

Connecticut; Greater Connecticut Area, Post-1996 Rate-of-Progress

Federal Register Dates:

June 30, 2000	Notice of Proposed Rulemaking, 65 FR 40560
October 19, 2000	Final Rulemaking, 65 FR 62624

EPA Approval Date: The final rule approving the Greater Connecticut area post-1996 rate of progress and contingency plans was effective on November 20, 2000.

State Submittal: On December 30, 1997, and January 7, 1998, the State of Connecticut formally submitted the post-1996 rate-of-progress (ROP) plan as state implementation plan (SIP) revisions.

Background/Prior Action:

The Greater Connecticut serious ozone area consists of Fairfield County (part – Shelton City), Hartford County, Litchfield County (part – all cities and townships except: Bridgewater Town, New Milford Town), Middlesex County, New Haven County, New London County, Tolland County, Windham County.

The post-1996 ROP plan documents how Connecticut 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 Greater Connecticut area post-1996 rate-of-progress plan as revisions to Connecticut'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 Connecticut 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 Greater Connecticut serious nonattainment areas. The VOC emission values shown in parenthesis reflect subtraction of acetone from the area source categories.

Table 1
[Units are tons per summer day]

Description	VOC	NOx
Step 1: 1990 Inventory	794.2	346.7
Step 2: Develop Rate-of Progress Inventory (biogenics and non-reactives subtracted).	408.1 (402.3)	346.7
Step 3: non-creditable reductions ¹	24.2 (4.4 of which occurs between 1996-1999).	32.4
Step 4: Calculate required reduction (State will use both VOC and NOx rdxns. to meet post-1996 ROP, as shown).	3.76%, 14.4 (14.2)	5.24%, 16.5
Step 5: Calculate total expected reduction (sum of non-creditable and required 9% reduction.) ²	4.4 + 14.4 = 18.8 (18.6)	32.4 + 16.5 = 48.9
Step 6: Set Target Level for 1999 ³	306.9 (307.1)	297.9
Step 7: Project, Controlled Emissions to 1999.	306.9 (308.0)	209.9

¹ States cannot take credit for reductions achieved by Federal Motor Vehicle Control Program (FMVCP) measures (new car emission standards) promulgated prior to 1990 or for reductions resulting from requirements to lower the Reid Vapor Pressure (RVP) of gasoline promulgated prior to 1990.

² For VOC, only the FMVCP reductions that accrue between 1996 and 1999 are included in Step 5 because the increment that accrues between 1990 and 1996 is accounted for in development of the 1996 VOC emission target levels.

³ For NOx, target level = Step 2 - Step 5. For VOC, target level=1996 targets (325.7 for Greater Hartford area) - Step 5.

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. Connecticut's contingency plan proposes that 2 tons of excess NOx emission reductions achieved in the New York - Northern New Jersey - Long Island severe ozone area be applied in the Greater Connecticut serious area to complete that area's contingency obligation. EPA believes this is an appropriate substitution, as the serious area is immediately downwind of the severe area. Additionally, guidance issued by EPA titled, "Guidance for Implementing the 1-Hour Ozone and Pre-existing PM10 National Ambient Air Quality Standards" includes a policy recommendation that substitution of emission reduction credits from outside of the nonattainment area for ROP purposes be allowed if certain criteria are met. Connecticut's proposed emission reduction substitution meets the criteria outlined in that guidance. EPA notes that the minor amount of emission reduction credit overestimation made by Connecticut due to the failure to remove acetone from the base year inventory creates minor

VOC shortfalls of 0.9 tpsd in the Greater Connecticut area. However, the large NOx surplus that exists in each area readily compensates for this.

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. Post-1996 motor vehicle emission budgets for the year 1999 of 61.6 tons/day volatile organic compounds (VOC), and 125.3 tons/day of nitrogen oxides (NOx) were approved into the SIP.

Connecticut submitted 2007 budgets for NOx and VOCs to EPA as a required component of the attainment demonstrations for the one-hour ozone standard for the Greater Connecticut area. Since the 2007 budgets are more restrictive, cover a time frame longer than the post-1996 ROP plans, and are based on the attainment plan, the 2007 budgets take precedence over the 1999 motor vehicle emission budgets. Therefore, the 2007 budgets supersede the 1999 budgets for all analyses 2007 and later. As a result, all new and revised Transportation Plans and Transportation Improvement Programs that require a conformity determination must conform to the 1999 budgets contained in the post-1996 rate of progress plan for analysis years prior to 2007, and conform to the MOBILE6.2 2007 budgets of 51.9 tons/day volatile organic compounds (VOC), and 98.4 tons/day of nitrogen oxides (NOx) for any analysis year 2007 or 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 Connecticut Implementation Plan as part of the Greater Connecticut area Post-1996 Rate-of-Progress Plan.

The post-1996 Rate-of-Progress Plan and Contingency Plan relied on a number of existing Connecticut State regulations and emission reduction programs including the following:

- National Low Emission Vehicle (NLEV) Program
- Non-CTG RACT
- Stationary Source VOC RACT
- NOx RACT
- Gasoline Loading Racks
- Stage II + Tank Breathing
- Automobile Refinishing,
- Architectural and Industrial Maintenance Coatings
- Cutback asphalt (RE imp.)
- Reform, other gas market
- On-road mobile strategies (I/M, Reform, Tier 1)
- Reform, Off Road

Other Commitments:

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