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PART IV

EMERGING ISSUES

A number of emerging legislative and policy issues will impact transportation conformity in the future. State and local transportation and air agencies should monitor these developments in order to anticipate and understand their impacts on transportation conformity.

CHANGES IN THE NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

On July 18, 1997, the EPA issued new final rules¹ regarding NAAQS for ozone and particulate matter. The updated standards are expected to affect over 400 counties nationwide. EPA issued the standards in response to the CAA requirement to review public health standards for six major air pollutants every five years. EPA must update the standards if necessary to “protect public health with an adequate margin of safety” based on the latest, best-available science. EPA is to consider only public health, not costs of compliance, when setting standards, but to consider the cost implications later, when designing implementation strategies.

A Presidential memorandum² accompanied the announcement of the new NAAQS, and directed the EPA to use four principles in the development of an implementation plan. They are:

- 1. Implementation of the new NAAQS is to be carried out to maximize common sense, flexibility, and cost effectiveness,*
- 2. Implementation shall ensure that progress underway toward meeting existing standards continues, and that agreements relating thereto be respected. Implementation shall be structured to reward State and local government agencies that take early action to provide clean air, and to respond to the fact that ozone transport is a regional and multi-state problem,*
- 3. EPA is to carry out its next periodic review of particulates within five years and, based on data available from that review, will determine whether to revise or maintain the standards. This determination is to be made before any areas have been designated as nonattainment under the new PM_{2.5} standard and before any new controls related to PM_{2.5} are imposed, and*
- 4. Implementation is to be accomplished with the minimum amount of paperwork and shall seek to reduce current paperwork requirements wherever possible.*

May 14, 1999 Court Decision on the Proposed New NAAQS as Amended by June 18, 1999 Order and October 29, 1999 rehearing

On May 14, 1999, the U.S. Court of Appeals for the D.C. Circuit issued a decision which remanded the new NAAQS back to EPA. Although the Court did not vacate the new 8-hour ozone standard, the court broadly concluded that the revised standard “cannot be enforced.” EPA filed a petition for re-hearing of

¹ 62 FR 38423, July 18, 1997.

² 62 FR 38421, July 18, 1997.

the May 14, 1999 Court decision. On October 29, 1999, the Court denied the petition in part and granted it in part. The federal government then asked the U.S. Supreme Court to review aspects of the D.C. Circuit decision on the 8-hour ozone standard.

Supreme Court Ruling on the New Ozone Air Quality Standards (EPA v. ATA)

On February 27, 2001, the U.S. Supreme Court overturned a ruling of the U.S. Court of Appeals that had found the new 8-hour ozone standard to be unconstitutional but ruled that EPA's implementation policy is "unlawful" and that EPA needs to develop a reasonable interpretation.

Important points from the ruling include the following:

- 1) The Court rejected arguments that the CAA requires EPA to consider implementation costs in setting the standards.
- 2) The Court ruled that EPA acted within the power it was delegated from Congress when it set the new standards.
- 3) The Court held that EPA's proposed implementation of the ozone standards was unreasonable because it ignored the provisions in Section 181 (Classification and attainment dates) of the CAA. The Court concluded that the CAA provisions concerning the implementation of revised ozone standards in subparts 1 and 2 of Title 1 of the CAA) are ambiguous in the manner in which they interact, and that EPA could implement the new standards by providing for the "reasonable resolution" of the ambiguity.

Potential implications:

Although the Court ruled that EPA needs to review and develop a reasonable implementation policy, it did not directly address whether or not EPA can go forward with their designation. If EPA moves forward with the designation process, transportation conformity will apply 1 year after the designation is finalized. The Supreme Court ruling is available at: <http://supct.law.cornell.edu/supct/html/99-1257.ZO.html>.

New Ozone Standard

The ozone standard announced by EPA is set at 0.08 parts per million measured over eight hours with the average fourth highest concentration over a three-year period being the determinant of whether an area is out of compliance. This is contrasted with the old standard of 0.12 parts per million of ozone measured over one hour. EPA estimates that the new ozone standard will extend new health protections to 35 million people, bringing to 113 million the number of Americans protected by the ozone standard.

New Particulate Matter Standard

A new standard for fine Particulates (PM_{2.5}) is set at an annual limit of 15 micrograms per cubic meter, with a 24-hour limit of 65 micrograms per cubic meter. EPA estimates that this standard will provide new health protections to nearly 70 million Americans, and will prevent approximately 15,000 premature deaths each year.

In accordance with the Presidential directive, EPA will also establish and fund a comprehensive monitoring network and fund 1500 monitors nationwide. This will enable EPA to collect better data on the sources of fine particulates in various regions and the chemical composition of fine particulates, and to identify areas not meeting the PM_{2.5} standard. Monitoring will be conducted for three years before any PM_{2.5} nonattainment designations are made.

PM-10 Issues

With respect to PM-10, EPA is keeping the current standard in place and wants to ensure that progress made to date is sustained over time.

Revisions to the Conformity Rule

EPA is working on revisions to the transportation conformity rule to reflect the March 2, 1999 Court decision. These revisions are expected to be proposed sometime in 2001. EPA has issued interim guidance (May 14, 1999, memorandum from Gay MacGregor, then-Director, Regional and State Programs Division, Office of Mobile Sources, entitled, "Conformity Guidance on Implementation of March 2, 1999, Conformity Court Decision") that currently applies until new rules are finalized.

EMISSIONS MODELS

MOBILE6³

In Spring, 2001, EPA released a new draft version of the MOBILE model, MOBILE6, for a 90 day state and local government review period. Concurrently, EPA released a draft user's guide to MOBILE6. MOBILE6 includes updated emission factors and fleet data, and provides improved input and output structures. It also applies an updated calculation methodology allowing more detailed output. The changes of greatest interest for transportation conformity are summarized below. More information on the MOBILE6 model is available at the EPA website: www.epa.gov/oms/m6.htm.

Database Output- In addition to the traditional "descriptive output" that provides a human-readable summary of MOBILE results, MOBILE6 provides "database" output in a tab-delimited text file suitable for input into a database or post-processor. The database output will provide grams/mile output by hour, pollutant, emission type, vehicle class, vehicle age, and facility type. Transportation modelers will need to

³U.S. Environmental Protection Agency, MOBILE6 Team Leader, May 25, 2001.

develop appropriate post-processors for their needs.

Hourly Calculations- MOBILE6 calculates emissions by hour, allowing the use of hourly vehicle activity data, including speed distributions by hour, and start and soak time distributions by hour. National default values are provided, but to model local hourly activity, appropriate inputs must be developed.

Separation of Start and Running Emissions- MOBILE5 allowed users to control the fraction of hot and cold starts in the inventory by entering VMT “bag fractions.” MOBILE5 output composite emission factors reflecting this mix. In MOBILE6, users may explicitly enter the number of starts per day by vehicle type, the distribution of starts by hour and the distribution of soak times by hour. The MOBILE6 database output provides separate output of start and running emissions. National default values are provided, but to model local start activity, appropriate inputs must be developed.

Facility-Specific Speed Correction Factors- MOBILE6 corrects exhaust emission estimates to account for both speed and facility. Separate correction factors are applied for four facility types: local roadways, ramps, arterials, and freeways. The arterial and freeway correction factors are dependent on average speed for a link. User inputs are required by hour for the fraction of VMT traveled on each facility type, and for the distribution of VMT by speed for freeways and arterials. Output data is provided for each vehicle type by hour and facility. National default values are provided, but to model local activity by facility, appropriate inputs must be developed.

EPA plans to release the official version of MOBILE6 in summer 2001. In the future, EPA plans to expand MOBILE6 to add the ability to model particulate emissions (MOBILE6.1), toxic emissions (MOBILE6.2), and greenhouse gases (MOBILE6.3). EPA is also planning an eventual replacement for MOBILE6. For details on these plans, see <http://www.epa.gov/otaq/m6.htm> and <http://www.epa.gov/otaq/ngm.htm>.

PROJECT LEVEL ANALYSIS GUIDANCE

Pursuant to Federal Register notice (58 FR 62232, Nov. 24, 1993), no PM-10 quantitative project level analysis will be required until a new particulate model is formally released by EPA. Even after the model is released, there will be a grace period before its use is required; therefore no project level quantitative PM-10 analysis will be required until a model is released and a grace period provided.

Nevertheless, as discussed previously in this guide, a qualitative PM-10 hot spot analysis and finding is required until that time.

PM-10 Qualitative Analysis Guidance

FHWA is developing guidance for qualitative analysis on PM-10 hot spots. This will be available at the FHWA website upon its release. FHWA is consulting with EPA on this guidance.

Travel Demand Modeling Guidance

FHWA is working on new travel demand modeling guidance and it is expected that this guidance will be available in the near future. FHWA is consulting with EPA on this guidance.