

## **New Hampshire; Boston-Lawrence-Worcester Southern New Hampshire Area, 15 Percent Rate-of-Progress and Contingence Plans**

### **Federal Register Dates:**

October 27, 1997      Notice of Proposed Rulemaking, 62 FR 55544  
December 7, 1998      Final Rulemaking, 63 FR 67405

**EPA Approval Date:** The final rule approving the Boston-Lawrence-Worcester southern New Hampshire 15 percent and contingency plans was effective on January 6, 1999.

**State Submittal:** On August 29, 1996, the State of New Hampshire formally submitted 15 percent rate-of-progress (ROP) and contingency plans as state implementation plan (SIP) revisions.

### **Background/Prior Action:**

The New Hampshire portion of the Boston-Lawrence-Worcester Eastern Massachusetts and Southern New Hampshire serious ozone area consists of a portion of Hillsborough County (*Pelham Town, Amherst Town, Brookline Town, Hollis Town, Hudson Town, Litchfield Town, Merrimack Town, Milford Town, Mont Vernon Town, Nashua City, Wilton Town*); and a portion of Rockingham County (*Atkinson Town, Brentwood Town, Danville Town, Derry Town, E. Kingston Town, Hampstead Town, Hampton Falls Town, Kensington Town, Kingston Town, Londonderry Town, Newton Town, Plaistow Town, Salem Town, Sandown Town, Seabrook Town, South Hampton Town, Windham Town*), New Hampshire.

Section 182(b)(1) of the CAA as amended in 1990 requires ozone nonattainment areas with classifications of moderate and above to develop plans to reduce area-wide anthropogenic VOC emissions by 15 percent from a 1990 baseline. These plans were to be submitted by November 15, 1993 and the reductions were required to be achieved within 6 years of enactment or November 15, 1996. The Clean Air Act also sets limitations on the creditability of certain types of reductions. Specifically, States cannot take credit for reductions achieved by Federal Motor Vehicle Control Program (FMVCP) measures (new car emissions standards) promulgated prior to 1990 or for reductions resulting from requirements to lower the Reid Vapor Pressure (RVP) of gasoline promulgated prior to 1990. Furthermore, the CAA does not allow credit for corrections to basic Vehicle Inspection and Maintenance Programs (I/M) or corrections to Reasonably Available Control Technology (RACT) rules as these programs were required prior to 1990.

In addition, section 172(c)(9) and 182(c)(9) of the CAA requires that contingency measures be included in the plan revision to be implemented if an area misses an ozone SIP milestone, or fails to attain the standard by the date required by the CAA.

### **Summary:**

EPA is approving the New Hampshire 15 percent rate-of-progress and contingency plans as revisions to New Hampshire's state implementation plan.

*Calculation of Required Reductions (Tons/Summer Day)*

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1990 Anthropogenic Emission Inventory.....	55.9
1990 Adjusted Inventory.....	48.0
15% of Adjusted Inventory.....	7.2
Non-creditable Reductions.....	7.9
1996 Target.....	40.8
1996 Projected, Uncontrolled Emissions.....	52.7
(1996 emissions for on-road mobile sources were calculated using an emission factor that reflected the level of control achieved by the FMVCP in 1996.)	
Required Reduction .....	11.9
(Required Reductions obtained by subtracting 1996 target from the 1996 projected uncontrolled inventory.)	

*Summary of Emission Reductions (Tons/Day)*

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Required Reduction.....	11.90
Point Source Reductions.....	2.60
Stage I.....	2.09
Stage II.....	2.14
Underground Tank Breathing.....	0.18
Surface Cleaning.....	0.50
Auto Refinishing.....	0.69
Consumer & Com. Prod.....	0.32
Architectural Coatings.....	0.63
Reform (On-road), Tier 1.....	3.90
Reform, Off-road.....	0.20
 Total.....	 13.25

**Contingency Measures:** States with moderate and above ozone nonattainment areas are required to submit sufficient contingency measures so that upon implementation of such measures, additional emission reductions of three percent of the adjusted base year inventory (or a lesser percentage that will make up the identified shortfall) would be achieved in the year after the failure has been identified. States must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions such as public hearings or legislative review.

The surplus credit generated by the control measures in the 15 Percent ROP plans is sufficient to accommodate the 3 percent emission reduction requirement for contingency plans. EPA notes that the State's SIP indicates that a 0.1 tpsd surplus exists in the New Hampshire portion of the Boston-Lawrence-Worcester southern New Hampshire area after accounting for contingency reductions. However, the data in the submittal indicates a minor shortfall of 0.05 exists after accounting for the 1.4 tpsd contingency obligation for this area. Given the large number of inventory and emission reduction calculations used to derive the data, EPA considers the minor shortfall of 0.05 tpsd to be within an acceptable range of error. EPA determined that New Hampshire met its contingency measure requirement for the nonattainment area.

**Transportation Conformity Budgets:**

A control strategy SIP is required to establish a motor vehicle emission budget which places a cap on emissions that cannot be exceeded by predicted highway and transit vehicle emissions. The 1996 on-road mobile emissions provided in the 15 percent plan SIP submittal for the Boston-Lawrence-Worcester southern New Hampshire area are 18.0 tons/day volatile organic compounds (VOC), and 24.1 tons/day of nitrogen oxides (NO<sub>x</sub>). Fifteen percent plans are not required to establish NO<sub>x</sub> emission budgets for on-road mobile sources.

On June 30, 1998, New Hampshire submitted an ozone attainment demonstration SIP revision to EPA which established 2003 motor vehicle emission budgets of 10.72 tons per summer day of VOC and 21.37 tons per summer day of NO<sub>x</sub> for the Boston-Lawrence-Worcester southern New Hampshire area. By letter dated August 19, 1998, EPA informed New Hampshire that the motor vehicle budgets contained within the State's ozone attainment demonstration were adequate for conformity purposes. EPA believes that the VOC and NO<sub>x</sub> budgets established by the New Hampshire ozone attainment demonstration are currently the controlling budgets for conformity determinations for 2003 and later years. The budgets in the attainment demonstration specifically address anticipated mobile source emissions in 2003, whereas the 15 percent plan establishes a budget for 1996. The time period for the budget in the 15 percent plans has passed. Additionally, the attainment demonstration establishes a more stringent budget. The 2003 motor vehicle emission budgets established in the area supercede the 15 % plan's 1996 motor vehicle emission budgets for analysis years 2003 and later.

**Identification by rule name and/or number/citation of the regulations that have been approved by EPA as part of the SIP Plan:**

No new state regulations were approved into the New Hampshire State Implementation Plan as part of the Boston-Lawrence-Worcester southern New Hampshire 15 percent Rate-of-Progress Plan.

The 15 percent Rate-of-Progress Plan and Contingency Plan did rely on a number of existing New Hampshire State regulations and emission reduction programs including the following:

- VOC Reasonably Available Control Technology (RACT) on point sources,
- Stage I vapor control,
- Underground Tank Breathing,
- Stage II vapor recovery,
- Surface Cleaning Controls, (a VOC RACT rule that controls emissions from open top and cold cleaning degreasing operations),
- Automobile Refinishing,
- Commercial and Consumer Products,
- Architectural Coatings,
- Reformulated Gasoline (RFG),
- Tier I Federal Motor Vehicle Control Program (FMVCP), and
- Non-road mobile source controls, (Reformulated Gasoline).

**Other Commitments:**

**EPA Region 1 Contact:** Donald O. Cooke, (617) 918-1668.  
Robert McConnell, (617) 918-1046