging of navigational channels connected to marina basins.

One commenter suggested that the NWP be broadened to include maintenance dredging of previously authorized intake and discharge structures and canals for electric power plants. The commenter added that this activity is infrequent, typically requiring maintenance dredging no more often than every five to ten years. We are not adding such canals because their primary purpose is not to support navigation.

A few commenters expressed concern about the method of disposal related to waste discharge requirements of boats using the area and 401 water quality certification. The states review water quality concerns under section 401 of the Clean Water Act and boats must meet discharge requirements established by the Coast Guard. Moreover, this NWP is not for construction of marinas, but for maintenance dredging of their basins and access canals.

One commenter suggested that each Corps district incorporate seasonal restrictions to limit impacts to anadromous fish. Another commenter stated that the NWP should not be used to remove natural gravel deposits or woody debris caused by flooding which may directly impact stream flow and may affect anadromous fish. We believe that these issues can be addressed through regional conditions to this NWP or by activity-specific conditions required by the DE, where necessary. One commenter expressed concern over the possibility of resuspension of pollutants accumulated in the sediments of marina basins during such maintenance activities. The Corps shares these concerns and is therefore, with this publication, requiring that the Division Engineers, through the recommendation of the DEs, regionally condition this NWP to exclude marinas where there is a high potential for resuspension of pollutants that may adversely affect water quality. NWP 35 is reissued with clarifications discussed above.

36. Boat Ramps: The Corps proposed no changes to this NWP. One commenter suggested that this NWP be subject to notification requirements. Another commenter suggested that the NWP would encourage the construction of individual boat ramps. A few commenters suggested that mitigation be required for lost special aquatic sites and habitat. A few commenters requested additional conditions to avoid impacts to endangered species and fish spawning seasons, to place unpolluted fill material, and to limit construction periods. A few commenters suggested modifications to the size limits of this NWP.

The Corps notes that no discharge of fill material would be allowed into special aquatic sites under this nationwide permit, and the boat ramps authorized are very small. Given this and the discretionary authority provisions, we believe that the notification requirement is not necessary to ensure minimal adverse effects. The NWP, as written, adequately balances the need for public access to the nation's waterways while protecting aquatic resources. The NWP specifies that unsuitable material that causes unacceptable chemical pollution, or is structurally unstable, is not authorized. We believe the general and special conditions in regard to endangered species and spawning areas, respectively, are adequate. Additional measures have been added by the Corps as regional conditions to address specific issues. NWP 36 is reissued without change.

37. Emergency Watershed Protection: The Corps proposed no changes to this NWP. A few commenters wrote to state their general support for this nationwide permit. Several commenters believe that the NRCS is misusing and abusing the Emergency Waters Protection Program

(EWPP) and have suggested imposing a time limit after the occurrence of the natural disaster/emergency situation for the project to qualify for this nationwide permit. It is not always possible to immediately determine the full scope of the damages caused by an individual event. The Corps considers whether or not the material to be removed was a result of a flood event through the PCN process. It is the responsibility of the NRCS, not the Corps, to determine whether the project complies with their program authority. It is the Corps responsibility to review the project and concur that the proposal will result in only minimal impacts and otherwise comply with the terms and conditions of the NWP. Some commenters suggested that we expand this nationwide permit to include all emergency response work as a result of a state or Federal Disaster Declaration and eliminate the notification requirement. After each natural disaster/emergency situation, those responsible for performing this work must coordinate with all appropriate agencies to ensure not only an expeditious response to the situation, but compliance with all applicable laws. Most work of this type is authorized under Nationwide Permit 3. For EWPP projects, notification will continue to be required to ensure that the terms and conditions are met and only minimal adverse effects will occur. NWP 37 is reissued without change.

38. Cleanup of Hazardous and Toxic Waste: The Corps proposed clarification as to which projects approved under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) do not require authorization under sections 10 and 404.

Four commenters noted that CERCLA does not absolve the Corps of its responsibilities under section 404 or section 10, and/or recommended inclusion of language that states that section 404(b)(1) compliance is still necessary unless EPA specifically grants a waiver of ''applicable or relevant and appropriate requirements'' compliance. One of these commenters also stated that the final permit should indicate specifically the substantive requirements that would apply to CERCLA actions under this nationwide, and whether the Corps intends to encompass all CERCLA actions. One commenter recommended deleting the last sentence of the proposed language regarding CERCLA exemptions. EPA notes that the new language proposed for nationwide permit 38 regarding CERCLA exemptions refers to section 121(e)(1) of CERCLA for activities carried out under that section, which only exempts from permit requirements activities that are conducted ''entirely on site.'' They recommend modifying the last sentence of the proposed language to read ''Activities undertaken entirely on a CERCLA site by authority of CERCLA * * *.'' They further note that section 121(e)(1) contains the restriction that the activity must be ''carried out in compliance with this section.'' We concur with this clarification and have added the suggested language.

One commenter stated that nationwide permit 38 illegally delegates the Corps responsibility to protect wetlands to other Federal and state agencies that have very different missions. The Corps has not delegated any regulatory responsibility. The applicant must notify the Corps according to the notification procedures and coordination with other pertinent agencies would be conducted. Appropriate measures to mitigate adverse environmental impacts would be required by the Corps if necessary to ensure that the adverse effects are minimal. This commenter also states that the proposed exemption for EPA-approved or required projects under Superfund that do not require a section 404 or section 10 permit has no statutory basis in the CWA or CERCLA. We note that section 121(e)(1) does specifically allow for exemptions from section 404 and section 10, provided the activities are conducted entirely on-site.

This commenter also notes that no limits are imposed by this nationwide permit and that this violates section 404(e). We disagree. First, there are multiple environmental reviews involved in CERCLA clean up activities. Second, a large project can have minimal adverse effects depending on the functions and values of the impacted waterbody. This commenter further questioned the validity of the information provided in the Federal Register notice on types of potential contamination sources, assumptions made regarding quality of containment technologies, compliance with NEPA by lack of appropriate specificity, and lack of demonstration of compliance with the 404(b)(1) Guidelines by leaving all standards of approval to EPA or state or local regulators. The commenter also encourages the Corps to remain involved to ensure appropriate implementation of section 404 and section 10 requirements with the other parties involved. We believe that the information and project specific evaluation is best left to a case-by-case review by EPA and the Corps through the PCN process. We further note that under EPA's CERCLA guidance, provisions of the section 404(b)(1) Guidelines are considered by EPA.

This commenter recommended nationwide permit 38 not be reissued and that the Corps should conduct its regulatory responsibilities concurrently with the other agencies.

We believe that the NWP ensures that wetlands functions and values are appropriately protected. We also believe that the nationwide permit as written provides for such concurrent evaluation, coordination, and oversight.

One commenter recommended not reissuing this nationwide permit or narrowing it to avoid allowing the dredging of hazardous and/or toxic materials that have settled in river bottoms. One commenter recommended that projects that may affect wetlands or other special aquatic sites include a mitigation plan sufficient to offset impacts. Another commenter noted that specific mitigation requirements are not mentioned under this nationwide permit, and notes that mitigation for lost functions and values should be required if such functions and values were present on the site prior to cleanup. One commenter stated that this nationwide permit should be limited to projects impacting less than one acre of waters of the United States. The notification procedure allows the relevant agencies to provide comments regarding concerns regarding potential contamination issues or to identify mitigation needs. If the Corps determines the project is likely to result in more than minimal adverse effects, appropriate mitigation will be required to reduce adverse environmental effects below the minimal level, or the DE may notify the applicant that the project does not qualify for authorization under the nationwide permit and instruct the applicant to seek authorization under an individual permit. Restricting this nationwide permit to projects of less than one acre of impacts to jurisdictional waters of the United States would unduly limit its application. We do not believe that such a restriction is warranted provided appropriate mitigation is required by the Corps through the PCN process.

One commenter supported the proposal to clarify the scope of this nationwide permit by recognizing that activities conducted under the authority of CERCLA do not require section 404 or section 10 permits and recommended that language be provided that expressly notes that the notification procedure is not applicable for activities conducted under CERCLA authority. The language of the NWP explicitly states that Corps section 404 and section 10 permits are

not required. Thus, notification to the Corps is not necessary for those projects undertaken under authority of CERCLA.

Two commenters recommended that nationwide permit 38 include activities undertaken under authorities other than CERCLA, such as Resource Conservation and Recovery Act (RCRA) or state Superfund programs. As stated in the current and proposed wording, actions performed, ordered, or sponsored by a government agency with established legal or regulatory authority are authorized under this nationwide permit.

One commenter noted that section 401 water quality certification and the Coastal Zone Management Act (CZMA) consistency could be granted without additional regional conditions. Such determinations will be made by each individual state. NWP 38 is reissued with the clarification discussed above.

39. Reserved.

40. Farm Buildings: The Corps proposed correcting the reference to the ''minimization'' condition to reflect its current title, ''mitigation'' condition. We also proposed deletion of ''agricultural related structures necessary for farming activities'' to clarify that we intend the NWP to only authorize farm buildings such as agricultural sheds, supply storage, and barns on a farm or ranch. The NWP is not intended to authorize production nor warehousing type facilities.

One commenter recommended that saltflats or saltponds be added to the wetland types excluded from this NWP due to their inherent values for sediment retention and wintering shorebird and waterfowl habitats. Two commenters recommended deleting the reference to exclusion of prairie potholes, playa lakes and vernal pools to include all wetlands converted or in agricultural production prior to December 23, 1985. The commenter also recommended deletion of the term ''farmed wetlands'' to remove a potential source of confusion, and recommended adding the phrase ''and agricultural related facilities necessary for farming activities'' at the end of the first sentence.

We believe these suggestions would serve to expand this nationwide permit to allow any and all ''agricultural related facilities.'' Restricting this nationwide permit to farm buildings is the intent. We do not believe it is necessary to include any and all possible facilities to be found on farms across the United States. Restrictions on farmed wetlands are appropriate because they are still jurisdictional waters of the United States. The 404(f) exemptions for normal farming activities involve working the land and farm machinery access, not construction of buildings. Prior-converted croplands are not jurisdictional unless wetland characteristics develop upon abandonment of the land. Exclusion of prairie potholes, playa lakes and vernal pools from the scope of the permit is appropriate because of the high ecological values typically associated with these waters. While we recognize the high resource values inherent in many saltflats and salt ponds, these areas typically are not farmed and their exclusion should be considered on a regional basis by the Corps districts.

Several commenters stated that this NWP violates the minimal impact standard of section 404(e). One commenter supported the proposed change provided there were further clarifications of purpose. Specifically, this commenter recommended the permit language should refer to ''foundations and building pads for farm buildings,'' it should refer to farmed wetlands as those wetlands that were in agricultural crop production prior to December 23, 1985, and are currently in agricultural use, and it should refer to discharges associated with a ''single and complete project.'' Another commenter noted that the permit language allows discharges into jurisdictional wetlands that were in agricultural production prior to this date, but there is no explicit requirement that the area still be in agricultural production. Many stated the proposal to limit this nationwide permit to only ''farm buildings'' was not simply a clarification, but a reduction in coverage of the NWP, and were opposed to the modification without data supporting the need for change. One commenter recommended limiting this NWP to only farm homes and limiting impacts to only 0.1 acre. Many commenters also noted that the placement of non-water dependent structures in wetlands is inappropriate. One commenter recommended that any discharge into jurisdictional wetlands be compensated by an approved mitigation plan coordinated with the appropriate resource agencies. One commenter had no objection to issuance as proposed provided it was regionally conditioned to apply only to isolated wetlands. One commenter recommended that this NWP not be reissued due to impacts to wetlands already sustained in his region, and because the NWP language provides no guidance on how the one-acre limit is interpreted, provides no definitions of terms such as ''necessary,'' ''agriculturally related,'' and ''minimum''.

The NWP only applies to farmed wetlands that are currently in agricultural production. We believe that the acreage limitations will ensure that impacts to farmed wetlands will be minimized. We further believe that notification and delineation of special aquatic sites is unnecessary because this nationwide permit applies only to farmed wetlands that are currently in agricultural production.

Many commenters opposed the reissuance of this NWP without further clarification of the intent. The majority of the concerns related to the potential for housing animals or agricultural chemicals in or adjacent to wetlands with the attendant concerns for contamination of local water sources from runoff and requested that such structures be excluded. One commenter noted that this NWP does not require notification to the Corps or other agency and could potentially render a potable water source unfit for human consumption. Three commenters requested language that made it clear that the permittee would still be required to obtain all other required permits such as waste water and waste management permits. One commenter recommended reissuance of this NWP only if it were conditioned for best management practices for size thresholds, pollutant discharge standards, and monitoring protocols. The Corps shares the concerns for potential adverse effects to water quality from runoff and leaching of agricultural chemicals and animal waste products. Therefore, we have added a Corps-only PCN requirement for the placement of any farm building within 500 feet of a flowing stream or waterbody. This PCN will be used by the DE to determine if adverse effects to water quality may result from the placement of the farm building. If the DE concludes that the project, as designed, may adversely effect water quality, additional protective measures, including relocation of the proposed project, may be required.

Proposed New Nationwide Permit A. Moist Soil Management for Wildlife: This proposed permit is discussed above in the ''Discussion of Public Comments and Changes'' section and included below in the ''Nationwide Permits and Conditions'' section as Nationwide Permit 30: ''Moist Soil Management for Wildlife''.

Proposed New Nationwide Permit B. Food Security Act Minimal Effect Exemptions: The majority of comments on NWP B recommended waiting for review of the regulations implementing the 1996 Amendments to the Food Security Act of 1985 (FSA) before

issuing this nationwide permit. The Corps had anticipated that the regulations would be final by July 1, 1996; however, it was not published final until after the end of the comment period for the proposed nationwide permits. Therefore, we intend to re-propose NWP B in the Federal Register at a future date. Of the many comments received, approximately half requested that this nationwide permit not be issued, mostly based on perceptions that the permit would result in adverse impacts to wetlands, while the other half supported it. The comments already received will be considered along with those received in response to our future notice of proposed issuance of this nationwide permit.

Proposed New Nationwide Permit C. Mining Operations: A large number of comments were received on this proposed permit. Through our review of this proposal we found sand and gravel mining operations and recreational mining activities vary greatly across the country, not only in scope but in types and levels of impacts as well. We believe that the development of regional general permits, including programmatic general permits based on state or regional programs, will provide a more effective process for dealing with the differing conditions of various geographical areas of the country. It would not be productive to attempt to specify limits to reduce the individual and cumulative impacts of a NWP for in stream mining to a minimal level when a majority of the proponents indicate that the permit is of little value unless the allowable level of impact is increased. Corps districts and divisions will be encouraged to develop regional general permits for these activities. Proposed nationwide permit C is not issued.

Proposed New Nationwide Permit D. Maintenance of Existing Flood Control Projects: This proposed permit is discussed above in this ''Discussion of Public Comments and Changes'' section and included below in the ''Nationwide Permits and Conditions'' section as Nationwide Permit 31: ''Maintenance of Existing Flood Control Projects''.

IV. Comments and Responses on Nationwide Permit Conditions

A. General Conditions

1. Navigation: The Corps proposed no changes to this condition. There were no comments received on this condition. This condition is adopted without change.

2. Proper Maintenance: The Corps proposed no changes to this condition. Two commenters suggested adding the word ''facilities,'' regarding those activities that are required to be maintained. The Corps authorizes maintenance of structures or fill within its jurisdiction under sections 10 and/or 404. We do not regulate the maintenance of facilities built on the structure or fill. For example, if a business facility (building) on the upland is not ''maintained,'' while the barge loading dock is properly maintained, the Corps would not take action regarding maintenance of the building. To avoid any confusion, the Corps has not added ''facilities'' to this condition. This condition is adopted without change.

3. Erosion and Siltation: The Corps proposed no changes to this condition. Several commenters suggested including state and local erosion and sediment control laws in the General Conditions. Corps permits do not override or obviate the need to comply with state and local erosion and siltation control laws. Additionally, the Corps has no authority to enforce state and local laws. Therefore, the Corps believes it is unnecessary and inappropriate to include state and local laws. This condition is adopted without change.

4. Aquatic Life Movement: The Corps proposed no changes to this condition. A few commenters indicated that projects authorized under an NWP that substantially disrupts aquatic life movements would not satisfy minimal impact criteria and should be considered only through individual permitting procedures. With the current wording of this condition, if a project proposed for an NWP does substantially disrupt aquatic life movement, this general condition is not met and the project cannot be authorized under a nationwide permit. Additionally, it was requested that the phrase ''unless the activity's primary purpose is to impound water'' be deleted. We believe there are impoundment projects which would substantially disrupt the movement of specific individuals of aquatic life, but which would not adversely affect the populations of the species nor have more than minimal impacts on the aquatic environment. This condition is adopted without change.

5. Equipment: One commenter suggested adding to this condition that all equipment be stored in uplands to the extent practicable. We believe this condition is sufficiently clear as stated and applies only to equipment ''working in wetlands''. Storage of equipment in wetlands is not addressed because it is not authorized. This condition is adopted without change.

6. Regional and Case-by-Case Conditions: The Corps proposed no changes to this condition. There were no comments received on this condition. We have added a statement that such conditions will also include those imposed by states or tribes under Section 401, which clarifies the current practice.

7. Wild and Scenic Rivers: We proposed to allow the use of NWPs in a component of the National Wild and Scenic Rivers system after coordination with the managing agency has resulted in a determination that the project will not adversely affect the status of the river. Most comments supported the proposed change. No objections to the proposed change were received. Several commenters requested that we add ''U.S. Fish and Wildlife Service'' after the ''e.g.'' in the last line because they administer 2 rivers in the lower 48 states and 7 rivers in Alaska. We will add this to the nationwide permit condition. Comments were received requesting the addition of the following statement:

> This has no effect on procedures established to notify river management and study agencies of pending applications for permits, including conditions negotiated for General Permits by the Corps and those agencies. The proposed activity shall not begin until the applicant has been notified by the District Engineer that the requirements of the Wild and Scenic Rivers Act have been met.

None of the nationwide permits or conditions override or obviate the need for any other Federal agency's requirements for permits or coordination. The Federal agency responsible for managing the affected waterway must determine whether all requirements of the Wild and Scenic Rivers Act have been met. The applicant may make all required coordination with the appropriate agency without involving the Corps of Engineers if there is no notification requirement for the nationwide permit authorizing the proposed project. If the responsible Federal agency determines the project, as proposed, does not comply with the Wild and Scenic Rivers Act, individual processing of the application is required. A comment was also received requesting that the Federal management agency be required to coordinate with the applicable state resource agency on projects proposed for authorization by nationwide permit in Wild and Scenic River areas or study areas and that any state permits required for a proposed project must be issued *before* the Corps provides authorization by a nationwide permit. The responsible Federal agency is required to complete all coordination

of activities as specified in their regulations. It is not appropriate for the Corps to instruct these agencies regarding their program requirements. This condition is adopted as proposed with the inclusion of the U.S. Fish and Wildlife as a Federal management agency.

8. Tribal Rights: The Corps proposed no changes to this condition. One commenter requested inclusion of language to protect cultural resources, including those protected by the Native American Graves and Repatriation Act, in addition to tribal rights. The Native American Graves and Repatriation Act does not apply directly to the Corps regulatory program. This law is applicable to federal agencies conducting work on federal lands but does not apply to private citizens conducting work on private lands. However, many Native American cultural resources are protected by tribal rights and therefore have been, and will continue to be, considered under this condition. This condition is adopted without change.

9. Water Quality Certification: The Corps proposed no changes to this condition. One commenter suggested that section 401 water quality certification and the section 404 authorization procedure should be combined for Nationwide Permit 26. If the appropriate State agency issues or waivers section 401 water quality certification for any Nationwide Permit, the authorization process has been effectively combined. The Clean Water Act specifically separates these authorizations so that States may place more stringent controls on projects to reduce water quality impacts as perceived by the State and not limit the review process to the Federal perspective. This condition is adopted without change.

10. Coastal Zone Management: The Corps proposed no changes to this condition. A few commenters indicated that the current announcement process for Nationwide Permits did not follow Federal consistency procedures and was not in compliance with Coastal Zone Management requirements. One commenter suggested conditions that would allow concurrence on consistency determinations and indicated that the Nationwide Permits should be revoked for a State where such conditions for Coastal Zone Management are not present. Many commenters stated that determination of inconsistency with Coastal Zone Management should invalidate a permit; and that a requirement for individual reviews should not be adopted. If a Coastal Zone Management concurrence determination is not provided for a specific nationwide permit, the project may not proceed until and individual CZM consistency determination has been received for the specific proposed project. The Corps decision that the project will have minimal impact is not affected. However, the agency responsible for the concurrence determination will review each project on a case-by-case basis. If the project specific concurrence determination is denied, the project may not proceed and the NWP is denied without prejudice.

One commenter believed that a Coastal Zone Management concurrence determination should not apply to flood control maintenance activities more than 100 feet upstream of the designated Coastal Zone. The commenter stated that the project is outside the designated coastal zone, this condition does not apply. The Corps must determine whether or not the impacts of a project would affect a state's coastal zone. If project impacts would affect the States coastal zone, than a consistency concurrence is required. This condition is adopted without change.

11. Endangered Species: Although no changes to this condition were proposed, we have made the change of adding language specific to the take of endangered species as discussed below. Several commenters stated that the Corps must determine compliance with section 7 of the Endangered Species Act and that the applicant will not have sufficient knowledge to make such a determination. These commenters assert that by delegating the section 7 ESA responsibility, the Corps NWP program is not in compliance. A few commenters requested that the endangered species condition not apply to species ''proposed for listing''. Several commenters requested that a public notice be issued for all proposals to obtain public input and environmental review, or that a universal PCN should be shared with resource agencies. A few commenters were concerned that section 7 has never been implemented under the NWP process and that NMFS and USFWS should be consulted prior to final action. A few commenters recommended that the Corps clarify that authorization of a project by an NWP does not authorize the taking of an endangered or threatened species. We will add a statement to this condition to clarify this issue.

Issuing a public notice or sharing universal PCN's with resource agencies for input on all proposals would be unduly burdensome to the Corps and the regulated public, and would not necessarily enhance protection of endangered species. The Corps believes that the procedures at 33 CFR 330.1(e) and this condition ensure compliance with the Endangered Species Act (See general discussion at the beginning of the preamble). Finally, the Corps does conduct section 7 consultations, on both standard individual permits and nationwide permits, to ensure ESA compliance and, as stated above, we are entering into formal programmatic section 7 consultation for the NWP program. The inclusion of species ''proposed for listing'' is identified under the Endangered Species Act and is used in that context. This condition is adopted as discussed above.

12. Historic Properties: The Corps proposed no changes to this condition. Several commenters do not believe this condition ensures compliance with section 106 of the National Historic Preservation Act (NHPA) or its implementing regulation (36 CFR part 800). These commenters encourage development of a process which will pre-identify and evaluate historic properties and cultural resources. Some commenters suggested limiting this condition to those activities which may ''adversely'' affect historic properties. We believe that the Corps procedures outlined in this condition comply with the requirements at 33 CFR 330.4(g) and at 33 CFR part 325, appendix C for protection of historic properties, which implements 36 CFR part 800, and fully satisfy the requirements of the NHPA. Furthermore, our experience with authorizing activities by nationwide permit supports our position. We do not believe an additional or revised process is necessary. To change the condition to reduce the threshold for initiating the historic property process from ''may affect'' to ''may adversly affect'' would not be appropriate or in compliance with Corps regulations. The ''may affect'' threshold provides for a process to determine the affect or no affect on historic properties. The ''not adversely affect'' determination would be decided during the process. If during that process a determination is made that the activity will not adversly affect then the project could be authorized by the NWP. This condition is adopted without change.

13. Notification: We proposed several changes to this condition. In summary, we proposed to: (1) Contact the agencies on behalf of the applicant, (2) discontinue PCN coordination with the agencies on NWPs 5, 7, 13, 17, 18, and 34, but allow Regional Directors or Administrators to request coordination, (3) increase the notification time period for NWP 26 from 30 to 45 days, and (4) notify the agencies on NWP 29 and proposed NWP D (now NWP 31). Many

commenters believe that notifying the agencies is not necessary, many others believe it is necessary. Some commenters like the proposed notification reductions, while others expressed concern. A number of commenters believe that there should be no notification requirements at all. The primary reasons given were that it would cause permit delays and that it was unnecessarily burdensome to the regulated public. Many other commenters believe there should be notifications. The reason for notifications are to assure minimal impacts, and to ensure compliance with the National Historic Preservation Act and the Endangered Species Act. We believe that although comments from the agencies are often helpful in the permit evaluation, the value added to the Corps decision for NWPs 5, 7, 13, 17, 18, and 34 is not adequate to continue the process. We believe that the limited resources from all agencies are better utilized by focusing on projects with potentially greater environmental impacts.

Many commenters raised concern that, by applying compensatory mitigation in the context of a NWP, the Corps authorizes activities that, but for the mitigation, may have more than minimal adverse environmental effects. Those commenters were concerned that the CWA requires that only activities with minimal effects may be authorized by a general permit. Activities that have more than minimal adverse effects are subject to the individual permit process and the associated analysis of alternatives, individual public notice procedures, and other aspects of individual review that help to ensure that potential adverse effects are fully avoided and minimized before any activity is approved.

Given these concerns, the Corps will be considering whether or not modifications to the mitigation provisions of the regulations are appropriate and will be meeting with other Federal agencies to discuss this issue. In the interim, the Corps is seeking specific comment on the use of compensatory mitigation in the context of the Nationwide Permit program and any recommendations for modification to the mitigation provisions. Should the Corps determine that revision to this policy is appropriate, a rulemaking process to change the regulations at 33 CFR part 330 may be necessary. This process would include notice and full opportunity for public participation.

A few commenters suggested that NWP 12 needs delineation of special aquatic sites. We disagree. Fills associated with NWP 12 are temporary in nature and the areas impacted are to be returned to original contours and elevations after the work is completed for projects not subject to the PCN process. The Corps evaluates those projects subject to the PCN process and will determine whether there are substantial problems regarding jurisdiction.

Several commenters requested we increase the time allowed for the agencies to respond. As noted in the preamble section on NWP 26 notification, we will allow the agencies an additional 7 calendar days by extending the maximum additional time the agency can request to 21 calendar days. The agency coordination times for all other NWPs will remain 5 and 14 days. We believe these modifications to the current times are responsive to the greatest area of concern, NWP 26, while not increasing delays for the regulated public where there is less potential for more than minimal adverse effects.

One commenter suggested that notification be required for NWP 23 because of the potential for large projects and significant wetland impacts. NWP 23 activities, by their definition, are actions ''which neither individually or cumulatively have a significant effect on the human environment,'' have already gone through a NEPA analysis, and have already had a public review and comment period when they were first proposed for inclusion under NWP 23. Furthermore, in some specific cases a PCN is required in the individual Corps approval of another agency's categorical exclusions.

One commenter noted that there are no consequences for an incomplete notification, thus, it is not in the applicant's interest for him to raise all the issues that may affect his proposal. The commenter suggested that the resource agencies have information and resources that would help identify these issues and it would be advantageous to the program for the Corps to coordinate projects with them before making a complete determination. The consequences for submitting an incomplete notification is a delay in the Corps evaluation, and hence the authorization, of the project proposal. The Corps initial review of PCNs includes a determination on whether the PCN is complete. Since most applicants are trying to reduce the amount of delay as much as possible, we believe the incentive to submit a complete application is adequate.

A number of commenters provided recommendations for improving the coordination among agencies at the local level. The Corps is with this final package we are issuing today directing substantial increases in coordination and communication at the district and division level. This increased coordination will be part of developing regional conditions for the reissued NWPs, developing replacement NWPs for NWP 26, endangered species compliance, and working with the States. However, we also suggest that individuals and agencies contact their respective Corps districts to provide those recommendations.

One commenter suggested that the Corps notify the applicant upon receiving the PCN and indicate whether it was complete and when a decision would be made. The applicant will be notified if the notification is incomplete and will be informed regarding what information is necessary for the notification to be considered complete.

Several agencies recommended PCN's for NWP 5, 7, 13, 17, 18, and 34. The commenters indicate that major impact projects have been proposed involving NWP 7 (outfalls) and NWP 13 (bank stabilization). A commenter requested that the following list of permits be coordinated with resource agencies: 7, 12, 13, 17, 18, 21, 26, 27, 29, 34, 35, and C. Another commenter requested agency notifications for 7, 13, 14, 18, 21, 26, 33, 37, 38, and the new NWPs. We have carefully reviewed all of the requests for changes to the NWPs for which notification under General Condition 13 has been requested. Based on this review, several NWPs will involve notification coordination with the resource agencies, several will be Corps-only review of the PCN, and several are subject to the optional process for agency coordination. Some projects authorized under NWP 7 or 13 involve major impacts outside of the waters of the United States. These major impacts are not within the Corps authority to regulate or control.

Several commenters suggested changing the terminology of PCN back to PDN. The terminology causes confusion because the regulated activity is a discharge and construction implies work on high ground. The term PCN (pre-construction notification) has been adopted over the term PDN (pre-discharge notification) because many of the NWPs are not authorizing a discharge, in Section 404 waters, but are authorizing work in navigable, Section 10, waters. Since these do not involve authorization of a ''discharge'', we believe the term ''construction'' is more appropriate for all NWPs. The Corps does not control or regulate activities in uplands, including when construction is initiated, beyond these limited

circumstances identified in 33 CFR part 324 appendix B, Scope of Analysis.

A number of commenters believe that the requirement for the applicant to notify the FWS and the SHPO speeds up their permit by allowing them to develop alternatives and mitigation measures. They believe that if the Corps is tasked with this responsibility, their permit will be delayed and the applicant would lose control of the schedule. They also believe that if the proposal is adopted, these agencies will not be willing to work directly with the applicant and will only work through the Corps. One commenter expressed concern that the reason for not requiring applicants to contact the SHPO was because the SHPO did not want to work directly with the applicants. The commenter suggested that this was counter-productive and that the Corps should explore ways to ensure that such organizations cooperate with the permit applicants early in the process. These agencies have requested that the Corps send the PCNs to them rather than direct contact between them and the applicant. This process ensures that these commenting agencies only review active, complete applications. This process does not preclude an applicant from contacting the agencies for information.

One commenter recommended that the SHPO be allowed a 30-day review to ensure that historic resources were adequately addressed. Another stated that the SHPO would not do the Corps work and that data on potential historic properties should accompany the transmittal of the PCN, and that any deadlines for response to the Corps begin after the receipt of adequate information. The Corps believes that the current process provides a reasonable amount of time for the SHPOs to provide their views. The intent of the PCN is to identify if there is a potential historic property problem, not to completely resolve such problems. If a problem regarding an effect on a historic property is identified during the PCN process, then the Corps will instruct the applicant that they cannot proceed with the project until coordination to resolve the problem is completed.

Several commenters stated that the notification process does not allow them to comment on proposed projects. They don't believe that the provisions in the CWA are being met, since the agencies and the public have no opportunity to comment. The Corps regulations establish a process for publishing proposed nationwide permits for public comment (33 CFR part 330). Based on this process, the Corps issues NWPs that have procedural steps to ensure agency coordination and the ability of the Corps district to require a full public interest review, where the Corps believes such review is necessary, through its discretionary authority.

A couple of commenters suggested a time threshold for Section 401 water quality certification that was in line with the other agency review times. The Corps regulations provide that project specific section 401 evaluations will generally be completed within 60 days. However, districts may, working with the States, extend this time period not to exceed 1 year. We do not propose to change this process.

One commenter suggested that extensions be provided to commenting agencies, or an IP be required, in situations where delays are caused by insufficient or inaccurate maps and depiction of proposed action. This commenter also indicated that the mitigation option of the contribution of monies to a wetland trust fund be more clearly discussed. This commenter also suggested that the Corps apply notification condition 13(b)(5) (restoration plan for temporary fill sites) to NWP 12 and 15, both of which allow the temporary placement of dredged or fill material. Finally, this commenter suggested that the Corps extend the initial comment period for resource agencies to 7 calendar days for all NWPs, and eliminate the prohibition on the Corps responding to agency comments. The Corps does not coordinate PCNs with resource agencies until the PCN is considered complete, so that the basic information is adequate for review. Furthermore, we believe it is essential to provide an answer to applicants within the PCN period of 30 days (45 days for NWP 26). We do not believe that it would be beneficial to explicitly define in lieu fee systems nor wetland land trusts. These vary around the country and we will expect our districts to ascertain whether or not a given situation will reasonably ensure quality and successful mitigation. We do not believe that any additional restrictions are necessary for either NWP 12 or NWP 15. We have already added substantial additional restrictions to NWP 12. Should a problem arise with NWP 15, either the Coast Guard or the Corps will address it on a case by case basis. We do not believe that it is necessary to extend the initial comment period for the resource agencies from 5 to 7 days. This period is simply to determine whether or not site specific, substantive comments will be provided. Finally, we do not believe that the notification process or environmental protection would be advanced by responding to resource agency comments on PCNs. If any agency wishes to know how the Corps utilized their comments, that agency can call the Corps district and discuss the specific project. We encourage this type of informal coordination.

One commenter suggested that inclusion of different times regarding agency review and response to applicants for different nationwide permits would create a lot of confusion. We carefully considered the concern that variable comment periods might be confusing to the commenting agencies or the regulated public. However, under our revised NWP 26, we expect a substantial increase in the number of PCNs, and the Corps is directing its districts to carefully consider project impacts and potential mitigation on most of them. Therefore, we believe the additional time is necessary for NWP 26.

One commenter suggested that affected tribes be included in the notification process. We believe that since the tribes are inherently aware of all Corps regulatory matters on tribal lands, additional notification is unnecessary. Furthermore, we believe that NWP General Condition 8, ''Tribal Rights,'' is sufficient to address tribal treaty rights issues, and District Engineers will notify the tribes regarding these treaty rights, as necessary.

We believe that the review of PCNs by the state does provide valuable information and we have retained that provision. However, the optional coordination procedure is made available for activities that we believe will typically be clearly minimal. We believe that allowing this optional procedure only for the Federal resource agencies will adequately ensure appropriate coordination.

A few commenters requested eliminating the provision authorizing discharges when a DE does not notify the applicant within a specified time frame. We believe that the PCN process allows the district adequate time to evaluate PCNs and provide the applicant with an answer. Moreover, we believe that we must have a definitive answer to the applicant at the end of the 30-day (45 days for NWP 26) PCN period. Creating extensions would result in substantial confusion.

One commenter recommended that wording of condition 13(f) be changed to read ''* * * with the current methods required by the Memorandum of Agreement among USDA, EPA, and DOA.'' This commenter also stated that condition 13(g) mitigation, should specify that mitigation banks need to comply with the 1995 Federal

Guidance, should include a requirement to monitor compensatory mitigation projects for a specified period of time, abandoned mine lands should have no contaminants accumulated as a result of the mining operation, and compensatory mitigation should be accomplished prior to initiation of authorized work. We believe that compliance with existing conditions of the NWPs and the fact that requirements for delineations and mitigation banks are implicitly clear, based on total program guidance, make additional guidance on these issues unnecessary. Regarding timing of compensatory mitigation, we believe it is more important to have potentially high-quality mitigation, such as can be provided with in lieu fees to states, locals interests or land trusts, rather than pushing for mitigation completion before impacts occur.

One commenter requested that individuals impacted by a nationwide permit should be notified. We have followed the clear provisions of 33 CFR 330 regarding notification of the nationwide permits.

Several commenters requested that the Corps return to the 1991 wording regarding including any conditions the District Engineer *deems necessary* under Condition 13(d), and that, if the new language is retained, a clear explanation of why this change was made should be provided. We have reviewed the proposed language as well as the 1991 language regarding conditions that will be placed on a PCN verification. We have decided that the original language, stating that the District Engineer will include conditions he deems necessary, is the appropriate language. This condition is adopted as discussed above.

14. Compliance Certification: The Corps has determined that in association with our efforts to collect more accurate data on project impacts and mitigation, and consistent with our intent to maximize permittee compliance, this condition is necessary. The condition requires the permittee to certify, in writing, that he has accomplished the work as authorized by the Corps, including any mitigation. The certification will help the Corps ensure permit compliance as well as continuously evaluate mitigation success.

15. Multiple Use of Nationwide Permits: In response to the concerns raised regarding the stacking of NWPs, the Corps has determined that a notification to the Corps, where any NWP 12 through 40 is combined with any other NWP 12 through 40, as part of a single and complete project, should be required to ensure that the effects will be minimal. This notification will be reviewed by the Corps only. Coordination with the resource agencies is not required, but may be done on a case-by-case basis when determined by the District Engineer to be necessary. Furthermore, no notification is required to the Corps when any NWP 1 through 11 is combined with any other NWP. The issue of stacking of NWPs is discussed in more detail in the ''Stacking of NWPs'' section of this Preamble.

B. Section 404 Only Conditions

1. Water Supply Intakes: The Corps proposed no changes and there were no comments on this condition. The condition is adopted without change.

2. Shellfish Production: The Corps proposed no changes and there were no comments on this condition. The condition is adopted without change.

3. Suitable Material: The Corps proposed no changes to this condition. One commenter suggested that this condition should include a certification for the toxicity testing of the fill material. We believe the permittee is responsible for taking reasonable measures to ensure that suitable fill material is free from toxic pollutants. This suggestion would be an unreasonable requirement for minor projects with little likelihood of the potential for toxic pollutants in toxic amounts. Furthermore, the NWP restricts the use of certain materials. In addition, for those projects with a Preconstruction Notification, the DE will require testing if the DE has reason to believe the material may be contaminated. Another commenter suggested that asphalt be added to our list of unsuitable materials specifically mentioned in this condition. Since this has been a general misunderstanding throughout the country that has resulted in several violations, we agree with this commenter and have added this to the condition. This condition has been modified as discussed above.

4. Mitigation: The Corps proposed a change to this condition that would allow off-site mitigation in lieu of on-site mitigation, if it is the environmentally preferred option. Several commenters were opposed to the proposed change to this condition. They believed the change would result in one or more of the following: A more subjective evaluation would occur; the evaluation would focus solely on a project's benefit to the environment instead of the Corps process of balancing various public interest factors; the District Engineer would be required to evaluate one wetland type against another; and time requirements and monetary costs would be increased for the applicants. Several other commenters were concerned that the proposed modification sidesteps the application of the mitigation sequencing process (avoidance, minimization, and compensation) and would allow evaluation of compensation concurrent with avoidance and minimization. Two commenters believed that the proposed evaluation process would allow ''buy down'' of impacts via compensation in order to result in a minimal net effect determination. Several commenters felt that mitigation should be eliminated as a condition since activities requiring mitigation, by definition, include more than minimal environmental impacts. One commenter stated that the proposal added no value in protecting or preserving wetlands. A few commenters supported the clarification and requirement for mitigation. One commenter recommended that the District Engineer have the ability to approve mitigation on-site, off-site, or at an established mitigation bank. Another commenter suggested that the U.S. Fish and Wildlife Service and U.S. Environmental Protection Agency should have the opportunity to comment on the results of the District Engineer's evaluation. One commenter criticized the general permit program for allowing wetland losses without avoidance of impacts or with no mitigation at all.

This condition requires that the permittee avoid and minimize discharges of dredged or fill material at the project site to the maximum extent practicable. This condition does not address the issue of requiring compensatory mitigation to reduce a project's impacts to the minimal effect level. This issue is discussed in the preamble in the discussion of General Condition 13. Furthermore, the ''sequencing'' requirement for individual permits for off-site avoidance under the section 404(b)(1) Guidelines does not apply to general permits. (See 40 CFR 230.7.) The proposed change was for allowing some projects, with minimal adverse effects, to be allowed less on-site avoidance and minimization than to the maximum extent practicable, provided off-site mitigation is provided such that there are more environmental benefits. We believe that where there is more environmental benefit from such mitigation, it should be allowed. The District Engineer will review and consider such a proposal, but will only approve it if the District Engineer determines that there is clear environment benefit. This condition is adopted as proposed.

5. Spawning Areas: The Corps proposed no changes to this condition. One commenter suggested that we ban discharges in spawning areas during spawning season. Another commenter suggested that discharges also be avoided during the incubation season. In addition to this condition, District and Division Engineers can and do add local restrictions, by regionally conditioning the NWP, to address certain activities along some waters at important times of the year for spawning activities. We believe that since these impacts vary from waterbody to waterbody and by type of activity, that it is best handled by specific regional conditions. This condition is adopted without change.

6. Obstruction of High Flows: The Corps proposed no changes to this condition. There were no comments on this condition. This condition is adopted without change.

7. Adverse Effects From Impoundment: The Corps proposed no changes to this condition. A couple of commenters suggested modifying this condition to require avoidance of impoundment impacts. We believe that this condition has been successful in ensuring that the impacts will be minimal and at the lowest level practicable. This condition is adopted without change.

8. Waterfowl Breeding Areas: The Corps proposed no changes to this condition. One commenter suggested disallowing any discharges within waterfowl breeding areas. Another commenter suggested that we include breeding areas for shorebirds and neotropical migratory songbirds. The Corps believes this would place an unreasonable and overly restrictive limitation on this NWP, and that the condition, as worded, provides sufficient protection. This condition is adopted without change.

9. Removal of Temporary Fills: The Corps proposed no changes to this condition. A few commenters suggested requiring the disturbed area be revegetated with indigenous plant species. We believe the conditions imposed on NWPs allowing for temporary fills will enable the area to revegetate naturally with native species once the area is restored to its preexisting elevation. This condition is adopted without change.

Regional Conditioning of Nationwide Permits: Concurrent with this Federal Register notice, District Engineers are issuing local public notices. In addition to the changes to some NWPs and NWP conditions required by the Chief of Engineers, the Division and District Engineers may propose regional conditions or propose revocation of NWP authorization for all, some, or portions of the NWPs. Regional conditions may also be required by state Section 401 water quality certification or for state coastal zone consistency. District engineers will announce regional conditions or revocations by issuing local public notices. Information on regional conditions and revocation can be obtained from the appropriate District Engineer, as indicated below. Furthermore, this and additional information can be obtained on the internet at http://wetland.usace.mil/.

Alabama

Mobile District Engineer, ATTN: CESAM–OP–S, P.O. Box 2288, Mobile, AL 36628–0001

Alaska

Alaska District Engineer, ATTN: CENPA–CO–R, P.O. Box 898, Anchorage, AK 99506–0898

Arizona

Los Angeles District Engineer, ATTN: CESPL–CO–R, P.O. Box 2711, Los Angeles, CA 90053–2325

Arkansas

Little Rock District Engineer, ATTN: CESWL–CO–R, P.O. Box 867, Little Rock, AR 72203–0867

California

Sacramento District Engineer, ATTN: CESPK–CO–O, 1325 J Street, Sacramento, CA 95814–4794

Colorado

Albuquerque District Engineer, ATTN: CESWA–CO–R, 4101 Jefferson Plaza NE, Rm 313, Albuquerque, NM 87109–3435

Connecticut

New England Division Engineer, ATTN: CENED–OD–R, 424 Trapelo Road, Waltham, MA 02254–9149

Delaware

Philadelphia District Engineer, ATTN: CENAP–OP–R, Wannamaker Building, 100 Penn Square, East Philadelphia, PA 19107–3390

Florida

Jacksonville District Engineer, ATTN: CESAJ–RD, P.O. Box 4970, Jacksonville, FL 32232–0019

Georgia

Savannah District Engineer, ATTN: CESAS–OP–F, P.O. Box 889, Savannah, GA 31402–0889

Hawaii

Honolulu District Engineer, ATTN: CEPOD–ET–PO, Building 230, Fort Shafter, Honolulu, HI 96858–5440

Idaho

Walla Walla District Engineer, ATTN: CENPW–OP–RF, Building 602, City-County Airport, Walla Walla, WA 99362–9265

Illinois

Rock Island District Engineer, ATTN: CENCR–OD–S, P.O. Box 2004, Rock Island, IL 61201–2004

Indiana

Louisville District Engineer, ATTN: CEORL–OR–F, P.O. Box 59, Louisville, KY 40201–0059

Iowa

Rock Island District Engineer, ATTN: CENCR–OD–S, P.O. Box 2204, Rock Island, IL 61201–2004

Kansas

Kansas City District Engineer, ATTN: CEMRK–OD–P, 700 Federal Building, 601 E. 12th Street, Kansas City, MO 64106–2896

Kentucky

Louisville District Engineer, ATTN: CEORL–OR–F, P.O. Box 59, Louisville, KY 40201–0059

Louisiana

New Orleans District Engineer, ATTN: CELMN–OD–S, P.O. Box 60267, New Orleans, LA 70160–0267

Maine

New England Division Engineer, ATTN: CENED–OD–R, 424 Trapelo Road, Waltham, MA 02254–9149

Maryland

Baltimore District Engineer, ATTN: CENAB–OP–R, P.O. Box 1715, Baltimore, MD 21203–1715

Massachusetts

New England Division Engineer, ATTN: CENED–OD–R, 424 Trapelo Road, Waltham, MA 02254–9149

Michigan

Detroit District Engineer, ATTN: CENCE–CO–L, P.O. Box 1027, Detroit, MI 48231–1027

Minnesota

St. Paul District Engineer, ATTN: CENCS–CO–R, 190 Fifth Street, East, St. Paul, MN 55101–1638

Mississippi

Vicksburg District Engineer, ATTN: CELMV–CO–0, P.O. Box 80, Vicksburg, MS 39180–0080

Missouri

Kansas City District Engineer, ATTN: CEMRK–OD–P, 700 Federal Building, 601 E. 12th Street, Kansas City, MO 64106–2896

Montana

Omaha District Engineer, ATTN: CEMRO–OP–R, P.O. Box 5, Omaha, NE 68101–0005

Nebraska

Omaha District Engineer, ATTN: CEMRO–OP–R, 215 North 17th Street, Omaha, NE 68101–4978

Nevada

Sacramento District Engineer, ATTN: CESPK–CO–O, 1325 J Street, Sacramento, CA 95814–2922

New Hampshire

New England Division Engineer, ATTN: CENED–OD–R, 424 Trapelo Road, Waltham, MA 02254–9149

New Jersey

Philadelphia District Engineer, ATTN: CENAP–OP–R, Wannamaker Building, 100 Penn Square East, Philadelphia, PA 19106–2991

New Mexico

Albuquerque District Engineer, ATTN: CESWA–CO–R, 4101 Jefferson Plaza NE, Rm 313, Albuquerque, NM 87109–3435

New York

New York District Engineer, ATTN: CENAN–OP–R, Jacob K. Javits Federal Building, New York, NY 10278–0090

North Carolina

Wilmington District Engineer, ATTN: CESAW–CO–R, P.O. Box 1890, Wilmington, NC 28402–1890

North Dakota

Omaha District Engineer, ATTN: CEMRO–OP–R, 215 North 17th Street, Omaha, NE 68102–4978

Ohio

Huntington District Engineer, ATTN: CEORH–OR–F, 502 8th Street, Huntington, WV 25701–2070

Oklahoma

Tulsa District Engineer, ATTN: CESWT–OD–R, P.O. Box 61, Tulsa, OK 74121–0061

Oregon

Portland District Engineer, ATTN: CENPP–PL–R, P.O. Box 2946, Portland, OR 97208–2946

Pennsylvania

Baltimore District Engineer, ATTN: CENAB–OP–R, P.O. Box 1715, Baltimore, MD 21203–1715

Rhode Island

New England Division Engineer, ATTN: CENED–OD–R, 424 Trapelo Road, Waltham, MA 02254–9149

South Carolina

Charleston District Engineer, ATTN: CESAC–CO–P, P.O. Box 919, Charleston, SC 29402–0919

South Dakota

Omaha District Engineer, ATTN: CEMRO–OP–R, 215 North 17th Street, Omaha, NE 68102–4978

Tennessee

Nashville District Engineer, ATTN: CEORN–OR–F, P.O. Box 1070, Nashville, TN 37202–1070

Texas

Ft. Worth District Engineer, ATTN: CESWF–OD–R, P.O. Box 17300, Ft. Worth, TX 76102–0300

Utah

Sacramento District Engineer, ATTN: CESPK–CO–O, 1325 J Street, CA 95814–4794

Vermont

New England Division Engineer, ATTN: CENED–OD–R, 424 Trapelo Road, Waltham, MA 02254–9149

Virginia

Norfolk District Engineer, ATTN: CENAO–OP–P, 803 Front Street, Norfolk, VA 23510–1096

Washington

Seattle District Engineer, ATTN: CENPS–OP–RG, P.O. Box 3755, Seattle, WA 98124–2255

West Virginia

Huntington District Engineer, ATTN: CEORH–OR–F, 502 8th Street, Huntington, WV 25701–2070

Wisconsin

St. Paul District Engineer, ATTN: CENCS–CO–R, 190 Fifth Street, East, St. Paul, MN 55101–1638

Wyoming

Omaha District Engineer, ATTN: CEMRO–OP–R, 215 North 17th Street, NE 68102–4978

District of Columbia

Baltimore District Engineer, ATTN: CENAB–OP–R, P.O. Box 1715, Baltimore, MD 21203–1715

Pacific Territories

Honolulu District Engineer, ATTN: CEPOD–ET–PO, Building 230, Fort Shafter, Honolulu, HI 96858–5440

Puerto Rico & Virgin Is

Jacksonville District Engineer, ATTN: CESAJ–RD, P.O. Box 4970, Jacksonville, FL 32232–0019

Approved:

Russell L. Fuhrman,

Major General, U.S. Army, Director of Civil Works.

Accordingly, these Nationwide Permits are issued as follows:

Nationwide Permits and Conditions

A. Index of the Nationwide Permits and Conditions

Nationwide Permits

1. Aids to Navigation
2. Structures in Artificial Canals
3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
5. Scientific Measurement Devices
6. Survey Activities
7. Outfall Structures
8. Oil and Gas Structures
9. Structures in Fleeting and Anchorage Areas
10. Mooring Buoys
11. Temporary Recreational Structures
12. Utility Line Discharges
13. Bank Stabilization
14. Road Crossings
15. U.S. Coast Guard Approved Bridges
16. Return Water from Upland Contained Disposal Areas
17. Hydropower Projects
18. Minor Discharges
19. Minor Dredging
20. Oil Spill Cleanup
21. Surface Coal Mining Activities
22. Removal of Vessels
23. Approved Categorical Exclusions
24. State Administered Section 404 Programs
25. Structural Discharges
26. Headwaters and Isolated Waters Discharges
27. Wetland and Riparian Restoration and Creation Activities
28. Modifications of Existing Marinas
29. Single-Family Housing
30. Moist Soil Management for Wildlife
31. Maintenance of Existing Flood Control Projects
32. Completed Enforcement Actions
33. Temporary Construction, Access and Dewatering
34. Cranberry Production Activities
35. Maintenance Dredging of Existing Basins
36. Boat Ramps
37. Emergency Watershed Protection and Rehabilitation
38. Cleanup of Hazardous and Toxic Waste
39. Reserved
40. Farm Buildings

Nationwide Permit Conditions

General Conditions:

1. Navigation
2. Proper Maintenance
3. Erosion and Siltation Controls
4. Aquatic Life Movements
5. Equipment
6. Regional and Case-by-Case Conditions
7. Wild and Scenic Rivers
8. Tribal Rights
9. Water Quality Certification
10. Coastal Zone Management
11. Endangered Species
12. Historic Properties
13. Notification
14. Compliance Certification
15. Multiple Use of Nationwide Permits.

Section 404 Only Conditions

1. Water Supply Intakes
2. Shellfish Production
3. Suitable Material
4. Mitigation
5. Spawning Areas
6. Obstruction of High Flows
7. Adverse Effects from Impoundments
8. Waterfowl Breeding Areas
9. Removal of Temporary Fills

B. Nationwide Permits and Conditions

1. Aids to Navigation: The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard.

(See 33 CFR part 66, chapter I, subchapter C). (Section 10)

2. Structures in Artificial Canals: Structures constructed in artificial canals within principally residential developments where the connection of the canal to a navigable water of the United States has been previously authorized (see 33 CFR 322.5(g)). (Section 10)

3. Maintenance: The repair, rehabilitation, or replacement of any previously authorized, currently serviceable, structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area including those due to changes in materials, construction techniques, or current construction codes or safety standards which are necessary to make repair, rehabilitation, or replacement are permitted, provided the environmental effects resulting from such repair, rehabilitation, or replacement are minimal. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction. This NWP authorizes the repair, rehabilitation, or replacement of those structures destroyed by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced or under contract to commence within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the District Engineer, provided the permittee can demonstrate funding, contract, or other similar delays. Maintenance dredging and beach restoration are not authorized by this NWP. (Sections 10 and 404)

4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities: Fish and wildlife harvesting devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging; and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This NWP authorizes shellfish seeding provided this activity does not occur in wetlands or sites that support submerged aquatic vegetation (including sites where submerged aquatic vegetation is documented to exist, but may not be present in a given year.). This NWP does not authorize artificial reefs or impoundments and semi-impoundments of waters of the United States for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks. (Sections 10 and 404)

5. Scientific Measurement Devices: Devices whose purpose is to measure and record scientific data such as staff gages, tide gages, water recording devices, water quality testing and improvement devices and similar structures. Small weirs and flumes constructed primarily to record water quantity and velocity are also authorized provided the discharge is limited to 25 cubic yards and further for discharges of 10 to 25 cubic yards provided the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. (Sections 10 and 404)

6. Survey Activities: Survey activities including core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, soil survey and sampling, and historic resources surveys. Discharges and structures associated with the recovery of historic resources are not authorized by this NWP. Drilling and the discharge of excavated material from test wells for oil and gas exploration is not authorized by this NWP; the plugging of such wells is authorized. Fill placed for roads, pads and other similar activities is not authorized by this NWP. The NWP does not authorize any permanent structures. The discharge of drilling muds and cuttings may require a permit under section 402 of the Clean Water Act. (Sections 10 and 404)

7. Outfall Structures. Activities related to construction of outfall structures and associated intake structures where the effluent from the outfall is authorized, conditionally authorized, or specifically exempted, or are otherwise in compliance with regulations issued under the National Pollutant discharge Elimination System program (Section 402 of the Clean Water Act), provided that the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. (Also see 33 CFR 330.1(e)). Intake structures per se are not included—only those directly associated with an outfall structure. (Sections 10 and 404)

8. Oil and Gas Structures. Structures for the exploration, production, and transportation of oil, gas, and minerals on the outer continental shelf within areas leased for such purposes by the Department of the Interior, Minerals Management Service. Such structures shall not be placed within the limits of any designated shipping safety fairway or traffic separation scheme, except temporary anchors that comply with the fairway regulations in 33 CFR 322.5(l). (Where such limits have not been designated, or where changes are anticipated, District Engineers will consider asserting discretionary authority in accordance with 33 CFR 330.4(e) and will also review such proposals to ensure they comply with the provisions of the fairway regulations in 33 CFR 322.5(l). Any Corps review under this permit will be limited to the effects on navigation and national security in accordance with 33 CFR 322.5(f)). Such structures will not be placed in established danger zones or restricted areas as designated in 33 CFR part 334: nor will such structures be permitted in EPA or Corps designated dredged material disposal areas. (Section 10)

9. Structures in Fleeting and Anchorage Areas. Structures, buoys, floats and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels where such areas have been established for that purpose by the U.S. Coast Guard. (Section 10)

10. Mooring Buoys. Non-commercial, single-boat, mooring buoys. (Section 10)

11. Temporary Recreational Structures. Temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as water skiing competitions and boat races or seasonal use provided that such structures are removed within 30 days after use has been discontinued. At Corps of Engineers reservoirs, the reservoir manager must approve each buoy or marker individually. (Section 10)

12. Utility Line Discharges. Discharges of dredged or fill material associated with excavation, backfill or bedding for utility lines, including outfall and intake structures, provided there is no change in preconstruction contours. A ''utility line'' is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication. The term ''utility line'' does not include activities which drain a water of the United States, such as drainage tile; however, it does apply to pipes conveying drainage from another area. This NWP authorizes mechanized landclearing necessary for the installation of utility lines, including overhead utility lines, provided the cleared area is kept to the minimum necessary and preconstruction contours

are maintained. However, access roads, temporary or permanent, or foundations associated with overhead utility lines are not authorized by this NWP. Material resulting from trench excavation may be temporarily sidecast (up to three months) into waters of the United States, provided that the material is not placed in such a manner that it is dispersed by currents or other forces. The DE may extend the period of temporary side-casting not to exceed a total of 180 days, where appropriate. The area of waters of the United States that is disturbed must be limited to the minimum necessary to construct the utility line. In wetlands, the top 6'' to 12'' of the trench should generally be backfilled with topsoil from the trench. Excess material must be removed to upland areas immediately upon completion of construction. Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line. (See 33 CFR part 322).

Notification: The permittee must notify the district engineer in accordance with the ''Notification'' general condition, if any of the following criteria are met:

(a) Mechanized landclearing in a forrested wetland;

(b) A Section 10 permit is required for the utility line;

(c) The utility line in waters of the United States exceeds 500 feet; or,

(d) The utility line is placed within a jurisdictional area (i.e., a water of the United States), and it runs parallel to a streambed that is within that jurisdictional area. (Sections 10 and 404)

13. Bank Stabilization. Bank stabilization activities necessary for erosion prevention provided the activity meets all of the following criteria:

a. No material is placed in excess of the minimum needed for erosion protection;

b. The bank stabilization activity is less than 500 feet in length;

c. The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark or the high tide line;

d. No material is placed in any special aquatic site, including wetlands;

e. No material is of the type, or is placed in any location, or in any manner, so as to impair surface water flow into or out of any wetland area;

f. No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,

g. The activity is part of a single and complete project.

Bank stabilization activities in excess of 500 feet in length or greater than an average of one cubic yard per running foot may be authorized if the permittee notifies the District Engineer in accordance with the ''Notification'' general condition and the District Engineer determines the activity complies with the other terms and conditions of the NWP and the adverse environmental effects are minimal both individually and cumulatively. This NWP may not be used for the channelization of a water of the Unitied States. (Sections 10 and 404)

14. Road Crossings. Fills for roads crossing waters of the United States (including wetlands and other special aquatic sites) provided the activity meets all of the following criteria:

a. The width of the fill is limited to the minimum necessary for the actual crossing;

b. The fill placed in waters of the United States is limited to a filled area of no more than ⅓ acre. Furthermore, no more than a total of 200 linear feet of the fill for the roadway can occur in special aquatic sites, including wetlands;

c. The crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand, expected high flows and tidal flows, and to prevent the restriction of low flows and the movement of aquatic organisms;

d. The crossing, including all attendant features, both temporary and permanent, is part of a single and complete project for crossing of a water of the United States; and,

e. For fills in special aquatic sites, including wetlands, the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. The notification must also include a delineation of affected special aquatic sites, including wetlands.

This NWP may not be combined with NWP 18 or NWP 26 for the purpose of increasing the footprint of the road crossing. Some road fills may be eligible for an exemption from the need for a Section 404 permit altogether (see 33 CFR 323.4). Also, where local circumstances indicate the need, District Engineers will define the term ''expected high flows'' for the purpose of establishing applicability of this NWP. (Sections 10 and 404)

15. U.S. Coast Guard Approved Bridges. Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided such discharges have been authorized by the U.S. Coast Guard as part of the bridge permit. Causeways and approach fills are not included in this NWP and will require an individual or regional Section 404 permit. (Section 404)

16. Return Water From Upland Contained Disposal Areas. Return water from an upland, contained dredged material disposal area. The dredging itself may require a section 404 permit (33 CFR 323.2(d)), but will require a Section 10 permit if located in navigable waters of the United States. The return water from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d) even though the disposal itself occurs on the upland and thus does not require a Section 404 permit. This NWP satisfies the technical requirement for a Section 404 permit for the return water where the quality of the return water is controlled by the state through the Section 401 certification procedures. (Section 404)

17. Hydropower Projects: Discharges of dredged or fill material associated with (a) small hydropower projects at existing reservoirs where the project, which includes the fill, are licensed by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act of 1920, as amended; and has a total generating capacity of not more than 5000 KW; and the permittee notifies the District Engineer in accordance with the ''Notification'' general condition; or (b) hydropower projects for which the FERC has granted an exemption from licensing pursuant to section 408 of the Energy Security Act of 1980 (16 U.S.C. 2705 and 2708) and section 30 of the Federal Power Act, as amended; provided the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. (Section 404)

18. Minor Discharges: Minor discharges of dredged or fill material into all waters of the United States provided that the activity meets all of the following criteria:

a. The quantity of discharged material and the volume of excavated area does not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line;

b. The discharge, including any excavated area, will not cause the loss of more than 1/10 acre of a special aquatic site, including wetlands. For the purposes of this NWP, the acreage limitation includes the filled area and excavated area plus special aquatic sites that are adversely affected by flooding and special aquatic sites that are

drained so that they would no longer be a water of the United States as a result of the project;

c. If the discharge, including any excavated area, exceeds 10 cubic yards below the plane of the ordinary high water mark or the high tide line or if the discharge is in a special aquatic site, including wetlands, the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands (Also see 33 CFR 330.1(e)); and

d. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project and is not placed for the purpose of a stream diversion.

e. This NWP can not be used in conjunction with NWP 26 for any single and complete project. (Sections 10 and 404)

19. Minor Dredging: Dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the United States (i.e., section 10 waters) as part of a single and complete project. This NWP does not authorize the dredging or degradation through siltation of coral reefs, sites that support submerged aquatic vegetation (including sites where submerged aquatic vegetation is documented to exist, but may not be present in a given year), anadromous fish spawning areas, or wetlands, or the connection of canals or other artificial waterways to navigable waters of the United States (see 33 CFR 322.5(g)). (Sections 10 and 404)

20. Oil Spill Cleanup: Activities required for the containment and cleanup of oil and hazardous substances which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR part 300) provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR part 112.3 and any existing State contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. (Sections 10 and 404)

21. Surface Coal Mining Activities: Activities associated with surface coal mining activities provided they are authorized by the Department of the Interior, Office of Surface Mining (OSM), or by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977 and provided the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. The notification must include an OSM or state approved mitigation plan. The Corps, at the discretion of the District Engineer, may require a bond to ensure success of the mitigation, if no other Federal or state agency has required one. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. (Also see 33 CFR 330.1(e)) (Sections 10 and 404)

22. Removal of Vessels: Temporary structures or minor discharges of dredged or fill material required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation. This NWP does not authorize the removal of vessels listed or determined eligible for listing on the National Register of Historic Places unless the District Engineer is notified and indicates that there is compliance with the ''Historic Properties'' general condition. This NWP does not authorize maintenance dredging, shoal removal, or river bank snagging. Vessel disposal in waters of the United States may need a permit from EPA (see 40 CFR 229.3). (Sections 10 and 404)

23. Approved Categorical Exclusions: Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where that agency or department has determined, pursuant to the Council on Environmental Quality Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity, work, or discharge is categorically excluded from environmental documentation because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment, and the Office of the Chief of Engineers (ATTN: CECW–OR) has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination. Prior to approval for purposes of this NWP of any agency's categorical exclusions, the Chief of Engineers will solicit public comment. In addressing these comments, the Chief of Engineers may require certain conditions for authorization of an agency's categorical exclusions under this NWP. (Sections 10 and 404)

24. State Administered Section 404 Program. Any activity permitted by a state administering its own section 404 permit program pursuant to 33 U.S.C. 1344(g)–(l) is permitted pursuant to section 10 of the Rivers and Harbors Act of 1899. Those activities which do not involve a section 404 state permit are not included in this NWP, but certain structures will be exempted by section 154 of Pub. L. 94–587, 90 Stat. 2917 (33 U.S.C. 59l) (see 33 CFR 322.3(a)(2)). (Section 10)

25. Structural Discharges: Discharges of material such as concrete, sand, rock, etc. into tightly sealed forms or cells where the material will be used as a structural member for standard pile supported structures, such as bridges, transmission line footings, and walkways or for general navigation, such as mooring cells, including the excavation of bottom material from within the form prior to the discharge of concrete, sand, rock, etc. This NWP does *not* authorize filled structural members that would support buildings, homes, parking areas, storage areas and other such structures. Housepads or other building pads are also not included in this NWP. The structure itself may require a section 10 permit if located in navigable waters of the United States. (Section 404)

26. Headwaters and Isolated Waters Discharges: Discharges of dredged or fill material into headwaters and isolated waters provided that the activity meets all of the following criteria:

a. The discharge does not cause the loss of more than 3 acres of waters of the United States nor cause the loss of waters of the United States for a distance greater than 500 linear feet of the stream bed;

b. For discharges causing the loss of greater than ⅓ acre of waters of the United States, the permittee notifies the District Engineer in accordance with the ''Notification'' general condition;

c. For discharges causing a loss of ⅓ acre or less of waters of the United States the permittee must submit a report within 30 days of completion of the work, containing the information listed below;

d. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands (Also see 33 CFR 330.1(e)); and

e. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project. Note, this NWP will expire on February 11, 1999.

For the purposes of this NWP, the acreage of loss of waters of the United States includes the filled area plus waters of the United States that are adversely affected by flooding,

excavation or drainage as a result of the project. The 3 acre and ⅓ acre limits of NWP 26 are absolute, and cannot be increased by any mitigation plan offered by the applicant or required by the District Engineer. Whenever any other NWP is used in conjunction with this NWP, the total acreage of impacts to waters of the United States of all NWPs combined, can not exceed 3 acres.

Subdivisions: For any real estate subdivision created or subdivided after October 5, 1984, a notification pursuant to subsection (b) of this NWP is required for any discharge which would cause the aggregate total loss of waters of the United States for the entire subdivision to exceed ⅓ acre. Any discharge in any real estate subdivision which would cause the aggregate total loss of waters of the United States in the subdivision to exceed 3 acres is not authorized by this NWP; unless the District Engineer exempts a particular subdivision or parcel by making a written determination that: (1) The individual and cumulative adverse environmental effects would be minimal and the property owner had, after October 5, 1984, but prior to February 11, 1997, committed substantial resources in reliance on NWP 26 with regard to a subdivision, in circumstances where it would be inequitable to frustrate the property owner's investment-backed expectations, or (2) that the individual and cumulative adverse environmental effects would be minimal, high quality wetlands would not be adversely affected, and there would be an overall benefit to the aquatic environment. Once the exemption is established for a subdivision, subsequent lot development by individual property owners may proceed using NWP 26. For purposes of NWP 26, the term ''real estate subdivision'' shall be interpreted to include circumstances where a landowner or developer divides a tract of land into smaller parcels for the purpose of selling, conveying, transferring, leasing, or developing said parcels. This would include the entire area of a residential, commercial or other real estate subdivision, including all parcels and parts thereof.

Report: For discharges causing the loss of ⅓ acre or less of waters of the United States the permittee must submit a report within 30 days of completion of the work, containing the following information:

(a) Name, address, and telephone number of the permittee;

(b) Location of the work;

(c) Description of the work; and,

(d) Type and acreage (or square feet) of the loss of waters of the United States (e.g., 1/10 acre of marsh and 50 Square feet of a stream.) (Section 404)

27. Wetland and Riparian Restoration and Creation Activities: Activities in waters of the United States associated with the restoration of former non-tidal wetlands and riparian areas, the enhancement of degraded wetlands and riparian areas, and creation of wetlands and riparian areas; (i) On non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland restoration or creation agreement between the landowner and the U.S. Fish and Wildlife Service or the Natural Resources Conservation Service (NRCS) or voluntary wetland restoration, enhancement, and creation actions documented by the NRCS pursuant to NRCS regulations; or (ii) on any Federal land; or (iii) on reclaimed surface coal mined lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining or the applicable state agency. (The future reversion does not apply to wetlands created, restored or enhanced as mitigation for the mining impacts, nor naturally due to hydrologic or topographic features, nor for a mitigation bank.); or (iv) on any public or private land, provided the permittee notifies the District Engineer in accordance with the ''Notification'' general condition.

Such activities include, but are not limited to: Installation and maintenance of small water control structures, dikes, and berms; backfilling of existing drainage ditches; removal of existing drainage structures; construction of small nesting islands; plowing or discing for seed bed preparation; and other related activities. This NWP applies to restoration projects that serve the purpose of restoring ''natural'' wetland hydrology, vegetation, and function to altered and degraded non-tidal wetlands and ''natural'' functions of riparian areas. This NWP does not authorize the conversion of natural wetlands to another aquatic use, such as creation of waterfowl impoundments where a forested wetland previously existed.

Reversion: For restoration, enhancement and creation projects conducted under paragraghs (ii) and (iv), this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit at that time would be required for any reversion. For restoration, enhancement and creation projects conducted under paragraghs (i) and (iii), this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or creation activities) within five years after expiration of a limited term wetland restoration or creation agreement or permit, even if the discharge occurs after this NWP expires. The five year reversion limit does not apply to agreements without time limits reached under paragraph (i). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Prior to any reversion activity the permittee or the appropriate Federal or state agency must notify the District Engineer and include the documentation of the prior condition. Once an area has reverted back to its prior physical condition, it will be subject to whatever the Corps regulatory requirements will be at that future date. (Sections 10 and 404)

28. Modifications of Existing Marinas: Reconfiguration of existing docking facilities within an authorized marina area. No dredging, additional slips or dock spaces, or expansion of any kind within waters of the United States is authorized by this NWP. (Section 10)

29. Single-Family Housing: Discharges of dredged or fill material into non-tidal waters of the United States, including non-tidal wetlands for the construction or expansion of a single-family home and attendant features (such as a garage, driveway, storage shed, and/or septic field) for an individual permittee provided that the activity meets all of the following criteria:

a. The discharge does not cause the loss of more than 1/2 acre of non-tidal waters of the United States, including non-tidal wetlands;

b. The permittee notifies the District Engineer in accordance with the ''Notification'' general condition;

c. The permittee has taken all practicable actions to minimize the on-site and off-site impacts of the discharge. For example, the location of the home may need to be adjusted on-site to avoid flooding of adjacent property owners;

d. The discharge is part of a single and complete project; furthermore, that for any subdivision created on or after November 22, 1991, the discharges authorized under this NWP may not exceed an aggregate total loss of waters of the United States of 1/2 acre for the entire subdivision;

e. An individual may use this NWP only for a single-family home for a personal residence;

f. This NWP may be used only once per parcel;

g. This NWP may not be used in conjunction with NWP 14, NWP 18, or NWP 26, for any parcel; and,

h. Sufficient vegetated buffers must be maintained adjacent to all open water bodies, streams, etc., to preclude water quality degradation due to erosion and sedimentation.

For the purposes of this NWP, the acreage of loss of waters of the United States includes the filled area previously permitted, the proposed filled area, and any other waters of the United States that are adversely affected by flooding, excavation, or drainage as a result of the project. Whenever any other NWP is used in conjunction with this NWP, the total acreage of impacts to waters of the United States of all NWPs combined, can not exceed 1/2 acres. This NWP authorizes activities only by individuals; for this purpose, the term ''individual'' refers to a natural person and/or a married couple, but does not include a corporation, partnership, or similar entity. For the purposes of this NWP, a parcel of land is defined as ''the entire contiguous quantity of land in possession of, recorded as property of, or owned (in any form of ownership, including land owned as a partner, corporation, joint tenant, etc.) by the same individual (and/or that individual's spouse), and comprises not only the area of wetlands sought to be filled, but also all land contiguous to those wetlands, owned by the individual (and/or that individual's spouse) in any form of ownership''. (Sections 10 and 404)

30. Moist Soil Management for Wildlife: Discharges of dredged or fill material and maintenance activities that are associated with moist soil management for wildlife performed on non-tidal Federally-owned or managed and State-owned or managed property, for the purpose of continuing ongoing, site-specific, wildlife management activities where soil manipulation is used to manage habitat and feeding areas for wildlife. Such activities include, but are not limited to: The repair, maintenance or replacement of existing water control structures; the repair or maintenance of dikes; and plowing or discing to impede succession, prepare seed beds, or establish fire breaks. Sufficient vegetated buffers must be maintained adjacent to all open water bodies, streams, etc., to preclude water quality degradation due to erosion and sedimentation. This NWP does not authorize the construction of new dikes, roads, water control structures, etc. associated with the management areas. This NWP does not authorize converting wetlands to uplands, impoundments or other open water bodies. (Section 404)

31. Maintenance of Existing Flood Control Facilities: Discharges of dredged or fill material for the maintenance of existing flood control facilities, including debris basins, retention/detention basins, and channels that were (i) previously authorized by the Corps by individual permit, general permit, or by 33 CFR 330.3 and constructed or (ii) constructed by the Corps and transferred to a local sponsor for operation and maintenance. The maintenance is limited to that approved in a maintenance baseline determination made by the district engineer (DE). The prospective permittee will provide the DE with sufficient evidence for the DE to determine the approved and constructed baseline. Subsequent to the determination of the maintenance baseline and prior to any maintenance work, the permittee must notify the DE in accordance with the ''Notification'' general condition.

All dredged material must be placed in an upland site or a currently authorized disposal site in waters of the United States, and proper siltation controls must be used. This NWP does not authorize the removal of sediment and associated vegetation from natural water courses. (Activities that involve only the cutting and removing of vegetation above the ground, e.g., mowing, rotary cutting, and chainsawing, where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material, does not require a Section 404 permit in accordance with 33 CFR 323.2(d)(2)(ii)). Only constructed channels within stretches of natural rivers that have been previously authorized as part of a flood control facility could be authorized for maintenance under this NWP.

Maintenance Baseline: Upon receipt of sufficient evidence, the DE will determine the maintenance baseline. The maintenance baseline is the existing flood control project that the DE has determined can be maintained under this NWP, subject to any case-specific conditions required by the DE. In determining the maintenance baseline, the DE will consider the following factors: The approved facility, the actual constructed facility, the Corps constructed project that was transferred, the maintenance history, if the facility has been functioning at a reduced capacity and for how long, present vs. original flood control needs, and if sensitive/unique functions and values may be adversely affected. Revocation or modification of the final determination of the maintenance baseline can only be done in accordance with 33 CFR 330.5. This NWP can not be used until the DE determines the maintenance baseline and the need for mitigation and any regional or activity-specific conditions. The maintenance baseline will only be determined once and will remain valid for any subsequent reissuance of this NWP. However, if the project is effectively abandoned or reduced due to lack of proper maintenance, a new determination of a maintenance baseline would be required before this NWP could be used for subsequent maintenance.

Mitigation: In determining the need for mitigation, the DE will consider the following factors: Any original mitigation required, the current environmental setting, and any adverse effects of the maintenance project that were not mitigated in the original construction. The DE will not delay needed maintenance for completion of any required mitigation, provided that the DE and the applicant establish a schedule for the identification, approval, development, construction and completion of such required mitigation. (Sections 10 and 404)

32. Completed Enforcement Actions: Any structure, work or discharge of dredged or fill material, remaining in place, or undertaken for mitigation, restoration, or environmental benefit in compliance with either:

(i) The terms of a final written Corps non-judicial settlement agreement resolving a violation of section 404 of the Clean Water Act (CWA) and/or section 10 of the Rivers and Harbors Act of 1899; or the terms of an EPA 309(a) order on consent resolving a violation of section 404 of the CWA, provided that:

a. The unauthorized activity affected no more than 5 acres of nontidal wetlands or 1 acre of tidal wetlands;

b. The settlement agreement provides for environmental benefits, to an equal or greater degree, than the environmental detriments caused by the unauthorized activity that is authorized by this nationwide permit; and

c. The District Engineer issues a verification letter authorizing the activity subject to the terms and conditions of this nationwide permit and the settlement agreement, including a specified completion date; or

(ii) The terms of a final Federal court decision, consent decree, or settlement agreement resulting from an

enforcement action brought by the United States under section 404 of the CWA and/or section 10 of the Rivers and Harbors Act of 1899.

For both (i) or (ii) above, compliance is a condition of the NWP itself. Any authorization under this NWP is automatically revoked if the permittee does not comply with the terms of this NWP or the terms of the court decision, consent decree, or judicial/non-judicial settlement agreement or fails to complete the work by the specified completion date. This NWP does not apply to any activities occurring after the date of the decision, decree, or agreement that are not for the purpose of mitigation, restoration, or environmental benefit. Prior to reaching any settlement agreement the Corps will ensure compliance with the provisions of 33 CFR part 326 and 33 CFR 330.6 (d)(2) and (e). (Sections 10 and 404)

33. Temporary Construction, Access and Dewatering: Temporary structures, work and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of construction sites; provided that the associated primary activity is authorized by the Corps of Engineers or the U.S. Coast Guard, or for other construction activities not subject to the Corps or U.S. Coast Guard regulations. Appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. Fill must be of materials, and placed in a manner, that will not be eroded by expected high flows. The use of dredged material may be allowed if it is determined by the District Engineer that it will not cause more than minimal adverse effects on aquatic resources. Temporary fill must be entirely removed to upland areas, or dredged material returned to its original location, following completion of the construction activity, and the affected areas must be restored to the pre-project conditions. Cofferdams cannot be used to dewater wetlands or other aquatic areas so as to change their use. Structures left in place after cofferdams are removed require a section 10 permit if located in navigable waters of the United States. (See 33 CFR part 322). The permittee must notify the District Engineer in accordance with the ''Notification'' general condition. The notification must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources. The District Engineer will add special conditions, where necessary, to ensure that adverse environmental effects are minimal. Such conditions may include: Limiting the temporary work to the minimum necessary; requiring seasonal restrictions; modifying the restoration plan; and requiring alternative construction methods (e.g., construction mats in wetlands where practicable.). (Sections 10 and 404)

34. Cranberry Production Activities: Discharges of dredged or fill material for dikes, berms, pumps, water control structures or leveling of cranberry beds associated with expansion, enhancement, or modification activities at existing cranberry production operations provided that the activity meets all of the following criteria:

a. The cumulative total acreage of disturbance per cranberry production operation, including but not limited to, filling, flooding, ditching, or clearing, does not exceed 10 acres of waters of the United States, including wetlands;

b. The permittee notifies the District Engineer in accordance with the ''Notification'' general condition. The notification must include a delineation of affected special aquatic sites, including wetlands; and,

c. The activity does not result in a net loss of wetland acreage.

This NWP does not authorize any discharge of dredged or fill material related to other cranberry production activities such as warehouses, processing facilities, or parking areas. For the purposes of this NWP, the cumulative total of 10 acres will be measured over the period that this NWP is valid. (Section 404)

35. Maintenance Dredging of Existing Basins: Excavation and removal of accumulated sediment for maintenance of existing marina basins, access channels to marina basins or boat slips, and boat slips to previously authorized depths or controlling depths for ingress/egress, whichever is less, provided the dredged material is disposed of at an upland site and proper siltation controls are used. (Section 10)

36. Boat Ramps: Activities required for the construction of boat ramps provided:

a. The discharge into waters of the United States does not exceed 50 cubic yards of concrete, rock, crushed stone or gravel into forms, or placement of pre-cast concrete planks or slabs. (Unsuitable material that causes unacceptable chemical pollution or is structurally unstable is not authorized);

b. The boat ramp does not exceed 20 feet in width;

c. The base material is crushed stone, gravel or other suitable material;

d. The excavation is limited to the area necessary for site preparation and all excavated material is removed to the upland; and,

e. No material is placed in special aquatic sites, including wetlands.

Dredging to provide access to the boat ramp may be authorized by another NWP, regional general permit, or individual permit pursuant to section 10 if located in navigable waters of the United States. (Sections 10 and 404)

37. Emergency Watershed Protection and Rehabilitation: Work done by or funded by the Natural Resources Conservation Service qualifying as an ''exigency'' situation (requiring immediate action) under its Emergency Watershed Protection Program (7 CFR part 624) and work done or funded by the Forest Service under its Burned-Area Emergency Rehabilitation Handbook (FSH 509.13) provided the District Engineer is notified in accordance with the ''Notification'' general condition. (Also see 33 CFR 330.1(e)). (Sections 10 and 404)

38. Cleanup of Hazardous and Toxic Waste: Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority provided the permittee notifies the District Engineer in accordance with the ''Notification'' general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste. Activities undertaken entirely on a CERCLA site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. (Sections 10 and 404)

39. Reserved.

40. Farm Buildings: Discharges of dredged or fill material into jurisdictional wetlands (but not including prairie potholes, playa lakes, or vernal pools) that were in agricultural crop production prior to December 23, 1985, i.e., farmed wetlands, for foundations and building pads for farm buildings. The discharge will be limited to the minimum necessary but will in no case exceed 1 acre (see the ''Mitigation'' Section 404 only condition). The permittee must notify the District Engineer in accordance with the ''Notification'' general condition for any farm building within 500 linear feet of any flowing water. (Section 404)

C. Nationwide Permit Conditions

General Conditions

The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation: No activity may cause more than a minimal adverse effect on navigation.

2. Proper Maintenance: Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. Erosion and Siltation Controls: Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. Aquatic Life Movements: No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. Equipment: Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. Regional and Case-by-Case Conditions: The activity must comply with any regional conditions which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its section 401 water quality certification.

7. Wild and Scenic Rivers: No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

8. Tribal Rights: No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water Quality Certification: In certain states, an individual Section 401 water quality certification must be obtained or waived (see 33 CFR 330.4(c)).

10. Coastal Zone Management: In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see Section 330.4(d)).

11. Endangered Species: (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized.

(b) Authorization of an activity by a nationwide permit does not authorize the ''take'' of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA section 10 Permit, a Biological Opinion with ''incidental take'' provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal ''takes'' of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages at http://www.fws.gov/~r9endspp/endspp.html and http://kingfish.spp.mnfs.gov/tmcintyr/prot_res.html#ES and Recovery, respectively.

12. Historic Properties: No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR part 325, appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

13. Notification:

(a) Timing: Where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a Pre-Construction Notification (PCN) as early as possible and shall not begin the activity:

(1) Until notified by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

(2) If notified by the District or Division Engineer that an individual permit is required; or

(3) Unless 30 days (or 45 days for NWP 26 only) have passed from the District Engineer's receipt of the notification and the prospective permittee has not received notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Notification: The notification must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity; and

(4) *For NWPs 14, 18, 21, 26, 29, 34, and 38,* the PCN must also include a delineation of affected special aquatic sites, including wetlands (see paragraph 13(f));

(5) *For NWP 21—Surface Coal Mining Activities,* the PCN must include an OSM or state approved mitigation plan.

(6) *For NWP 29—Single-Family Housing,* the PCN must also include:

(i) Any past use of this NWP by the individual permittee and/or the permitee's spouse;

(ii) A statement that the single-family housing activity is for a personal residence of the permittee;

(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring 0.5 acre or less will not require a formal on-site delineation. However, the applicant

shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than 0.5 acre in size, a formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

(7) *For NWP 31—Maintenance of Existing Flood Control Projects,* the prospective permittee must either notify the District Engineer with a Pre-Construction Notification (PCN) prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:

(i) Sufficient baseline information so as to identify the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided that the approved flood control protection or drainage is not increased;

(ii) A delineation of any affected special aquatic sites, including wetlands; and,

(iii) Location of the dredged material disposal site.

(8) *For NWP 33—Temporary Construction, Access, and Dewatering,* the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources.

(c) Form of Notification: The standard individual permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)–(7) of General Condition 13. A letter may also be used.

(d) District Engineer's Decision: In reviewing the pre-construction notification for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may, optionally, submit a proposed mitigation plan with the pre-construction notification to expedite the process and the District Engineer will consider any optional mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects are minimal, the District Engineer will notify the permittee and include any conditions the DE deems necessary.

Any mitigation proposal must be approved by the District Engineer prior to commencing work. If the prospective permittee elects to submit a mitigation plan, the District Engineer will expeditiously review the proposed mitigation plan, but will not commence a second 30-day (or 45-day for NWP 26) notification procedure. If the net adverse effects of the project (with the mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant stating that the project can proceed under the terms and conditions of the nationwide permit.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then he will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submitting a mitigation proposal that would reduce the adverse effects to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions.

(e) Agency Coordination: The District Engineer will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(i) For NWP 14, 21, 26 (between 1 and 3 acres of impact) , 29, 33, 37, and 38. The District Engineer will, upon receipt of a notification, provide immediately, e.g., facsimile transmission, overnight mail or other expeditious manner, a copy to the appropriate offices of the Fish and Wildlife Service, State natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the National Marine Fisheries Service. With the exception of NWP 37, these agencies will then have 5 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 10 calendar days (16 calendar days for NWP 26 PCNs) before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

(ii) Optional Agency Coordination. For NWPs 5, 7, 12, 13, 17, 18, 27, 31, and 34, where a Regional Administrator of EPA, a Regional Director of USFWS, or a Regional Director of NMFS has formally requested general notification from the District Engineer for the activities covered by any of these NWPs, the Corps will provide the requesting agency with notification on the particular NWPs. However, where the agencies have a record of not generally submitting substantive comments on activities covered by any of these NWPs, the Corps district may discontinue providing notification to those regional agency offices. The District Engineer will coordinate with the resources agencies to identify which activities involving a PCN that the agencies will provide substantive comments to the Corps. The District Engineer may also request comments from the agencies on a case by case basis when the District Engineer determines that such comments would assist the Corps in reaching a decision whether effects are more than minimal either individually or cumulatively.

(iii) Optional Agency Coordination, 401 Denial. For NWP 26 only, where the state has denied its 401 water quality certification for activities with less than 1 acre of wetland impact, the EPA regional administrator may request agency coordination of PCNs between ⅓ and 1 acre. The request may only include acreage limitations within the ⅓ to 1 acre range for which the state has denied water quality certification. In cases where the EPA has requested coordination of projects as described here, the Corps will forward the PCN to EPA only. The PCN will then be forwarded to the Fish and Wildlife Service and the National Marine Fisheries Service by EPA under agreements among those agencies. Any agency receiving the PCN will be bound

by the EPA timeframes for providing comments to the Corps.

(f) Wetlands Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps. For NWP 29 see paragraph (b)(6)(iii) for parcels less than 0.5 acres in size. The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 30-day period (45 days for NWP 26) will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

(g) Mitigation: Factors that the District Engineer will consider when determining the acceptability of appropriate and practicable mitigation include, but are not limited to:

(i) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes;

(ii) To the extent appropriate, permittees should consider mitigation banking and other forms of mitigation including contributions to wetland trust funds, ''in lieu fees'' to organizations such as The Nature Conservancy, state or county natural resource management agencies, where such fees contribute to the restoration, creation, replacement, enhancement, or preservation of wetlands. Furthermore, examples of mitigation that may be appropriate and practicable include but are not limited to: Reducing the size of the project; establishing wetland or upland buffer zones to protect aquatic resource values; and replacing the loss of aquatic resource values by creating, restoring, and enhancing similar functions and values. In addition, mitigation must address wetland impacts, such as functions and values, and cannot be simply used to offset the acreage of wetland losses that would occur in order to meet the acreage limits of some of the NWPs (e.g., for NWP 26, 5 acres of wetlands cannot be created to change a 6-acre loss of wetlands to a 1 acre loss; however, 2 created acres can be used to reduce the impacts of a 3-acre loss.).

14. Compliance Certification: Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include: a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b. A statement that any required mitigation was completed in accordance with the permit conditions; c. The signature of the permittee certifying the completion of the work and mitigation.

15. Multiple Use of Nationwide Permits: In any case where any NWP number 12 through 40 is combined with any other NWP number 12 through 40, as part of a single and complete project, the permittee must notify the District Engineer in accordance with paragraphs a, b, and c on the ''Notification'' General Condition number 13. Any NWP number 1 through 11 may be combined with any other NWP without notification to the Corps, unless notification is otherwise required by the terms of the NWPs. As provided at 33 CFR 330.6(c) two or more different NWPs can be combined to authorize a single and complete project. However, the same NWP cannot be used more than once for a single and complete project.

Section 404 Only Conditions

In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material into waters of the U.S., and must be followed in order for authorization by the NWPs to be valid:

1. Water Supply Intakes: No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. Shellfish Production: No discharge of dredged or fill material may occur in areas of concentrated shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by NWP 4.

3. Suitable Material: No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.,) and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

4. Mitigation: Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer approves a compensation plan that the District Engineer determines is more beneficial to the environment than on-site minimization or avoidance measures.

5. Spawning Areas: Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

6. Obstruction of High Flows: To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

7. Adverse Effects From Impoundments: If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

8. Waterfowl Breeding Areas: Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. Removal of Temporary Fills: Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

[FR Doc. 96–31645 Filed 12–12–96; 8:45 am]

BILLING CODE 3710–92–P

federal register

Friday
December 13, 1996

Part VIII

Department of Education

Impact Aid; Notice

DEPARTMENT OF EDUCATION

Impact Aid

AGENCY: Department of Education.

ACTION: Notice announcing a special application and amendment filing date for certain Impact Aid fiscal years (FYs) 1995 and 1996 section 8002 grants and FY 1997 section 8003 grants.

SUMMARY: The Secretary announces a special filing date of January 31, 1997, for the submission of applications or amendments for certain Impact Aid FYs 1995 and 1996 section 8002 grants and FY 1997 section 8003 grants. Impact Aid regulations at 34 CFR 222.3 and 222.5 specify that the annual application deadline is January 31 of the fiscal year in which a local educational agency (LEA) seeks assistance under section 8002 or section 8003. Amendments for those applications must be made no later than the end of the fiscal year in which an LEA seeks assistance under section 8002 or section 8003. However, as a result of several legislative amendments to the Impact Aid statute (Title VIII of the Elementary and Secondary Education Act) in September 1996, it is necessary to provide additional time to the LEAs described below, which are affected by the amendments, to file new or amended applications for certain fiscal years for which the general annual filing dates have passed.

EFFECTIVE DATE: This notice announcing a special filing date of January 31, 1997, for the specified Impact Aid FYs 1995 and 1996 section 8002 grants and FY 1997 section 8003 grants is effective December 13, 1996. The deadline date for the transmittal of comments by State Educational Agencies is February 15, 1997.

SUPPLEMENTARY INFORMATION: The categories of Impact Aid applicants and the basis and fiscal years for which new or amended applications for past years may be filed are summarized in the table at the end of this section and explained in detail as follows:

(1) Section 1 of the Impact Aid Technical Amendments of 1996 (Pub. L. 104–195) added section 8002(g) to the Impact Aid statute. This provision covers any LEA that has been consolidated since 1938, and that applied for and was determined eligible based on any of its formerly separate LEAs under section 8002's predecessor (section 2(c) of Pub. L. 81–874) at any time before FY 1995. It allows such an LEA to have its current eligibility and payment determined on the basis of whichever of its formerly separate districts it chooses. Local educational agencies affected by this provision may now amend or file new section 8002 applications for FY 1995 or 1996, or both.

(2) Section 5 of the Impact Aid Amendments of 1996 specifies that, beginning with FY 1997, eligibility and payments under section 8003(f) for heavily impacted districts should be determined based on student, revenue, and tax data from the second preceding fiscal year rather than on current year data.

As a result of this provision, any affected section 8003 applicant may now file a section 8003(f) application for FY 1997.

(3) Section 376 of the National Defense Authorization Act of 1997 (Pub. L. 104–201) amended section 8003(a)(3) of the Impact Aid statute to allow an LEA that educates children in categories (F) or (G) (formerly identified as ''civilian b's'') to count those children for eligibility and payment if those children number at least 1,000 in average daily attendance or equal at least 10 percent of the LEA's total average daily attendance. Formerly, the statutorily required threshold was 2,000 children and 15 percent of total average daily attendance. Any section 8003 applicant affected by this statutory revision may now file or amend an FY 1997 section 8003 application.

In all three cases, the specified section 8002 or 8003 applications or amendments for past fiscal years must be filed by January 31, 1997. The 60-day extended deadline provision (with a ten percent payment reduction penalty) in section 8005(d) of the Impact Aid statute is not applicable to applications or amendments that are submitted under this extension as a result of the Congressional amendments for otherwise closed fiscal years specified in the box below.

NEW IMPACT AID APPLICATION AND AMENDMENT FILING DATES

Type of applicant	Basis for extension	Affected fiscal year	New filing date
Section 8002	Eligibility based on former districts for consolidated districts previously eligible under section 2(c) of P.L. 81–874.	FY 1995 or 1996, or both	January 31, 1997.
Section 8003(f)	Eligibility and payments for heavily impacted LEAs based on second preceding year student, revenue or tax data.	FY 1997	January 31, 1997.
Section 8003	Eligibility and payment for children under section 8003(a)(1) (F) or (G) based on such children numbering at least 1,000 in average daily attendance or equal to at least 10 percent of total average daily attendance.	FY 1997	January 31, 1997.

Waiver of Rulemaking

Section 222.3 of Title 34 of the Code of Federal Regulations, which establishes the annual January 31 Impact Aid application deadline, is currently in effect. However, due to the legislative amendments, the application period for certain prior fiscal years needed to be extended. Because this amendment makes a procedural change for this year only as a result of unique circumstances, proposed rulemaking is not required under 5 U.S.C. 553(b)(A). In addition, the Secretary has determined under 5 U.S.C. 553(b)(B) that proposed rulemaking on this one-time limited suspension of the regulatory filing date is impracticable, unnecessary, and contrary to the public interest.

FOR APPLICATIONS OR INFORMATION CONTACT: Impact Aid Program, U.S. Department of Education, 600 Independence Avenue SW, 4200 Portals, Washington, DC 20202–6244. Telephone: (202) 260–3858. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

Program Authority: 20 U.S.C. 7705.

(Catalog of Federal Domestic Assistance Number 84.041, Impact Aid)

Dated: December 9, 1996.

Gerald N. Tirozzi,

Assistant Secretary for Elementary and Secondary Education.

[FR Doc. 96–31610 Filed 12–12–96; 8:45 am]

BILLING CODE 4000–01–P

federal register

Friday
December 13, 1996

Part IX

Department of Education

Office of Postsecondary Education; Federal Perkins Loan, Federal Work-Study, and Federal Supplemental Educational Opportunity Grant Programs; Notice

DEPARTMENT OF EDUCATION

Office of Postsecondary Education; Federal Perkins Loan, Federal Work-Study, and Federal Supplemental Educational Opportunity Grant Programs

AGENCY: Department of Education.

ACTION: Notice of the closing date for institutions to file an ''Application for Institutional Participation'' (ED Form E–40–34P, OMB #1840–0098) to participate in the Federal Perkins Loan, Federal Work-Study, and Federal Supplemental Educational Opportunity Grant programs for the 1997–98 award year.

SUMMARY: The Secretary invites currently ineligible institutions of higher education that filed a Fiscal Operations Report and Application to Participate (FISAP) (ED Form 646–1) in one or more of the ''campus-based programs'' for the 1997–98 award year to submit to the Secretary an ''Application for Institutional Participation'' and all documents required for an eligibility and certification determination.

The campus-based programs are the Federal Perkins Loan Program, the Federal Work-Study Program, and the Federal Supplemental Educational Opportunity Grant Program and are authorized by Title IV of the Higher Education Act of 1965, as amended. The 1997–98 award year is July 1, 1997, through June 30, 1998.

DATE: *Closing Date for Filing Application and Required Documents.* To participate in the campus-based programs in the 1997–98 award year, a currently ineligible institution must mail or hand-deliver its ''Application for Approval to Participate'' on or before January 13, 1997. The application along with all documents required for an eligibility and certification determination must be submitted to the Institutional Participation Division at one of the addresses indicated below.

ADDRESSES: *Applications and Required Documents Delivered by Mail.* The application for approval to participate and required documents delivered by mail must be addressed to the U.S. Department of Education, Office of Postsecondary Education, Division, Accreditation and Eligibility Determination Initial Participation Branch, Room 3522, Regional Office Building 3, 600 Independence Avenue, S.W., Washington, D.C. 20202–5323.

An applicant must show proof of mailing consisting of one of the following: (1) A legibly dated U.S. Postal Service postmark; (2) a legible mail receipt with the date of mailing stamped by the U.S. Postal Service; (3) a dated shipping label, invoice or receipt from a commercial carrier; or (4) any other proof of mailing acceptable to the Secretary of Education.

If an application is sent through the U.S. Postal Service, the Secretary does not accept either of the following as proof of mailing: (1) A private metered postmark, or (2) a mail receipt that is not dated by the U.S. Postal Service.

An applicant should note that the U.S. Postal Service does not uniformly provide a dated postmark. Before relying on this method, an applicant should check with its local post office.

An applicant is encouraged to use certified or at least first class mail. Institutions that submit institutional participation applications and required documents after the closing date will not be considered for funding under the campus-based programs for award year 1997–98.

Applications and Required Documents Delivered by Hand. An institutional participation application and required documents delivered by hand must be taken to the U.S. Department of Education, Office of Postsecondary Education, Institutional Participation Division, Room 3522, Regional Office Building 3, (GSA Building), 7th and D Streets, S.W., Washington, D.C. We will accept hand-delivered applications between 8:00 a.m. and 4:30 p.m. (Eastern time) daily, except Saturdays, Sundays, and Federal holidays. An institutional participation application for the 1997–98 award year that is delivered by hand will not be accepted after 4:30 p.m. on the closing date.

SUPPLEMENTARY INFORMATION: Under the three campus-based programs, the Secretary allocates funds to eligible institutions of higher education. The Secretary will not allocate funds under the campus-based programs for award year 1997–98 to any currently ineligible institution unless the institution files its ''Application for Institutional Participation'' and other required documents by the closing date. If the institution submits its application for approval to participate or other required documents after the closing date, the Secretary will use this application in determining the institution's eligibility to participate in the campus-based programs beginning with the 1998–99 award year.

For purposes of this notice, ineligible institutions only include:

(1) An institution that has not been designated as an eligible institution by the Secretary but has previously filed a FISAP; or

(2) An additional location of an eligible institution that is currently not included in the Department's eligibility certification for that eligible institution but has been included in the institution's 1997–98 FISAP.

The Secretary wishes to advise institutions that the institutional eligibility form, ''Application for Approval to Participate,'' should not be confused with the FISAP form that institutions were required to submit electronically as of October 1, 1996, in order to be considered for funds under the campus-based programs for the 1997–98 award year.

Applicable Regulations

The following regulations apply to the campus-based programs:

(1) Student Assistance General Provisions, 34 CFR Part 668.

(2) Federal Perkins Loan Program, 34 CFR Part 674.

(3) Federal Work-Study Program, 34 CFR Part 675.

(4) Federal Supplemental Educational Opportunity Grant Program, 34 CFR Part 676.

(5) Institutional Eligibility Under the Higher Education Act of 1965, as amended, 34 CFR Part 600.

(6) New Restrictions on Lobbying, 34 CFR Part 82.

(7) Governmentwide Debarment and Suspension (Nonprocurement) and Governmentwide Requirements for Drug-Free Workplace (Grants), 34 CFR Part 85.

(8) Drug-Free Schools and Campuses, 34 CFR Part 86.

FOR FURTHER INFORMATION CONTACT: For information concerning designation of eligibility, contact: Liz Neverson or John Frohlicher, Accreditation and Eligibility Determination Division, Initial Participation Branch, U.S. Department of Education, Room 3522, Regional Office Building 3, 600 Independence Avenue, S.W., Washington, D.C. 20202–5343. Telephone: (202) 708–4906.

For technical assistance concerning the FISAP or other operational procedures of the campus-based programs, contact: Sandra K. Donelson, Institutional Financial Management Division, U.S. Department of Education, P.O. Box 23781, Washington, D.C. 20026–0781. Telephone: (202) 708–9751. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

(Catalog of Federal Domestic Assistance Numbers: 84.007 Federal Supplemental Educational Opportunity Grant Program;

84.033 Federal Work-Study Program; 84.038 Federal Perkins Loan Program)

(Authority: 20 U.S.C. 1087aa *et seq.;* 42 U.S.C. 2751 *et seq.;* and 20 U.S.C. 1070b *et seq.*)

Dated: December 9, 1996.

David A. Longanecker,

Assistant Secretary for Postsecondary Education.

[FR Doc. 96–31664 Filed 12–12–96; 8:45 am]

BILLING CODE 4000–01–P

federal register

Friday
December 13, 1996

Part X

Department of Education

The National Assessment of Educational Progress (NAEP) Redesign Program; Inviting Applications for New Awards for Fiscal Year 1997; Notice

DEPARTMENT OF EDUCATION

[CFDA No.: 84.902A]

The National Assessment of Educational Progress (NAEP) Redesign Program; Notice Inviting Applications for New Awards for Fiscal Year (FY) 1997

Purpose of Program: NAEP provides information on the educational achievement of school children. For FY 1997, the Secretary encourages applicants to propose ideas for its redesign that focus on innovative methods for conducting the state and national components of NAEP for the year 2000 and beyond.

Eligible Applicants: Public, private, for-profit, and non-profit institutions, agencies, and other qualified organizations or consortia of such institutions, agencies, and organizations.

Deadline for Transmittal of Applications: February 6, 1997.

Applications Available: December 20, 1996.

Available Funds: Up to $750,000 can be made available in fiscal year 1997 for these projects.

Estimated Range of Awards: $50,000 to $150,000.

Estimated Average Size of Awards: $125,000.

Estimated Number of Awards: 6.

Note: The Department is not bound by any estimates in this notice.

Project Period: 3 months.

Applicable Regulations: (a) The Education Department General Administrative Regulations (EDGAR) 34 CFR Parts 74, 75, 77, 80, 81, 82, 85, 86; (b) The regulations in 34 CFR Part 700 (Standards for the Conduct and Evaluation of Activities Carried out by the Office of Educational Research and Improvement (OERI)—Evaluation of Applications for Grants and Cooperative Agreements and Proposals for Contracts); and (c) The regulations in 34 CFR Part 98 (Students Rights in Research, Experimental Activities, and Testing).

SUPPLEMENTARY INFORMATION: The National Assessment of Educational Progress is authorized by Section 411 of the National Education Statistics Act of 1994, Title IV of the Improving America's Schools Act (20 U.S.C. 9010). Section 412 (20 U.S.C. sections 9011) provides for the establishment of the National Assessment Governing Board (NAGB). The law requires NAGB, among other responsibilities, to formulate the policy guidelines for NAEP and select the assessment methodology used. Copies of these guidelines are available from the Department.

NAGB policy guidelines require a redesign of the NAEP for the year 2000. This grant announcement is soliciting applications for the development of innovative ideas to improve the NAEP design in any or all of the seven areas listed under the priorities section of this notice.

Priorities: Under 34 CFR 75.105(c)(1) and 20 U.S.C. sections 9010–9011, the Secretary is particularly interested in applications that meet one or more of the seven invitational priorities listed in this notice. However, under 34 CFR 75.105(c)(1), an application that meets one or more of these invitational priorities does not receive competitive or absolute preference over other applications.

Invitational Priorities. The Secretary encourages projects that will contribute to the redesign of NAEP by proposing new strategies for conducting the state and national components of NAEP for the year 2000 and beyond. The Secretary is particularly interested in projects that focus on innovative methods in one or more of the following priority areas:

Invitational Priority 1—Sampling schemes that minimize school sample size and maximize efficiency.

Invitational Priority 2—Data collection procedures that minimize burden on students, teachers, and schools while maximizing the information available to the public on the performance and related contextual data of school children.

Invitational Priority 3—Scoring procedures for open-ended and constructed response items that are cost-effective, utilizing the latest technologies while maintaining high scorer reliability.

Invitational Priority 4—Psychometric procedures that maximize test reliability while minimizing analytic complexity and processing time.

Invitational Priority 5—Reporting techniques that inform educators, parents and leaders to take actions to improve their schools using creative analytic procedures.

Invitational Priority 6—Development of methods to improve the collection of contextual information (such as socioeconomic status and home and community educational emphasis) to explain the results of educational attainment for nations, regions, and jurisdictions.

Invitational Priority 7—Development of innovative means to measure cognitive skills related to subject matter.

Selection Criteria: The Secretary selects from the criteria in 34 CFR 700.30(e) to evaluate applications for new grants under this competition. Under 34 CFR 700.30(a), the Secretary will announce in the application package the evaluation criteria selected for this competition and the maximum weight assigned to each criterion.

For Applications or Information Contact: Steven Gorman, U.S. Department of Education, 555 New Jersey Avenue, NW., Room 404G, Washington, D.C. 20208–5653. Telephone: (202) 219–1761, Internet: (sgorman@inet.ed.gov). Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

Information about the Department's funding opportunities, including copies of application notices for discretionary grant competitions, can be viewed on the Department's electronic bulletin board (ED Board), telephone (202) 260–9950; on the Internet Gopher Server (at gopher://gcs.ed.gov); or on the World Wide Web (at http://gcs.ed.gov). However, the official application notice for a discretionary grant competition is the notice published in the Federal Register.

Program Authority: 20 U.S.C. 9010–9011.

Dated: December 3, 1996.

Charles E. Hansen,

Acting Assistant Secretary for Educational Research and Improvement.

[FR Doc. 96–31665 Filed 12–12–96; 8:45 am]

BILLING CODE 4000–01–P

federal register

Friday
December 13, 1996

Part XI

Department of Education

Educational Research and Development Centers Program; Proposed Priority for Fiscal Year 1997; Notice

DEPARTMENT OF EDUCATION

Educational Research and Development Centers Program

AGENCY: Department of Education.

ACTION: Notice of proposed priority for FY 1997.

SUMMARY: The Secretary proposes a priority under the Educational Research and Development Centers Program. The Secretary takes this action to support research on early reading. The priority is intended to produce research findings that will affect changes in early reading instruction and related practices.

DATES: Comments must be received on or before January 27, 1997.

ADDRESSES: All comments concerning this proposed priority should be addressed to Anne P. Sweet, U.S. Department of Education, 555 New Jersey Avenue, NW., room 513A, Washington, DC 20208–5573. Comments can be faxed to Dr. Sweet at (202) 219–2135 or e-mailed through the internet to (anne__sweet@ed.gov).

FOR FURTHER INFORMATION CONTACT: Anne P. Sweet, telephone: (202) 219–2079. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: The Office of Educational Research and Improvement, authorized under Title IX of Public Law 103–227, (20 U.S.C. section 6001 *et seq.*) supports educational research and development activities. The National Institute on Student Achievement, Curriculum, and Assessment and The National Institute on Early Childhood Development and Education are two of five research institutes that carry out coordinated and comprehensive programs of research, development, evaluation, and dissemination activities designed to provide research-based leadership for the improvement of education.

As National Institutes, The National Institute on Student Achievement, Curriculum, and Assessment and The National Institute on Early Childhood Development and Education support a range of research, development, and dissemination activities. They support long-term activities focused on core issues in education carried out by national research and development centers, as well as field-initiated studies carried out by individual investigators. The proposed priority for research on improving children's early reading is for a research and development center to be supported jointly by the Student Achievement and the Early Childhood Institutes.

The Secretary believes that improving reading achievement in this country and increasing the capacity of the nation's education system to provide all members of society with equal opportunities to attain a high level of literacy depend on knowledge generated by an enduring program of education research and development. Knowledge gained from education research and development can help guide the national investment in education and support local and State reform efforts. Because they carry out sustained, long-term research and development, Centers are a primary mechanism for pursuing new knowledge about education. Center awards are made to institutions of higher education, institutions of higher education in consort with public agencies or non-profit organizations, and interstate agencies established by compact that operate subsidiary bodies to conduct postsecondary education research and development.

The Secretary invites comments on the priority described in this notice. Prior to this announcement and in conjunction with planning for Educational Research and Development Center competitions in fiscal year 1996, OERI engaged in a series of meetings, regional hearings, and Federal Register notices that solicited advice from parents, teachers, administrators, policy-makers, business people, researchers, and others to identify the most needed research and development activities. Following these activities and subsequent research priorities planning meetings in which OERI engaged, OERI prepared this notice of proposed priority. The proposed priority will be reviewed by OERI's National Research Policy and Priorities Board, whose mandate includes the development of a Research Priorities Plan. The final research and development center priority will be published following the Board's review and the public comment period.

Proposed Priority: Research to Improve Children's Early Reading

Under 34 CFR 75.105(c)(3) the Secretary will give an absolute preference to applications that meet the following priority. The Secretary intends to fund only one application that meets the priority listed below. Funding this priority will depend on the availability of funds, the nature of the final priority, and the quality of applications received. The Secretary proposes to support a national research and development center on research to improve children's early reading. This center must—

(a) Conduct a coherent, sustained program of research and development in early reading, using a well-conceptualized and theoretically sound framework;

(b) Contribute to the development and advancement of theory and practice in early reading;

(c) Conduct scientifically rigorous studies capable of generating findings that contribute substantially to understanding in the field;

(d) Conduct work of sufficient size, scope, and duration to produce definitive guidance for instructional improvement;

(e) Address issues of both equity and excellence in early reading education for all children;

(f) Conduct the following research and development activities—(1) Research on early reading acquisition;

(2) Multidisciplinary research, including as appropriate neuroscience, cognitive and developmental psychology, and the relevant social sciences, on the relations among the development of oral language, reading, and writing fluency for all children, including those who are from linguistically and culturally diverse populations;

(3) Research that applies a variety of theoretical perspectives and methodologies to describe and to assess the efficacy of current practices in early reading instruction and to provide a knowledge base to make early reading instruction more effective;

(4) Research on theory-based diagnostic and assessment tools for early reading;

(5) Research on social, motivational, and affective factors that play a part in early reading acquisition; and

(6) Research on the relationships among early reading, writing, and content knowledge acquisition; and

(g) Document, report, and disseminate information about its research findings and other accomplishments in ways that will facilitate effective use of that information for teachers and other early childhood professionals, families, and community members, as appropriate.

Post-Award Requirements

The Secretary established the following post-award requirements consistent with the Educational Research, Development, Dissemination and Improvement Act of 1994. A grantee receiving a center award must—

(a) Provide OERI with information about center projects and products and other appropriate research information so that OERI can monitor center

progress and maintain its inventory of funded research projects. This information must be provided through media that include an electronic network;

(b) Conduct and evaluate research projects in conformity with the highest professional standards of research practice;

(c) Reserve five percent of each budget period's funds to support activities that fall within the center's priority area, are designed and mutually agreed to by the center and OERI, and enhance OERI's ability to carry out its mission. Such activities may include developing research agendas, conducting research projects collaborating with other federally-supported entities, and engaging in research agenda setting and dissemination activities; and

(d) At the end of the award period, synthesize the findings and advances in knowledge that resulted from the Center's program of work and describe the potential impact on the improvement of American education, including any observable impact to date.

Note: This notice of proposed priority does not solicit applications. A notice inviting applications under this competition will be published in the Federal Register concurrent with or following publication of the notice of final priority.

Invitation to Comment

Interested persons are invited to submit comments and recommendations regarding this proposed priority. Comments will be available for public inspection, during and after the comment period, in Room 513A, 555 New Jersey Avenue, N.W., Washington, D.C., between the hours of 8:00 a.m. and 4:00 p.m., Monday through Thursday of each week except Federal holidays.

Program Authority: P.L. 103–227, Title IX (20 U.S.C. 6031)

(Catalog of Federal Domestic Assistance Number (84.305R) Educational Research and Development Centers Program)

Dated: December 10, 1996.

Sharon P. Robinson,

Assistant Secretary for Educational Research and Improvement.

[FR Doc. 96–31666 Filed 12–12–96; 8:45 am]

BILLING CODE 4000–01–P

federal register

Friday
December 13, 1996

Part XII

Environmental Protection Agency

1996 Master Testing List; Notice of Availability; Notice

ENVIRONMENTAL PROTECTION AGENCY

[OPPTS–00200; FRL–5570–3]

1996 Master Testing List; Notice of Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This Notice announces the availability of and solicits comments on EPA's 1996 Master Testing List (MTL). The MTL is an important component of the Toxic Substances Control Act (TSCA) Chemicals Program in the Office of Pollution Prevention and Toxics in EPA's Office of Prevention, Pesticides and Toxic Substances. EPA's TSCA Chemicals Program is responsible for assessing and managing human health and environmental risks that may be posed by exposure to new and existing chemicals. EPA has been using the MTL since 1990 to establish the Agency's Chemical Testing Program agenda under TSCA.

FOR FURTHER INFORMATION CONTACT: Requests for paper copies of the 1996 Master Testing List (MTL) should be addressed to: Susan B. Hazen, Director, Environmental Assistance Division (7408), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, Telephone: (202) 554–1404, TDD: (202) 554–0557, e-mail: TSCA-Hotline@epamail.epa.gov.

ADDRESSES: Written comments regarding the 1996 Master Testing List should be sent in triplicate and identified by the docket number OPPTS–00200 to: TSCA Public Docket (7407), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

Comments may also be submitted electronically by sending electronic mail (e-mail) to: oppt.ncic@epamail.epa.gov. Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments will also be accepted on disks in WordPerfect 5.1 file format or ASCII file format. All comments in electronic form must be identified by the docket number OPPTS–00200. No TSCA Confidential Business Information (CBI) should be submitted through e-mail. Electronic comments on this document may be filed online at many Federal Depository Libraries. Additional information on electronic submissions can be found in the SUPPLEMENTARY INFORMATION unit of this document.

SUPPLEMENTARY INFORMATION:

Electronic Availability: EPA is also in the process of placing the 1996 MTL on the Chemical Testing and Information Branch/OPPT ''Home Page'' on the Agency's World Wide Web/Internet site. Persons wishing to access the 1996 MTL as well as other information related to EPA's Chemical Testing Program via EPA's World Wide Web/Internet site should use the following Uniform Resource Locator (URL): http://www.epa.gov/opptintr/main/ctibhome.htm. The 1996 MTL is also being made available to the public via EPA's gopher server (gopher://gopher.epa.gov).

Under section 4 of the Toxic Substances Control Act (TSCA), EPA has the authority to require chemical manufacturers (including importers) and processors to test chemicals. Specifically, EPA has the authority to promulgate TSCA section 4 Test Rules after finding that: (1) A chemical substance may present an unreasonable risk of injury to human health or the environment, or the chemical is produced in substantial quantities which could result in significant or substantial human or environmental exposure, and (2) available data to evaluate the chemical substance are inadequate, and (3) testing is needed to develop the necessary data. EPA's TSCA Chemical Testing Program also works closely with members of the chemical industry to develop needed test data by way of TSCA section 4 Enforceable Consent Agreements (ECAs) and Voluntary Testing Agreements (VTAs). A number of these ECAs and VTAs have been accompanied by voluntary product stewardship program agreements between EPA and the producer(s)/importer(s) of a given chemical or group of chemicals. In these voluntary agreements, which can be captured in some cases via a formal ''Memorandum of Understanding'' (MOU), companies commit to undertake a variety of product stewardship activities and agree to provide to EPA periodic progress reports describing their ongoing efforts and improvements in handling the chemical(s) in question.

This notice announces the availability of EPA's 1996 Master Testing List (MTL). The major purposes of the MTL are to:

(1) Identify the chemical testing needs of the Federal Government (including EPA) and international programs of interest to the United States.

(2) Focus limited EPA resources on the highest priority chemical testing needs.

(3) Publicize EPA's testing priorities for industrial chemicals.

(4) Obtain broad public comment on EPA's TSCA Chemical Testing Program and its priorities.

(5) Encourage initiatives by industry to provide EPA with the priority data needs identified on the MTL.

Since 1992, EPA has added more than 300 specific chemicals and 4 new categories to the MTL and has removed over 100 chemicals from the MTL. It is important to note that most of the chemicals removed from the MTL were removed because testing was completed for those chemicals. The MTL now contains over 500 specific chemicals and 13 categories and presents EPA's Chemical Testing Program's priorities for 1996-1998.

EPA believes that many chemical companies with product stewardship programs will recognize the importance of promptly filling the data needs cited on the MTL. The identification of the data needs on the MTL provides an opportunity for responsible companies to initiate voluntary activities to develop the needed data for their own MTL-listed chemicals. In those instances in which companies decline this opportunity, EPA is put in the position of having to initiate formal regulatory actions such as promulgating TSCA section 4 Test Rules.

EPA invites written comments from any person interested in the development of the MTL. In particular, EPA is interested in comments on the approach the Agency takes to identify priority testing needs. EPA is also interested in comments on the categories of chemicals described in the MTL. Comments in this regard may affect how these categories are ultimately ranked and may influence how EPA proceeds in obtaining needed toxicity and/or exposure data on the chemicals within those categories. EPA is also interested in identifying other categories of chemicals that may deserve further evaluation.

A record has been established for this notice under docket number ''OPPTS–00200'' (including comments submitted electronically as described below). A public version of this record, including printed, paper versions of electronic comments, which does not include any information claimed as CBI, is available for inspection from noon to 4 p.m., Monday through Friday, excluding legal holidays. The public record is located in the TSCA Nonconfidential Information Center, Rm. NE-B607, 401 M St., SW., Washington, DC 20460.

Electronic comments can be sent directly to EPA at:

oppt.ncic@epamail.epa.gov

Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption.

The official record for this notice, as well as the public version, as described above will be kept in paper form. Accordingly, EPA will transfer all comments received electronically into printed, paper form as they are received and will place the paper copies in the official record which will also include all comments submitted directly in writing. The official record is the paper record maintained at the address in ''ADDRESSES'' at the beginning of this document.

Dated: December 9, 1996.

Charles M. Auer,

Director, Chemical Control Division, Office of Pollution Prevention and Toxics.

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