UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I, NEW ENGLAND

Memorandum

DATE: July 30, 2008

SUBJ: Final Agency Review – Refinements of Increment Modeling Procedures

FROM: David B. Conroy, Chief
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TO: Linda Holst, Acting Deputy Director
Region 5

Region 1 has reviewed the power point presentation from the Option Selection Meeting as well as selected portions of the draft final rulemaking for the Prevention of Significant Deterioration New Source Review: Refinements of Increment Modeling Procedures Rulemaking. Region I comments can be found below.

Using actual emissions to model increment consumption

Generally the final rule provides needed guidance and represents an improvement over that found in the draft 1990 NSR/PSD Workshop Manual. However, on the matter of modeling increment consumption by previously permitted major sources (and increases from minor sources after the minor source baseline date), the final rule may increase inconsistencies that now trouble the PSD program. The draft language in 40 CFR §51.166(f)(1)(i) thru (vii) encourages permitting authorities to use best professional judgment to select from a menu of options for calculating emissions for increment modeling, but it lacks a single concrete benchmark from which to guide "reliable, consistent, and representative" estimates of actual emissions suitable for modeling short-term (e.g., 24-hour) increment consumption in a particular analysis. We believe that the final rule should promulgate hour-by-hour CEM data as the benchmark so that rational development of actual emissions could be determined from data that are actually available. Further, the final rule should note that when CEM data are available, the highest values observed need not be modeled except on the day they occur. That is, except in a screening analysis, the highest observed measurement should not be assumed to prevail and modeled every day of a year; for other day numbers the corresponding CEM emissions should be modeled. Clearly CEM data applied this way does not penalize its user as the final rule suggests.

Compatibility with CAA Sections 165(e)(3)(D) and 320

Section 320 of the Clean Air Act requires EPA to develop standardized air quality modeling procedures particularly in connection with Part C of the Act (on PSD permitting). Part 51 Appendix W (the Guideline on Air Quality Models) results from EPA's continuing efforts to prescribe with "reasonable particularity" air quality models, and meteorological and emission data bases suitable for modeling NAAQS and increments. (The prescription of suitable input data is integral to the modeling process.) The draft language in 40 CFR §52.21(f)(1)(vii) and earlier provisions in 40 CFR §52.21(f)(1) exhorting permitting agents to apply unguided best judgment seem inconsistent with the requirements of Section 320. EPA could serve permit applicants and reviewing authorities more certainly by defining a benchmark for modeling short-term and annual emissions in the final rule and making development of technical details an agenda item for the Section 320 Air Quality Modeling Conference scheduled for this fall. That is, EPA should develop a table of recommended inputs for increment modeling for inclusion in the guideline alongside existing Tables 8-1 (on NAAQS modeling for SIPs) and 8-2 (NAAQS for permitting) pursuant to Section 320.

Mobile and area source emissions

EPA's final action on increment consumption should explicitly state that substantial changes in area and (more importantly) mobile source emissions will affect available increment. This should not require modeling such emissions in PSD permit applications, as applicants or reviewing agencies can usually make a compelling case that a valid increment compliance modeling need not include mobile-area sources. In Region 1, for example, mobile sources are an important component of inventories whose size nevertheless belies a large effect on pollutant concentrations. But with the FMVECP, non-road diesel standards, and ultra-low sulfur diesel requirement, the mobile sources have likely expanded PM and NO2 increments in many areas. Mobile source PM and NO2 emission reductions need not be modeled unless there is a need to use credits from increment expansion to permit major stationary sources. Again, the final action should clearly state that all emission changes after the minor source baseline, not only those from stationary sources, will affect available increment.

If you have any questions about these comments, please call Brian Hennessey of my staff at (617) 918-1654.