UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

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MEMORANDUM

SUBJECT: Credit for Stack Height Increases Due to the Siting of New, Nearby Structures

FROM: John Calcagni, Director
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The purpose of this memorandum is to present a further interpretation of the stack height regulations to account for those situations in which an existing source is impacted by the siting of a new, nearby structure. Specifically, we believe that in such a situation, it will generally be reasonable for a source seeking credit for additional stack height to recalculate its good engineering practice (GEP) formula height due to the siting of a nearby structure, without the need to justify the increase through fluid modeling.

It will be helpful to reiterate the historical basis for the demonstration requirement: in the 1982 stack height suit, Sierra Club v. EPA, 719 F. 2d 436, the U.S. Court of Appeals for the D.C. Circuit charged EPA with demonstrating that the GEP formula is so reliable that it may be used to establish stack height credit in lieu of a specific demonstration. For reasons explained in its 1985 rulemaking notice [50 FR 27892 July 8, 1985], EPA indicated that it was unable to do so and thus adopted a demonstration requirement to support credit for stack height increases up to formula height.

However, in the event of the siting of a new, nearby structure, we believe that the existence of such a structure falls outside of the presumption that the original stack height be regarded as GEP unless proven otherwise, as discussed above in Sierra Club v. EPA. This presumption should not apply to stacks affected by the later construction of upwind obstacles since such construction could generally not have been anticipated. Consequently, we believe that fluid modeling demonstrations or nuisance showings are necessary only in the context of less-than-formula stacks where there has been no subsequent siting of upwind obstacles.

Permitting the source owner to recalculate GEP does not provide automatic credit for increased stack height. Rather, recalculating GEP allows the source owner an opportunity to receive stack height credit and to calculate an emission rate which reflects accurate source parameters. Likewise, permitting a limited number of sources to recalculate GEP formula height does not represent a new opportunity or a substantive change for the regulated community. The opportunity to recalculate GEP is already available to sources which conduct a fluid modeling study to demonstrate a downwash problem or which demonstrate the existence of a downwash-related nuisance. Eliminating the necessity to fluid model in a limited number of cases merely lessens the burden and administrative delay associated with such a study. At the same time, States and EPA retain the authority to require fluid modeling to justify stack height increases in those situations where they believe such a study is warranted.

Any comments or questions regarding this memorandum should be addressed to Gwen Jacobs at (919) 541-5295.

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