

January 17, 2008

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Re: Docket ID: EPA-HQ-OAR-2006-0605

To Whom It May Concern:

The National Association of Clean Air Agencies (NACAA) appreciates the opportunity to submit comments on EPA's proposed rule, titled, "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)." NACAA is the national association of air pollution control agencies representing 53 states and territories and over 165 major metropolitan areas throughout the United States.

Ever since EPA promulgated the National Ambient Air Quality Standards (NAAQS) for PM_{2.5} in 1997, it has been extremely challenging for state and local air agencies to accurately analyze PM_{2.5} emissions in attainment areas due to the fact that the necessary regulatory tools and rulemakings have not been made available by the agency. Thus, although this proposal is welcome, it is long overdue, and assists us with only one part of the PM_{2.5} NSR regulatory whole.

Specifically, no emission factors are available for the vast majority of combustion sources emitting direct or precursor PM_{2.5} emissions. EPA no longer supports AP-42 Emission Factors, and, in 2003, it ended its support for the Emissions Inventory Improvement Project. With regard to monitoring, the budget cuts of the last two years have forced many air agencies to shut down PM_{2.5} monitors, and federal support for the PM_{2.5} speciation network has been sharply reduced. In addition, the state and local permitting authorities also need more reliable predictive air quality models for PM_{2.5}. Accordingly, NACAA urges EPA to address these deficiencies in order that air agencies can operate successful and reliable PM_{2.5} PSD programs.

In addition, EPA's PM_{2.5} New Source Review (NSR) rulemaking has yet to be promulgated. Only limited guidance currently exists regarding PM_{2.5} major source thresholds, offsets (including interprecursor trading), significant emissions rates for direct and precursor PM_{2.5}, condensable emissions, and PM_{2.5} test methods. In sum,

state and local permitting authorities have been operating their PM_{2.5} PSD programs with diminishing resources, scarce regulatory tools, and a lack of rules.

EPA's Preferred Statutory Analysis of PM_{2.5} PSD Increments (and the Corresponding Policy Ramifications) Is Not Supported by the Clean Air Act or EPA's Past Regulations

EPA's proposal states that §166(a) of the Clean Air Act ("the Act") provides the preferred legal basis for the agency to promulgate PM_{2.5} increments. This subsection, together with §166(d) allows states to adopt measures that are alternatives to increments. It states in pertinent part, "*In the case of the pollutants hydrocarbons, carbon monoxide, photochemical oxidants, and nitrogen oxides, the Administrator shall conduct a study...and promulgate [PSD] regulations. In the case of pollutants for which national ambient air quality standards are promulgated after the date of the enactment of this part, he shall promulgate such regulations [in 2 years].*" EPA's proposed rule concludes that PM_{2.5} increments fit under this section because the PM_{2.5} NAAQS were promulgated after the 1990 revisions of the Act. However, the proposed rule also acknowledges that Section 166(f), titled "PM-10 Increments" could also provide a statutory basis for the PM_{2.5} increments. Because the legal basis for promulgation of PM_{2.5} increments appears to determine whether or not a minimum level of clean air increment protection is—or is not—nationally applicable, the statutory question has significant policy repercussions.

NACAA believes that the better statutory fit for PM_{2.5} increments is Subsection 166(f). Because EPA retained the 24-hour PM₁₀ NAAQS in its PM NAAQS revision, and has specifically included regulation of PM_{2.5} in that standard, this section provides a more appropriate statutory basis for PM_{2.5} increments, as discussed below. Moreover, a nationally applicable increment system best reflects Congressional intent. Congress intended that PSD increments would provide minimal, nationally uniform clean-air levels—but that states would have discretion to exceed them and to vary their implementation.

The question posed by EPA in the proposed regulation is, in simplified form: Is PM_{2.5} a new pollutant (in which case, §166(a)-(e) would apply) or a new indicator of an already regulated pollutant (in which case, §166(f) would apply)? (72 *Federal Register* 54120 – 54124). The proposal notes that, "EPA has generally characterized the NAAQS for PM_{2.5} as a NAAQS for a new indicator of PM..." (*Supra* at 54120) We agree with EPA's past characterizations of PM_{2.5} as a new indicator of an already regulated pollutant. However, it is not necessary to answer the question—new or old; indicator or not—because EPA has specifically included PM_{2.5} within the PM₁₀ NAAQS in its promulgation of the revised PM NAAQS.

The final PM NAAQS revision stated "...the PM₁₀ indicator includes both coarse PM (PM_{10-2.5}) and fine PM (PM_{2.5}), [and] the concentration of PM_{10-2.5} allowed by a PM₁₀ standard set at a single level declines as the concentration of PM_{2.5} increases" (71 *Federal Register* 61195).¹ EPA's PM NAAQS rule revision, therefore, views coarse and fine particles as part of one particle-emission continuum. This "sliding scale" approach diverges from the approach of the proposed PM_{2.5} Increments rule, which states that PM_{2.5} is being added as a "new" increment, and that, therefore, only Subsection 166(a) "is up to the task of adding" PM_{2.5} increments (*Supra* at 54121)² We disagree. Because EPA has continued the PM₁₀

¹ We note, however, that NACAA advocated a strong coarse PM standard, and was disappointed that EPA failed to promulgate the coarse PM standard advocated by the Clean Air Scientific Advisory Committee (CASAC).

² Moreover, the D.C. Circuit Court of Appeals stated in *ED v. EPA* that section 166(f) is the statutory provision relating to PM_{2.5} increments, stating, "We believe that EPA reasonably justified its decision not to address either fine particulate matter or ozone in the NO_x PSD regulations on the ground that the statutory PSD provisions require

24-hour standard and included the fine PM_{2.5} fraction within it, by logical extension, Subsection 166(f), which addresses PM₁₀ Increments, can and should provide the statutory basis for PM_{2.5} increments.

Not only does the “plain meaning” interpretation of the statutory language support §166(f), but such a conclusion reflects Congressional intent in enacting PSD provisions that rest upon a strong, nationally consistent minimum increment system coupled with flexibility for states and localities regarding baseline and area definitions.

Congress Intended Increments to Provide National Uniformity and Economic Parity

When Congress enacted the PSD provisions in 1977, it intended that a national program applied uniformly to maintain clean air in specified areas would enable states wishing to maintain good air to compete for industrial expansion with other states without needing to trade off air quality.³ A constraint on emissions growth in clean air areas was also perceived as necessary by industrialized states wishing to maintain their economic base when competing against states with cleaner air for new growth.⁴ Moreover, in *Environmental Defense v. Environmental Protection Agency*, the Court stated, “...the legislative history of section 163...indicates that the Congress deliberately selected uniform increments because it deemed locally individualized increments to be inequitable. *See* H.R. Rep. No. 95-294, at 153 (1977)”⁵

EPA’s proposed PM_{2.5} increments rule, however, contravenes the intent of Congress by concluding that nationally minimum PM_{2.5} increments are not required by the Act to prevent significant deterioration of air quality. To that end, EPA proposes revising the existing regulatory language of 40 CFR 51.166(c) (2) to allow states to adopt measures other than increments for applicable pollutants rather than just NO_x (72 *Federal Register* 54123). NACAA disagrees with this proposal. A nationally inconsistent regulatory approach to PM_{2.5} in attainment areas could result in a patchwork of state PSD regulations—and the exact kinds of economic repercussions that Congress wished to avoid. Some states might sacrifice clean air for industrial development, and other, more industrialized states could see the erosion of their industrial base as sources move to attainment areas. Varying “increment-equivalent measures” could also result in an uneven playing field for industry and could, as well, exacerbate difficulties between states experiencing transport problems. In sum, NACAA disagrees with the legal interpretation that would remove national uniformity from PM_{2.5} increments. Rather, EPA should promulgate PM_{2.5} increments that require a minimum level of protection for attainment areas nation-wide.

PM₁₀ Increments Should Be Continued Until EPA Promulgates National Ambient Air Quality Standards for PM_{10-2.5} and Necessary Regulations

NACAA believes that EPA can and should continue both the 24-hour and annual average PM₁₀ PSD increment program until PM_{10-2.5} standards are promulgated. EPA has the discretion to accomplish this under CAA §166(f). At a minimum, the agency should continue the 24-hour PM₁₀ increments in conjunction with the continuation of the 24-hour PM₁₀ NAAQS.⁶ EPA’s final PM NAAQS revision states, “it is the view of the Administrator that the PM₁₀ indicator will provide the type of targeted protection from thoracic coarse particles which is justified by the emerging body of scientific evidence...and that the inclusion of PM_{2.5} in the PM₁₀ indicator does not over-regulate fine particles or under-regulate coarse particles.” (71 *Federal Register* 61195) Until EPA promulgates a PM_{10-2.5} standard, the PM₁₀ standard must be continued to provide the necessary health protection from coarse particles.

EPA to establish regulations specific to ... fine particulate matter, 42 U.S.C. §§ 7473, **7476(f)** [166(f)]...”
(Emphasis added)

³ Vanderver, Timothy, *Clean Air Law and Regulation* at 169 (BNA Books, 1992) Citing the National Commission on Air Quality, *To Breathe Clean Air* at 147-48 (1981)

⁴ *Id.*

⁵ *ED v. EPA*, supra at p. 4.

⁶ 71 *Federal Register* 61194 et seq “Decision Not to Revise PM₁₀ Indicator,” October 17, 2006.

NACAA Supports “Fresh Start” PM_{2.5} Baseline Dates and States’ Authority to Redefine PM_{2.5} PSD Areas in Accord with Current Regulations

State and local permitting authorities share EPA’s concern that the continuation of existing baselines for PM_{2.5} increments would be extremely difficult in many cases. The challenges of quantifying and tracking PM_{2.5} emissions in areas when baselines were set roughly 30 years ago would be compounded by the necessity to extrapolate the fine particle fraction from increments that are now expressed in PM₁₀, which, in turn, were extrapolated from total suspended particulates (TSP). As a practical matter, it would be virtually impossible for states and localities to calculate the PM_{2.5} component of previously consumed PM₁₀ increments because data on the coarse and fine fractions of source emissions are largely unavailable. Therefore, NACAA supports EPA’s proposal to give states the option of establishing new baseline dates for PM_{2.5}. Such a regulatory “fresh start” will assist in insuring the accuracy of increment consumption calculations for the fine and coarse particle fractions. EPA has ample discretion to allow new PM_{2.5} baselines under the authority of Section 166(f).

With regard to identifying air quality control regions, states currently have the authority to permit major sources and track increments in accord with 40 CFR 52.21(b)(15)(i). This provision defines baseline areas as “areas classified as attainment or unclassifiable in which a proposed major stationary source or modification has a 1/ug/m³ impact.” States have considerable latitude—within this regulatory boundary—to identify geographic areas for the purpose of managing and implementing their PSD programs. Some states have, over the years, made adjustments in their original identification of air quality control regions, redefining Section 107 areas into reasonably-sized, geographically related areas that enhance their ability to manage the complex increment program. NACAA believes that such redefinition is within the intent of the Act and regulations and can rightfully be undertaken by states with regard to PM_{2.5} increments.

Secondary Particulates and Condensable Emissions

The proposed rule is silent on whether the contribution from secondary particulate formation or the condensable fraction of PM_{2.5} emissions should be included when modeling PM_{2.5} increment consumption. EPA acknowledged in the proposed PM_{2.5} Implementation rule that the effects of ambient PM_{2.5} concentrations may include secondarily-formed PM_{2.5}. The agency stated that it had evaluated the health and welfare effects of both direct PM_{2.5} and secondarily-formed PM_{2.5} that may result from the transformation of other pollutants such as SO_x and NO_x. The PM_{2.5} Implementation Rule also stated that the chemical composition of monitored PM_{2.5} concentrations demonstrates that sulfates and nitrates make up a very large portion of PM_{2.5}. For example, in urban areas on the eastern seaboard, 42 percent of monitored PM_{2.5} concentrations consist of sulfate and nitrate. In rural areas, the contribution rises to 48 percent. Nonetheless, the proposed PM_{2.5} Increments rule does not address secondarily-formed PM_{2.5} in the context of increment consumption. NACAA believes that the PM_{2.5} Increments rule should not ignore these secondarily-formed particulate emissions.

NACAA encourages the agency to undertake scientific study and analysis of secondary particulate formation and its impact on ambient levels of PM_{2.5}. EPA should develop an understanding of the far-field impacts of sulfates and nitrates, and to undertake a rulemaking addressing Significant Impact Levels for them and other PSD tools as appropriate.

Until greater scientific understanding is achieved, NACAA encourages the agency to adopt a final rule that would presume that secondary particulate matter should at least be included in Class I PM_{2.5} increment analyses. Most Class I analyses involve long-range transport. As a result, there is ample time for secondary sulfate and nitrate formation, which can become a significant fraction of a source’s total PM_{2.5} impact. Thus, these secondary particulates should normally be included in the impact analysis. However, if the permitting authority believes that their contribution is not significant (e.g., minimal

precursor emissions are emitted), then the presumption of inclusion can be overcome by the permitting authority, and they need not be included in the analysis.

Conversely, Class II PM_{2.5} analysis can presumptively exclude secondary particulate matter because most Class II modeling addresses near-source impact with short travel distances and minimal time for sulfate and nitrate formation. If, however, the permitting authority determines that some source emissions include significant contributions of secondary particulates, they should be included in the Class II air impact analysis.

In addition, the condensable portion of PM_{2.5} emissions should be included when modeling PM_{2.5} emissions. NACAA believes that the final PM_{2.5} Increments rule should address condensables, requiring their inclusion both in modeling PM_{2.5} increments and PM_{2.5} significance levels.

PM_{2.5} Increments and Significant Impact Levels (SILs)

NACAA supports EPA's Option 2B for PM_{2.5} Increments. This Option provides the following increment levels: for Class I areas—1 ug/m³ for the PM_{2.5} annual increment, and 2ugm³ for the PM_{2.5} 24-hour increment; for Class II increments—5 ug/m³ for the PM_{2.5} annual increment, and 9 ug/m³ for the PM_{2.5} 24-hour average increment.

For SILs in Class I areas, the association supports EPA's Option 3—.06 ug/m³ for the annual level, and .07ug/m³ for the 24-hour average level; and for Class II—.3 ug/m³ for the annual level and 1.2ug/m³ for the 24-hour average.

NACAA appreciates the opportunity to comment on EPA's proposed rule, "Prevention of Significant Deterioration for Particulate Matter Less Than 2.5 Micrometers—Increments, Significant Impact Levels, and Significant Monitoring Concentrations." Please do not hesitate to contact one of us or Mary Stewart Douglas if we can be of assistance regarding these comments.

Sincerely yours,



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