

Supplemental Notice of Proposed Rulemaking; Options for PM_{2.5} and PM₁₀ Hot-Spot Analyses in the Transportation Conformity Rule Amendments for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards

EPA is proposing additional options regarding procedures for determining localized concentrations of particulate matter that could be caused by transportation projects in certain areas subject to transportation conformity. Specifically, the options included in this proposal apply to PM_{2.5} and PM₁₀ nonattainment areas, which are those areas that do not meet the national ambient air quality standards for PM_{2.5} and PM₁₀. These options also apply to PM_{2.5} and PM₁₀ maintenance areas, which are those areas that previously did not meet the standard but do so now.

It is possible that concentrations of particulate matter that violate the PM_{2.5} or PM₁₀ standards could occur on a local, rather than regional, basis, for example, at road intersections and truck stops. An analysis of localized pollutant concentrations from transportation projects is currently part of the transportation conformity requirements in carbon monoxide (CO) and PM₁₀ nonattainment and maintenance areas.

Particulate matter, or PM, is a mixture of solid particles and liquid droplets found in the air. These tiny particles come in many sizes and shapes and can be made up of hundreds of different chemicals. PM_{2.5} and PM₁₀ refer to the size of the particles (e.g., PM_{2.5} refers to particles less than or equal to 2.5 micrometers -- approximately 1/30th the size of a human hair). These particles can penetrate the upper regions of the body's respiratory defense mechanisms, and PM_{2.5} has been associated with premature mortality and other serious health effects.

Transportation conformity is a Clean Air Act requirement that ensures federally supported highway and transit project activities are consistent with ("conform to") a state's air quality implementation plan (SIP). Conformity requires that planned transportation activities do not cause new violations, worsen existing violations, or delay timely attainment of an air quality standard. Conformity ensures that potential vehicle emission increases are considered and addressed as plans are developed for new or expanded highways and transit projects in cities with air quality challenges.

For PM_{2.5} nonattainment and maintenance areas, the proposed options range from not requiring a local analysis of pollutant concentrations for any project to establishing requirements that are similar to those that currently apply in PM₁₀ nonattainment and maintenance areas. For PM₁₀ nonattainment and maintenance areas, the proposed options range from not requiring a local analysis of pollutant concentrations for any project, retaining current requirements, or requiring a local analyses based on either a state air agency or EPA Regional Administrator decision.

Currently, in PM₁₀ areas, quantitative analyses are required for specific types of transportation projects, and qualitative reviews are required for all other transportation projects. A quantitative analysis would involve the use of an air quality dispersion model to predict the impact of a transportation project – for example, the widening of a highway – on air quality in the immediate vicinity of the project. A qualitative analysis does not involve air quality modeling. Instead, a qualitative analysis involves comparison of the transportation project to similar projects that have been approved in the past to determine if there is the potential for the new project to create a new violation or worsen an existing violation.

Background and Description of Supplemental Notice of Proposed Rulemaking

On November 5, 2003, EPA published a proposal to address conformity requirements under the new ozone and PM_{2.5} air quality standards (68 FR 62690). The majority of the provisions from this proposal were finalized in our July 1, 2004, final conformity rule, but EPA decided to publish a supplemental notice for the provisions related to analyzing the local concentrations of PM from individual transportation projects. EPA is publishing this supplemental proposal to request additional comment on options previously proposed as well as new options for PM_{2.5} and PM₁₀ nonattainment and maintenance areas. EPA is addressing requirements for local analyses in both types of PM areas at the same time due to the similarity of the pollutants and possible analysis requirements.

EPA is issuing this proposal in the context of the Agency's broader strategies for implementing the new, more protective, air quality standards. EPA anticipates designating areas for the new PM_{2.5} standard in December 2004. Seeking public comment on the full range of options regarding these analyses in PM_{2.5} and PM₁₀ areas will allow EPA to finalize any requirements for such analysis in PM_{2.5} areas shortly after final designations for PM_{2.5} nonattainment areas.

Key Aspects of the Supplemental Notice of Proposed Rulemaking

- EPA has worked closely with DOT in the development of this proposed rule.
- EPA consulted with state and local transportation and air quality agencies and interest groups in its initial development of the conformity options for the new standards. EPA proposed these options in November 2003. EPA's decision to issue a supplemental proposal is a direct result of the comment received on the provisions in the November 2003 proposal.
- EPA's final decision regarding procedures for determining localized concentrations of particulate matter that could be caused by transportation projects in PM_{2.5} and PM₁₀ nonattainment and maintenance areas will depend on the comments we receive on this supplemental proposal. Comments that provide legal or science-based rationale will be especially useful.

Health and Environmental Impacts

The Supplemental Notice of Proposed Rulemaking seeks additional information and provides additional options for considering local analyses of particulate matter concentrations in PM_{2.5} and PM₁₀ areas. Seeking public comment on the full range of options will allow EPA to finalize the option(s) that best ensure that conformity is practicably implemented and that conformity will help achieve the Clean Air Act's public health and environmental goals.

For More Information

You can access the final rule and related documents electronically on the Office of Transportation and Air Quality Web site at: www.epa.gov/otaq/transp/traqconf.htm

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