Tom Schulze Executive Director

July 25, 2002

### Hon. James M. Jeffords, Chairman

Committee on Environment and Public Works United States Senate Washington, DC 20510-6175

#### **Dear Senator Jeffords:**

Please see the attached response to the specific air quality questions you have forwarded. I trust this is the information you are seeking as you proceed with the TEA-21 reauthorization.

As you requested, I am e-mailing my response to Chris Miller.

Tom Schulze Executive Director

### **Conformity Case Studies**

# 1. Difference in Timing of Schedules

a) 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.

It would be helpful if the schedules for updating the SIP, TIP, conformity, and the supporting databases were coordinated on a rational basis so that all schedules are synchronized to the greatest extent possible.

Currently, we must update our Regional Transportation Plan on a three-year cycle and our Transportation Improvement Program (TIP) a minimum of once every two years. The TIP is amended outside of this update cycle on an as needed basis. Conformity analyses are required whenever updates to these products add, subtract or change non-exempt projects included in the fiscally constrained plan or TIP.

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

The difference in schedules has not significantly impacted to date investments in highway and safety projects, construction costs, and air quality projects and activities. However, we anticipate significant impacts in coming years as we approach the region's attainment data under the clean air act.

c) What has been your experience coordinating your SIP and conformity process with SIP submittals or updates?

The number of intervening years since the last SIP submittal and the need to perform a conformity determination in the near future present a problem because the original planning assumptions used in the SIP have changed in the interval.

### 2. MOBILE6 Versus MOBILE5 Projections

a) Compare and contrast your MOBILE5 and MOBILE6 emission projections.

At this time no official projections have been issued, as the process for using Mobile6 for both the SIP and for future conformity determinations nears completion. Nevertheless, preliminary indications are that Mobile6 will give higher emission rates for the milestone years of 2005 and 2007, in line with national trends.

b) How does the increase in near term emissions (through 2010) from MOBILE6 affect your conformity status?

A potential increase in near term emissions (through 2010) from Mobile6 will increase the need to develop effective emission reduction strategies.

c) 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?

Currently we are working on using Mobile6 with our new transportation model. The SIP will be updated using Mobile6 first.

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

The new standard is more stringent than the current 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); therefore it will probably result in a decrease in our vehicle emissions budget.

### 3. Additional Vehicle Emission Controls

a) What additional existing controls could be implemented in your area to significantly reduce vehicle emissions, e.g., inspection and maintenance, reformulated fuels, diesel retrofit, TCMs?

Our organization has consultant studies underway to determine which proposed emission reduction measures are most effective for reducing air pollution in this area. Inspection and maintenance and reformulated fuel programs are already in place.

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

We will know the answer to this question when the consultant efforts are complete. One important consideration is the potential cost-effectiveness of the measures.

- 4. Role of Transportation Control Measures
- a) What role do TCMs play in helping to meet attainment? Please list the TCMs and CMAQ projects in your plan, and the associated "off" or "on" model emission reduction credits for each?

There are no active TCM's in our SIP at this time. The current TIP contains a number of projects that help reduce emissions; including park and ride facilities. Intelligent transportation systems, and CMAQ projects that produce beneficial impacts on air quality. Please refer to the list of CMAQ projects in 4c with positive air quality impacts.

### b) What percentage of total emission reductions do they represent?

Currently, we are looking at calculations to determine the proper level of emission reductions due to these projects.

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

To date we have not yet applied any credit for these projects pending further analysis of their benefits.

### **REGIONAL PROJECT:**

Electrical Vehicle Demo – A three year demonstration of deploying 100 electric vehicles.

### **MID-HUDSON VALLEY**

- 882038 METROPOOL Rideshare Programs
- 880534 Transitchek Program
- 882104 Rebuild three route vehicles
- 882188 Westchester County Purchase 30 Paratransit Vehicles
- 882168 Westchester Bee Line Fleet Expansion
- 856117 Route 35 Intersection Safety Improvements Town of Lewisboro
- 880830 & 31, 8T0177 TDM Grant Program
- 880424 TDM Unit
- 880688 Westchester Commute Alternative Program
- 880689 Rockland Commute Alternative Program
- 880690 Promotional Campaign to Support Metro North Service
- 882275 Bee Line Service Loop T
- 882287 Bee Line Service Loop H
- A401-02-06 Comet V Coaches Fleet Expansion
- 875686 Westchester City Signal Upgrade
- 875757 New City Park & Ride Lot
- 882219 Bus Service (Rockland Manhattan)
- 882244 Putnam Bus Loop
- 882284 Putnam P&R
- 882303 Taconic Express (See 882244)
- M303-08-01 Mid-Harlem Third Track "I" Coded with MTA Tool

### **LONG ISLAND**

- 082309 Fund Transit Center
- 080556 Incident Management HELP Program
- 075672 Closed Loop Traffic Signal System (Suffolk Co)
- 004218 NY25/NY110 Intersection Improvement
- 033912 Pilgrim State Freight Terminal Study
- 051650 Inform Upgrade Northern State Parkway
- 075657 & 075778 CR39 Bridge over St. Andrews Road

- 075753 Signal Computer Expansion (Nassau)
- 075767 & 68 Closed Loop Traffic Signal System (Suffolk Co)
- 080170 Park & Ride Lot Lease
- 080372 TDM Program
- 090395 Rideshare Program
- 080523 LIRIC Block to Reduce SOVs
- 080553 TDM Education & Outreach (Continuation)
- 080634 Nassau County Commute Alternatives Program
- 080655 Suffolk County Commute Alternatives Program
- 080696 Suffolk County Innovative Transit
- 0L2460 Long Island Transit Check
- 0L3160 LI Bus/LIRR Intermodal Commercial Project
- 0L3200 Hempstead Transit Intermodal Hub
- 0T1557 Meadowbrook State Parkway ITS
- L402-04-24 Atlantic Terminal Rehabilitation
- 053464 Southern State Parkway ITS
- 075684 Ronkonkoma Parking LIRR
- 080659 Suffolk Express Commuter Bus

### **NEW YORK CITY**

- X500.40 ITS GW Bridge
- X500.41 Advanced Traveler Information System (ATIS)
- X500.42 Electric Vehicle Municipal Demo Program
- X500.77 ITS Travel Info Systems at various Hospitals3
- X500.92 Remote Traffic Sensors
- X756.27 Public Information Signage (PATH)
- X756.39 NYC Subsidized Bus Service / Implementation
- X756.41 Commuter Parking
- X756.43 Intermodal Ferry East River
- X756.56 Construct Rail Road Pier 65<sup>th</sup> Street (Garmen may have analyzed)
- X756.58 ECO Transit Center
- MTA Riders Guide
- MTA Articulated Bus Lift Replacement (Articulated Buses?)
- X500.68 Purchase 8 Electric Buses
- X500.77 Community Transit Link Info
- X500-78 Outerborough Alt Transportation Management Program
- X500.80 GWB Bus Station Marketing & Route Extension
- X500.92 Advance Traveler Info Dissemination (Name confliction with above obligation)
- X500.94 Local Street Incident Management
- X501.15 ShortLine Bus Service (Orange GWB)
- X501.18 Freight Information Real Time System
- X501.25 Reconstruction of Arlington Rail Yard SI for Intermodal Yard
- X501.28 Private Ferry Emissions Demo
- X804.13 Incident Management
- X806.02 Incident Management (HELP)
- X500.93 Realtime Traffic Adapt System

## 5. Impacts of Conformity Lapse

a) 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?

This area has not experienced a conformity lapse to date.

b) 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.

See response to 5(a)

c) 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?

There has been no impact to date since there has never been a conformity lapse. However, it is understood that this decision would no longer allow projects that had been previously found to conform and had completed the NEPA process to advance in the event of a lapse.

- 6. Role of Motor Vehicle Emission Estimates and Models
- a) How has conformity analysis helped improve the quality of estimates of motor vehicle emissions for SIPs to better protect public health?

In the time period before the introduction of the Clean Air Act amendments in 1990, sketch planning tools and early Mobile models were used to develop rough estimates of the impact of the TIP on air quality. Today, comprehensive and realistic estimates are generated.

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

Generally speaking, the emission estimates have proven to be reasonably accurate. For example a recent unanticipated rise in the number of SUVs resulted in an increased level of emissions predicted by the models and MOBILE5.

c) 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 New York metro area, motor vehicle emissions have declined over the past so years in line with national trends and in accordance with the rate of progress towards attainment required by the Clean Air Act 1990. The model estimates of the emissions have tracked these changes in actual emissions fairly well.

# **7.** Role of Transportation Models

a) 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, this metro area uses a regional transportation model, which follows the four step travel demand process and has a 'capacity sensitive' assignment algorithm. This model is linked to a sophisticated post-processor for air quality which calculates emissions based on changes in link capacity.

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

It appears that our travel models are able to track actual experience with growth in VMT very well. The network based travel models are reconciled with HPMS on a regular basis, and factors are developed to calibrate the network. These factors are then applied to model estimates of future VMT.

c) Please include an indication of how sensitive your/these models are to effects of induced traffic?

The new model is properly sensitive to the effects of induced traffic on a regional and corridor level. The new model has not yet been used for a conformity analyses.