

New Hampshire; Boston-Lawrence-Worcester Southern New Hampshire Area, Post-1996 Rate-of-Progress and Contingence Plans

Federal Register Dates:

April 16, 2002	Notice of Proposed Rulemaking, 67 FR 18547
April 16, 2002	Direct Final Rulemaking, 67 FR 18493

EPA Approval Date: The direct final rule approving the Boston-Lawrence-Worcester southern New Hampshire post-1996 rate-of-progress (ROP) and contingency plans was effective on June 17, 2002.

State Submittal: On September 27, 1996, the State of New Hampshire formally submitted its post rate-of-progress plan as a state implementation plan (SIP) revision.

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.

The post-1996 ROP plan documents how New Hampshire complied with the provisions of section 182 (c)(2)(B) of the Federal Clean Air Act (the Act). This section of the Act requires that serious ozone nonattainment areas develop rate-of-progress (ROP) plans to reduce ozone forming pollutant emissions by 3 percent a year, averaged over each consecutive 3 year period beginning in 1996, until the area reaches its attainment date. The first set of emission reductions are required to occur between November 1996 and November 1999, and are referred to as post-1996 ROP plan reductions, which will yield an overall reduction of nine percent of the combined 1990 VOC and NOX emission levels.

Summary:

EPA is approving the Boston-Lawrence-Worcester southern New Hampshire post-1996 rate-of-progress plan as revisions to New Hampshire's state implementation plan.

The manner in which states are to determine the required level of emission reductions is described in an EPA guidance document entitled, "Guidance on the Post-1996 Rate-of-Progress Plan and the Attainment Demonstration" (EPA 452-93-015.) The calculation procedure is similar to the one used to determine the 15 percent emission reduction obligation. Table 1 below illustrates the steps New Hampshire used to derive its 1999 emission target levels for VOC and NOX. The ROP plan indicates that 1999 projected, controlled emissions are below the target levels for the state's Boston-Lawrence-Worcester southern New Hampshire serious nonattainment areas. The analysis presented in Table 1 for the Boston-Lawrence-Worcester southern New Hampshire area includes substitution of NOX emissions from outside of that nonattainment area. Additionally, Table 1 contains an evaluation of the effect that removal of

acetone would have on the state's ROP demonstration. Emissions in parenthesis reflect subtraction of acetone from the base year VOC inventory, and are the values EPA approved.

Table 1
[Units are tons per summer day]

Description	VOC	NO _x
Step 1--Calculate 1990 Base Year Inventory.	91.9	59.7 (includes 26.3 from a source outside the area)
Step 2--Develop Rate-of Progress Inventory (by subtracting biogenics and non-reactives).	Bio: -36.1 Acet: -0.5 = 55.9 (55.4)	59.7
Step 3--Develop Adjusted Base Year Inventory by subtracting non-creditable FMVCP/RVP rdxns. between 1990-1999.	-9.4 =46.5 (46.0)	-5.5 =54.2
Step 4--Calculate Required Reduction {state added the 3% contingency obligation to the ROP reductions calculation, so total required is 12% reduction}.	0.9% =0.4 (0.4)	11.1% =6.0
Step 5--Calculate total expected reduction: For VOC, sum of steps 3 and 4, + 15% VOC reduction from 1990 to 1996, which was 7.2 tpsd for Bos-Law-Wor area.	9.4+ 0.4+ 7.2= 17.0	5.5+ 6.0 11.5
Step 6--Set Target Level for 1999: Step 2--Step 5.	38.9 (38.4)	48.2
Step 7--Project Emissions to 1999.	53.3 (52.8)	58.9
Step 8--Projected, Controlled 1999 Emissions.	38.7 (38.4)	40.0

Contingency Measures:

Ozone nonattainment areas classified as serious or above must submit to the EPA, pursuant to section 182(c)(9) of the Act, contingency measures to be implemented if an area misses an ozone SIP milestone. New Hampshire's contingency plan consists of surplus NO_x

emission reductions generated by the control programs in its ROP plans. New Hampshire incorporated the 3% contingency reduction obligation in its derivation of 1999 emission target levels. Table 1 above illustrates that the 1999 emission target levels are met for both pollutants in both areas, thereby demonstrating that the 3% contingency obligation has been met. EPA has approved the state's demonstration that it meets the contingency measure requirement of section 182(c)(9) of the Act.

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 1999 on-road mobile emissions provided in the post-1999 ROP SIP submitted for the Boston-Lawrence-Worcester southern New Hampshire area are 16.6 tons/day volatile organic compounds (VOC), and 23.0 tons/day of nitrogen oxides (NO_x).

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 volatile organic compounds (VOC) and 21.37 tons per summer day of nitrogen oxides (NO_x) for the New Hampshire portion of the Boston-Lawrence-Worcester, Eastern Massachusetts and 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_x 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 post-1996 ROP plan established a budget for 1999. The time period for the budget in the post-1996 ROP plan has passed. Additionally, the attainment demonstration establishes a more stringent budget. The 2003 motor vehicle emission budgets established in the area supercede the post-1996 ROP plan's 1999 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 area post-1996 Rate-of-Progress Plan.

The post-1996 Rate-of-Progress Plan did rely on a number of existing New Hampshire State regulations and emission reduction programs which were identified in the 15 percent Rate-of-Progress Plan 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:

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