

rulemaking action. In particular, the consent decree establishes dates by which EPA is to determine the adequacy of the motor vehicle emission budgets associated with the attainment demonstrations for the areas and deadlines by which EPA is to promulgate FIPs for areas for which it has not approved attainment demonstration and 9 percent rate-of-progress SIPs. (A copy of the consent decree is being placed in the dockets for the proposals regarding the attainment demonstrations.) The consent decree, which is being lodged with the United States District Court for the District of Columbia, is still subject to the public notice and comment provisions of section 113(g) of the CAA. (A document regarding the section 113(g) process for the consent decree will be published separately in the **Federal Register**.)

Consistent with the dates in the consent decree, EPA is moving forward in a coordinated fashion to take action on the attainment plans for each of the 10 areas identified above. The EPA's proposals on the attainment plans are a critical next step in ensuring that each of these areas has in place a complete plan for achieving air quality meeting the 1-hour ozone standard. The EPA intends to take final action on elements of each of these plans during the next year.

The EPA's actions today reflect consistent application of EPA policies on motor vehicle emission budgets, credits for interstate nitrogen oxide reductions, and the need for additional emissions reductions, as well as other issues. These policies are discussed in detail in the documents for each area which appear elsewhere in today's **Federal Register**. The application of these policies to the plans for individual areas is discussed in the individual documents for each area.

Dated: December 1, 1999.

**Robert Perciasepe,**

*Assistant Administrator for Air and Radiation.*

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**BILLING CODE 6560-50-P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[MA069-7205:FRL-6501-8]

#### Approval and Promulgation of Implementation Plans; Massachusetts; One-Hour Ozone Attainment Demonstration for the Springfield (Western Massachusetts) Ozone Nonattainment Area

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The EPA is proposing to approve the ground-level one-hour ozone attainment demonstration State Implementation Plan (SIP) for the Springfield (Western Massachusetts) ozone nonattainment area submitted by the then Commissioner of the Massachusetts Department of Environmental Protection (MA DEP) on July 27, 1998. We are also proposing to approve an attainment date extension for this area to December 31, 2003, which was requested by the current MA DEP Commissioner on August 13, 1999. We are also proposing, in the alternative, to disapprove this demonstration if Massachusetts does not submit: Revisions to the Massachusetts stage II vapor recovery rule that were committed to in the July 27, 1998 attainment demonstration; and the demonstration described in EPA's supplementary proposed approval of the Massachusetts 15% rate-of-progress plan published in the **Federal Register** on November 30, 1999, requiring Massachusetts to demonstrate that the emission reduction credit it is claiming for its I/M program in the Western Massachusetts attainment demonstration is warranted for the combination of test type and equipment that Massachusetts is implementing.

**DATES:** Comments must be received on or before February 14, 2000.

**ADDRESSES:** Written comments (in duplicate if possible) should be sent to: David B. Conroy at the EPA Region I (New England) Office, One Congress Street, Suite 1100-CAQ, Boston, Massachusetts 02114-2023.

Copies of the State submittal and EPA's technical support document are available for public inspection during normal business hours (9 a.m. to 4 p.m.) at the following addresses: U.S. Environmental Protection Agency, Region 1 (New England), One Congress St., 11th Floor, Boston, Massachusetts, telephone (617) 918-1664, and at the Division of Air Quality Control,

Department of Environmental Protection, One Winter Street, 8th Floor, Boston, Massachusetts 02108. Please telephone in advance before visiting.

**FOR FURTHER INFORMATION CONTACT:** Richard Burkhart, (617) 918-1664.

**SUPPLEMENTARY INFORMATION:** This document provides background information on attainment demonstration SIPs for the one-hour ozone national ambient air quality standard (NAAQS) and an analysis of the one-hour ozone attainment demonstration SIP submitted by the MA DEP for the Western Massachusetts ozone nonattainment area. This document addresses the following questions:

What is the Basis for the Attainment Demonstration SIP?

What are the Components of a Modeled Attainment Demonstration?

What is the Frame Work for Proposing Action on the Attainment Demonstration SIPs?

What Does EPA Expect to Happen with Respect to the Attainment Demonstration for the Springfield (Western Massachusetts) One-hour Ozone Nonattainment Area?

What are the Relevant Policy and Guidance Documents?

How Does the Massachusetts Submittal Satisfy the Frame Work?

### I. Background Information

#### A. What Is the Basis for the State's Attainment Demonstration SIP?

##### 1. CAA Requirements

The Clean Air Act (CAA) requires EPA to establish national ambient air quality standards (NAAQS or standards) for certain widespread pollutants that cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. CAA sections 108 and 109. In 1979, EPA promulgated the one-hour 0.12 parts per million (ppm) ground-level ozone standard. 44 FR 8202 (Feb. 8, 1979). Ground-level ozone is not emitted directly by sources. Rather, emissions of nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) react in the presence of sunlight to form ground-level ozone. NO<sub>x</sub> and VOC are referred to as precursors of ozone.

An area exceeds the one-hour ozone standard each time an ambient air quality monitor records a one-hour average ozone concentration above 0.124 ppm. An area is violating the standard if, over a consecutive three-year period, more than three exceedances are expected to occur at any one monitor. The CAA, as amended in 1990, required EPA to designate as nonattainment any area that was violating the one-hour ozone standard,

generally based on air quality monitoring data from the three-year period from 1987–1989. CAA section 107(d)(4); 56 FR 56694 (Nov. 6, 1991). The CAA further classified these areas, based on the area's design value, as marginal, moderate, serious, severe or extreme. CAA section 181(a). Marginal areas were suffering the least significant air pollution problems while the areas classified as severe and extreme had the most significant air pollution problems.

The control requirements and dates by which attainment needs to be achieved vary with the area's classification. Marginal areas are subject to the fewest mandated control requirements and have the earliest attainment date. Severe and extreme areas are subject to more stringent planning requirements but are provided more time to attain the standard. Serious areas are required to attain the one-hour standard by November 15, 1999 and severe areas are required to attain by November 15, 2005 or November 15, 2007. The Western Massachusetts area is classified as serious and its attainment date is November 15, 1999.

Under section 182(c)(2) and (d) of the CAA, serious and severe areas were required to submit by November 15, 1994 demonstrations of how they would attain the one-hour standard and how they would achieve reductions in VOC emissions of 9 percent for each three-year period until the attainment year (rate-of-progress or ROP). (In some cases, NO<sub>x</sub> emission reductions can be substituted for the required VOC emission reductions.) Today, in this proposed rule, EPA is proposing action on the attainment demonstration SIP submitted by the MA DEP for the Western Massachusetts nonattainment area. EPA has already proposed approval of the State's 9% ROP for the Western Massachusetts area (64 FR 51943; September 27, 1999 and 64 FR 66829, November 30, 1999). In addition, elsewhere in this **Federal Register**, EPA is today proposing to take action on nine other serious or severe one-hour ozone attainment demonstrations and, in some cases, ROP SIPs. The additional nine areas are, Greater Connecticut, New York-North New Jersey-Long Island (NY-NJ-CT), Baltimore (MD), Philadelphia-Wilmington-Trenton (PA-NJ-DE-MD), Metropolitan Washington, D.C. (DC-MD-VA), Atlanta (GA), Milwaukee-Racine (WI), Chicago-Gary-Lake County (IL-IN), and Houston-Galveston-Brazoria (TX).

In general, an attainment demonstration SIP includes a modeling analysis component showing how the area will achieve the standard by its

attainment date and the control measures necessary to achieve those reductions. Another component of the attainment demonstration SIP is a motor vehicle emissions budget for transportation conformity purposes. Transportation conformity is a process for ensuring that States consider the effects of emissions associated with new or improved federally-funded roadways on attainment of the standard. As described in section 176(c)(2)(A) of the CAA, attainment demonstrations necessarily include the estimates of motor vehicle emissions that are consistent with attainment, which then act as a budget or ceiling for the purposes of determining whether transportation plans and projects conform to the attainment SIP.

## 2. History and Time Frame for the State's Attainment Demonstration SIP

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<sub>x</sub> and VOCs 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 States but noting the remaining difficulties in making attainment demonstration SIP submittals.<sup>1</sup> 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)<sup>2</sup> 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<sub>x</sub> is significant and should be reduced regionally to enable States in the eastern half of the country to attain the ozone NAAQS.

In recognition of the length of the OTAG process, in a December 29, 1997 memorandum, Richard Wilson, EPA's then Acting Assistant Administrator for Air and Radiation, provided until April 1998 for States to submit the following elements of their attainment demonstration SIPs for serious and severe nonattainment areas: (1) Evidence that the applicable control measures in subpart 2 of part D of title I of the CAA were adopted and implemented or were on an expeditious course to being adopted and implemented; (2) a list of measures needed to meet the remaining ROP emissions reduction requirement and to reach attainment; (3) for severe areas only, a commitment to adopt and submit target calculations for post-1999 ROP and the control measures necessary for attainment and ROP plans through the attainment year by the end of 2000; (4) a commitment to implement the SIP control programs in a timely manner and to meet ROP emissions reductions and attainment; and (5) evidence of a public hearing on the State submittal.<sup>3</sup> This submission is sometimes referred to as the Phase 2 submission. Motor vehicle emissions budgets can be established based on a commitment to adopt the measures needed for attainment and identification of the measures needed. Thus, State submissions due in April 1998 under the Wilson policy should have included a motor vehicle emissions budget.

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 one-hour standard because they did not regulate NO<sub>x</sub> emissions that significantly contribute to ozone transport. 62 FR 60318 (Nov. 7, 1997). The EPA finalized that rule in September 1998, calling on the 23 jurisdictions to revise their SIPs to require NO<sub>x</sub> emissions reductions within the State to a level consistent with a NO<sub>x</sub> emissions budget identified in the final rule. 63 FR 57356 (Oct. 27,

<sup>1</sup> 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>.

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

<sup>3</sup> Memorandum, "Guidance for Implementing the 1-Hour Ozone and Pre-Existing PM 10 NAAQS," issued December 29, 1997. A copy of this memorandum may be found on EPA's web site at <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

1998). This final rule is commonly referred to as the NO<sub>x</sub> SIP Call.

### 3. Attainment Date Delays Due to Transport

On July 16, 1998, EPA's then Acting Assistant Administrator, Richard Wilson, issued a guidance memorandum intended to provide further relief to areas affected by ozone transport.<sup>4</sup> The memorandum recognized that many moderate and serious areas are affected by transported pollution from either an upwind area in the same State with a higher classification and later attainment date, and/or from an upwind area in another State that is significantly contributing to the downwind area's nonattainment problem. The policy recognized that some downwind areas may be unable to meet their own attainment dates, despite doing all that was required in their local area, because an upwind area may not have adopted and implemented all of the controls that would benefit the downwind area through control of transported ozone before the downwind area's attainment date. Thus, the policy provided that upon a successful demonstration that an upwind area has interfered with attainment and that the downwind area is adopting all measures required for its local area<sup>5</sup> for attainment but for this interference, EPA may grant an extension of the downwind area's attainment date.<sup>6</sup> Once an area receives an extension of its attainment date based on transport, the area would no longer be subject to reclassification to a higher classification and subject to additional requirements for failure to attain by its original

<sup>4</sup>Memorandum, "Extension of Attainment Dates for Downwind Transport Areas," issued July 16, 1998. This memorandum is applicable to both moderate and serious ozone nonattainment areas. A copy of this policy may be found on EPA's web site at <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

<sup>5</sup>Local area measures would include all of the measures within the local modeling domain that were relied on for purposes of the modeled attainment demonstration.

<sup>6</sup>The policy provides that the area must meet four criteria to receive an attainment date extension. In summary, the area must: (1) Be 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 nonattainment; (2) submit an approvable attainment demonstration with any necessary, adopted local measures and with an attainment date that reflects when the upwind reductions will occur; (3) adopt all local measures required under the area's current classification and any additional measures necessary to demonstrate attainment; and (4) provide 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.

attainment date provided it was doing all that was necessary locally.

A request from the MA DEP for such an extension of the attainment date for the Western Massachusetts nonattainment area and EPA's proposed response is discussed in this action.

### 4. Time Frame for Taking Action on Attainment Demonstration SIPs for 10 Serious and Severe Areas

The States generally submitted the SIPs between April and October of 1998; some States are still submitting additional revisions as described below. Under the CAA, EPA is required to approve or disapprove a State's submission no later than 18 months following submission. (The statute provides up to 6 months for a completeness determination and an additional 12 months for approval or disapproval.) 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 take action on the 10 serious and severe one-hour ozone attainment demonstration SIPs (located in 13 States and the District of Columbia) and intends to take final action on these submissions over the next 6–12 months. The reader is referred to individual dates in this document for specific information on actions leading to EPA's final rulemaking on these plans.

### 5. Options for Action on a State's Attainment Demonstration SIP

Depending on the circumstances unique to each of the 10 area SIP submissions on which EPA is proposing action today, EPA is proposing one or more of these types of approval or disapproval in the alternative. In addition, these proposals may identify additional action that will be necessary from the State.

The CAA provides for EPA to approve, disapprove, partially approve or conditionally approve a State's plan submission. CAA section 110(k). The EPA must fully approve the submission if it meets the attainment demonstration requirement of the CAA. If the submission is deficient in some way, EPA may disapprove the submission. In the alternative, if portions of the submission are approvable, EPA may partially approve and partially disapprove, or may conditionally approve based on a commitment to correct the deficiency by a date certain, which can be no later than one year from the date of EPA's final conditional approval.

The EPA may partially approve a submission if separable parts of the submission, standing alone, are consistent with the CAA. For example, if a State submits a modeled attainment demonstration, including control measures, but the modeling does not demonstrate attainment, EPA could approve the control measures and disapprove the modeling for failing to demonstrate attainment.

EPA may issue a conditional approval based on a State's commitment to expeditiously correct a deficiency by a date certain that can be no later than one year following EPA's conditional approval. Such commitments do not need to be independently enforceable because, if the State does not fulfill its commitment, the conditional approval is converted to a disapproval. For example, if a State commits to submit additional control measures and fails to submit them or EPA determines the State's submission of the control measures is incomplete, the EPA will notify the State by letter that the conditional approval has been converted to a disapproval. If the State submits control measures that EPA determines are complete or that are deemed complete, EPA will determine through rulemaking whether the State's attainment demonstration is fully approvable or whether the conditional approval of the attainment demonstration should be converted to a disapproval.

Finally, EPA has recognized that in some limited circumstances, it may be appropriate to issue a full approval for a submission that consists, in part, of an enforceable commitment. Unlike the commitment for conditional approval, such an enforceable commitment can be enforced in court by EPA or citizens. In addition, this type of commitment may extend beyond one year following EPA's approval action. Thus, EPA may accept such an enforceable commitment where it is infeasible for the State to accomplish the necessary action in the short term.

### B. What Are the Components of a Modeled Attainment Demonstration?

The EPA provides that States may rely on a modeled attainment demonstration supplemented with additional evidence to demonstrate attainment. In order to have a complete modeling demonstration submission, States should have submitted the required modeling analysis and identified any additional evidence that EPA should consider in evaluating whether the area will attain the standard.

## 1. Modeling Requirements

For purposes of demonstrating attainment, the CAA requires serious and severe areas to use photochemical grid modeling or an analytical method EPA determines to be as effective.<sup>7</sup> The photochemical grid model is set up using meteorological conditions conducive to the formation of ozone. Emissions for a base year are used to evaluate the model's ability to reproduce actual monitored air quality values and 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 concentrations inside the modeling domain are at or below the NAAQS or at an acceptable upper limit above the NAAQS permitted under certain conditions by EPA's guidance. When the predicted concentrations are above the NAAQS, an optional Weight Of Evidence (WOE) determination which incorporates, but is not limited to, other analyses, such as air quality and emissions trends, may be used to address uncertainty inherent in the application of photochemical grid models.

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 Regional offices, 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 bad air quality, 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 domain size. The

domain should be larger than the designated nonattainment area to reduce uncertainty in the boundary conditions and should include 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. 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 data that describe atmospheric conditions and emissions inputs. Finally, the State needs to verify that the model is properly simulating the chemistry and atmospheric conditions through diagnostic analyses and model performance tests. 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 one-hour daily maximum concentrations in all grid cells for the attainment year to the level of the NAAQS. A predicted concentration above 0.124 ppm ozone indicates that the area is expected to exceed the standard in the attainment year and a prediction at or below 0.124 ppm indicates that the area is expected to attain the standard. This type of test is often referred to as an exceedance test. The EPA's guidance recommends that States use either of two modeled attainment or exceedance tests for the one-hour ozone NAAQS: a deterministic test or a statistical test.

The deterministic test requires the State to compare predicted one-hour daily maximum ozone concentrations for each modeled day<sup>8</sup> 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 one-hour ozone standard allows exceedances. If, over a three-year period, the area has an average of one or fewer exceedances per year, the area is not violating the standard. Thus, if the State models a very extreme day, 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 form of the one-hour standard allows for up to three readings above the standard over a three-year period before an area is considered to be in violation.)

The acceptable upper limit above 0.124 ppm is determined by examining the size of exceedances at monitoring sites which meet the one-hour NAAQS. For example, a monitoring site for which the four highest one-hour average concentrations over a three-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 observed at a location on a single day and it would be the only reading above the standard that would be expected to occur no more than an average of once a year over a three-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 meeting the NAAQS. Thus, these upper limits are rarely substantially higher than the attainment level of 0.124 ppm.

## 2. Additional Analyses Where Modeling Fails To Show Attainment

When the modeling does not conclusively demonstrate attainment, 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 NAAQS is likely. The process by which this is done is called a weight of evidence (WOE) determination.

Under a WOE determination, the State can rely on and EPA will consider factors such as: other modeled attainment tests, e.g., a rollback analysis; other modeled outputs, e.g., changes in the predicted frequency and pervasiveness of exceedances and predicted changes in the design value;

<sup>7</sup> The EPA issued guidance on the air quality modeling that is used to demonstrate attainment with the one-hour ozone NAAQS. See U.S. EPA, (1991), Guideline for Regulatory Application of the Urban Airshed Model, EPA-450/4-91-013, (July 1991). A copy may be found on EPA's web site at <http://www.epa.gov/ttn/scram/> (file name: "UAMREG"). See also U.S. EPA, (1996), Guidance on Use of Modeled Results to Demonstrate Attainment of the Ozone NAAQS, EPA-454/B-95-007, (June 1996). A copy may be found on EPA's web site at <http://www.epa.gov/ttn/scram/> (file name: "O3TEST").

<sup>8</sup> The initial, "ramp-up" days for each episode are excluded from this determination.

actual observed air quality trends; estimated emissions 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 exclusive 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 WOE needs to be.

The EPA's 1996 modeling guidance also recognizes a need to perform a mid-course review as a means for addressing uncertainty in the modeling results. Because of the uncertainty in long term projections, EPA believes a viable attainment demonstration that relies on WOE needs to contain provisions for periodic review of monitoring, emissions, and modeling data to assess the extent to which refinements to emission control measures are needed. The mid-course review is discussed in Section C.6.

### C. What Is the Frame Work for Proposing Action on the Attainment Demonstration SIPs?

In addition to the modeling analysis and WOE support demonstrating attainment, the EPA has identified the following key elements which generally must be present in order for EPA to approve or conditionally approve the one-hour attainment demonstration SIPs. These elements are listed below and then described in detail.

- CAA measures and measures relied on in the modeled attainment demonstration SIP. This includes adopted and submitted rules for all previously required CAA mandated measures for the specific area classification. This also includes measures that may not be required for the area classification but that the State relied on in the SIP submission for attainment and ROP plans on which EPA is proposing to take action on today.
- NO<sub>x</sub> reductions affecting boundary conditions.
- Motor vehicle emissions budget. A motor vehicle emissions budget which can be determined by EPA to be adequate for conformity purposes.
- Tier 2/Sulfur program benefits where needed to demonstrate attainment. Inclusion of reductions expected from

EPA's Tier 2 tailpipe and low sulfur-in-fuel standards in the attainment demonstration and the motor vehicle emissions budget, if needed for attainment.

- In certain areas, additional measures to further reduce emissions to support the attainment test. Additional measures may be measures adopted regionally such as in the Ozone Transport Region (OTR), or locally (intrastate) in individual States.
- Mid-Course Review (MCR). An enforceable commitment to conduct a mid-course review and evaluation based on air quality and emission trends. The mid-course review would show whether the adopted control measures are sufficient to reach attainment by the area's attainment date, or that additional control measures are necessary.

#### 1. CAA Measures and Measures Relied on in the Modeled Attainment Demonstration SIP

The States should have adopted the control measures already required under the CAA for the area classification. Since these 10 serious and severe areas need to achieve substantial reductions from their 1990 emissions levels in order to attain, EPA anticipates that these areas need all of the measures required under the CAA to attain the one-hour ozone NAAQS.

In addition, a state may have included control measures in its attainment strategy that are in addition to measures required in the CAA. (For serious areas, these should have already been identified and adopted, whereas severe areas have until December 2000 to submit measures necessary to achieve ROP through the attainment year and to attain.) For purposes of fully approving the State's SIP, the State will need to adopt and submit all VOC and NO<sub>x</sub> controls within the local modeling domain that were relied on for purposes of the modeled attainment demonstration.

The information in Table 1 is a summary of the CAA requirements that need to be met for each serious area for the one-hour ozone NAAQS. These requirements are specified in section 182 of the CAA. Information on more measures that States may have adopted or relied on in their current SIP submissions is not shown in the table. EPA will need to take final action approving all measures relied on for attainment, including the required ROP control measures and target calculations, before EPA can issue a final full approval of the attainment demonstration as meeting CAA section 182(c)(2).

TABLE 1.—CAA REQUIREMENTS FOR SERIOUS AREAS

—NSR for VOC and NO <sub>x</sub> <sup>1</sup> , including an offset ratio of 1.2:1 and a major VOC and NO <sub>x</sub> source cutoff of 50 tons per year (tpy).
—Reasonable Available Control Technology (RACT) for VOC and NO <sub>x</sub> <sup>1</sup> .
—Enhanced Inspection and Maintenance (I/M) program.
—15% volatile organic compound (VOC) plans.
—Emissions inventory.
—Emission statements.
—Periodic inventories.
—Attainment demonstration.
—9 percent ROP plan through 1999.
—Clean fuels program or substitute.
—Enhanced monitoring Photochemical Assessment Monitoring Stations (PAMS).
—Stage II vapor recovery

<sup>1</sup> Unless the area has in effect a NO<sub>x</sub> waiver under section 182(f). Western Massachusetts is not such an area.

#### 2. NO<sub>x</sub> Reductions Consistent With the Modeling Demonstration

The EPA completed final rulemaking on the NO<sub>x</sub> SIP call on October 27, 1998, which required States to address transport of NO<sub>x</sub> and ozone to other States. To address transport, the NO<sub>x</sub> SIP call established emissions budgets for NO<sub>x</sub> that 23 jurisdictions were required to show they would meet through enforceable SIP measures adopted and submitted by September 30, 1999. The NO<sub>x</sub> SIP call is intended to reduce emissions in upwind States that significantly contribute to nonattainment problems. The EPA did not identify specific sources that the States must regulate nor did EPA limit the States' choices regarding where to achieve the emission reductions. Subsequently, a three-judge panel of the Court of Appeals for the District of Columbia Circuit issued an order staying the portion of the NO<sub>x</sub> SIP call rule requiring States to submit rules by September 30, 1999.

The NO<sub>x</sub> SIP call rule establishes budgets for the States in which 9 of the nonattainment areas for which EPA is proposing action today are located. The 9 areas are: Greater Connecticut, Springfield MA, New York-North New Jersey-Long Island (NY-NJ-CT), Baltimore MD, Philadelphia-Wilmington-Trenton (PA-NJ-DE-MD), Metropolitan Washington, D.C. (DC-MD-VA), Atlanta GA, Milwaukee-Racine WI, and Chicago-Gary-Lake County (IL-IN).

Emission reductions that will be achieved through EPA's NO<sub>x</sub> SIP call will reduce the levels of ozone and ozone precursors entering nonattainment areas at their boundaries.

For purposes of developing attainment demonstrations, States define local modeling domains that include both the nonattainment area and nearby surrounding areas. The ozone levels at the boundary of the local modeling domain are reflected in modeled attainment demonstrations and are referred to as boundary conditions. With the exception of Houston, the one-hour attainment demonstrations on which EPA is proposing action have relied, in part, on the NO<sub>x</sub> SIP Call reductions for purposes of determining the boundary conditions of the modeling domain. Emission reductions assumed in the attainment demonstrations are modeled to occur both within the State and in upwind States; thus, intrastate reductions as well as reductions in other States impact the boundary conditions. Although the court has indefinitely stayed the SIP submission deadline, the NO<sub>x</sub> SIP Call rule remains in effect. Therefore, EPA believes it is appropriate to allow States to continue to assume the reductions from the NO<sub>x</sub> SIP call in areas outside the local one-hour modeling domains. If States assume control levels and emission reductions other than those of the NO<sub>x</sub> SIP call within their State but outside of the modeling domain, States must also adopt control measures to achieve those reductions in order to have an approvable plan.

Accordingly, States in which the nonattainment areas are located will not be required to adopt measures outside the modeling domain to achieve the NO<sub>x</sub> SIP call budgets prior to the time that all States are required to comply with the NO<sub>x</sub> SIP call. If the reductions from the NO<sub>x</sub> SIP call do not occur as planned, States will need to revise their SIPs to add additional local measures or obtain interstate reductions, or both, in order to provide sufficient reductions needed for attainment.

As provided in section 1 above, any controls assumed by the State inside the local modeling domain<sup>9</sup> for purposes of the modeled attainment demonstration must be adopted and submitted as part of the State's one-hour attainment demonstration SIP. It is only for reductions occurring outside the local modeling domain that States may assume implementation of NO<sub>x</sub> SIP call

<sup>9</sup>For the purposes of this document, "local modeling domain" is typically an urban scale domain with horizontal dimensions less than about 300 km on a side, horizontal grid resolution less than or equal to 5 x 5 km or finer. The domain is large enough to ensure that emissions occurring at 8 am in the domain's center are still within the domain at 8 pm the same day. If recirculation of the nonattainment area's previous day's emissions is believed to contribute to an observed problem, the domain is large enough to characterize this.

measures and the resulting boundary conditions.

### 3. Motor Vehicle Emissions Budget

The EPA believes that attainment demonstration SIPs must necessarily estimate the motor vehicle emissions that will be produced in the attainment year and demonstrate that this emissions level, when considered with emissions from all other sources, is consistent with attainment. The estimate of motor vehicle emissions is used to determine the conformity of transportation plans and programs to the SIP, as described by CAA section 176(c)(2)(A). For transportation conformity purposes, the estimate of motor vehicle emissions is known as the motor vehicle emissions budget. The EPA believes that appropriately identified motor vehicle emissions budgets are a necessary part of an attainment demonstration SIP. A SIP cannot effectively demonstrate attainment unless it identifies the level of motor vehicle emissions that can be produced while still demonstrating attainment.

The EPA has determined that except for the Springfield (Western Massachusetts) attainment demonstration SIP, the motor vehicle emission budgets for all areas in today's proposals are inadequate or missing from the attainment demonstration. Therefore, EPA is proposing to disapprove the attainment demonstration SIPs for those areas if the States do not submit motor vehicle emissions budgets that EPA can find adequate by May 31, 2000. A 2003 motor vehicle emission budget was submitted for the Western Massachusetts nonattainment area on October 1, 1998 and determined to be adequate by EPA on February 19, 1999.

### 4. Tier 2/Sulfur Program Benefits

On May 13, 1999, EPA published a Notice of Proposed Rulemaking (NPRM) proposing a major, comprehensive program designed to significantly reduce emissions from passenger cars and light trucks (including sport-utility vehicles, minivans, and pickup trucks) and to reduce sulfur in gasoline. Under the proposed program, automakers would produce vehicles designed to have very low emissions when operated on low-sulfur gasoline, and oil refiners would provide that cleaner gasoline nationwide. The EPA subsequently issued two supplemental notices. 64 FR 35112 (June 30, 1999); 64 FR 57827 (October 27, 1999).

These notices provide one-hour ozone modeling and monitoring information that support EPA's belief that the Tier

2/Sulfur program is necessary to help areas attain the one-hour NAAQS. Under the proposed rule, NO<sub>x</sub> and VOC emission reductions (as well as other reductions not directly relevant for attainment of the one-hour ozone standard) would occur beginning in the 2004 ozone season although incentives for early compliance by vehicle manufacturers and refiners will likely result in some reductions prior to 2004. Nationwide, the Tier 2/Sulfur program is projected to result in reductions of approximately 800,000 tons of NO<sub>x</sub> per year by 2007 and 1,200,000 tons by 2010.

In the October 27, 1999 supplemental notice, EPA reported in Table 1 that EPA's regional ozone modeling indicated that 17 metropolitan areas for which the one-hour standard applies need the Tier 2/Sulfur program reductions to help attain the one-hour ozone standard. The Springfield (Western Massachusetts) area was included on that list. On August 13, 1999, the MA DEP submitted a letter requesting an attainment date extension until December 2003, which is before the Tier 2/Sulfur reductions occur. Massachusetts believes that violations of the ozone standard will be eliminated by that time frame. Therefore, the Tier 2/Sulfur reductions are not being relied upon for attainment of the one-hour standard by Massachusetts.

### 5. Additional Measures to Further Reduce Emissions

The EPA is proposing to find that the attainment demonstrations for New York-North New Jersey-Long Island; Baltimore; Philadelphia-Wilmington-Trenton; Houston-Galveston-Brazoria and Atlanta, even considering the Tier 2/Sulfur program reductions and the WOE, will not achieve attainment without the application of additional emission control measures to achieve additional emission reductions. Thus, for each of these areas, EPA has identified specific tons per day emissions of NO<sub>x</sub> and/or VOC that must be reduced through additional control measures in order to demonstrate attainment and to enable EPA to approve the demonstration. The need for additional emission reductions is generally based on a lack of sufficient compelling evidence that the demonstration shows attainment at the current level of adopted or planned emission controls.

As discussed below the Springfield (Western Massachusetts) area does contain compelling evidence that attainment will be attained by its proposed attainment date of December 31, 2003, and additional reductions are

not needed to demonstrate attainment. The details for the Western Massachusetts area are discussed below.

6. Mid-Course Review

A mid-course review (MCR) is a reassessment of modeling analyses and more recent monitored data to determine if a prescribed control strategy is resulting in emission reductions and air quality improvements needed to attain the ambient air quality standard for ozone as expeditiously as practicable but no later than the statutory dates. For serious areas such as Springfield (Western Massachusetts) requesting an attainment date extension to a year prior to 2005, a review that occurs at a midpoint prior to the attainment date

would be impractical in terms of timing. Therefore, for these areas, EPA is looking for a commitment to perform an early attainment assessment to be submitted by the end of the attainment year (i.e., 2003). In addition, EPA believes the state should commit to work with EPA in a public consultative process to develop a methodology for performing the early attainment assessment and developing the criteria by which adequate progress would be judged.

Massachusetts submitted a commitment with its July 28, 1998 attainment demonstration committing to assess the progress and implementation of the state and federal measures necessary for attainment. Massachusetts

committed to perform this assessment by November, 2001. EPA encourages Massachusetts to perform this assessment at the end of 2003, the date requested by Massachusetts for attainment.

*D. What Does EPA Expect to Happen With Respect to the Attainment Demonstration for the Springfield (Western Massachusetts) One-hour Ozone Nonattainment Area?*

Table 2 shows a summary of information on what EPA expects from States to allow EPA to approve the one-hour ozone attainment demonstration SIPs. As explained in the Table, Massachusetts has already completed the actions due by December 31, 1999.

TABLE 2.—SUMMARY SCHEDULE OF FUTURE STATE ACTIONS—SERIOUS NONATTAINMENT AREAS

Req'd no later than	Action
12/31/99 .....	State submits the following to EPA: —Motor vehicle emissions budget (Massachusetts submitted its emissions budget on October 1, 1998). —Commitment to do the following: —Perform an early attainment assessment at the end of the attainment year (Massachusetts submitted a commitment with its July 28, 1998 attainment demonstration committing to assess the progress and implementation of the state and federal measures necessary for attainment).
12/31/03 .....	State submits an early attainment assessment at the end of the attainment year.

*E. What Are the Relevant Policy and Guidance Documents?*

This proposal has cited several policy and guidance memoranda. The EPA has also developed several technical documents related to the rulemaking action in this proposal. Some of the documents have been referenced above. The documents and their location on EPA's web site are listed below; these documents will also be placed in the docket for this proposal action.

Recent Documents

1. "Guidance for Improving Weight of Evidence Through Identification of Additional Emission Reductions, Not Modeled." U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, Air Quality Modeling Group, Research Triangle Park, NC 27711. November 1999. Web site: <http://www.epa.gov/ttn/scram> (file name: "ADDWOE1H").

2. "Serious and Severe Ozone Nonattainment Areas: Information on Emissions, Control Measures Adopted or Planned and Other Available Control Measures." Draft Report. November 3, 1999. Ozone Policy and Strategies Group. U.S. EPA, RTP, NC.

3. Memorandum, "Guidance on Motor Vehicle Emissions Budgets in One-Hour Attainment Demonstrations," from Merrylin Zaw-Mon, Office of Mobile Sources, to the Air Division Directors, Regions I–VI. November 3, 1999. Web site: <http://www.epa.gov/oms/transp/trafconf.html>.

4. Memorandum from Lydia Wegman and Merrylin Zaw-Mon to the Air Division Directors, Regions I–VI, "1-Hour Ozone Attainment Demonstrations and Tier 2/Sulfur Rulemaking." November 8, 1999. Web site: <http://www.epa.gov/oms/transp/trafconf.html>.

5. Draft Memorandum, "Analyses To Support Mid-course Review Of SIP's To Meet The 1-hr NAAQS For Ozone." From John Seitz, Director, Office of Air Quality Planning and Standards. Web site: <http://www.epa.gov/ttn/scram> (file name: "DR6MCR").

6. Memorandum, "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas." John S. Seitz, Director, Office of Air Quality Planning and Standards. November 30, 1999. Web site: <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

Previous Documents

1. U.S. EPA, (1991), 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. U.S. EPA, (1996), Guidance on 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").

3. Memorandum, "Ozone Attainment Demonstrations," from Mary D. Nichols, issued March 2, 1995. Web site: <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

4. Memorandum, "Extension of Attainment Dates for Downwind Transport Areas," issued July 16, 1998. Web site: <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

5. December 29, 1997 Memorandum from Richard Wilson, Acting Assistant Administrator for Air and Radiation "Guidance for Implementing the 1-Hour Ozone and Pre-Existing PM<sub>10</sub> NAAQS." Web site: <http://www.epa.gov/ttn/oarpg/t1pgm.html>.

**II. How Does the Massachusetts Submittal Satisfy the Frame Work?**

This section provides a review of Massachusetts' submittal and an

analysis of how this submittal satisfies the frame work discussed in Section I. of this notice.

#### A. What Did The State Submit?

The attainment demonstration SIP submitted by the Massachusetts Department of Environmental Protection for the Western Massachusetts area includes a modeling analysis using the CALGRID model. This was submitted on July 27, 1998. The SIP was subject to public notice and comment and a hearing was held in June 1998. Information on how the photochemical grid modeling meets EPA guidance is summarized below. Massachusetts also requested an attainment date extension for this area on August 13, 1999. The state requested a new attainment date of December 2003, which EPA interprets as December 31, 2003. This submittal was subject to public notice and comment. This attainment date extension is discussed below.

#### B. What Did the Attainment Demonstration SIP Contain?

The one-hour attainment demonstration submitted by Massachusetts is for both the Boston (Eastern Massachusetts) serious area as well as the Springfield (Western Massachusetts) serious area. The Eastern Massachusetts serious area, however, has air quality better than the one-hour standard and in June 1999, EPA issued a final rule determining that the 1-hour ozone standard no longer applied (64 FR 30911) and that Boston no longer needed a one-hour attainment demonstration. EPA has since proposed to reinstate the standard (64 FR 57424). However, even if the one-hour standard is reinstated, Eastern Massachusetts would continue to qualify, based on recent air quality data, as a clean data area under the EPA policy related to ozone nonattainment areas meeting the one-hour ozone NAAQS (May 10, 1995) and the attainment demonstration requirement would be deferred pending redesignation.

The key element of the attainment demonstration is the photochemical grid point modeling required by the CAA. The Massachusetts SIP used the CALGRID model which was approved for use by EPA since it was found to be at least as effective as the guideline model which is UAM-IV. The modeling domain for CALGRID extends from southwest Connecticut, northward 340 km to northern Vermont, and eastward to east of Nantucket, Massachusetts. For the Western Massachusetts nonattainment area, the domain meets EPA guidance since it contains adequate areas both upwind and downwind of

the nonattainment area. The domain also includes the monitors with the highest measured peak ozone concentrations in Massachusetts and coastal Maine and New Hampshire. Since the original modeling was done for a much larger domain that includes not only all of Massachusetts but also includes all of Rhode Island, most of Connecticut, southern New Hampshire, southern Vermont, and most of southern Maine, the CALGRID model has several "source" areas and several receptor areas. The only receptor area of import to this notice and the Springfield (Western Massachusetts) SIP submittal is the Western Massachusetts area, which includes the following Counties: Berkshire, Franklin, Hampshire and Hampden. For the purposes of this notice, only model results in this four county area will be used, unless otherwise noted. As shown below, EPA believes the modeling portion of the attainment demonstration meets EPA guidance.

The model was run for 10 days during four distinct episodes (August 14-17, 1987, June 21-22, 1988, July 7-8, 1988 and July 10-11, 1988). These episodes represent a variety of ozone conducive weather conditions, and also include the three worst ranked ozone episodes (1987 to 1998) for the domain. The episodes selected reflect days with high measured ozone in a variety of areas within the entire domain. This is because, as stated above, the domain covers several nonattainment areas, and in order to model the meteorology that causes high ozone, several different episodes were needed. The model results for the first day of each episode are not used for attainment demonstration purposes, because they are considered "ramp-up days." Ramp-up days help reduce impacts of initial conditions; after ramp-up days, model results are more reflective of actual emissions being emitted into the atmosphere.

The two key episodes for purposes of assessing whether attainment with the one-hour ozone standard can be achieved are the two July 1988 episodes. This is because these two episodes can use the boundary conditions generated using the modeling done by EPA for OTAG. At the time of the CALGRID modeling, the OTAG modeling was the best regional scale ozone modeling that was available for boundary conditions. OTAG boundary conditions give the best representation of expected future year emissions in upwind areas and certain runs can be used to simulate the effects of the NO<sub>x</sub> SIP call promulgated by EPA on October 27, 1998 (63 FR 57356). The other two episodes can not

use this newer and better regional modeling for boundary conditions, because OTAG did not model these episodes, and therefore no OTAG boundary conditions are available. For those episodes, the older Regional Oxidant Model (ROM) boundary conditions are used to reflect future benefits from CAA measures. However, there are no ROM boundary conditions that adequately reflect EPA's NO<sub>x</sub> SIP call.

Since the best boundary conditions are from OTAG, only two episodes remain relevant for further discussion (July 7-8, 1988 and July 10-11, 1988). Only one of these episodes is relevant to Western Massachusetts and that is the July 7-8, 1988 episode. The July 10-11, 1988 episode had less impact on Western Massachusetts and is more an Eastern Massachusetts and coastal New England episode. As stated above, the model domain was set up in the early 1990's with many nonattainment areas in mind (the Rhode Island serious area, the Eastern Massachusetts serious area, the Portsmouth-Dover-Rochester serious area in New Hampshire and three moderate areas in Maine). The Western Massachusetts area was only one of these competing for episode days.

The CALGRID model was run using the CALMET meteorological processor. This processor took actual meteorological data collected by the National Weather Service and the State Air Pollution Agencies and using extrapolation and other analysis techniques provided winds, temperatures and other meteorological parameters at approximately 400 specific grid points for each hour of the episode at up to 14 levels from the surface to top of the model about 5000 feet. CALMET is described in detail in the Massachusetts attainment demonstration, and was approved by EPA for use in the CALGRID modeling system.

The CALGRID model was run with emissions data prepared by EPA Region I and/or a contractor working with EPA Region I. The data were taken from the EPA Aerometric Informational Retrieval System (AIRS) data base in late 1993 and reflect the emission data supplied from the six New England States. The emission data for the small portion of New York state that forms the western edge of the domain was supplied by New York. EPA Region I quality assured all the New England AIRS data, the New York supplied data and all necessary modifications to the data. The data was further processed through EPS's Emissions Preprocessor System (EPS Version 2.0). To more accurately model ozone in New England, day specific



emissions were simulated for on-road mobile sources (cars, trucks, busses, etc.), and for large power plants in New England.

Future emissions were projected to 1999 accounting for both emission increases due to industrial growth, population growth and growth in the number of miles traveled by cars, as well as emission reductions due to cleaner gasoline, cleaner cars and controls on industrial pollution. Growth factors were derived using the EPA-approved Bureau of Economic Analysis (BEA) factors and all the emissions were processed using the EPS 2.0 system.

Model runs were also performed for the year 2007. Year 2007 emissions estimates were prepared by the states reflecting EPA's proposed NO<sub>x</sub> SIP call (62 FR 60318, November 7, 1997). This was accomplished using a two step process. The first step was to project emissions using growth factors to account for increases or decreases in economic activity by industrial sector. In general, the states projected their emissions using the same growth factors that were used in the OTAG modeling effort. The second step involved applying control factors to source categories that would be regulated by the year 2007. States used a combination of information for control levels: those used for the OTAG modeling effort, and state-specific information relating to the effectiveness of control programs planned or in place.

### C. What Are the Conclusions From the Modeling?

The EPA guidance for approval of the modeling aspect of a one-hour ozone attainment demonstration is to use the one-hour ozone grid modeling to apply one of two modeled attainment tests (deterministic or statistical) with optional weight of evidence analyses to supplement the modeled attainment test results when the modeled attainment test is failed. The modeling performed for the Western Massachusetts area does not show attainment of the one-hour ozone standard (124 ppb) at every grid cell for every hour of every episode day modeled. Maximum predicted concentrations in western Massachusetts for the relevant episode (July 8, 1988) are 135 ppb. Using the statistical test described above, this is slightly above the acceptable upper limit for that day of 130 ppb.

However, when Massachusetts' weight of evidence analysis is considered, attainment is adequately demonstrated. One of the elements in a weight of evidence analysis is use of the model predicted change in ozone to estimate a future air quality design

value. This uses the air quality modeling in a relative sense. The highest design value in Western Massachusetts, based on 1995 to 1997 monitoring data, was 132 ppb. The model shows that, with the planned emission reductions in the two precursor emissions (VOC and NO<sub>x</sub>), ground-level ozone concentrations will be lowered to approximately 119 ppb.

More specifically, to strengthen the weight of evidence analyses, the Massachusetts attainment demonstration uses the model predictions in a relative sense to estimate a future design value. This type of analysis is sometimes referred to as a local rollback analysis. It uses the local CALGRID modeling to predict future values (*i.e.*, rollback the current design value) of the current ozone design value. The DEP compared two CALGRID runs to estimate the improvement in ozone air quality levels that would occur after 1999 due to continued implementation of CAA controls within the New England modeling domain (the modeling domain includes most of CT, NH and VT, all of MA and RI and southern ME) and due to controls pursuant to EPA's NO<sub>x</sub> SIP call both within the domain and upwind of the domain. The first run used 1999 emission files coupled with 2007 boundary conditions from OTAG modeling just reflecting Clean Air Act controls.<sup>10</sup> The 1999 runs for the two July episodes were then compared with the modeling runs done for 2007 using: (1) 2007 boundary conditions from OTAG modeling reflecting Clean Air Act controls and NO<sub>x</sub> reductions equivalent to the regional NO<sub>x</sub> SIP call adopted by EPA, and (2) 2007 emissions within the modeling domain reflecting Clean Air Act controls and NO<sub>x</sub> reductions equivalent to the regional NO<sub>x</sub> SIP call. This comparison showed that recent air quality design values can reasonably be expected to be reduced below 124 ppb based solely on continued additional reductions within the domain (*e.g.*, areas in CT, western MA) subsequent to 1999 and reductions from EPA's NO<sub>x</sub> SIP call. Not taken credit for in the analysis is benefits from CAA controls upwind of the New England modeling domain that occur after 1999 (*e.g.*, phase 2 reformulated gasoline, benefits from new automobile standards, *etc.*) making the analysis conservative since reductions from such programs in areas immediately upwind

of the modeling domain (*i.e.*, areas in New York and New Jersey) will help Western Massachusetts attain the one-hour ozone standard. The modeling also indicates that ozone reductions from emission reductions in the New England domain would be greater if boundary conditions were cleaner. So emission reduction from future programs like the Tier 2/Sulfur program would further aid in reaching and maintaining attainment of the one-hour ozone standard after 2003.

In summary, based on a weight-of-evidence analysis, the modeling submitted for the Springfield (Western Massachusetts) area meets the EPA guidance and is acceptable.

### D. What Do the Ambient Ozone Data Show?

The weight of evidence analysis conducted by Massachusetts is consistent with the most recent ozone data. There are five ozone air quality monitors in the Western Massachusetts nonattainment area. They are in the towns of Chicopee, Agawam, Ware, Adams and Amherst. The monitor in Adams is in a mountaintop location and has only recorded two exceedances of the one-hour ozone standard since 1989 and is clearly in attainment with the ozone standard and therefore is not an issue with respect to attainment/nonattainment. The other four monitors were all recording violations of the one-hour ozone standard when the area was classified as serious in 1991 (based on ozone data from circa 1987 to 1989). Since the original classification all these sites have shown a substantial decrease in ozone due to emission reductions, both within Massachusetts and also upwind from Massachusetts. For example, the site at Agawam has shown a design value (the form of the one-hour ozone standard) drop from 148 ppb in 1989 to 110 ppb in 1998 or a drop of 26%. This site is currently in attainment for the one-hour standard. At Chicopee, the design value has dropped from 159 ppb to 116 ppb in 1998, a drop of 27%. This site is also attainment. At Amherst the design value has dropped from 135 ppb to 106 ppb in 1998 for a drop of 21%. This site is in attainment. At the Ware site the design value has dropped from 167 ppb to 128 ppb in 1999, for a drop of 23%. This is the only site in Western Massachusetts that is still recording violations of the ozone standard. A linear fit of those two design values (167 ppb in 1989 and 128 ppb in 1998) shows a drop of nearly 4 ppb per year of ozone. Since the Ware site is currently only 4 ppb over the one-hour ozone standard, attainment of the standard may be expected with in the

<sup>10</sup>Note that the 1999 emission files did not include I/M emission reductions for an enhanced I/M program in Massachusetts since this program will not be fully implemented until some time after 1999.

next two years (*i.e.*, by 2001). It must be noted that the year to year decline in ozone levels is rarely linear and year to year variations do occur, but, since these four ozone sites all show a substantial downward trend in one-hour ozone concentrations, and precursor emissions are projected to keep falling, both within the nonattainment area and upwind from it, there is no reason to believe that this downward trend will not continue over the near term. The emission reductions will be a result of the following: continued benefits from tighter standards on vehicles due to fleet turnover (California (CA) LEV in Massachusetts and NLEV or CA LEV in upwind areas); the reductions from large point sources due to the OTC NO<sub>x</sub> Memorandum of Understanding (MOU) and EPA's NO<sub>x</sub> SIP call; Phase II reformulated gasoline; ultimately Tier 2 automobile standards and low sulfur gasoline; and other federal control measures (*i.e.*, controls on non-road engines). In addition, Massachusetts started an enhanced I/M program in October 1999 which will also yield emission reductions.

#### *E. Does the Area Need Additional Measures?*

Since the Western Massachusetts area passes the weight-of evidence test it does not need additional measures, including Tier 2 automobile standards.

#### *F. What Is EPA Policy With Regards to an Attainment Date Extension?*

On July 16, 1998, a guidance memorandum entitled "Extension of Attainment Dates for Downwind Transport Areas" was signed by Richard D. Wilson, then Acting Assistant Administrator for Air and Radiation. That memorandum included EPA's interpretation of the Clean Air Act regarding the possibility of extending attainment dates for ozone nonattainment areas that have been classified as moderate or serious for the 1-hour standard and which are downwind of areas that have interfered with their ability to demonstrate attainment by dates prescribed in the Act. That memorandum stated that EPA will consider extending the attainment date for an area 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 nonattainment;

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

(3) Has adopted all applicable local measures required under the area's current classification and any additional measures necessary to demonstrate attainment, assuming the reductions occur as required in the upwind areas;

(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.

#### *G. Does the Western Massachusetts Area Qualify for an Attainment Date Extension?*

The following analysis shows that the area does meet the above four part test. In its July 27, 1998 attainment demonstration, the MA DEP requested that, since the Western Massachusetts area cannot attain the one-hour ozone standard by its attainment date of 1999, due to the effects of transported ozone, it be allowed an attainment date extension beyond 1999. On August 13, 1999 the MA DEP submitted a letter requesting an attainment date extension to December 2003, which EPA interprets as December 31, 2003. This date matches the MA DEP conformity budget submitted to EPA on October 1, 1998 and is in line with most of the emission reductions expected as a result of the NO<sub>x</sub> SIP call.

In order to qualify for an attainment date extension several tests need to be passed. In order to assess the role of transport in Western Massachusetts, two model runs submitted by Massachusetts are examined. The first is a zero out run for Connecticut. In this run, all the anthropogenic emissions from the nearest upwind state are eliminated. This run shows only limited improvement in the Western Massachusetts area from such a large

emission reduction. Another run that shows the impact of transport in Western Massachusetts is a run where very clean boundary conditions are assumed. This run uses boundary conditions from the OTAG run IN60, which assumed the reductions similar to NO<sub>x</sub> SIP call emissions, plus an additional 60% reduction in NO<sub>x</sub> from the ozone nonattainment areas classified as serious or above. This run shows that Western Massachusetts would achieve attainment by 2007, based on a strict exceedance test (*i.e.*, all grid cells below 124 ppb). Thus, it is transported air pollution that is causing the area to be nonattainment and that transport is from upwind areas outside the modeling domain (*e.g.*, New York City). Therefore, lowering transported ozone is extremely important in bringing Western Massachusetts into attainment of the ozone standard. In summary, the Western Massachusetts area is affected by transport. So the first test for an attainment date extension is passed.

The second test is that an area has submitted an approvable attainment demonstration with any necessary, adopted local measures and with an attainment date that shows that it will attain the one-hour standard no later than the date that the reductions are expected from upwind areas under the final NO<sub>x</sub> SIP call and/or the statutory attainment date for upwind nonattainment areas, *i.e.*, assuming the boundary conditions reflecting those upwind reductions. Since the area has submitted an attainment demonstration and this notice is proposing approval of that plan without additional measures, this test is passed. Also, since the attainment date requested is December 2003, which is in line with the NO<sub>x</sub> SIP call and the Phase III NO<sub>x</sub> MOU requirements, that date is reasonable.

The third test is that Massachusetts had to do all the CAA requires for a serious nonattainment area. The Western Massachusetts area is classified as serious and is required to submit certain measures. Table 3 contains a summary of the CAA required ozone SIP elements and the additional measures included in the attainment demonstration. This Table indicates whether a control measure was part of the modeling demonstration and provides a summary of the approval or promulgation status.

TABLE 3.—CONTROL MEASURES IN THE ONE-HOUR OZONE ATTAINMENT PLANS FOR THE WESTERN MASSACHUSETTS SERIOUS OZONE NONATTAINMENT AREA

Name of control measure	Type of measure	Included in local modeling	Approval status
On-board Refueling Vapor Recovery .....	Federal rule .....	Yes .....	Promulgated at 40 CFR 86.
Federal Motor Vehicle Control program .....	Federal rule .....	Yes .....	Promulgated at 40 CFR 86.
Federal Non-road Gasoline Engines .....	Federal rule .....	Yes .....	Promulgated at 40 CFR 90.
Federal Non-road Heavy Duty diesel engines .....	Federal rule .....	Yes .....	Promulgated at 40 CFR 89.
AIM Surface Coatings .....	State initiative .....	Yes .....	SIP approved (60 FR 65242; 12/19/95).
Consumer & commercial products .....	State initiative .....	Yes .....	SIP approved (60 FR 65242; 12/19/95).
Enhanced Inspection & Maintenance .....	CAA SIP Requirement.	Yes .....	SIP approval pending (proposed for approval at 64 FR 51937; 9/27/99 and 64 FR 66829; 11/30/99) <sup>1</sup> .
NO <sub>x</sub> RACT .....	CAA SIP Requirement.	Yes .....	SIP approved (64 FR 48095; 9/2/99).
VOC RACT pursuant to sections 182(a)(2)(A) and 182(b)(2)(B) of Clean Air Act.	CAA SIP Requirement.	Yes .....	SIP approved (64 FR 48297; 9/3/99 and 58 FR 34908; 6/30/93).
VOC RACT pursuant to sections 182(b)(2)(A) and (C) of Clean Air Act.	CAA SIP Requirement.	Yes .....	SIP approved (64 FR 48297; 9/3/99).
Stage II Vapor Recovery .....	CAA SIP Requirement.	Yes .....	SIP approved (58 FR 48315; 9/15/93) <sup>2</sup> .
Automotive Refinishing .....	State initiative .....	Yes .....	SIP approved (61 FR 5696; 2/14/96).
Reformulated Gasoline .....	State opt-in .....	Yes .....	SIP approval pending (proposed for approval as part of the 15% plan at 64 FR 51943; 9/27/99 and 64 FR 66829; 11/30/99).
CA Low Emission Vehicle (CA LEV) .....	State initiative .....	Yes .....	SIP approved (60 FR 6027; 2/1/95).
Clean Fuel Fleets .....	CAA SIP Requirement.	Yes .....	SIP approved (60 FR 6027; 2/1/95) <sup>3</sup> .
New Source Review .....	CAA SIP Requirement.	No .....	SIP approval pending <sup>4</sup> .
Base Year Emissions Inventory .....	CAA SIP Requirement.	N/A <sup>5</sup> .....	SIP approved (62 FR 37510; 7/14/97).
15% VOC Reduction Plan .....	CAA SIP Requirement.	Yes <sup>6</sup> .....	SIP approval pending (proposed for approval at 64 FR 51943; 9/27/99 and 64 FR 66829; 11/30/99).
9% rate of progress plan .....	CAA SIP Requirement.	Yes <sup>6</sup> .....	SIP approval pending (proposed for approval at 64 FR 51943; 9/27/99 and 64 FR 66829; 11/30/99).
Emissions Statements .....	CAA SIP Requirement.	N/A <sup>5</sup> .....	SIP approved (61 FR 11556; 3/21/96).
Enhanced Monitoring (PAMS) .....	CAA Requirement	N/A <sup>5</sup> .....	SIP approved (62 FR 37510; 7/14/97).
OTC NO <sub>x</sub> MOU Phase II .....	State initiative .....	Yes .....	SIP approved (64 FR 6/2/99; 64 FR 29567).
NO <sub>x</sub> SIP Call .....	EPA requirement ...	Yes .....	SIP approval pending <sup>7</sup> .

<sup>1</sup> Massachusetts Enhanced Inspection & Maintenance was proposed for approval based on a showing that their program meets EPA's low enhanced performance standard and secures the emission reduction necessary to meet 15% and 9% rate-of-progress requirements. Massachusetts, however, is claiming reductions greater than these amounts in its attainment demonstration. Massachusetts needs to demonstrate that the emission reduction credit it is claiming from its I/M program in its attainment demonstration is warranted for the combination of test type and equipment that Massachusetts is implementing. On November 3, 1999, MA DEP sent a letter to EPA indicating that it expects submit its I/M program evaluation plan by March 31, 2000. EPA expects that the program evaluation done pursuant to the plan will enable Massachusetts to demonstrate the level of emission reduction credit warranted for its I/M program.

<sup>2</sup> In its Attainment Demonstration SIP submittal, Massachusetts committed to submit a revised Stage II rule by January 1999. Massachusetts has not yet met this commitment but must do so in order for EPA to grant final approval of its attainment demonstration for Western Massachusetts. On November 24, 1999, MA DEP sent a letter to EPA indicating that it expects to adopt the necessary revisions to its stage II rule by April 1, 2000.

<sup>3</sup> Massachusetts used CAL LEV reductions to meet the Clean Fuel Fleet requirement.

<sup>4</sup> The state is not relying on emission reductions from this NSR SIP and therefore it will not have to be finally approved in order to approve the attainment demonstration.

<sup>5</sup> Does not produce emission reductions.

<sup>6</sup> The measures used to demonstrate rate of progress were modeled.

<sup>7</sup> On November 19, 1999, MA DEP submitted a SIP revision in response to the EPA's regulation entitled, "Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," otherwise known as the "NO<sub>x</sub> SIP Call." The SIP submittal included a NO<sub>x</sub> budget and allowance trading regulation, 310 CMR 7.28. Although not a CAA required measure, 310 CMR 7.28 requires significant NO<sub>x</sub> reductions from 2003 onward which will strengthen the SIP. EPA will take final action on 310 CMR 7.28 prior to finalizing action on the one-hour ozone attainment plan. This also fulfills Massachusetts commitment under the OTC MOU Phase III program.

For the measures that have been submitted to EPA and not yet fully approved by EPA, EPA intends to publish final rules before or at the same time as we publish final approval of the attainment demonstration. Those include the 15% plan and 9% plan

through 1999, the enhanced inspection and maintenance program, and the NO<sub>x</sub> SIP call SIP. Additionally, there are additional SIP elements that have not been submitted by Massachusetts that EPA needs in order to agree with the reductions claimed by Massachusetts for

certain control programs. Because of these outstanding elements, EPA is also proposing, in the alternative, to disapprove this demonstration. These outstanding SIP elements are: (1) Revisions to the Massachusetts stage II vapor recovery rule that were

committed to in the July 27, 1998 attainment demonstration and (2) the demonstration described in EPA's supplementary proposed approval of the Massachusetts 15% rate-of-progress plan published in the **Federal Register** on November 30, 1999 (64 FR 66829), requiring Massachusetts to demonstrate that the emission reduction credit it is claiming for its I/M program in that attainment demonstration is warranted for the combination of test type and equipment that Massachusetts is implementing. Once these outstanding SIP elements are approved into the Massachusetts SIP, the attainment demonstration can be approved and the attainment date extension to December 31, 2003 can be granted.

Finally, the state 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. All of the above measures will be implemented by December 2003.

In summary, EPA is proposing to approve the new attainment date of December 31, 2003 for the area. In order to grant full approval, the outstanding SIP issues mentioned above will need to be resolved.

#### *H. What Are the Consequences of State Failure?*

This section explains the CAA consequences of State failure to meet the time frames and terms described generally in this notice. The CAA provides for the imposition of sanctions and the promulgation of a federal implementation plan if States fail to submit a required plan, submit a plan that is determined to be incomplete or if EPA disapproves a plan. (We use the phrase "failure to submit" to cover both the situation where a State makes no submission and the situation where the State makes a submission that we find is incomplete in accordance with section 110(k)(1)(B) and 40 CFR part 51, Appendix V.) For purposes of sanctions, there are no sanctions clocks in place based on a failure to submit. Thus, the description of the timing of sanctions, below, is linked to a potential disapproval of the State's submission.

#### 1. What Are the CAA's Provisions for Sanctions?

If EPA disapproves a required SIP, such as the attainment demonstration SIPs, section 179(a) provides for the imposition of two sanctions. The first sanction would apply 18 months after EPA disapproves the SIP if the State fails to make the required submittal which EPA proposes to fully or conditionally approve within that time.

Under EPA's sanctions regulations, 40 CFR 52.31, the first sanction would be 2:1 offsets for sources subject to the new source review requirements under section 173 of the CAA. If the State has still failed to submit a SIP for which EPA proposes full or conditional approval 6 months after the first sanction is imposed, the second sanction will apply. The second sanction is a limitation on the receipt of Federal highway funds. EPA also has authority under section 110(m) to a broader area, but is not proposing to take such action today.

#### 2. What Are the CAA's FIP Provisions if a State Fails To Submit a Plan?

In addition to sanctions, if EPA finds that a State failed to submit the required SIP revision or disapproves the required SIP revision EPA must promulgate a FIP no later than 2 years from the date of the finding if the deficiency has not been corrected. The attainment demonstration SIPs on which EPA is taking action today were originally due in November 1994. However, through a series of policy memoranda, EPA recognized that States had not submitted attainment demonstrations and were constrained to do so until ozone transport had been further analyzed. As provided in the Background, above, EPA provided for States to submit the attainment demonstration SIPs in two phases. In June 1996, EPA made findings that ten States and the District of Columbia had failed to submit the phase I SIPs for nine nonattainment areas. 61 FR 36292 (July 10, 1996). In addition on May 19, 1997, EPA made a similar finding for Pennsylvania for the Philadelphia area. 62 FR 27201.

In July 1998, several environmental groups filed a notice of citizen suit, alleging that EPA had outstanding sanctions and FIP obligations for the serious and severe nonattainment areas on which EPA is proposing action today. These groups filed a lawsuit in the Federal District Court for the District of Columbia on November 8, 1999.

#### III. Proposed Action

EPA is proposing to approve the ground-level one-hour ozone attainment demonstration State implementation plan (SIP or demonstration) for the Springfield (Western Massachusetts) nonattainment area submitted by Massachusetts on July 27, 1998. We are also proposing to approve an attainment date extension for this area to December 31, 2003 submitted by Massachusetts on August 13, 1999. We are also proposing, in the alternative, to approve in part and disapprove in part this demonstration if

the State does not submit the following elements which were discussed in detail above: revisions to the Massachusetts stage II vapor recovery rule and a demonstration adequately proving that the emission reduction credit Massachusetts is claiming from its I/M program in the Western Massachusetts attainment demonstration is warranted for the combination of test type and equipment that Massachusetts is implementing. Also, EPA intends to publish final rulemaking on the 15% plan and 9% plan through 1999, the enhanced inspection and maintenance program, and the NO<sub>x</sub> SIP call SIP for Western Massachusetts either before or at the same time as publication of final approval of the attainment demonstration.

EPA is soliciting public comments on the issues discussed in this proposal or on other relevant matters. These issues will be considered before EPA takes final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to the EPA Regional office listed in the **ADDRESSES** section of this action.

A more detailed description of the state submittal and EPA's evaluation are included in a Technical Support Document (TSD) prepared in support of this rulemaking action. A copy of the TSD is available upon request from the EPA Regional Office listed in the **ADDRESSES** section of this document.

Nothing in this action should be construed as permitting or allowing or establishing a precedent for any future request for revision to any State implementation plan. Each request for revision to the State implementation plan shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

#### IV. Administrative Requirements

##### A. Executive Order 12866

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

##### B. Executive Order 13045

Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that the EPA determines (1) is "economically significant," as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the

rule has 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 final rule is not subject to Executive Order 13045 because it does not involve decisions intended to mitigate environmental health and 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. If the mandate is unfunded, EPA must 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 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 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

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 (64 FR 43255, August 10, 1999), 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 Act

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 proposed 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 a flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co. v. U.S. EPA*, 427 U.S. 246, 255-66 (1976); 42 U.S.C. 7410(a)(2).

If the approval is converted to a disapproval under section 110(k), based on the State's failure to meet the commitment, it will not affect any existing State requirements applicable to small entities. Federal disapproval of the State submittal does not affect State-enforceability. Moreover, EPA's disapproval of the submittal does not impose any new requirements. Therefore, I certify that such a disapproval action will not have a significant economic impact on a substantial number of small entities because it would not remove existing requirements nor would it substitute a new Federal requirement.

The EPA's alternative proposed disapproval of the State request under section 110 and subchapter I, part D of the Act would not affect any existing requirements applicable to small entities. Any pre-existing Federal requirements would remain in place after this disapproval. Federal disapproval of the State submittal would not affect State-enforceability. Moreover EPA's disapproval of the submittal does not impose any new Federal requirements. Therefore, I certify that the proposed disapproval would not have a significant impact on a substantial number of small entities.

#### F. Unfunded Mandates

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated annual costs to State, local, or tribal governments in the aggregate; or to private sector, of \$100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the proposed approval action does not include a Federal mandate that may result in estimated annual costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or

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

Sections 202 and 205 do not apply to the proposed disapproval because the proposed disapproval of the SIP submittal would not, in and of itself, constitute a Federal mandate because it would not impose an enforceable duty on any entity. In addition, the Act does not permit EPA to consider types of analyses described in section 202 in determining whether a SIP submittal meets the CAA. Finally, section 203 does not apply to the proposed disapproval because it would affect only the Commonwealth of Massachusetts, which is not a small government.

#### *G. National Technology Transfer and Advancement Act*

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing new regulations. To comply with NTTAA, the EPA must consider and use "voluntary consensus standards" (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical.

EPA believes that VCS are inapplicable to this action. Today's action does not require the public to perform activities conducive to the use of VCS.

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Hydrocarbons, Intergovernmental relations, Nitrogen dioxide, Ozone.

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

Dated: November 30, 1999.

**Mindy S. Lubber,**

*Deputy Regional Administrator, Region I.*

[FR Doc. 99-31709 Filed 12-15-99; 8:45 am]

**BILLING CODE 6560-50-P**

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

[CT056-7215-FRL-6501-9]

#### **Approval and Promulgation of Implementation Plans; Connecticut; One-Hour Ozone Attainment Demonstration; Greater Connecticut Ozone Nonattainment Area**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The EPA is proposing to approve the ground-level one-hour ozone attainment demonstration State Implementation Plan (SIP) for the Greater Connecticut ozone nonattainment area submitted by the Commissioner of the Connecticut Department of Environmental Protection (CT DEP) on September 16, 1998. We are also proposing, in the alternative, to disapprove this demonstration if Connecticut does not submit an adequate motor vehicle emissions budget consistent with attainment. EPA is also proposing approval of an attainment date extension until November 15, 2007 for the Greater Connecticut nonattainment area.

**DATES:** Comments must be received on or before February 14, 2000.

**ADDRESSES:** Written comments (in duplicate if possible) should be sent to: David B. Conroy at the EPA Region I (New England) Office, One Congress Street, Suite 1100-CAQ, Boston, Massachusetts 02114-2023.

Copies of the State submittal and EPA's technical support document are available for public inspection during normal business hours at the following address: U.S. Environmental Protection Agency, Region 1 (New England), One Congress St., 11th Floor, Boston, Massachusetts. Telephone (617) 918-1664, an at the Bureau of Air Management, Department of Environmental Protection, State Office Building, 79 Elm Street, Hartford, CT 06106. Please telephone in advance before visiting.

**FOR FURTHER INFORMATION CONTACT:** Richard Burkhart (617) 918-1664.

**SUPPLEMENTARY INFORMATION:** This document provides background information on attainment demonstration SIPs for the one-hour ozone national ambient air quality standard (NAAQS) and an analysis of the one-hour ozone attainment demonstration SIP submitted by the CT DEP for the Greater Connecticut

nonattainment area. This document addresses the following questions:

What is the Basis for the Attainment Demonstration SIP?

What are the Components of a Modeled Attainment Demonstration?

What is the Frame Work for Proposing Action on the Attainment Demonstration SIPs?

What Does EPA Expect to Happen with Respect to Attainment Demonstrations for the Greater Connecticut One-hour Ozone Nonattainment Area?

What are the Relevant Policy and Guidance Documents?

How Does the Connecticut Submittal Satisfy the Frame Work?

## **I. Background**

### *A. What Is the Basis for the State's Attainment Demonstration SIP?*

#### **1. CAA Requirements**

The Clean Air Act (CAA) requires EPA to establish national ambient air quality standards (NAAQS or standards) for certain widespread pollutants that cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. CAA sections 108 and 109. In 1979, EPA promulgated the one-hour 0.12 parts per million (ppm) ground-level ozone standard. 44 FR 8202 (Feb. 8, 1979). Ground-level ozone is not emitted directly by sources. Rather, emissions of nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) react in the presence of sunlight to form ground-level ozone. NO<sub>x</sub> and VOC are referred to as precursors of ozone.

An area exceeds the one-hour ozone standard each time an ambient air quality monitor records a one-hour average ozone concentration above 0.124 ppm. An area is violating the standard if, over a consecutive three-year period, more than three exceedances are expected to occur at any one monitor. The CAA, as amended in 1990, required EPA to designate as nonattainment any area that was violating the one-hour ozone standard, generally based on air quality monitoring data from the three-year period from 1987-1989. CAA section 107(d)(4); 56 FR 56694 (Nov. 6, 1991). The CAA further classified these areas, based on the area's design value, as marginal, moderate, serious, severe or extreme. CAA section 181(a). Marginal areas were suffering the least significant air pollution problems while the areas classified as severe and extreme had the most significant air pollution problems.

The control requirements and dates by which attainment needs to be achieved vary with the area's classification. Marginal areas are subject to the fewest mandated control