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Theodore J. Narozanick, Chairman
Joel S. Weiner, Executive Director

July 19, 2002

The Honorable Jim Jeffords
The Honorable Bob Smith
United States Senate
Committee on Environment and Public Works
Washington, DC 20510-6175

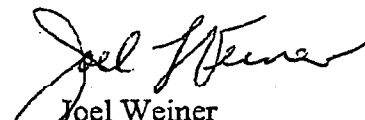
Dear Senator Smith and Senator Jeffords:

We are pleased to respond to your recent questionnaire on Conformity Case Studies related to the upcoming Senate Committee on Environment and Public Works hearing on Transportation and Air Quality. We appreciate the opportunity to provide you with input on the experience of our large Metropolitan Planning Organization with the Clean Air Act conformity program as well as our transportation and air quality planning efforts overall.

Our responses to the specific items on the questionnaire are enclosed. If you have any further questions, please don't hesitate to contact me or David Heller, our Air Quality Planner, at: (973) 639-8429.

Thank you again for this opportunity. We look forward to hearing from you on the findings of the Transportation and Air Quality hearing.

Sincerely,


Joel Weiner
Executive Director

C: Brian Fineman, NJTPA
David Heller, NJTPA

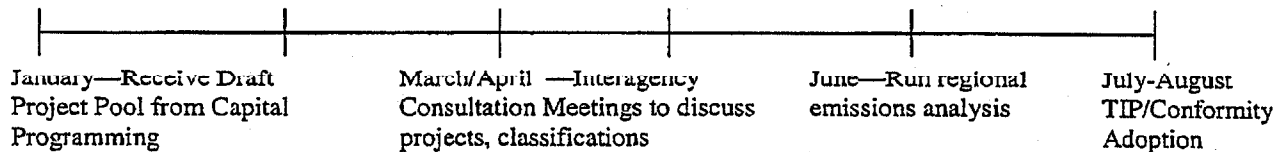
US Senate—Committee on Environment and Public Works--Conformity Case Studies

Difference in Timing of Schedules

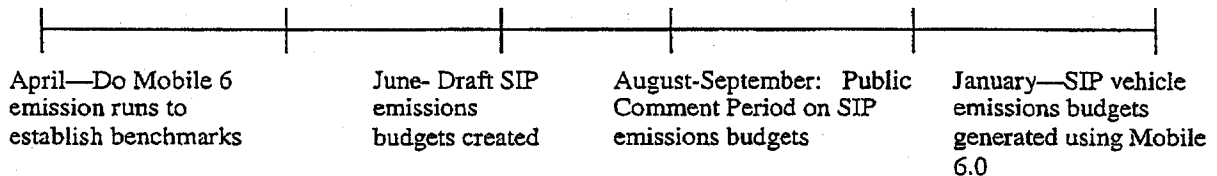
- Describe how the different schedules for the SIP, TIP, Conformity, etc. and the impacts of data changes on out year emissions affect your ability to develop effective and timely transportation and air quality plans. Provide a time-line or narrative description of your various schedules.

In principle, differences in the SIP/Plan/TIP schedules can cause some difficulty. In the past, we have sought better coordination of these schedules. However, in recent experience, as illustrated by the timelines below, there has been sufficient coordination so as not to delay or hamper transportation and air quality plans.

TIP/Conformity Schedule (Typical) (2001)



Sample SIP Schedule (2002)



- What impact have these schedules had on investments in highway and safety projects, construction costs, and air quality projects and activities?

As noted above, the difference in SIP/Plan/TIP schedules have not impacted investments in highway and safety projects, construction costs, and air quality projects and activities.

- What has been your experience coordinating your SIP and conformity processes with SIP submittals or updates?

The timing of a SIP submittal can pose somewhat of a challenge. For example, while preparing the emissions budgets for use with Mobile 6.0, we were working on our conformity analysis for this year's TIP and RIP using Mobile 5.0 emissions budgets.

MOBILE6 Versus MOBILE5 Projections

- Compare and contrast your MOBILE5 and MOBILE6 emission projections.

The preliminary runs in producing Mobile 6 estimates show that Mobile 6 generates higher emissions for both VOC and NOx than Mobile 5. There is also a greater percentage reduction in 2007 (the out-year) than 1996 for both pollutants.

- **How does the increase in near term emissions (through 2010) from Mobile 6 affect your conformity status?**

Since new budgets using Mobile 6 are currently being generated now, (which will be higher than the current Mobile 5.0 budgets), and we will be using these new budgets when we run the conformity analysis next year; it will likely not affect our conformity status.

- **How will your air quality planning process take the new MOBILE6 into account, and will the SIP be updated before or after the new MOBILE6 projections?**

The SIP is currently being updated now with Mobile 6, but for this year's conformity analysis, we are running Mobile 5.0. Next year, we will be running Mobile 6.

- **Will the new 8 hour NAAQS likely lead to an increase or decrease in your vehicle emissions budget?**

Since the new standard is more stringent than the old one-hour standard (i.e. from 0.08 parts per million measured over eight hours vs. 0.12 parts per million measured over one hour), it will likely lead to a decrease in our vehicle emissions budget. However, this is more likely due to technology changes as opposed to the stricter standard. However, at this point, no budgets using the 8-hour Ozone standard have been calculated.

- **What additional existing controls could be implemented in your area to significantly reduce vehicle emissions, e.g. inspection and maintenance, reformulated fuels, diesel retrofit, TCM's?**

Inspection and maintenance, reformulated fuels, and diesel retrofit are all being done to some extent in the Northern New Jersey region. Transportation Control Measures (TCM's) could certainly be implemented in our area. Currently, there are no TCM's in the SIP. Also, more widespread use of Alternative Fuels (e.g. natural gas, electric, etc.) by all types of vehicles (both private and commercial) in our region could probably also significantly reduce vehicle emissions.

- **Would these controls be sufficient to address the potential increase in emissions projected under MOBILE6?**

It is difficult to say at this point, without having used Mobile 6 emissions in an official conformity analysis. In the past, we took large credits from the implementation of the Inspection and Maintenance Program in New Jersey. We are also currently taking large credits from the implementation of the Tier 2 low-sulfur fuel program. But alternative fuel vehicle programs or even some TCM's (i.e. employer-sponsored flexible work schedules), may not be all that significant in reducing overall regional emissions.

Role of Transportation Control Measures

- **What role do TCM's play in helping to meet attainment? Please list the TCM's and CMAQ projects in your plan, and the associated "off" or "on" model emission reduction credits for each.**

There are currently no TCM's in our SIP, so they play no role in helping to meet attainment. The following list is the CMAQ projects scheduled for inclusion in the upcoming FY 2003-2005 TIP. The DBNUM is the unique identifier for each project.

```
DBNUM ProjectName
01316 Transportation Demand Management/Transit Village Program
02347 Rte. 80 Sec. Howard Boulevard NJ TRANSIT Park & Ride Mile posts:
30.61 -
99357 Bicycle Projects, Local System
99358 Pedestrian Projects, Local System
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T07 Emission Control/Rebuilt Engines
 T106 Private Carrier Equipment Program
 T111 Bus Acquisition Program
 T112 Rail Rolling Stock Procurement
 T120 Clean Air Programs
 T87 Hudson/Bergen LRT System MOS I
 X065 Local CMAQ Initiatives
 X095 Enhanced Vehicle Inspection and Maintenance
 X185 Bicycle & Pedestrian Facilities/Accommodations
 X32 Project Development, Preliminary Engineering
 X34 Freight Program
 X43 Transportation Management Association Program Support--This program supports the evaluation of the impact of TMA/TDM strategies on air quality, traffic congestion, and the statewide transportation system.
 X43K TMA-NJTTPA-This program will provide funding of Keep Middlesex Moving (KMM), Hudson, Meadowlink, McRides, Ridewise, and Hunterdon Rural, Transportation Management Associations (TMA).

• What percentage of total emission reductions do they represent?

0 (for TCM's) at the current time. At the present time, our regional model measures aggregate emissions, so it is difficult to determine emissions from specific projects.

• Are there CMAQ projects in your plan for which you have not applied any on or off model emissions reductions?

There are some CMAQ funded projects, such as Clean Air Programs (T120 above) or Pedestrian Projects (DBNUM 99358), which are exempt under conformity regulations. But there are others, such as the Enhanced Vehicle Inspection and Maintenance Program, for which we receive a significant credit.

Impacts of Conformity Lapse

• If your area has experienced a conformity lapse, describe the effect this has had on transportation and air quality planning, funding process, preconstruction, and construction.

In 1998, we experienced a conformity freeze, because of improper implementation of the enhanced Inspection and Maintenance Program. It delayed the implementation of some projects, but because a new SIP was put in place, and the State promised to expedite the implementation of the I&M program, the "effects" were not quite as severe as originally expected.

• When projects were reactivated, after USDOT approved your conformity determination, what impact did this have on funding, project completion dates, personnel, renegotiation of contracts, updating old information, etc.?

Some projects that were previously delayed could not be rescheduled.

• What impact did the March 1999 U.S. Court of Appeals decision to eliminate the EPA "grandfather" provision from the conformity regulations have on your transportation investments?

This decision just made it more difficult for some projects to advance during a conformity lapse, because only exempt or Non-Regionally significant Non-Federal projects are able to advance in a lapse. Those projects from a previously conforming plan/TIP, which have received funding commitments for

construction, Plans, Specifications & Estimates (PS&E) approval, Full Funding Grant Agreements (FFGA), or equivalent approvals may also advance.¹

Role of Motor Vehicle Emission Estimates and Models

- **How has conformity analysis helped improve the quality of estimates of motor vehicle emissions for SIPs to better protect public health?**

As the models have gotten more sophisticated, more comprehensive and realistic estimates of emissions are generated. The conformity process itself draws clear requirements for planning, stressing the importance of environmentally beneficial projects to decision-makers. At the NJTPA, the planning and project selection process have systematically incorporated methods (e.g. Sustainability Performance Goals and Project Prioritization Criteria) to favor such beneficial projects.

- **How accurate and consistent have estimates of regional motor vehicle emissions been when compared with each other over time and with actual experience?**

When compared with each other over time, estimates of regional motor vehicle emissions have decreased gradually. There has been a decrease in overall emissions in the entire region as well.

- **How have official estimates of motor vehicle emissions in your metropolitan region changed over the past 10-20 years and how well have they tracked actual emissions in years past?**

Generally, in the North Jersey region, motor vehicle emissions have gone down over the past 20 years. It is difficult to track actual emissions, because even though there is monitoring of pollutants, it is difficult to differentiate between the ozone precursors (i.e. NOx, VOC's), as well as the different categories of sources: (mobile, stationary, point).

Role of Transportation Models

- **Has conformity analysis been supported by adequate regional transportation analysis models that accurately reflect how changes in highway capacity affect total travel and air pollution emissions?**

Yes. The NJTPA uses an elaborate regional transportation model which follows the advanced four-step travel demand process, and has a "capacity-sensitive" assignment algorithm, as specified in §93.122 (iv) of the Transportation Conformity Rule. The model is linked to a sophisticated Post-Processor for Air Quality (PPAQ), which can actually calculate emissions based on changes in link capacity.

- **How well have your region's travel models tracked actual experience with growth in vehicle miles of travel (VMT)?**

It is calibrated to replicate observed traffic with an error of +/- 1%.

Our region's travel model has captured the increase in vehicle miles of travel which has been the actual case. Over time, the NJRTM (North Regional Transportation Model) has followed "actual" urban VMT within a range of +/- 10%.

¹ US DOT, Transportation Conformity Reference Guide. May 2000. p. C-4-4.