



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

August 22, 2008

Anne Gobin, Chief
Bureau of Air Management
Department of Environmental Protection (DEP)
79 Elm Street
Hartford, CT 06106

Dear Ms. Gobin:

EPA staff have reviewed Connecticut's proposed attainment demonstration for the annual PM_{2.5} standard, dated July 17, 2008, and you will find the Agency's comments in the Enclosure.

The proposal covers all elements necessary for submission, including Reasonably Available Control Measures (RACM), motor vehicles emissions budgets, and contingency measures. Also included in the public hearing package is Connecticut's 2002 base year emissions inventory. A Reasonable Further Progress (RFP) plan is not required because Connecticut projects that attainment with the annual PM_{2.5} standard will occur in the NY-NJ-CT (NYC metropolitan) area by April 2010.

We note that Connecticut's proposed PM_{2.5} attainment demonstration relies on the Clean Air Interstate Rule (CAIR) to achieve reductions in SO₂ from upwind sources to help the NY-NJ-CT area achieve timely attainment, and also includes CAIR reductions in the photochemical modeling. As you know, on July 11, 2008, the US Court of Appeals for the DC Circuit vacated CAIR and the associated federal implementation plan in its entirety. EPA is currently reviewing the decision and is weighing all options, including an appeal, which the agency can file until September 24, 2008. Assuming that the CAIR vacatur stands, Connecticut will need to assess the impacts of this vacatur on the proposed PM_{2.5} attainment demonstration. EPA Region 1 will provide information to the CT DEP on this issue as it becomes available.

We commend you and your staff for your work in preparing this proposed attainment demonstration, and for the DEP's efforts to reduce emission that contribute to the formation of PM_{2.5}. If you or your staff have any questions about the comments in the Enclosure, please contact the following EPA staff:

Attainment Demonstration and RACM	Alison Simcox	617-918-1684
Emissions Inventory	Robert McConnell	617-918-1046
Motor Vehicle Emissions Budgets	Donald Cooke	617-918-1668

Sincerely,

for Anne Arnold

David B. Conroy, Chief
Air Programs Branch

Enclosure

cc: David Wackter, CT DEP

Toll Free • 1-888-372-7341

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Enclosure

EPA COMMENTS ON CONNECTICUT'S JULY 17, 2008 PROPOSED ANNUAL PM_{2.5} ATTAINMENT DEMONSTRATION

Note on CAIR:

Connecticut's proposed PM_{2.5} attainment demonstration relies on the Clean Air Interstate Rule (CAIR) to achieve reductions in SO₂ from upwind sources to help the NY-NJ-CT area achieve timely attainment, and also includes CAIR reductions in the photochemical modeling. As you know, on July 11, 2008, the US Court of Appeals for the DC Circuit vacated CAIR and the associated federal implementation plan in its entirety. EPA is currently reviewing the decision and is weighing all options, including an appeal, which the agency can file until September 24, 2008. Assuming that the CAIR vacatur stands, as noted in our comments below, Connecticut will need to assess the impacts of this vacatur on the proposed PM_{2.5} attainment demonstration.

Section 3 Observed PM_{2.5} Air Quality Trends and Levels

Comment 1. In Table 3-2 Annual PM_{2.5} Design Values, some of the design values differ from EPA calculations for 2007. We calculated PM_{2.5} annual design values for the 2005-2007 period as follows: New Haven Criscuolo Park: 12.3 ug/m³; Norwalk: 12.3 ug/m³; and Waterbury: 12.6 ug/m³.

Comment 2. We recommend that the colors on the pie chart in Figure 3-8 representing PM_{2.5} speciated data for Cornwall, CT be consistent with the colors shown on the pie charts in Figures 3-6 and 3-7 for Westport, CT.

Section 4 Control Measures

Comment 3. Please clearly identify which control measures discussed in this section are included in the attainment modeling.

Comment 4. We note the need for federal enforceability of RACT/RACM measures relied upon for PM_{2.5} attainment. Table 4-3 "Post-2002 Control Strategies" includes some state measures that are not currently federally enforceable because they have not yet been adopted and/or have not yet been submitted to EPA as a SIP revision. Connecticut will need to adopt, and submit to EPA as a SIP revision, all measures for which the State is seeking emission reduction credit, in order for EPA to approve Connecticut's attainment demonstration.

Comment 5. The Table 4-3 list of control strategies includes Connecticut's NOx budget trading program Section 22a-174-22b. This rule, however, is scheduled to sunset, as it was to be replaced by Connecticut's CAIR program. In light of the CAIR vacatur, Connecticut should take steps to ensure that the NOx budget program reductions continue.

Comment 6. On Table 4-1 and in Section 4.2.1, Connecticut identifies EPA's Wood Stove certification program as a pre-2002 control measure and, on Table 4-3 and in Section 4.3.2, Connecticut identifies its Outdoor Wood Burning Furnace (OWBF) restrictions (Section 22a-174k of the state general statutes) as a post-2002 control measure. While these measures have undoubtedly had

some impact on pollution from wood-burning sources, we question whether these measures are adequate in light of the recent increased interest in burning wood as an alternative to fossil fuels. While EPA's certification program for wood stoves is effective, we note that Connecticut's OWBF restrictions are significantly less stringent than NESCAUM's 2007 model regulation for outdoor wood-fired hydronic heaters (OWHHs). This model rule was based on a thorough analysis of information and data on OWHHs and was developed in cooperation with more than 20 states. Connecticut's OWBF restrictions are also less stringent than the OWHH rules in place in Vermont (adopted April 2007) and Maine (adopted November 2007; amended May 2008), and proposed in Massachusetts in June 2008. We recommend that as part of this PM_{2.5} attainment demonstration, CT DEP include a commitment to revising its OWBF rule to be consistent with NESCAUM's model rule.

In addition, we have noted an increased interest in small commercial and institutional woody biomass boilers (i.e., boilers with energy output less than 10 mmBtu/hr). As these boilers have a potential to increase emissions of PM_{2.5} and its precursors in Connecticut, we recommend that Connecticut consider measures to reduce PM emissions from these boilers.

Section 5 Base Year and Future Year Emission Estimates

Comment 7. EPA previously reviewed and commented on Connecticut DEP's 2002 base year emissions inventory, and the State responded adequately to those comments and finalized the inventory in December of 2005. Since that time, updates were made to the inventory to take advantage of improved guidance for the on-road and off-road mobile sectors, and to several area source categories. EPA concurs with these updates to Connecticut's 2002 inventory.

Section 7 Transportation Conformity Process and Motor Vehicle Emission Budgets

Comment 8. The proposed PM_{2.5} attainment demonstration clearly identifies the calendar year 2009 direct PM_{2.5} and NO_x motor vehicle emission budgets (MVEBs) for the Connecticut portion of the NY-NJ-CT PM_{2.5} nonattainment area. These motor vehicle emissions budgets are the same as identified in Connecticut's Early PM_{2.5} Budget SIP (360 tons per year of direct PM_{2.5} and 18,279 tons per year of NO_x). EPA previously deemed these 2009 MVEBs adequate on May 24, 2007 (72 FR 31069; June 5, 2007), and approved the MVEBs into the SIP on October 29, 2007 (72 FR 50059; August 30, 2007).

Section 8 Attainment Demonstration and Weight of Evidence

Attainment Demonstration Modeling

Comment 9. The modeling included in Connecticut's proposed SIP assumes the implementation of EPA's Clean Air Interstate Rule (CAIR). Assuming the CAIR vacatur stands, Connecticut, in cooperation with New York and New Jersey, will need to assess the impacts of this vacatur on the attainment demonstration for the NY-NJ-CT PM_{2.5} nonattainment area. This may include the need to perform additional modeling and the consideration of additional control measures for the area. EPA Region I will provide additional information to the CT DEP on the CAIR vacatur as it becomes available.

Weight of Evidence Analyses

Comment 10. Section 8.6.4 briefly describes the PlaNYC, but does not say when or if the measures will be adopted by New York City. Please provide more information about how measures listed in Table 8-5 will impact the NYC PM_{2.5} nonattainment area. This may include:

- Estimating emission reductions from PlaNYC (with supporting calculations) that will help bring the NYC nonattainment area into attainment by 2010.
- Provide evidence (e.g., append MOUs, agreements, etc.) that emission reductions will occur before 2010.
- Include an implementation schedule for PlaNYC measures.

Section 9 Contingency Measures

Comment 11. Connecticut used an appropriate method to calculate emission reductions needed for their contingency plan (i.e., one year of reductions calculated as 1/7 of the difference between emissions levels for 2002 (base year) and 2009 (attainment year) for the Connecticut portion of the NYC nonattainment area). However, in light of the CAIR vacatur, any reductions of PM_{2.5} or its precursors (i.e., NO_x and SO₂) that are premised on implementation of the CAIR program cannot currently be assumed. Therefore, Connecticut should consider whether they need to recalculate contingency-measure reduction targets. Connecticut should then compare projected reductions and emission-reduction targets for PM_{2.5} and each precursor pollutant, and identify control measures not related to the CAIR program that will result in reductions that meet or exceed these reduction targets.

Comment 12. To satisfy the contingency requirement, we note that Connecticut is proposing to use an "equivalent air quality improvement" approach that employs a 1:1 substitution ratio for PM_{2.5} and precursor pollutants. As described in the preamble to the March 2007 Clean Air Fine Particle

Implementation Rule PM_{2.5} Implementation Rule (section on Reasonable Further Progress (RFP)), an equivalent air quality improvement approach allows states the flexibility to adopt any combination of controls of the various pollutants that can be shown to provide equivalent benefits. While we support use of this approach, Connecticut needs to justify their choice of substitution ratio. In doing this, we suggest taking into account the relative proportion of the components comprising the total PM_{2.5} mass at air-quality monitors and considering the degree to which each PM component may contribute to PM nonattainment.

Section 10 Adequacy Determination for CAA Section 110(A)(1) and (2) Program Infrastructure

Comment 13. Connecticut notes that, on November 5, 2007, EPA proposed to approve a SIP revision submitted by CT DEP addressing the Clean Air Act section 110(a)(2)(D)(i) requirements for the 1997 8-hour ozone and PM_{2.5} National Ambient Air Quality Standards (NAAQS), also known as the transport SIP. EPA also published a final rule approving CT's transport SIP on May 7, 2008 (73 FR 25516). The transport SIP, however, relies on CAIR. Therefore, the impacts of the CAIR vacatur on the transport SIP must also be considered.

Comment 14. In Table 10-1, Connecticut explains how the state satisfies each of the PM_{2.5} infrastructure requirements. Based on this information, we believe that Connecticut meets the infrastructure requirements, with the exception of PM_{2.5} New Source Review (NSR) requirements for which a SIP revision is due in 3 years, and the consideration of the impact of the CAIR vacatur on the transport requirements as noted above. Page 10-1, however, states, "That SIP revision (PM_{2.5} NSR) will also update Connecticut's air quality regulations to incorporate definitions, permit program requirements and other necessary references to PM_{2.5}, and will constitute the remaining element of Connecticut's infrastructure requirements." Although we encourage Connecticut to update regulations where appropriate, the state should be clear as to whether these updates are necessary to meet the infrastructure requirements. For example, based on previous conversations with DEP staff, EPA's understanding was that, although Connecticut's Section 22a-174-24 air quality standards regulation should be updated to include the new PM_{2.5} standards, no other regulatory requirements are keyed off of this rule, so such an update need not be completed in order for Connecticut to be considered meeting the infrastructure requirements.

Section 11 Commitments and Requests for EPA Actions

Comment 15. Chapter 11.3 includes a reference and link to Connecticut's 2007 monitoring plan. Connecticut should update this section to reference the state's 2008 air monitoring network plan.