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Arthur N. Marin, Executive Director

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Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attn: Docket ID No. EPA-HQ-OAR-2006-0605

Re: NESCAUM Comments on EPA's Proposed Rule: Prevention of Significant Deterioration (PSD) for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)–Increments, Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC). 72 Federal Register 54111, September 21, 2007.

Dear Air and Radiation Docket:

The Northeast States for Coordinated Air Use Management (NESCAUM) offers the following comments on the U.S. Environmental Protection Agency (EPA) proposal for changes to the Prevention of Significant Deterioration program, as referenced in the September 21, 2007 Federal Register (72 FR 54111–54156) notice *Prevention of Significant Deterioration (PSD) for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)–Increments, Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC).* NESCAUM is the regional association of air pollution control agencies representing Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

The NESCAUM states are keenly interested in EPA's proposal to incorporate changes to the current PSD program to accommodate issues specific to $PM_{2.5}$. NESCAUM has closely followed the modeling and monitoring proposals and has commented previously on several issues.[1] We are pleased that EPA has incorporated a number of our previous comments into this proposal with respect to the adoption of nationally consistent SILs.[2]

With regard to the current proposed rule, we have identified the following issues related to PSD increments, SILs, SMCs, and effective date of implementation to which we would like to draw your attention.

1. Options for the Calculation of PSD Increments. EPA requests comment on whether to establish increments for $PM_{2.5}$ under the "Safe Harbor" provisions of Clean Air Act (CAA) §166(a) or whether to follow CAA §166(f) procedures for creating "equivalent

[1] October 18, 2005 letter from Arthur Marin to Steve Page re: WESTAR PSD recommendations; available at: http://www.nescaum.org/documents/recommendations-on-nsr/.
[2] January 31, 2006 Comments on PM2.5 Implementation Rule; See page 10 at: http://www.nescaum.org/documents/comments060131naaqs.pdf/.

substitutions" of increments as EPA had done for PM_{10} when it replaced TSP as the primary indicator for particulate matter. We are concerned about the precedent that would be set by establishing increments for an alternative indicator of particulate matter under the "Safe Harbor" provisions (the EPA-preferred approach) and recommend that EPA follow the §166(f) provisions as it did for establishing the PM_{10} increments in 1993. To do otherwise would potentially open the door to "alternatives" to numerical increments that at this time are undefined and thus hold the potential to decrease national consistency and rigor in the PSD program.

2. Retention of the PM_{10} Annual Increments. While $PM_{2.5}$ increments established under the §166(f) provisions must serve as an equivalent substitution for that portion of PM_{10} increments they are replacing, we are opposed to revoking the PM_{10} increments until EPA makes a determination on a PM-coarse NAAQS and, if necessary, establishes equivalent increments for PM-coarse. As the PSD program is intended to prevent the degradation of air quality, it is prudent to maintain the PM_{10} increments until EPA makes a determination on the health and environmental effects of the coarse fraction of particulate matter.

3. New Baseline Date for $PM_{2.5}$. Although we support the application of the options under §166(f) to establish increments and associated requirements, we believe it is permissible for EPA to define new baseline dates for $PM_{2.5}$ under this option as well. Our support for establishing new baseline dates overcomes the same implementation and logistical problems that EPA notes (72 FR p. 54136) in trying to establish the $PM_{2.5}$ component of previous PM_{10} increment consumption. Any attempt to calculate the $PM_{2.5}$ component of previously established PM_{10} increment consumption would be an insurmountable task due to lack of appropriate data, especially in cumulative impact analysis cases. We do not believe the establishment of new dates for $PM_{2.5}$ would abandon past cases of increment consumption for PM_{10}. Furthermore, as noted above, because the 24-hour PM_{10} increments will still be in effect, any such concerns would be minimized. In addition, if EPA retains the annual PM_{10} increments as we suggest above, then the determination of $PM_{2.5}$ increments can complement the continuation of PM_{10} increment determinations without any discontinuities or unwanted degradation concerns.

4. Condensables. The proposed rule is silent on whether the contribution from the condensable fraction of $PM_{2.5}$ emissions should be included when modeling $PM_{2.5}$ increment consumption. Several of our member states have already included condensable emissions in their modeling. We believe condensable emissions must be included in the Class I and Class II increment analyses, SILs, and NAAQS analyses for $PM_{2.5}$.

5. Secondary Species. The proposed rule is also silent on whether the contribution from secondary particulate formation of $PM_{2.5}$ should be included when modeling $PM_{2.5}$ increment consumption. We believe that permitting agencies should be allowed to

include the effects of secondary particle formation in their analyses. Whether to include these effects, however, must be determined on a case-by-case basis.

The presumed norm in a Class II $PM_{2.5}$ increment analysis should be the exclusion of secondary particulate matter. Most Class II modeling addresses near-source impact with short travel distances and minimal time for sulfate and nitrate formation. However, if a permitting agency believes that contributions from secondary particulate formation may be important (e.g., if large amounts of precursor emissions exist or if favorable atmospheric conditions exist for secondary particulate formation), then secondary particulate should be included in the Class II air impact analysis.

6. The presumed norm in a Class I $PM_{2.5}$ increment analysis should be the inclusion of secondary particulate matter. Most Class I analyses involve long-range transport. As a result, there is ample time for secondary sulfate and nitrate formation and they can become a significant fraction of a source's total $PM_{2.5}$ impact. In support of this recommendation and the $PM_{2.5}$ NSR Implementation Rule, EPA should allow the use of the current chemistry algorithm in CALPUFF as a screening tool for sulfate and nitrate formation in Class I and Class II increment analyses, SILs, and NAAQS analyses for $PM_{2.5}$. In addition, EPA should take action to improve the atmospheric chemistry algorithms in CALPUFF with respect to secondary formation of sulfate and nitrate species. The same improved atmospheric chemistry algorithm should be added to the EPA guideline model AERMOD.

7. Options for the Significant Impact Levels. We recommend that EPA use the third option for calculation of SILs. Under this method, SILs are derived from the PM_{10} SIL and the ratio of the $PM_{2.5}$ to PM_{10} NAAQS is used to scale the SIL appropriately.

8. Purpose of SILs and the Importance of their Finalization. EPA's proposed rule indicates that SILs have been established as a PSD program screening tool to determine when cumulative reviews are necessary. However, permitting authorities have also widely used SILs to determine the significance of the impact from a source in an attainment area on its surroundings, both within and outside nonattainment areas. NESCAUM has asked that EPA incorporate and finalize SILs for all pollutants (including $PM_{2.5}$) in the past and we repeat that request in commenting on this proposal, which provides a opportunity to achieve this goal and facilitate consistent regulatory application.

9. Options for Significant Monitoring Concentrations. We recommend that EPA use either option 2 or option 3 for the determination of SMCs but provide a better justification for its choice. We note that option 1 results in a SMC that is greater than the proposed increment for Class II areas and thus is inappropriate.

10. Effective Date of Program. The NESCAUM states have a strong interest in seeing this program implemented as quickly as possible in order to provide maximum public health

protection in our region. We agree with EPA's proposal to implement the $PM_{2.5}$ PSD program as soon as possible and would encourage EPA to apply the 60 day period for the effective date under whatever option is finalized. We also encourage EPA to impose mandatory requirements that would provide for EPA $PM_{2.5}$ PSD regulations to serve as a backstop during the transition period between the effective date of EPA regulations and completion of the State SIP submissions and adoption process.

We look forward to EPA's finalization of a rule that protects the integrity of the PSD program while accommodating the necessary changes to reflect new standards of health protection afforded by the $PM_{2.5}$ NAAQS.

Sincerely,

Arthur N. Marin
Executive Director

Attachment

cc: Raj Rao, EPA OAQPS
Tyler Fox, EPA OAQPS
NESCAUM Permit Modeling Committee
NESCAUM Directors