public hearing that appeared in the **Federal Register** on January 24, 2000, (65 FR 3629), announced that a public hearing was scheduled for April 20, 2000 at 10 a.m., in room 2615, Internal Revenue Building, 1111 Constitution Avenue NW., Washington, DC. The subject of the public hearing is proposed regulations under section 367(b), of the Internal Revenue Code. The deadline for requests to speak and outlines of oral comments expired on March 31, 2000.

The notice of proposed rulemaking and notice of public hearing, instructed those interested in testifying at the public hearing to submit a request to speak and an outline of the topics to be addressed. As of April 11, 2000, no one has requested to speak. Therefore, the public hearing scheduled for April 20, 2000, is cancelled.

Cynthia E. Grigsby,

Chief, Regulations Unit, Assistant Chief Counsel (Corporate).

[FR Doc. 00–9409 Filed 4–14–00; 8:45 am]

BILLING CODE 4830–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[IL196–1; MO–097–1097; FRL–6578–2]

Approval and Promulgation of Implementation Plans; Illinois and Missouri; Ozone

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the Illinois and Missouri 1-hour ozone attainment demonstration State Implementation Plans (SIPs) for the St. Louis moderate ozone nonattainment area. The attainment demonstration SIPs are addressed in Illinois Environmental Protection Agency (IEPA) submittals dated November 15, 1999 and February 10, 2000 and in Missouri Department of Natural Resources (MDNR) submittals dated November 10, 1999 and January 19, 2000. In the alternative, the EPA is proposing to disapprove the attainment demonstration if: Illinois and Missouri do not revise the attainment demonstration modeling and analyses to incorporate corrections to the 1996 base year emissions inventory and successfully demonstrate attainment of the 1-hour standard based on the revised modeling; Illinois or Missouri do not submit proposed regional Oxides of Nitrogen (NO_X) emission control regulations for Electric Generating Units (EGUs) by June 2000 and final adopted regional (NO_X) emission control regulations for EGUs by December 2000; or Missouri does not submit a proposed motor vehicle emissions budget by June 30, 2000. The EPA is proposing to: approve an exemption from (NO_X) emission control requirements for Reasonably Available Control Technology (RACT) for the Illinois portion of the St. Louis ozone nonattainment area; extend the ozone attainment date for the entire St. Louis ozone nonattainment area to November 15, 2003 while retaining the area's current classification as a moderate ozone nonattainment area; and approve the transportation conformity motor vehicle emissions budget submitted by Illinois for the Illinois portion of the St. Louis ozone nonattainment area. The final approvals of the extension of the ozone attainment date and the motor vehicle emissions budgets are contingent on the final approval of the ozone attainment demonstration. The final approval of the attainment demonstration is contingent on the final approval of the regional (NO_X) emission control regulations and on the submittal of adequate motor vehicle emissions budgets. The final approval of the (NO_X) RACT exemption for Illinois is contingent on the final approval of an attainment demonstration that does not rely on (NO_X) emission reductions resulting from (NO_X) RACT implementation in the Illinois portion of the St. Louis nonattainment area. The EPA is proposing to disapprove Illinois' request for exemption from (NO_X) requirements for New Source Review (NSR) and general conformity.

DATES: Written comments must be received on or before June 16, 2000.

ADDRESSES: Written comments should be sent to: Jay Bortzer, Chief, Regulation Development Section, Air Programs Branch (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604; or Wayne Leidwanger, Chief, Air Planning and Development Branch, U.S. Environmental Protection Agency, 901 North 5th Street, Kansas City, Kansas 66101.

Copies of the States' submittals and EPA's Technical Support Document (TSD) for this proposed rule, and other relevant materials are available for public inspection during normal business hours at the following addresses: United States Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604 (please telephone Mark Palermo at (312) 886–6082 before visiting the Region 5 office); United States Environmental Protection Agency, Region 7, Air, Radiation, and Toxics Division, 901 North 5th Street, Kansas City, Kansas 66101.

FOR FURTHER INFORMATION CONTACT: Edward Doty, Regulation Development Section, Air Programs Branch (AR–18J), U.S. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, Telephone Number (312) 886-6057, E-Mail Address: doty.edward@epamail.epa.gov; or Aaron Worstell, Air Planning and Development Branch, U.S. Environmental Protection Agency, Region 7, 901 North 5th Street, Kansas City, Kansas 66101, Telephone Number (913) 551–7787, E-Mail Address: worstell.aaron@epa.gov.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background
A. Basis for the States' Attainment Demonstration SIPs
B. Components of a Modeled Attainment Demonstration
C. Framework for Proposing Action on the Attainment Demonstration SIP
D. Criteria for Attainment Date Extensions
E. Criteria for (NO_X) Control Exemptions
II. Technical Review of the Submittals
A. Summary of the State Submittals
1. General Information
2. Modeling Procedures and Input Data
3. Modeling Results
4. Emission Control Strategies
5. Transportation Conformity
6. Petition for NOx Control Exemption
B. Environmental Protection Agency Review of the Submittals
1. Adequacy of the States' Demonstrations of Attainment
2. Adequacy of the Emissions Control Strategies
3. Adequacy of the Request for Extension of the Attainment Date
4. Adequacy of the NOx Control Exemption Request
III. Proposed Action
IV. Administrative Requirements
A. Executive Order 12866
B. Executive Order 13045
C. Executive Order 13084
D. Executive Order 13132
E. Regulatory Flexibility
F. Unfunded Mandates

I. Background

A. Basis for the States' Attainment Demonstration SIPs

What are the Relevant Clean Air Act Requirements?

The Clean Air Act (Act) requires the EPA to establish National Ambient Air Quality Standards (NAAQS) for certain widespread pollutants that cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. Clean Air Act

sections 108 and 109. In 1979, EPA promulgated the 1-hour ground-level ozone standard of 0.12 parts per million (ppm) (120 parts per billion (ppb)). 44 FR 8202 (February 8, 1979).

Ground-level ozone is not emitted directly by sources. Rather, Volatile Organic Compounds (VOC) and NO_X, emitted by a wide variety of sources, react in the presence of sunlight to form ground-level ozone. NO_X and VOC are referred to as precursors of ozone.

An area exceeds the 1-hour ozone standard each time an ambient air quality monitor records a 1-hour average ozone concentration above 0.124 ppm in any given day (only the highest 1-hour ozone concentration at the monitor during any 24 hour day is considered when determining the number of exceedance days at the monitor). An area violates the ozone standard if, over a consecutive 3-year period, more than 3 days of exceedances occur at any monitor in the area or in its immediate downwind environs.

The highest of the fourth-highest daily peak ozone concentrations over the 3 year period at any monitoring site in the area is called the ozone design value for the area. The Act, as amended in 1990, required EPA to designate as nonattainment any area that was violating the 1-hour ozone standard, generally based on air quality monitoring data from the 1987 through 1989 period. Clean Air Act section 107(d)(4); 56 FR 56694 (November 6, 1991). The Act further classified these areas, based on the areas' ozone design values, as marginal, moderate, serious, severe, or extreme. Marginal areas were suffering the least significant ozone nonattainment problems, while the areas classified as severe and extreme had the most significant ozone nonattainment problems.

The control requirements and date by which attainment is to be achieved vary with an area's classification. Marginal areas were subject to the fewest mandated control requirements and had the earliest attainment date, November 15, 1993. Severe and extreme areas are subject to more stringent planning requirements but are provided more time to attain the standard. Serious areas were required to attain the 1-hour standard by November 15, 1999, and severe areas are required to attain by November 15, 2005 or November 15, 2007, depending on the areas' ozone design values for 1987 through 1989. The St. Louis ozone nonattainment area was classified as moderate and its attainment date was November 15, 1996. The St. Louis ozone nonattainment area is defined (40 CFR 81.314 and 81.326) to contain Madison, Monroe, and St. Clair Counties in Illinois, and Franklin, Jefferson, St. Charles, and St. Louis Counties and St. Louis City in Missouri.

The requirements of the Act for ozone attainment demonstrations for moderate ozone nonattainment areas are determined by considering several sections of the Act. Section 172(c)(6) of the Act requires SIPs to include enforceable emission limitations, and such other control measures, means or techniques as well as schedules and timetables for compliance, as may be necessary to provide for attainment by the applicable attainment date. Section 172(c)(1) requires the implementation of all reasonably available control measures (including Reasonably Available Control Technology (RACT)) and requires the SIP to provide for attainment of the NAAQS. Section 182(b)(1)(A) requires the SIP to provide for specific annual reductions in emissions of VOC and NO_X as necessary to attain the ozone NAAQS by the applicable attainment date. Finally, section 182(j)(1)(B) requires the use of photochemical grid modeling or other methods judged to be at least as effective to demonstrate attainment of the ozone NAAQS in multi-state ozone nonattainment areas. As part of today's proposal, EPA is proposing action on the attainment demonstration SIP revisions submitted by Illinois and Missouri for the St. Louis multi-state ozone nonattainment area and its associated ozone modeling domain.

In general, an attainment demonstration SIP includes a modeling analysis showing how an area will achieve the standard by its attainment date and the emission control measures necessary to achieve attainment. The attainment demonstration SIPs must include motor vehicle emission budgets for transportation conformity purposes. Transportation conformity is a process for ensuring that States consider the effects of emissions associated with federally-funded transportation activities on attainment of the standard. Attainment demonstrations must include the estimates of motor vehicle VOC and NO_X emissions that are consistent with attainment, which then act as a budget or ceiling for the purposes of determining whether transportation plans, programs, and projects conform to the attainment SIP.

What Is the History and Time Frame for the State Attainment Demonstration SIP and How Is It Related to Regional NO_X Controls?

Notwithstanding significant efforts by the States, in 1995 EPA recognized that many States in the eastern half of the United States could not meet the November 1994 time frame for submitting an attainment demonstration SIP because emissions of NO_X and VOC in upwind States (and the ozone formed by these emissions) affected these nonattainment areas and the full impact of this effect had not yet been determined. This phenomenon is called ozone transport.

On March 2, 1995, Mary D. Nichols, EPA's then Assistant Administrator for Air and Radiation, issued a memorandum to EPA's Regional Administrators acknowledging the efforts made by the States but noting the remaining difficulties in making attainment demonstration SIP submittals. [1] Recognizing the problems created by ozone transport, the March 2, 1995 memorandum called for a collaborative process among the States in the eastern half of the Country to evaluate and address transport of ozone and its precursors. This memorandum led to the formation of the Ozone Transport Assessment Group (OTAG) [2] and provided for the States to submit the attainment demonstration SIPs based on the expected time frames for OTAG to complete its evaluation of ozone transport.

In June 1997, OTAG concluded and provided EPA with recommendations regarding ozone transport. The OTAG generally concluded that transport of ozone and the precursor NO_X is significant and should be reduced regionally to enable States in the eastern half of the Country to attain the ozone NAAQS.

Building upon the OTAG recommendations and technical analyses, in November 1997, EPA proposed action addressing the ozone transport problem. In its proposal, the EPA found that current SIPs in 22 States and the District of Columbia (23 jurisdictions) were insufficient to provide for attainment and maintenance of the 1-hour standard because they did not regulate NO_X emissions that significantly contribute to ozone transport. 62 FR 60318 (November 7, 1997). The EPA finalized that rule in September 1998, calling on the 23 jurisdictions, including Illinois and Missouri, to revise their SIPs to require NO_X emission reductions within each State to a level consistent with a NO_X emissions budget identified in the final rule. 63 FR 57356 (October 27, 1998).

[1] Memorandum, ''Ozone Attainment Demonstrations,'' issued March 2, 1995. A copy of the memorandum may be found on EPA's web site at: *http://www.epa.gov/ttn/oarpg/t1pgm.html.*

[2] Letter from Mary A. Gade, Director, State of Illinois Environmental Protection Agency to Environmental Council of States (ECOS) Members, dated April 13, 1995.

This final rule is commonly referred to as the NO_X SIP call.[3]

Although Illinois and Missouri do not rely on the full ozone impacts and regional NO_X emission reduction requirements of the NO_X SIP call in the ozone attainment demonstration SIPs reviewed here, they do rely, in part, on regional, statewide NO_X emission reductions for their own States and for States upwind of Illinois and Missouri. In developing the attainment demonstration, Illinois and Missouri originally anticipated the implementation of the NO_X SIP call. Because of a court-ordered stay of the submission deadline for SIPs in response to the NO_X SIP call, Illinois and Missouri reconsidered the role and magnitude of regional NO_X reductions. As noted below, the NO_X SIP call has substantially been upheld by the U.S. Court of Appeals for the District of Columbia; accordingly, Illinois and Missouri may expect even more upwind NO_X emission reductions than they addressed in developing the attainment demonstration.

What Is the Time Frame for Taking Action on the Attainment Demonstration SIPs?

The States submitted the attainment demonstration SIP revisions and supporting documentation between November 1999 and February 2000. The EPA believes that it is important to keep the process moving forward in evaluating these plans and, as appropriate, approving them. Thus, in today's **Federal Register**, EPA is proposing to approve the plans if the States make the additional submittals called for in this document. The EPA, however, proposes to disapprove the plans if the States do not submit all of the emission control regulations required to support the attainment of the 1-hour ozone standard as demonstrated in these SIPs, do not correct the ozone attainment demonstration modeling to incorporate changes recently made in the ozone precursor emissions inventory, or do not have adequate motor vehicle emission budgets to support transportation conformity determinations. The States are expected to submit the proposed rules by June 2000, along with any proposed revisions to the ozone attainment demonstration modeling. The States are expected to submit final adopted measures, and final revisions to the attainment demonstration, no later than December 2000. The EPA intends to act on the State NO_X regulations in separate rulemaking actions, and will not take final action to approve the attainment demonstration until it completes action on the rules.

The anticipated schedule for actions on the States' submittals has been set forth in a recent filing in the United States District Court for the District of Columbia. *Sierra Club* v. *Carol Browner* (D.C.D.C. No. 98–02733). The EPA intends to complete rulemaking on the attainment demonstration and attainment date extension for the St. Louis area when it completes action on the submittals from both Missouri and Illinois of the additional control measures necessary for the attainment demonstration. The following outlines the anticipated schedule for EPA action.

If, by June 30, 2000, either Illinois or Missouri does not submit proposed regulations for the emission control measures (local and regional) needed to achieve attainment of the 1-hour ozone standard as indicated by the attainment demonstration, and any proposed revisions to the attainment demonstration (to include any proposed revisions to the motor vehicle emissions budgets) determined to be necessary after remodeling the 1996 base year ozone levels to account for revised 1996 base year emissions, the EPA intends to take final action on the proposed reclassification of the St. Louis area[4] to serious ozone nonattainment no later than August 1, 2000. If either State does not submit final adopted emission control measures and any final revisions to the attainment demonstration (including any final revisions to the motor vehicle emissions budgets) by December 31, 2000, the EPA intends to take final action on the reclassification of the area to serious nonattainment for ozone no later than February 1, 2001. The EPA plans to send a notice of final rulemaking on the attainment demonstration and attainment date extension to the **Federal Register** no later than February 22, 2001.

Due to the circumstances in which the SIP submissions arose, the EPA is proposing two alternative courses of action: approval or disapproval in the alternative. The proposal for approval provides that the States must take additional actions to obtain final approval. Failure by the States to complete these additional actions will result in EPA's disapproval of the SIPs.

B. Components of a Modeled Attainment Demonstration

The EPA provides (*Guidance on the Use of Modeled Results to Demonstrate Attainment of the Ozone NAAQS*, EPA–454/B–95–007, June 1996) that States may rely on a modeled attainment demonstration supplemented with additional evidence to demonstrate attainment. To have a complete modeling demonstration submission, States should have submitted the required modeling analyses and identified any additional evidence that EPA should consider in evaluating whether the area will attain the standard. Additional required components are discussed below.

What EPA Guidelines Apply to the Attainment Demonstration Submittals?

The following documents contain EPA's guidelines affecting the content and review of ozone attainment demonstration submittals:

1. *Guideline for Regulatory Application of the Urban Airshed Model*, EPA–450/4–91–013, July 1991. Web site: *http://www.epa.gov/ttn/scram/* (file name: ''UAMREG'').
2. Memorandum, ''The Ozone Attainment Test in State Implementation Plan (SIP) Modeling Demonstrations,'' from Joseph A. Tikvart, Office of Air Quality Planning and Standards, December 16, 1992.
3. *Guidance on Urban Airshed Model (UAM) Reporting Requirements for Attainment Demonstrations*, EPA–454/R–93–056, March 1994. Web site: *http://www.epa.gov/ttn/scram/* (file name: ''UAMRPTRQ'').
4. Memorandum, ''Ozone Attainment Demonstrations,'' from Mary D. Nichols, Assistant Administrator for Air and Radiation, March 2, 1995. Web site: *http://www.epa.gov/ttn/oarpg/t1pgm.html*.
5. *Guidance on the Use of Modeled Results to Demonstrate Attainment of the Ozone NAAQS*, EPA–454/B–95–007, June 1996. Web site: *http://www.epa.gov/ttn/scram/* (file name: ''O3TEST'').
6. Memorandum, ''Guidance for Implementing the 1-Hour Ozone and Pre-Existing PM10 NAAQS,'' from Richard Wilson, Office of Air and Radiation, December 29, 1997. Web site: *http://www.epa.gov/ttn/oarpg/t1pgm.html*.
7. Memorandum, ''Extension of Attainment Dates for Downwind Transport Areas,'' from Richard D. Wilson, Acting Assistant Administrator for Air and Radiation, July 16, 1998.

[3] EPA is also requiring regional NO_X emission reductions under its authority in section 126 of the Act to assure that reductions occur in upwind areas which have been shown to impact attainment of the ozone standard in downwind areas.

[4] On March 18, 1999, 64 FR 13384, the EPA proposed to reclassify the St. Louis area to a serious ozone nonattainment area based on continued monitored violations of the 1-hour ozone standard. The EPA also issued a notice of the St. Louis area's potential eligibility for an attainment date extension.

8. Memorandum, ''Guidance on Motor Vehicle Emissions Budgets in One-Hour Ozone Attainment Demonstrations,'' from Merrylin Zaw-Mon, Acting Director of the Regional and State Programs Division, November 3, 1999. Web site: *http://www.epa.gov/ttn/oarpg/t1pgm.html*.

9. Memorandum, ''Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas,'' from John S. Seitz, Director of Office of Air Quality Planning and Standards, November 30, 1999.

10. Paper, ''Guidance for Improving Weight of Evidence Through Identification of Additional Emission Reductions, Not Modeled,'' Office of Air Quality Planning and Standards, November 1999. Web site: *http://www.epa.gov/ttn/scram/* (file name: ''ADDWOE1H'').

What Are the Modeling Requirements for the Attainment Demonstration?

For purposes of demonstrating attainment, the Act requires States containing portions of a multi-state moderate ozone nonattainment area to use photochemical grid modeling or an analytical method judged by EPA to be as effective. The photochemical grid model is set up using meteorological conditions conducive to the formation of ozone in the nonattainment area and its modeling domain. Emissions for a base year are used to evaluate the model's ability to reproduce actual monitored air quality values. Following validation of the modeling system for a base year, emissions are projected to an attainment year to predict air quality changes in the attainment year due to the emission changes, which include growth up to and controls implemented by the attainment year. A modeling domain is chosen that encompasses the nonattainment area. Attainment is demonstrated when all predicted ozone concentrations inside the modeling domain are at or below the ozone standard or an acceptable upper limit above the standard permitted under certain conditions by EPA's guidance. When the predicted concentrations are above the standard or upper limit, EPA guidance allows for an optional weight-of-evidence determination which incorporates other analyses, such as air quality and emissions trends, to address uncertainty inherent in the application of photochemical grid models. This latter approach may be used under certain circumstances to support the demonstration of attainment.

The EPA guidance identifies the features of a modeling analysis that are essential to obtain credible results. First, the State must develop and implement a modeling protocol. The modeling protocol describes the methods and procedures to be used in conducting the modeling analyses and provides for policy oversight and technical review by individuals responsible for developing or assessing the attainment demonstration (State and local agencies, EPA, the regulated community, and public interest groups). Second, for purposes of developing the information to put into the model, the State must select air pollution days, *i.e.,* days in the past with high ozone concentrations exceeding the standard, that are representative of the ozone pollution problem for the nonattainment area. Third, the State needs to identify the appropriate dimensions of the area to be modeled, *i.e.,* the modeling domain size. The domain should be larger than the designated nonattainment area to reduce uncertainty in the boundary conditions and should include any large upwind sources just outside the nonattainment area. In general, the domain is considered the local area where control measures are most beneficial to bring the area into attainment. Alternatively, a much larger modeling domain may be established, addressing the impacts of both local and regional emission control measures on a number of ozone nonattainment areas. In both cases, the attainment determination is based on the review of ozone predictions within the local area where control measures are most beneficial to bring the area into attainment (referred to as the local modeling domain). Fourth, the State needs to determine the grid resolution. The horizontal and vertical resolutions in the model affect the dispersion and transport of emission plumes. Artificially large grid cells (too few vertical layers and horizontal grids) may dilute concentrations and may not properly consider impacts of complex terrain, complex meteorology, and land/water interfaces. Fifth, the State needs to generate meteorological and emissions data that describe atmospheric conditions and emissions inputs reflective of the selected high ozone days. Finally, the State needs to verify that the modeling system is properly simulating the chemistry and atmospheric conditions through diagnostic analyses and model performance tests (generally referred to as model validation). Once these steps are satisfactorily completed, the model is ready to be used to generate air quality estimates to support an attainment demonstration.

The modeled attainment test compares model predicted 1-hour daily maximum ozone concentrations in all grid cells for the attainment year to the level of the ozone standard. A predicted peak ozone concentration above 0.124 ppm (124 ppb) indicates that the area is expected to exceed the standard in the attainment year. This type of test is often referred to as an exceedance test. The EPA's June 1996 guidance recommends that States use either of two exceedance tests for the 1-hour ozone standard: a deterministic test or a statistical test.

The deterministic test requires the State to compare predicted 1-hour daily maximum ozone concentrations for each modeled day [5] to the attainment level of 0.124 ppm. If none of the predictions exceed 0.124 ppm, the test is passed.

The statistical test takes into account the fact that the form of the 1-hour ozone standard allows exceedances. If, over a 3 year period, the area has an average of 1 or fewer ozone standard exceedances per year at any monitoring site, the area is not violating the standard. Thus, if the State models a severe day (considering meteorological conditions that are very conducive to high ozone levels and that should lead to fewer than 1 exceedance per year at any location in the nonattainment area and in the modeling domain over a 3 year period), the statistical test provides that a prediction above 0.124 ppm up to a certain upper limit may be consistent with attainment of the standard.

The acceptable upper limit above 0.124 ppm is determined by examining the size of exceedances at monitoring sites which meet or attain the 1-hour standard. For example, a monitoring site for which the 4 highest 1-hour average concentrations over a 3 year period are 0.136 ppm, 0.130 ppm, 0.128 ppm, and 0.122 ppm is attaining the standard. To identify an acceptable upper limit, the statistical likelihood of observing ozone air quality exceedances of the standard of various concentrations is equated to the severity of the modeled day. The upper limit generally represents the maximum ozone concentration level observed at a location that would be expected to occur no more than an average of once a year over a 3 year period. Therefore, if the maximum ozone concentration predicted by the model is below the acceptable upper limit, in this case 0.136 ppm, then EPA might conclude that the modeled attainment test is passed. Generally, exceedances well above 0.124 ppm are very unusual at monitoring sites

[5] The initial, ''ramp-up'' days for each episode are excluded from this determination.

meeting the standard. Thus, these upper limits are rarely significantly higher than the attainment level of 0.124 ppm.

What Are the Additional Analyses That May Be Considered When the Modeling Fails To Show Attainment?

When the modeling does not conclusively demonstrate that the area will attain, additional analyses may be presented to help determine whether the area will attain the standard. As with other predictive tools, there are inherent uncertainties associated with modeling and its results. For example, there are uncertainties in some of the modeling inputs, such as the meteorological and emissions data bases for individual days and in the methodology used to assess the severity of an exceedance at individual sites. The EPA's guidance recognizes these limitations and provides a means for considering other evidence to help assess whether attainment of the standard is likely. The process by which this is done is called a weight-of-evidence determination.

Under a weight-of-evidence determination, the State can rely on and EPA will consider factors such as: model performance and results, episode selection, other modeled attainment tests, e.g., relative reduction factor analysis; other modeled outputs, e.g., changes in the predicted frequency and pervasiveness of exceedances and predicted changes in the design value; actual observed air quality trends; estimated emission trends; analyses of air quality monitored data; the responsiveness of the model predictions to further controls; and, whether there are additional control measures that are or will be approved into the SIP but were not included in the modeling analysis. This list is not an exhaustive list of factors that may be considered and these factors could vary from case to case. The EPA's guidance contains no limit on how close a modeled attainment test must be to passing to conclude that other evidence besides an attainment test is sufficiently compelling to suggest attainment. However, the further a modeled attainment test is from being passed, the more compelling the weight-of-evidence needs to be.

C. Framework for Proposing Action on the Attainment Demonstration SIP

Besides the Modeled Attainment Demonstration, What Other Issues Must Be Addressed in the Attainment Demonstration SIP?

In addition to the modeling analysis and weight-of-evidence determination demonstrating attainment, the EPA has identified the following key elements which must be present in order for EPA to approve the 1-hour attainment demonstration SIP.

1. Clean Air Act Measures and Other Measures Relied on in the Modeled Attainment Demonstration State Implementation Plan

To receive final approval of the attainment demonstration SIP, the State must have adopted the emission control measures required under the Act for the area's classification or must have established negative source declarations for the source categories for which the area has no major sources that are subject to Clean Air Act requirements for such sources. All required emission controls must be implemented prior to the beginning of the ozone season (April through October in the St. Louis area, 40 CFR part 58) in the area's attainment year to assure attainment of the ozone standard in the attainment year.

The attainment demonstration must incorporate the emission impacts of, and the SIP submittal must address the rule development for, any additional emission control measures needed to achieve attainment. The rules for these emission controls must also have been adopted before the EPA can finally approve the attainment demonstration. The emission controls for these sources must be implemented prior to the beginning of the ozone season in the attainment year.

For purposes of fully approving the State's SIP, the State must adopt and submit all VOC and NO_X control regulations for affected sources within the State and within the local modeling domain as reflected in the adopted emission control strategy and as reflected in the attainment demonstration.

Table 1 presents a summary of the Clean Air Act requirements that need to be met for a moderate ozone nonattainment area for the 1-hour ozone standard. These requirements are specified in sections 182(b) and 182(f) of the Act. Information on additional measures that Illinois and Missouri have adopted and relied on in their SIP submissions is not shown in this table, but is addressed later in this proposed rule.

Table 1—Clean Air Act Requirements For Moderate Nonattainment Areas

- New Source Review (NSR) regulations for VOC and NO_X, including an offset ratio of 1.15:1 and a major VOC and NO_X source size cutoff of 100 tons per year (TPY)
- Reasonably Available Control Technology (RACT) for VOC and NO_X
- 15 percent Rate-Of-Progress (ROP) plan for VOC through 1996
- 1990 baseline emissions inventory for VOC and NO_X
- Periodic emissions inventory and source emission statement regulations
- Vehicle inspection and maintenance (I/M) program

2. Motor Vehicle Emissions Budget

An attainment demonstration SIP must estimate the motor vehicle emissions that will be produced in the attainment year and must demonstrate that this emissions level, when considered with emissions from all other sources, is consistent with attainment. For transportation conformity purposes, the estimate of motor vehicle emissions in a control strategy SIP such as an attainment demonstration (converted to a typical ozone season week day level) is defined as the motor vehicle emissions budget. The motor vehicle emissions budget must meet certain adequacy criteria which are listed in the Transportation Conformity Rule (40 CFR 93.118) before the budget can be approved as part of the attainment demonstration SIP. When a motor vehicle emissions budget is found to be adequate, it is used to determine the conformity of the transportation plans and programs to the SIP, as required by section 176(c) of the Act. The motor vehicle emissions budget must meet adequacy criteria (40 CFR part 93) before the attainment demonstration SIP can be approved. An appropriately identified motor vehicle emissions budget is a necessary part of an attainment SIP.

D. Criteria for Attainment Date Extensions

What Is EPA's Policy With Regard to an Ozone Attainment Date Extension?

The EPA's policy regarding an extension of the ozone attainment date for the St. Louis area is fully addressed in a EPA's initial notice of proposed rulemaking dated March 18, 1999. 64 FR 13384. The March 18, 1999 document proposed to reclassify the St. Louis area to a serious ozone nonattainment area, but also provided notice of the area's potential eligibility for an attainment date extension based on a July 16, 1998 EPA guidance memorandum. In today's document, EPA proposes to approve the States' request for an attainment date extension under that policy. The specifics of the attainment date policy are repeated below for clarity.

On July 16, 1998, a guidance memorandum entitled ''Extension of Attainment Dates for Downwind Transport Areas'' was issued by the EPA. That memorandum included

EPA's interpretation of the Act regarding the extension of attainment dates for ozone nonattainment areas that have been classified as moderate or serious for the 1-hour ozone standard and which are downwind of areas that have interfered with their ability to demonstrate attainment of the ozone standard by dates prescribed in the Act. That memorandum stated that the EPA will consider extending the attainment date for an area or a State that:

(1) has been identified as a downwind area affected by transport from either an upwind area in the same State with a later attainment date or an upwind area in another State that significantly contributes to downwind ozone nonattainment;

(2) has submitted an approvable attainment demonstration with any necessary, adopted local measures and with an attainment date that shows it will attain the 1-hour standard no later than the date that the emission reductions are expected from upwind areas under the final NO_X SIP call (by 2003) and/or the statutory attainment date for upwind nonattainment areas, i.e., assuming the boundary conditions reflecting those upwind emission reductions;

(3) has adopted all applicable local measures required under the area's current ozone classification and any additional emission control measures demonstrated to be necessary to achieve attainment, assuming the emission reductions occur as required in the upwind areas; and

(4) has provided that it will implement all adopted measures as expeditiously as practicable, but no later than the date by which the upwind reductions needed for attainment will be achieved.

Once an area receives an extension of its attainment date based on ozone/precursor transport impacts, the area would no longer be subject to reclassification to a higher ozone nonattainment classification. If the St. Louis area is granted an attainment date extension, it would no longer be subject to a reclassification to serious nonattainment for ozone and no longer subject to the additional emission control requirements that would result from the reclassification to serious nonattainment.

Illinois and Missouri have requested an extension of the attainment date for the St. Louis nonattainment area in conjunction with the ozone attainment demonstration submittals. The ozone attainment demonstration considers 2003 as the revised ozone attainment year. The 2003 attainment year reflects the NO_X emission control deadline contained in the NO_X SIP call and the NO_X emission control deadline that EPA is considering to address section 126 petitions currently before it.

E. Criteria for NO_X Control Exemptions

What Are the Clean Air Act Requirements and EPA Policy With Regard to NO_X Emission Controls and Exemptions From the NO_X Emission Control Requirements?

The State of Illinois has petitioned for an exemption from excess NO_X emission reductions pursuant to section 182(f)(2) of the Act. The State is seeking an exemption from requirements for NO_X Reasonably Available Control Technology (NO_X RACT), New Source Review (NSR), and general conformity. The following discusses the Act requirements and EPA policy with regard to NO_X emission controls and emission control exemptions, particularly as such policy deals with the Illinois petition.

Section 182(f)(1) of the Act requires SIPs to include emission control provisions for major stationary sources of NO_X as required for major stationary sources of VOC. For moderate and above ozone nonattainment areas, this includes emission control requirements for NSR and RACT.

The portions of section 182(f)(1) relevant to St. Louis provide that the stationary source NO_X requirements shall not apply where either of the following tests are met:

(1) in any area, the net air quality benefits are greater without the NO_X reductions from the sources concerned; or

(2) in an ozone nonattainment area, additional NO_X reductions would not contribute to ozone attainment in the nonattainment area.

Section 182(f)(2) of the Act states that the application of the NO_X emission reduction requirements may be limited to the extent necessary to avoid excess reductions of NO_X.

The main tests for a NO_X emissions control exemption under EPA policy are discussed in a December 1993 EPA guidance, *Guideline for Determining the Applicability of Nitrogen Oxides Requirements under Section 182(f)*. This guidance was issued by the Office of Air Quality Planning and Standards of the EPA. This guidance notes that the EPA has determined, based on a review of the Act, that the excess reduction demonstration for a NO_X emissions control exemption, under either a ''contribute to attainment'' test or a ''net ozone benefits'' test, must be tied to an area's ozone attainment demonstration SIP. For the reasons described in Chapter 6 of the EPA guidance document, the excess reductions must be those NO_X emission reductions in excess of the NO_X emission reductions specified as being necessary for attainment in the attainment demonstration. The approval of the excess emissions reduction petition must be contingent on the final approval of the ozone attainment demonstration.

Details of the current EPA policy regarding NO_X emission control exemptions and transportation conformity is contained in a November 14, 1995 final rule (60 FR 44790) amending the transportation conformity requirements. The final transportation conformity rule requires consistency with NO_X motor vehicle emission budgets in control strategy SIPs regardless of whether a NO_X control exemption has been granted. Areas must establish NO_X emission budgets unless the State's modeled attainment demonstration shows that NO_X emissions can essentially grow without limit due to new federally funded activities or federal actions without threatening attainment of the ozone standard.

Approval of a NO_X emissions control exemption would provide a basis for eliminating the requirement to comply with the transportation conformity rule's build/no-build test and less-than-1990 test for NO_X. The current Illinois submittal, however, does not request an exemption from transportation conformity NO_X requirements. In addition, it should be noted that after an area receives approval to use a motor vehicle emissions budget for the purposes of conformity determinations, the use of a build/no-build test or a less-than-1990 emissions test is no longer pertinent. Therefore, an exemption from NO_X requirements for the build/no-build test and less-than-1990 emissions test is not necessary once an area's motor vehicle emissions budget is approved (or found adequate) for use in transportation conformity determinations. The EPA is proposing the approval of Illinois' motor vehicle emissions budget in this document.

The requirements for exemption from the NO_X control requirements of general conformity relevant to Illinois' request are found in section 182(f)(2) of the Act. Since section 182(f)(2) NO_X control exemptions are based on a demonstration of ''excess emission reductions,'' a NO_X control exemption cannot be granted unless the State has made a clear showing through the ozone attainment demonstration that the emission reductions are indeed excess (that the attainment demonstration does not rely on such emission reductions)

or, where NO_X emission increases (due to new federally-funded activities or federal actions) are expected to result from source growth due to an activity for which the NO_X control exemption is sought, that NO_X emissions can essentially increase without limit and still not cause ozone standard violations. Note that activities that are subject to conformity generally involve emission increases rather than emission decreases. For transportation conformity determinations, consistency with the motor vehicle emissions budget is the means for ensuring that increases in such emissions do not threaten attainment of the ozone standard. In contrast to transportation conformity, however, general conformity determinations are not based on consistency with an explicitly identified emissions budget, since quite often the SIP does not create such budgets for the emissions-generating activities that are subject to general conformity. Consequently, a NO_X control exemption for general conformity cannot be granted under section 182(f)(2) of the Act unless the State has otherwise clearly demonstrated that NO_X emissions can essentially increase without limit and still provide for attainment of the ozone standard.

The situation for NSR, under section 182(f)(2) of the Act, is analogous. Unless the State has otherwise clearly demonstrated that NO_X emissions can essentially increase without limit due to new or modified major stationary sources, the NO_X control exemption for NSR cannot be approved. A policy memorandum, ''Scope of Nitrogen Oxides (NO_X) Exemptions,'' dated January 12, 1995, and signed by G.T. Helms, Group Leader, Ozone/Carbon Monoxide Programs Branch, EPA, explains that, where EPA grants a NO_X exemption under the ''excess reductions'' provision, the exemption makes sense with respect to RACT but not necessarily with respect to NSR. The distinction would be that RACT emissions impacts are exclusively emission reductions, whereas NSR impacts often involve emission increases. It should be noted that NO_X new source requirements in ozone nonattainment areas would revert to Prevention of Significant Deterioration (PSD) requirements (PSD allows emission increases, but only at a controlled rate) if an area is granted an exemption from NSR NO_X requirements. Therefore, a NSR NO_X control exemption request, under section 182(f)(2), must be supported by a demonstration that NO_X emissions due to new or modified major stationary sources can essentially increase in an area without limit and not cause ozone standard violations.

II. Technical Review of the Submittals

A. Summary of the State Submittals

1. General Information

When Were the Ozone Attainment Demonstration State Implementation Plan Revisions Submitted to the Environmental Protection Agency?

Illinois and Missouri have made the following submittals, which in whole or in part concern the ozone attainment demonstration, a partial NO_X control exemption for the Illinois portion of the St. Louis ozone nonattainment area, and an extension of the attainment date for the St. Louis ozone nonattainment area:

(a) In a submission dated November 10, 1999, the Missouri Department of Natural Resources (MDNR) submitted an ozone attainment demonstration along with several additional proposed SIP revisions. The additional SIP revisions included:

i. Regulations and associated documentation for the control of VOC emissions from: aerospace manufacture and rework facilities; volatile organic liquid storage; wood furniture manufacturing operations; batch process operations; reactor processes and distillation operations processes in the synthetic organic chemical manufacturing industry; and existing major sources;

ii. Regulations and associated documentation for the control of NO_X emissions intended to meet NO_X RACT requirements of the Act in the Missouri portion of the St. Louis nonattainment area;

iii. A 15 percent rate-of-progress plan for the control of VOC emissions in the Missouri portion of the St. Louis area; and

iv. An improved vehicle inspection and maintenance program.

The review of these additional SIP revisions is the subject of separate technical support documents and rulemakings. See 65 FR 8094, 65 FR 8060, 65 FR 8092, 65 FR 8097, and 65 FR 8083, February 17, 2000. Only the ozone attainment demonstration portions of the submittal are considered here;

(b) On November 15, 1999, the IEPA submitted a letter outlining the ozone attainment strategy for the St. Louis area and the State's emission control commitments;

(c) On January 19, 2000, the MDNR submitted an additional supplement to the ozone attainment demonstration. This supplement reflects revised modeling which was performed at the recommendation of EPA to include future emission control measures in the St. Louis area, including Missouri's NO_X RACT program, emission control contingency measures implemented by both States, and additional VOC RACT controls implemented by Missouri. The revised analysis also incorporates other emission inventory corrections based on quality assurance activities conducted by both States; and

(d) On February 10, 2000, the IEPA submitted its adopted ozone attainment demonstration SIP. This SIP revision submittal includes a petition for an exemption from NO_X RACT, NO_X NSR, and general conformity NO_X requirements for the Illinois portion of the St. Louis ozone nonattainment area. This SIP revision also reflects the emission modifications and attainment demonstration revisions contained in MDNR's January 19, 2000 submittal.

When Were the Submittals Addressed in Public Hearings, and When Were the Submittals Formally Adopted by the States?

The MDNR held a public hearing on the attainment demonstration on October 28, 1999, and the Missouri Air Conservation Commission (MACC) adopted the attainment demonstration on November 8, 1999.

The IEPA held a public hearing on the attainment demonstration on November 15, 1999. A subsequent public hearing on the updated ozone attainment demonstration was not held. It must be noted, however, that the updated ozone attainment demonstration did not include additional emission controls in Illinois beyond those addressed in the November 15, 1999 public hearing.

What Modeling Approach Was Used in the Analyses?

Illinois and Missouri cooperatively conducted the modeling analyses and other analyses used to support the attainment demonstration. The modeling approach is documented in both Illinois' February 10, 2000 ozone attainment demonstration and in Missouri's November 10, 1999 ozone attainment demonstration submittal. Additional modeling analyses and weight-of-evidence analyses are addressed in Missouri's January 19, 2000 supplemental modeling submittal.

The heart of the modeling system and approach is the Urban Airshed Model—Version V (UAM–V), developed originally for application in the Lake Michigan area, but now applied in many other areas. This model was applied to a large grid system (referred to as Grid M) covering much of the upper

Midwest. Grid M was selected to cover many of the ozone precursor emission sources believed to affect the Lake Michigan area and the St. Louis area. Grid M was nested inside of a larger grid system covering the eastern half of the United States (the larger grid system includes areas referred to as the ''coarse-grid states'' in the OTAG process used to assess ozone transport in the eastern United States and the impacts of possible emission control measures to generally reduce interstate ozone and ozone precursor transport). The data derived from the larger OTAG grid provided air quality data for the perimeter of Grid M. It should be noted that for most of the attainment considerations, the States considered the peak ozone concentrations and model performance for a sub-portion of Grid M surrounding the St. Louis ozone nonattainment area (the local modeling domain). The conclusions discussed later in this document were based on data from this local modeling domain.

Besides being able to model ozone and other pollutants in nested horizontal grids, UAM–V can also model individual elevated source plumes within the modeling grid (plume-in-grid or PiG). Gaussian dispersion models are used to grow plumes until the plumes essentially fill grid cells. At these points, the numerical dispersion and advection components of UAM take over to address further downwind dispersion and advection.

The following input data systems and analyses were also used as part of the combined modeling system:

Emissions: UAM–V requires the input of an emissions inventory of gridded, hourly estimates of CO, NO_X, and speciated VOC emissions (speciated based on carbon bond types). The States provided regional and local emission inventories, which were processed through the Emissions Modeling System—1995 version (EMS–95) to prepare UAM–V emissions data input files.

The initial emissions inventory files were based on EPA's NO_X SIP call emissions inventory. Substantial revisions were made to the Missouri point source and mobile source inventories based on Missouri's comments on the NO_X SIP call emissions inventories (Missouri has also made a number of additional attainment year emission inventory changes as documented in the January 19, 2000 submittal, discussed above). The State submittals describe in detail the procedures used to develop, and then project, the base year emission inventories to the 1995/1996 period and to project emissions to account for growth and control through 2003.

An important deviation from the NO_X SIP call inventory was the treatment of biogenic emissions emanating from the Ozark Mountain portion of Missouri. Initial UAM–V modeling results had indicated that biogenic emissions, consisting primarily of isoprene from oak trees, were overestimated in the UAM–V model. This determination was based on a recent study of biogenic emissions and related VOC concentrations in this area, referred to as the Ozark Isoprene Experiment (OZIE). Based on initial results from the OZIE study, the Ozark biogenic emissions predicted from the BEIS2 model have been adjusted downward 50 percent. Although the investigation of the Ozark biogenics is not yet completed, and the source of the overestimation is not yet determined, this gross adjustment to the inventory is acceptable in this instance because there is a general consensus between the States and EPA that the UAM–V modeling system clearly overestimates isoprene in this area.

Meteorology: Meteorological inputs for the UAM–V modeling system were developed through prognostic meteorological modeling (use of a set of dynamic equations that describe atmospheric motion and the distribution and change of meteorological parameters) using the RAMS3a modeling system developed by Colorado State University. A limited four-dimensional data assimilation was performed for all days modeled. RAMS3a output data were re-mapped to the three-dimensional grid structure of UAM–V.

The IEPA and MDNR have noted that typically there are three types of meteorological regimes associated with high ozone concentrations in the St. Louis nonattainment area. The first type of episode occurs when a surface high pressure system is centered to the east of the St. Louis area along the Ohio and Tennessee Valleys. This situation brings southerly wind flow into the area. High ozone in this situation is also associated with high surface temperatures in the upper 80's and 90's degrees Fahrenheit (°F) range and with relatively low wind speeds of less than 10 miles per hour. Precipitation and cloud cover are minimal.

The second type of high ozone episode is due to stagnation conditions, when surface winds are calm or with wind speeds less than 5 miles per hour. The wind direction is variable. The temperatures are relatively high, in the upper 80's or lower 90's.

The third type of episode occurs with the approach of a frontal system from the north. The front is generally weak with little or no moisture and little or no cloud cover. Temperature inversions often form near the surface, trapping pollutants near the surface and limiting pollutant dispersion.

The following summarizes the meteorology of the two episodes modeled for the final attainment demonstration:

July 16–19, 1991: On July 16, a migratory high pressure system arrived in central Pennsylvania producing light southerly winds in the St. Louis area. Hot, dry weather persisted during this period, with temperatures reaching 90 °F in the St. Louis area. For the July 17 through July 19 period, winds in the St. Louis area became southwesterly. Wind speeds strengthened by July 19 as a cold front approached from the northwest.

July 10–14, 1995: On July 10, a high pressure system was centered over Missouri, resulting in light and variable winds across the St. Louis area. By July 11 and 12, the high pressure system migrated eastward to the Tennessee Valley. Winds in the St. Louis area were southerly and peak temperatures were in the mid to upper 90's °F range. On July 13 and 14, the conditions at the surface remained the same with the high pressure system centered near the East Coast and dominating the meteorology in the Eastern and Central United States. Temperatures continued to peak in the upper 90's with relatively light southerly winds.

The RAMS3a system was relatively effective in modeling these meteorological conditions.

Chemistry: Atmospheric chemistry within the modeling grid system was simulated using the Carbon Bond-Version IV model developed by the EPA.

Boundary and Initial Conditions: For a 1996 base case evaluation, initial and boundary conditions were derived from extraction of data from a larger, 36 kilometer resolution OTAG coarse grid over the grid cells marking the edges of the Grid M domain. For the 2003 simulations, various NO_X control levels were applied in the coarse grid runs to simulate the NO_X impacts expected in the various States. For States subject to EPA's NO_X SIP call NO_X emission budgets (including the eastern third of Missouri, but excluding the western two-thirds of Missouri), NO_X emission rates for Electric Generating Units (EGUs) were limited to 0.25 pounds per mmBTU in the modeling system's emissions data. For the western two-thirds of Missouri, an EGU NO_X emission rate of 0.35 pounds per

mmBTU was assumed.[6] Only Act-required NO_X control levels and Act-required VOC emission controls were considered for States not subject to EPA's NO_X SIP call (tightened EGU NO_X emission levels were not considered for these States).

What High Ozone Periods Were Modeled?

Three high ozone episodes, July 16–19, 1991, July 10–14, 1995, and June 27–29, 1996 were originally considered for the attainment demonstration. The 1996 episode was subsequently dropped due to unacceptable model performance.

In selecting the episodes to be modeled, the States followed the guidance provided by the EPA. The July 1991 ozone modeling guidance, *Guideline for Regulatory Application of the Urban Airshed Model,* recommends that episodes for modeling be selected to represent different meteorological regimes observed to correspond with ozone exceeding the standard. Both stagnation and transport conditions should be examined. A minimum of 3 primary episode days should be modeled. Primary episode days are those days for which ozone concentrations exceeding the standard were monitored in the area.

As noted in the discussion above, the high ozone episodes Illinois and Missouri selected and modeled have covered more than 3 primary episode days and have generally covered the types of meteorology observed along with high ozone in the St. Louis area.

What Procedures and Sources of Projection Data Were Used To Project the Emissions to Future Years?

To develop the attainment year (2003) EGU emissions, the States initially considered EPA's 2007 base case emissions developed for the NO_X SIP call. EPA developed these emissions using the Integrated Planning Model (IPM). The 2003 base case emissions were developed from this assuming a linear interpolation between the 1995/1996 base period emissions and EPA's 2007 base case emissions. A single growth factor was developed for each State to project the EGU emissions from the 1995/1996 base period to the 2003 base case levels. Subsequent emission control strategy tests altered the NO_X emission limits for these projected source emissions.

For point source, non-EGU emissions, the States projected the 1995/1996 base period emissions to 2003 using BEA projections of Gross State Product (GSP). State-specific growth factors were used for Illinois based on the use of the Emissions Growth Analysis System (EGAS), which replaced EPA-supplied growth factors.

The 1995 stationary area and non-road emission inventories were projected to 2003 using BEA projections of GSP. These projections include the impacts of all applicable Clean Air Act required controls. The projected non-road emissions were adjusted to account for certain federal emission control requirements expected to be implemented by 2003, including: the federal small engine standards, Phase II; federal marine engine standards (for diesel engines of greater than 50 horsepower); federal locomotive standards; and non-road diesel engine standards.

Projections of on-road emissions from 1995/1996 to 2003 were accomplished by projecting Vehicle Miles Traveled (VMT) derived from the Highway Performance Monitoring System (HPMS) and by considering the VMT growth estimates derived by the EPA from the OTAG process. Travel demand VMT estimates for 2003 were also obtained for the St. Louis nonattainment area from the East-West Gateway Coordinating Council. The Illinois VMT growth estimates reflect a growth rate of 2.0 percent per year, and the Missouri VMT estimates reflect a growth of 23.5 percent between 1996 and 2003 (approximately 3 percent per year). Future emission reductions for on-road emissions were assumed to occur by 2003, including emission reductions resulting from: national low emissions vehicle standards; implementation of improved vehicle inspection and maintenance in the St. Louis Metropolitan Statistical Area (MSA); and reformulated gasoline in the Missouri portion of the St. Louis MSA.

Biogenic emissions were assumed to remain unchanged between 1995 and 2003.

All projected emissions were processed through EMS–95 to provide the emission inventory files for use in UAM–V.

3. Modeling Results

How Did the States Validate the Photochemical Modeling Results?

The States conducted a number of statistical analyses to compare the modeling system's ozone predictions to observed peak ozone concentrations for the base period. Using the preliminary base period emissions and meteorological inputs, the States derived statistics covering: unpaired peak prediction accuracy; normalized bias of data pairs; and gross errors of data pairs for each of the modeled high ozone episode days. These results were compared to acceptable accuracy ranges specified by the EPA. With a few exceptions, the current modeling results for the July 1991 and July 1995 episodes are in agreement with EPA-specified criteria. The results of the June 1996 episode modeling, however, did not meet the EPA-specified criteria, and the episode was, therefore, dropped from further consideration.

Table 2 presents a summary of the model performance statistics for the St. Louis ozone nonattainment area. These data were taken from Table 6.1 of Illinois' February 10, 2000 submittal.

TABLE 2.—MODEL OZONE PERFORMANCE STATISTICS ST. LOUIS NONATTAINMENT AREA

	July 1991				July 1995				
	7/16	7/17	7/18	7/19	7/10	7/11	7/12	7/13	7/14
Observed (ppb)	108	140	114	107	125	136	129	154	139
Modeled Base Year (ppb)	117	135	135	110	83	137	130	131	125
Normalized Bias (percent)	−31.5	−9.7	−14.6	−2.5	−44.3	−8.9	−4.1	−16.3	−5.1
Gross Error (percent)	33.1	30.6	28.0	19.9	45.6	32.3	26.1	23.7	23.0
Unpaired Peak Accuracy (percent)	8.6	−3.4	18.6	2.9	−32.9	1.4	1.3	−14.6	−14.1

[6] In *Michigan* v. *EPA,* the U.S. Court of Appeals for the District of Columbia generally upheld the NO_X SIP call, but remanded EPA's determination to require NO_X reductions from the entire State of Missouri. The Court explained that EPA had not developed a sufficient record of evidence to support requiring emissions reductions from the entire State in light of modeling results that the OTAG interpreted as indicating that emissions from the western part of the State may not have a meaningful impact on downwind nonattainment areas. *Michigan* v. *EPA,* No. 98–1497 (D.C. Cir. March 3, 2000).

The model performance statistics can be compared to EPA's recommended (July 1991, *Guideline for Regulatory Application of the Urban Airshed Model*) acceptable model performance statistics:

Normalized Bias: ±5 to 15 percent
Gross Error: 30 to 35 percent
Unpaired Peak Accuracy: ±15 to 20 percent.

It can be seen that the modeling system does reasonably well and performs within acceptable performance ranges except for the leading days of the modeled episodes (the leading days are expected to exhibit poor model performance and are generally dropped from further consideration). The model does under predict some peak ozone levels, particularly on the highest ozone days of July 17, 1991 and July 13–14, 1995. The model over predicts ozone peaks on several other days, particularly on July 18, 1991. Nonetheless, the modeling system is judged to be performing adequately and in an acceptable manner to support emission control strategy considerations.

It should be noted that the above modeling statistics were derived using base year emissions that did not include the most recent emission revisions derived for 1996. The States updated the ozone modeling to incorporate the 2003 emission changes, but did not update the modeling to incorporate the emission changes for the 1996 base year. The modeling performance statistics were not determined to account for this emissions revision. As explained later in this document, the States must update the modeling to include emission changes in the 1996 base year inventory and reconfirm that the plan demonstrates attainment before the EPA can approve the attainment demonstration.

A number of other tests and considerations were also given to the overall model performance. The performance evaluation considered the following statistical and graphical information:

- Tabular summary of model initial and final base case performance statistics;
- Comparison of the modeling output to the conceptual model for each episode;
- Spatial plots of peak daily and hourly surface concentrations;
- Time series plots of hourly concentrations for the monitors with the highest ozone concentrations each day; and
- Scatter plots of peak observed and predicted ozone concentrations.

These tests and considerations point to acceptable performance of the modeling system for the base period.

The States also compared the modeling results to a conceptual model and found the modeling results to comply with this conceptual model.

What Were the Ozone Modeling Results for the Base Period and for the Future Attainment Period?

The ozone modeling system was run to simulate ozone concentrations on selected high ozone days in 1991 and 1995 using emissions for a base year (1996) and a future year (2003). The resulting St. Louis area ozone peaks for 1996 and 2003 are given in Table 3. Note that these modeled ozone peaks reflect the corrected 2003 emissions and modeling results as documented by Missouri in its January 19, 2000 submittal and by Illinois in its February 10, 2000 submittal. The 1996 base year modeled ozone concentrations do not reflect the corrected 1996 emissions. Therefore, the 1996 base year predictions in Table 3 must be reassessed following correction of the base year modeling to reflect the correction of the 1996 base year emissions.

TABLE 3.—PEAK OBSERVED AND MODELED OZONE CONCENTRATIONS (PPB) IN THE ST. LOUIS OZONE NONATTAINMENT AREA

Period Date	July 1991			July 1995			
	7/17	7/18	7/19	7/11	7/12	7/13	7/14
Peak Observed	140	114	107	136	129	154	139
1996 Base Modeled	135	135	110	137	130	131	125
2003 Post-Control Modeled	122	125	106	125	124	127	118

Do the Modeling Results Demonstrate Attainment of the Ozone Standard?

As noted in Table 3, application of the modeling system to the attainment year emissions through a deterministic approach does not demonstrate attainment of the 1–hour standard because 3 days are modeled to have potential exceedances of the standard. The application of the model in a deterministic approach, as reflected in this table, does not demonstrate attainment of the standard.

The States also considered the modeling results using a statistical approach. A statistical approach, as discussed in the June 1996 EPA guidance, *Guidance on Use of Modeled Results to Demonstrate Attainment of the Ozone NAAQS,* permits some modeled exceedances, based on the severity (ozone conduciveness of a day's meteorology) of the modeled episode days. Because the guidance leads to the conclusion that none of the modeled days were severe (as noted later, the IEPA and the MDNR do believe that 3 of the days are severe based on daily ozone maxima exceeding the area's ozone design value), the States concluded that the statistical approach could not be applied in this case.

Because the modeling fails to explicitly demonstrate attainment of the standard, the States considered additional evidence coupled with the results from the deterministic approach.

What Weight-of-Evidence Analyses and Determinations Are Used To Support the Modeled Attainment Demonstration?

A weight-of-evidence determination includes a subjective assessment of the confidence one has in the modeled results. The more extensive and credible the corroborative information, the greater the influence it has in permitting deviations from the deterministic test's benchmark (modeled attainment at all receptor locations for all days modeled). As discussed in the June 1996 EPA guidance, *Guidance on Use of Modeled Results to Demonstrate Attainment of the Ozone NAAQS*, the weight-of-evidence given to model results depends on the following factors: (1) Model performance; (2) confidence in the underlying data bases; (3) length of the projection period; and (4) how close the results come to demonstrating attainment for all receptor sites and times modeled (see Table S.1. of the June 1996 guidance for a complete list of factors affecting weight-of-evidence determinations and acceptance of model

results nearly passing the attainment tests).

The model performance and the severity of the modeled episodes are of particular note. Generally, the closer the modeled results come to meeting the deterministic test's benchmark, the less compelling other evidence supporting a deviation from the benchmark needs to be. Model results showing major improvement in predicted ozone levels can be used to support the acceptance of the attainment demonstration.

The more extreme the days selected for modeling (the more ozone conducive the meteorology considered), the greater the weight-of-evidence support that can be attributed to modeling results exceeding but nearly meeting the ozone standard. Daily ozone maxima exceeding an area's ozone design value is an acceptable surrogate for indicating that these days are extreme. July 17, 1991 and July 13–14, 1995 are high ozone days because the observed ozone levels on those days are greater than the area's ozone design value (4th highest daily maxima over 3 years). Demonstrating attainment on these extreme days implies greater ozone improvements than the model is predicting may be achieved. As noted above, the 2003 post-control modeling results are close to demonstrating attainment, but continue to show modeled exceedances on July 17, 1991, July 11, 1995, and July 13, 1995. Since the States believe that these days may be considered to be extreme ozone days, the States believe that some consideration should be given to weight-of-evidence determinations. The observed July 11, 1995 peak observed ozone concentration is at the level of the area's ozone design value, and, therefore, IEPA and MDNR believe that this day should also be considered to be an extreme day, supporting the consideration of weight-of-evidence determinations. The EPA agrees that July 17, 1991 and July 13, 1995 are extreme ozone days and that this should be considered when making the determination. The EPA, however, does not agree that July 11, 1995 is extreme, since a day with a with a peak ozone concentration at the area's design value is not considered to be extreme.

The States discussed, and the EPA considered, the following factors and data in aggregate in assessing whether the States have provided sufficient evidence to support the attainment demonstration despite the modeled exceedances of the ozone standard. EPA's decision was based on a composite of the information, not on a single element of the ''weight-of-evidence.''

Reduction of Predicted Exceedances: Modeling for the 1996 base case showed a total of 418 grid cell-hours that exceeded the 1-hour ozone standard during the 7 modeled days. For the 2003 post-control estimates, only 15 grid cell-hours of exceedances were modeled. This was determined to be a 97 percent improvement in ozone air quality relative to the 1-hour standard. The States note that this improvement exceeds the 80 percent improvement criteria contained in one of the benchmarks of EPA's recommended statistical attainment demonstration approach. This finding suggests that the attainment strategy will result in a significant improvement in ozone air quality.

Relative Reduction Factor Attainment Test: The States applied a relative reduction factor approach recommended by the EPA for addressing attainment of the 8-hour ozone standard. (''Use of Models and Other Analyses in Attainment Demonstrations for the 8-Hour Ozone NAAQS,'' Final Draft, Office of Air Quality Planning and Standards, EPA, April 1999.) In this approach, the relative changes in ozone design values for various monitoring sites are determined using the relative changes in ozone concentrations predicted by the modeling system in the vicinity of these monitoring sites. All predicted future design values for the attainment year must be less than 125 ppb to support the attainment demonstration.

The States based the relative reduction factor approach on the ozone design values at monitoring sites for the 1995–1997 period. The relative reduction factors (actually ozone adjustment factors of 1 minus the modeled fractional ozone changes due to emission changes) were determined from the 1996 and 2003 modeling results. Based on these analysis values, the results in Table 4 were obtained.

TABLE 4.—RELATIVE REDUCTION FACTOR RESULTS

Monitor locations		1-Hour design values 1995–1997	Ozone adjustment factor	Future design values (ppb)
State	County			
Illinois	Madison	128	0.91	116
	St. Clair	108	0.92	99
Missouri	Jefferson	125	0.98	122
	St. Charles	131	0.92	120
	St. Louis	119	0.98	116

The States believe that the relative reduction factor analysis demonstrates that attainment of the ozone standard is likely in 2003 because all of the resulting future design values as shown in Table 4 are below the ozone standard. However, this analysis reflects modeling results for 1996 based on emissions subsequently revised by the States. As noted above, the 1996 modeling was not revised to reflect the subsequent change in 1996 emissions, whereas the 2003 post-control modeling was revised to reflect emission changes. This discrepancy has led to biased modeling results. This analysis must be revisited once the 1996 base year modeling is corrected to reflect the corrected 1996 base year emissions.

EPA Additional Emission Reductions Calculation: At the request of the EPA, the States also applied an additional emission reductions calculation as described in the EPA guideline document, *Guidelines for Improving Weight-of-Evidence Through Identification of Additional Emission Reductions, Not Modeled*. This method also uses an ozone adjustment factor approach to project a monitored ozone design value to an attainment year level. This method is based on the use of an area-wide maximum design value and an ozone adjustment factor based on relative changes in modeled peak ozone concentrations within and downwind of the nonattainment area. If the projected design value is greater than or equal to 125 ppb, this method also leads to estimates of additional VOC and NO_X emission reductions needed beyond the selected/modeled control strategy to attain the ozone standard. If the projected design value is less than or

equal to 124 ppb, this result supports the attainment demonstration.

To obtain the base design value, the States averaged the area-wide design values for four 3-year periods, 1993–1995, 1994–1996, 1995–1997, and 1996–1998. This was done to account for the fact that the base period emissions cover both 1995 and 1996. The design value periods considered contained both of these years. The averaging of these design values also provides a more robust estimate of a base design value and addresses changes in meteorology. The base ozone design value was determined to be 133.5 ppb.

The ozone adjustment factor was determined by averaging the modeled area-wide peak ozone concentrations for the local modeling domain for 1996 and 2003 and taking the ratio of these averages, 2003 to 1996. An ozone adjustment factor of 0.932 was determined using this procedure.

The base ozone design value and the ozone adjustment factor lead (133.5 ppb multiplied by 0.932) to a future design value of 124.4 ppb. This result, while preliminary, shows that the control strategy is adequate to achieve the ozone standard. This determination, however, must be reassessed once the 1996 base year modeling is repeated to reflect the corrected 1996 base year emissions.

Trends Analyses: The MDNR and IEPA have determined or estimated the emission trends for the St. Louis nonattainment area for the years of 1990 through 2003 for both VOC and NO_X. The emission trends are plotted in Figures 7.1 and 7.2 of IEPA's February 10, 2000 attainment demonstration submittal. The trends exhibit a significant decrease in VOC and NO_X emissions within the St. Louis nonattainment area since 1990. Emissions of NO_X and VOC are expected to continue to decline through 2003 due to both State and federal emission control requirements. This includes the impacts of the States' 15 percent Rate-Of-Progress plans, implementation of VOC RACT in both States, implementation of NO_X RACT in Missouri, title IV (Clean Air Act) acid rain control requirements for EGUs, new vehicle I/M programs in both Illinois and Missouri, and reformulated gasoline use.

The States have considered air quality trends for 1977 through 1998. Significant downward trends in peak ozone levels have occurred since the early 1980s. The trend in peak ozone levels, however, have leveled off at above-standard levels in the last few years. Nonetheless, the States also note the improvement in air quality relative to the number of days per year considered to be meteorologically conducive to high ozone formation. The States compared the trend of the number of exceedance days per year to the number of conducive days per year for 1977 through 1998. The number of conducive days was determined by estimating the number of days with meteorology meeting the following parameters: (1) Maximum temperatures exceeding 85 degrees Fahrenheit; (2) wind speeds less than 10 miles per hour; (3) solar radiation exceeding 500 Langleys; (4) little or no precipitation; and (5) winds from the southeast to west. The number of exceedance days per year relative to the number of conducive days per year was found to decline significantly over the years. This downward trend is believed to be due to the implementation of emission controls.

The States have also considered the trend in background ozone concentrations for 1989 through 1998. Background ozone concentrations, reflecting ozone transport into the St. Louis area rather than local ozone impacts, have been found to trend upward over the most recent years (1992–1998), pointing to the need to control ozone transport. This ozone transport is believed, based on the ozone modeling, to play a significant role in the ozone standard exceedances in the St. Louis ozone nonattainment area.

Analyses of regional NO_X emissions from Illinois, Indiana, Kentucky, Missouri, Ohio, and Tennessee and outside of the St. Louis ozone nonattainment area shows an upward trend over the period of 1985 through 1997, with 1997 total NO_X emissions being 16 percent higher than in 1985. Illinois and Missouri note that the upward trend in upwind regional NO_X emissions corresponds to the trend in increased background ozone concentrations. This observation lends credence to the selected control strategy of controlling regional NO_X emissions.

The States' analyses of air quality and emission trends do provide some support for the States' attainment demonstration. Progress in air quality improvement through the current period (1997–1999) is demonstrated and future progress in air quality improvement is shown to be likely. In addition, these analyses lend support to a regional NO_X reduction as a reasonable approach to achieving attainment of the ozone standard. Nonetheless, the air quality and emission trends by themselves do not provide an adequate weight-of-evidence determination and do not demonstrate that the ozone standard will be attained by 2003. They simply demonstrate that the States have made progress towards attaining the standard and are expected to continue to make such progress.

EPA's NO_X SIP Call Modeling: The States note that the EPA recommends that States use the results of EPA's NO_X SIP call modeling as part of the weight-of-evidence for the ozone attainment demonstrations. Based on the NO_X SIP call modeling, the post-control St. Louis area maximum ozone design value is projected to be 124 ppb at the St. Charles County monitoring site in 2007 (subsequent modeling, incorporating additional emission improvements expected to result from Tier II vehicle emission standards and the use of low-sulfur gasoline, indicates even lower ozone levels in the St. Louis area in 2007). It should be noted, however, that the NO_X SIP call modeling considered NO_X emission controls that go beyond the level of NO_X controls contained in the States ozone attainment strategy. The NO_X SIP call modeling supports the direction of controls in the States' control strategy (emphasis on regional NO_x controls).

Since the NO_X SIP call will lead to lower ozone levels in the St. Louis area than the States' selected emission control strategy, EPA believes that this is additional evidence in support of the States' attainment demonstration. As noted above, the deterministic approach failed to unequivocally demonstrate attainment of the 1-hour standard. The modeling employed by the States assumed NO_X emission limits higher than those that were assumed in the development of the NO_X SIP call (regional NO_X control levels of 0.25 pounds/mmBTU for EGUs in the States' attainment demonstration versus 0.15 pounds/mmBTU for EGUs along with other regional NO_X controls in the NO_X SIP call). As a consequence, the NO_X SIP call will produce lower ozone transport levels than the control strategy submitted by the States. As noted above, in *Michigan* v. *EPA,* the U.S. Court of Appeals for the District of Columbia generally upheld the NO_X SIP call, but remanded EPA's determination to require NO_X emission reductions from the entire State of Missouri. *Michigan* v. *EPA,* No. 98–1497 (D.C. Cir. March 3, 2000). Since sensitivity analyses have shown that lower ozone interstate transport levels result in lower peak ozone levels in the St. Louis area, we expect the implementation of the NO_X SIP call to result in greater improvement in the ozone levels than predicted in the States' attainment demonstration modeling, which only assumed NO_X emission limits of 0.25 pounds per mmBTU for EGUs in upwind States.

This factor lends support to the States' attainment demonstration and supports the view that the combination of NO_X SIP call controls and the emission controls selected by the States should bring the St. Louis area into attainment of the 1-hour ozone standard.

4. Emission Control Strategies

What Emission Control Strategies Were Considered in the Attainment Demonstration?

Illinois' emission control strategy relies on the Clean Air Act emission control requirements through 2003, including the impacts of the State's 15 percent Rate-Of-Progress (ROP) plan for the Illinois portion of the St. Louis ozone nonattainment area, federal emission controls expected to be implemented by 2003, and a statewide NO_X emission limit of 0.25 pounds/mmBTU for EGUs of generating capacity greater than 25 MWe. The NO_X emission limit for EGUs only applies during the ozone season (May 1 through September 30). Illinois is in the process of developing state-wide NO_X emission control regulations to cover this NO_X limit. Further, it must be noted that Illinois has committed to tighten this NO_X limit even further if required to attain the ozone standard in the Lake Michigan area. Illinois is also assessing the impacts of regional NO_X controls on ozone transport into the Lake Michigan area, where Illinois must also attain the 1-hour standard. If modeling indicates that EGU NO_X emission limits must be tightened beyond 0.25 pounds/mmBTU to attain the ozone standard in Lake Michigan area, Illinois is committed to completing rule development to achieve the more stringent NO_X emission limits. If more stringent NO_X emission limits are adopted, this will further lower ozone levels in the St. Louis area. At minimum, the State will adopt an EGU NO_X emission limit of 0.25 pounds/mmBTU regardless of the modeling outcome for the Lake Michigan area.[7]

Missouri's emission control strategy also relies on the Clean Air Act emission control requirements through 2003, including impacts of the State's 15 percent ROP plan, and regional NO_X emission limits for EGUs. The NO_X emission limits are differentiated between two portions of the State, with a NO_X emission limit of 0.25 pounds/mmBTU in the eastern third of the State and a NO_X emission limit of 0.35 pounds/mmBTU in the western two-thirds of the State. The emission control strategy also considers the emission impacts of the following control measures: VOC emission reductions from implementation of RACT on various sources (see the discussion of the contents of Missouri's November 10, 1999 submittal above); NO_X RACT in the Missouri portion of the St. Louis ozone nonattainment area; and an improved vehicle I/M program.

The emissions control strategy also assumes that all other States in the ''fine grid'' area of the OTAG analysis (those States subject to NO_X emission budgets in EPA's NO_X SIP call) would also limit NO_X emissions from EGUs to 0.25 pounds/mmBTU. Again note that this differs from the EGU NO_X emission rate of 0.15 pounds/mmBTU considered for these sources in EPA's NO_X SIP call and considered by EPA to be acceptable for background ozone considerations. Illinois and Missouri believe that these States should be assumed to implement NO_X emission limits no tighter than those considered for Illinois and Missouri in the attainment demonstration and has reflected such thinking in the attainment demonstration. Nonetheless, implementation of the NO_X SIP call will further lower ozone levels in the St. Louis area, adding weight-of-evidence and a margin of safety to the States' attainment demonstration.

Have the States Adopted the Selected Emission Control Strategies and Have the States Adopted the Emission Control Regulations Needed To Implement the Emission Control Strategies?

The States have adopted the emission control strategies and all associated emission control regulations except the state-wide NO_X emission limits for EGUs. Both States are expected to complete development of proposed NO_X emission control regulations for the EGUs by mid-2000 and have final adopted rules no later than December 2000. Note that the EPA would not finally approve the attainment demonstration until after it has determined that the statewide NO_X control regulations are acceptable.

Missouri submitted additional emission control regulations needed to implement the control strategy with the November 10, 1999 submittal. These regulations include NO_X RACT, additional VOC RACT, and the regulations required to implement the State's 15 percent rate-of-progress plan. These regulations are undergoing separate review and have been proposed for approval as noted elsewhere in this document.

Illinois has completed all VOC emission control regulations and has submitted these regulations to the EPA. All of these VOC emission control regulations have been previously approved by the EPA.

Have the States Adopted all Emission Control Regulations Required by the Clean Air Act?

Illinois and Missouri have adopted all VOC emission control requirements required under the Clean Air Act for a moderate ozone nonattainment area. As noted above, some of these emission control regulations are currently under review by the EPA. The final approval of the ozone attainment demonstration is contingent on the final approval of these regulations.

As noted above, the States have yet to complete the regional, statewide NO_X emission control regulations needed to complete the ozone control strategy. Final approval of the attainment demonstration is contingent on the adoption of these rules. In the alternative, this proposed rulemaking proposes to disapprove the ozone attainment demonstration if the States fail to submit the proposed regional, statewide NO_X control regulations by June 2000 and final adopted regional, statewide NO_X control regulations by December 2000. The attainment demonstration will also not be finally approved if the EPA review of the regional NO_X emission control regulations, which will be the subject of a separate rulemaking, concludes that they are not approvable.

5. Transportation Conformity

Did the States Address Transportation Conformity in the Submittals and Did the States Adopt Motor Vehicle Emission Budgets?

Both Illinois and Missouri have submitted motor vehicle emissions budgets for the 2003 attainment year in their respective portions of the St. Louis ozone nonattainment area. These emission budgets must meet the adequacy criteria in the Transportation Conformity Rule before the budgets and the attainment demonstration are approved.

The IEPA has submitted an emissions budget of 28.70 tons per day for VOC and 40.64 tons per day for NO_X in the Illinois portion of the nonattainment area (the Metro-East area). This budget has been posted to the EPA web site for public comment and has been under adequacy review since its submittal to the EPA. The EPA review of this emissions budget has found that the budget meets all of the adequacy criteria in section 93.118 of the Transportation Conformity Rule. These criteria include: (1) The SIP was endorsed by the Governor (or his designee) and was

[7] Illinois will also need to adopt controls as necessary to respond to the NO_X SIP call.

subject to a State public hearing; (2) consultation among federal, State, and local agencies occurred; (3) the emissions budget is clearly identified and precisely quantified; (4) the motor vehicle emissions budget, when considered together with all other emissions, is consistent with attainment; and (5) the motor vehicle emissions budget is consistent with and clearly related to the emissions inventory and control strategy in the submitted attainment demonstration. The EPA is also required to consider comments submitted to the State at the public hearing. No comments were received by the State on the transportation conformity budgets. Also, no comments were received on the Illinois budget during the adequacy posting.

The EPA is proposing in this document to approve the transportation conformity budget submitted by Illinois. Comments on this proposed approval should be submitted to the docket as outlined in the comments section of this document.

The MDNR included an emissions budget in its November 10, 1999 submittal. An error in the emission estimates was subsequently detected during the interagency consultation process. The MDNR is revising the motor vehicle emissions budget, which will be addressed in subsequent EPA rulemaking. The new Missouri motor vehicle emissions budget will be posted on EPA's adequacy web site (go to *http://www.epa.gov/otaq/traq/* and click on ''conformity,'' then click on ''adequacy web pages'') when it is received.

As noted elsewhere in this document, Missouri must submit a final motor vehicle emissions budget which the EPA can determine to be adequate for conformity assessments (Illinois has already met this requirement) to avoid disapproval of the attainment demonstration SIP. Consistent with the schedule for submission of revisions to the States' attainment demonstration, described previously in this document, Missouri must submit any proposed revisions to its motor vehicle emissions budget no later than June 30, 2000. Although these emissions budgets are undergoing separate adequacy review, it should be noted that the ozone attainment demonstration will not be given a final approval until the EPA has determined these emissions budgets to be adequate to support future transportation conformity reviews.

6. Petition for NO_x Control Exemption

The February 10, 2000, IEPA submittal contains a petition for an exemption from NO_x emission reduction requirements that are contained in section 182(f)(1) of the Act. The IEPA requests that this exemption apply to the RACT, NSR, and general conformity NO_x requirements for the Illinois portion of the St. Louis nonattainment area pursuant to section 182(f)(2) of the Act. This exemption is based on Illinois' assertion that it has demonstrated attainment of the ozone standard without the need to account for these NO_x emission controls. Therefore, Illinois contends that these NO_x emission controls must be considered to be ''excess'' and subject to an exemption under section 182(f)(2) of the Act.

Illinois believes that the ozone attainment demonstration provides the requisite technical support for this petition. The NO_x emission reductions in the attainment demonstration and control strategy in Illinois are limited to the NO_x emission reductions from EGUs or other Act-required emission controls not subject to this petition. Illinois contends (Missouri has not made a similar argument) that the ozone impacts in the St. Louis area resulting from NO_x emissions are dominated by the impacts of regional NO_x emissions from EGUs, and that controlling local NO_x emissions for other source categories would not significantly impact ozone levels. Illinois believes that it has shown in the ozone attainment demonstration modeling that application of the specific section 182(f) NO_x control requirements would not meaningfully contribute to attainment of the ozone standard. Review of the modeling documentation supplied to the EPA, however, does not show the specific impacts of NO_x RACT, NO_x NSR, or NO_x general conformity. The modeling documentation does imply that Illinois applied no specific emission reduction credits for these NO_x control measures.

It should be noted that Missouri has adopted NO_X RACT regulations for the St. Louis area and is not seeking an exemption from NO_X RACT, NO_X NSR, or NO_X general conformity requirements. The modeling used to support the attainment demonstration does consider the impacts of NO_X emission reductions resulting from NO_X RACT implementation in the Missouri portion of the St. Louis nonattainment area.

B. Environmental Protection Agency Review of the Submittals

1. Adequacy of the States' Demonstrations of Attainment

Did the States Adequately Document the Techniques and Data Used to Derive the Modeling Input Data and Modeling Results?

The submittals from the States thoroughly documented the techniques and data used to derive the modeling input data. The submittals adequately summarized the modeling outputs and the conclusions drawn from these model outputs. The submittals adequately documented the States' weight-of-evidence determinations and the bases for concluding that these determinations adequately support the attainment demonstration.

Did the Modeling Procedures and Input Data Used Comply With the Environmental Protection Agency Guidelines and Clean Air Act Requirements?

Yes. The modeling procedures and input meet the requirements of EPA's July 1991 and June 1996 ozone modeling guidelines.

Do the Weight-of-Evidence Determinations Support the Attainment Demonstration?

The weight-of-evidence determinations, when viewed in aggregate, show that the demonstration of attainment may be adequate for proposed approval. An issue, however, must be taken with several critical portions of the weight-of-evidence determinations, namely with the relative reduction factor results and the additional emission reductions calculation. As noted above, MDNR revised the emission inventories for 2003. Based on these emission inventory revisions, the modeling for 2003 was revised. Such a modeling revision, however, was not performed for 1996 despite that fact that the 1996 emissions should also be revised. This may have resulted in a modeling bias in the results of the 2003 ozone estimates relative to those of 1996 as modeled. This has led to errors in the estimation of relative reduction factors and, therefore, may potentially impact the predicted future ozone design value for the area.

Comparison of 2003 attainment demonstration emissions as submitted in Illinois' draft October 15, 1999 attainment demonstration with the 2003 attainment demonstration emissions as documented in the February 10, 2000 submittal shows that the nonattainment area VOC emissions have been

decreased by approximately 60 tons per day and that the nonattainment area NO_X emissions have been increased by approximately 6 tons per day. These emission changes incorporate both post-1996 emission reductions as well as changes in emission factors and calculation procedures. It is the changes in emission factors and calculation procedures that would also apply to the 1996 emissions. From the data provided, it is impossible to determine the magnitude of the emission changes that would have to be applied to the 1996 emissions. Again, this may potentially impact the predicted future design value, which is a key component of the weight-of-evidence argument. Accordingly, the States must revise the ozone modeling for 1996 using the updated 1996 emissions and must reassess the results for the relative reduction factor calculations and the additional reductions test.

It is inappropriate to conclude at this time that the demonstration of attainment has fallen short or that the selected emission control strategy is inadequate. The States are being given an opportunity to reassess the 1996 modeling results and the associated relative reduction predictions. It is not expected to take more than a few months for the States to perform this analysis. If the reassessment of modeling results causes the States to significantly modify the attainment strategy, the EPA will re-propose rulemaking on attainment demonstration SIP revisions, and will seek new public comments on the revised SIP revisions.

2. Adequacy of the Emission Control Strategies

Do the Emission Control Strategies Meet the Requirements of the Clean Air Act?

Given the data presented, the selected emission control strategy may be adequate to achieve attainment of the 1-hour ozone standard. However, due to the need to reassess the weight-of-evidence determination, the EPA reserves final judgement on the emissions control strategy until after it has had an opportunity to review the revised 1996 ozone modeling results and the revised weight-of-evidence determinations (the revised relative reduction factor estimates and the revised additional reductions test results).

Do Emission Control Shortfalls Exist With Regard To Probable Attainment of the Ozone Standard?

To determine whether there is a shortfall in emission controls, the need for revised 1996 base year modeling must first be addressed. Corrections to the 1996 base year emissions inventory will result in changes to the predicted daily maxima which are presented in Table 3. Again, the EPA can not fully approve the attainment demonstration or act on the attainment date extension request until these analyses have been completed and demonstrate attainment of the standard consistent with the Act and EPA policy.

Have the States Specified and Adopted Acceptable Motor Vehicle Transportation Conformity Budgets?

The States have submitted motor vehicle transportation conformity emission budgets. The budget submitted by the IEPA for Illinois portion of the St. Louis nonattainment area has been found to meet the adequacy criteria and is proposed for approval. The budget submitted by the MDNR needs to be revised and resubmitted. The attainment demonstration will not be approved until adequate motor vehicle emissions budgets are submitted and determined to be adequate. The EPA is proposing in the alternative to disapprove the attainment demonstration if Missouri does not submit the motor vehicle emissions budget in accordance with the schedule specified above.

3. Adequacy of the Requests for Extension of the Attainment Date

The policy for the extension of an ozone attainment date is discussed above. The States' compliance with these requirements is discussed here.

a. Identification of the Area as a Downwind Area Affected by Ozone Transport

The States have cited EPA's NO_X SIP call modeling and analyses documented in the OTAG process to demonstrate that the St. Louis ozone nonattainment area is affected by an upwind area in another State that significantly contributes to ozone nonattainment in St. Louis. Kentucky is the State outside of Illinois and Missouri that contributes to ozone concentrations in the St. Louis area. On December 17, 1999, EPA took final action on petitions from 8 northeastern States under section 126 of the Act. In its action, EPA granted those portions of the petitions for sources for which it made affirmative technical determinations with respect to the 1-hour ozone standard. These included sources in Kentucky that make significant contributions to ozone levels in the St. Louis area. In addition, Illinois and Missouri have noted the trend towards increasing transport of ozone into the area from upwind States.

The EPA proposes to find that the States' demonstration of ozone transport meets the criteria in EPA's attainment date extension policy.

b. Submittal of an Approvable Attainment Demonstration

EPA's review of the attainment demonstration shows that, with the required changes EPA has specified, it is likely to be approved. In addition, the States have adopted the emission control measures (RACT, I/M, and other 15 percent Rate-Of-Progress plan requirements) or are expected soon to adopt the necessary emission control measures (regional NO_X emission controls) needed to achieve attainment.

c. Adoption of all Applicable Local Measures Required Under the Area's Current Ozone Classification

Missouri has completed the adoption of all local measures required by the Act for the area's current classification. Illinois has adopted the necessary local measures, with the exception of NO_X RACT. If EPA approves Illinois' request for an exemption from the NO_X RACT requirements, as discussed elsewhere in this document, this element will have been met.

Both States must adopt and submit regional NO_X regulations to complete the requirements for the attainment SIP. Proposed regional NO_X regulations are expected to be developed by June 2000 and final regional NO_X regulations must be adopted and submitted by December 2000.

EPA concludes that the States are likely to meet this requirement. It is noted, however, that the final determination on this issue must wait until all necessary rules, and the NO_X RACT exemption request, have been approved by the EPA.

d. Implementation of all Adopted Measures by the Time Upwind Controls are Expected.

In anticipation of the implementation of upwind regional NO_X controls in 2003 (the NO_X SIP call requires implementation of NO_X controls by May 15, 2003), Illinois and Missouri selected this year as the new attainment period for the St. Louis area in keeping with EPA's attainment date extension policy. Both States have committed to fully implement the regional NO_X controls by 2003 (these NO_X emission controls must be implemented prior to the start of the ozone season in 2003) and are expected to have implemented the other control measures prior to that date. Therefore, the States have met or will meet this condition.

The EPA concludes that, at the present time, the States are likely to meet the conditions for an attainment date extension and are in the process of concluding efforts to meet these conditions. Final resolution of this issue, however, will not occur until the States have corrected the noted problem with the attainment demonstration and have adopted the required regional NO_X regulations.

EPA believes that it is likely that Illinois and Missouri will be able to meet the criteria for obtaining an attainment date extension under the conditions contained in EPA's July 16, 1998 attainment date extension policy. If this occurs, the attainment date for the St. Louis area is proposed to be extended to November 15, 2003. Even though the regional NO_X controls will be implemented by the start of the ozone season in 2003, this later attainment date recognizes that the States' attainment demonstration does consider other VOC and NO_X emission reductions that will continue to occur throughout the ozone season in 2003.

If the States do not correct the attainment demonstration, do not adopt approvable regional NO_X emission control regulations, or otherwise fail to meet the conditions of the attainment date extension policy, EPA will take final action on the proposed reclassification described in EPA's March 18, 1999 document (64 FR 13384). To the extent that comments received on the March 18, 1999 document, and comments received on EPA's March 25, 1999 document, ''Extension of Attainment Dates for Downwind Transport Areas,'' 64 FR 14441, are applicable to this rulemaking, EPA will address and respond to these comments in its final rulemaking action.

4. Adequacy of the NO_X Control Exemption Request has Illinois Adequately Supported its Request for an Exemption From the Requirement for NO_X emission Control Regulations?

The IEPA has requested an exemption from additional NO_X RACT, NSR, and general conformity requirements under section 182(f) of the Clean Air Act based on its contention that the selected emissions control strategy leads to attainment of the ozone standard without these additional NO_X emission reductions or NO_X emission control measures in the Illinois portion of the nonattainment area. Review of the attainment demonstration against EPA's NO_X exemption policy discussed above shows that the request for a NO_X control exemption may be granted in part. NO_X RACT emission reductions in the Illinois portion of the nonattainment area are not needed for attainment of the 1-hour ozone standard, based on the current modeled ozone attainment demonstration. Illinois, however, will need to show that its request for a NO_X RACT exemption is still supportable after the States revise the 1996 base year modeling and show that the emissions control strategy selected still results in attainment without assuming NO_X RACT for Illinois sources. Since NO_X RACT clearly impacts NO_X emissions through NO_X emission reductions and the attainment demonstration, as it currently exists, does not rely on these types of NO_X emission reductions in the Illinois portion of the St. Louis nonattainment area, Illinois has demonstrated that a NO_X RACT exemption is justified under section 182(f)(2) of the Act. Although NO_X RACT would lead to NO_X emission reductions, possibly leading to further ozone reductions, Illinois has demonstrated that additional local NO_X emission reductions in the Illinos portion of the nonattainment area are not needed to demonstrate attainment of the ozone standard in the St. Louis area.

Section 182(f)(2) of the Act gives States the flexibility to limit application of the NO_X control requirements to the extent that any portion of these emission reductions are demonstrated to result in ''excess reductions.'' In this case, the modeling of the adopted emission control strategy demonstrates that application of NO_X RACT in the Illinois portion of the nonattainment area would result in NO_X emission reductions in excess of those needed to attain the ozone standard. Therefore, these emission reductions are not required.

As noted above, the support for a NO_X control exemption pursuant to section 182(f)(2) of the Act must be based on a demonstration that NO_X emissions can essentially increase without limit without causing ozone standard violations. The State has failed to make such a demonstration. Therefore, EPA believes that a NO_X control exemption for NSR and general conformity pursuant to section 182(f)(2) (an ''excess emissions reduction'' argument) is not supported and proposes to disapprove the request relative to these Clean Air Act requirements.

III. Proposed Action

The EPA proposes to approve the Illinois and Missouri ozone attainment demonstrations for the St. Louis ozone nonattainment area. In the alternative, the EPA is proposing to disapprove the ozone attainment demonstrations if Illinois or Missouri do not revise the attainment demonstration modeling and associated weight-of-evidence analyses to incorporate corrections to the 1996 base year emissions inventory and confirm that attainment is demonstrated. These revisions must be submitted in proposed form by June 30, 2000 and in final form by December 31, 2000. In addition, EPA is proposing to disapprove the ozone attainment demonstrations if: (1) the States do not submit proposed regional, statewide NO_X emission control regulations for electric generating units by June 2000 or do not adopt and submit regional, statewide NO_X emission control regulations for electric generating units by December 2000; and (2) Missouri does not submit a proposed motor vehicle emissions budget for VOC and NO_X by June 30, 2000 and final revisions to the motor vehicle emissions budget by December 31, 2000. The Environmental Protection Agency proposes to: (1) approve an exemption from NO_X emission control requirements for NO_X RACT for the Illinois portion of the St. Louis ozone nonattainment area; (2) approve an extension of the ozone attainment date for the St. Louis ozone nonattainment area to November 15, 2003; and (3) approve the transportation conformity motor vehicle emissions budget submitted by Illinois for the Illinois portion of the St. Louis ozone nonattainment area. The EPA proposes to disapprove Illinois' requested exemption from NO_X emission control requirements for New Source Review and general conformity for the Illinois portion of the St. Louis ozone nonattainment area.

IV. Administrative Requirements

A. Executive Order 12866

The Office of Management and Budget (OMB) has exempted this regulatory action from Executive Order 12866, entitled ''Regulatory Planning and Review.''

B. Executive Order 13045

Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), applies to any rule that: (1) is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is

preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to Executive Order 13045 because it does not involve decisions intended to mitigate environmental health or safety risks.

C. Executive Order 13084

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly affects or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.''

Today's proposed rule does not significantly or uniquely affect the communities of Indian tribal governments. This action does not involve or impose any requirements that affect Indian Tribes. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

D. Executive Order 13132

Federalism (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.'' Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely approves a state rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

E. Regulatory Flexibility

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

This rule will not have a significant impact on a substantial number of small entities because 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 create any new requirements, I certify that this action will not have a significant economic impact on a substantial number of small entities.

Moreover, due to the nature of the Federal-State relationship under the Clean Air Act, preparation of 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).

F. Unfunded Mandates

Under sections 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 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 proposes to approve pre-existing requirements under State or local law, and imposes no new requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Nitrogen oxides, Ozone, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: March 30, 2000.

Gail C. Ginsberg,

Acting Regional Administrator, Region 5.

Dated: April 7, 2000.

Dennis Grams,

Regional Administrator, Region 7.

[FR Doc. 00–9393 Filed 4–14–00; 8:45 am]

BILLING CODE 6560–50–P