State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Air Quality Management Element
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March 29, 2007

Dr. Jake A. Plante
Planning and Environmental Division
Federal Aviation Administration
800 Independence Avenue
APP-400, SW.,
Room 616, Office of Airports,
Washington, DC 20591

Dear Mr. Plante,

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the Federal Aviation Administration's (FAA's) Federal Presumed to Conform Actions Under General Conformity draft notice request for comment[1] and has the following comments:

1) The basis for the FAA's finding for air emissions between 1500 feet above ground level and below the mixing height does not consider the latest scientific evidence that emissions in the boundary layer are transported and contribute to nonattainment.

The draft notice indicates that "air traffic actions below the mixing height are also presumed to conform when modifications to routes and procedures are designed to increase safety, enhance fuel efficiency, or reduce community noise impacts by means of engine thrust reductions." The draft notice indicates that, "the results of FAA research on mixing heights indicated that changes in air traffic procedures above 1,500 feet above ground level and below the mixing height would have little if any effect on emissions and ground concentrations."

Studies indicate that meteorological phenomena impact the transport of emissions. One study (Taubman et.al) indicates that "the synoptic meteorology associated with ozone over the eastern United States has been investigated in a number of studies and is reasonably well-understood. Regional high ozone events often occur when the Bermuda high strengthens and extends west into the eastern United States. Subsidence east of the ridge induces clear skies, high

[1] 72 Fed. Reg. Vol. 72 (February 12, 2007)

temperatures, atmospheric stability, and stagnant winds. These factors enhance photochemistry and inhibit vertical mixing, thereby contributing to increased local concentrations of ozone. Circulation around the ridge results in westerly transport of ozone and ozone precursors from the Midwest to the eastern United States, where they combine with local emissions."[2] Taubman et al. indicate, "the two mesoscale meteorological phenomena often associated with air pollution events in the eastern United States are the Appalachian lee trough (APL) and the nocturnal low-level jet. (LLJ)" [3]
Another study (Clark, et. al) from the USEPA-sponsored North American Research Strategy for Tropospheric Ozone-Northeast Oxidant and Particle Study (NARSTO-NE-OPS) indicates that "...the nocturnal Low Level Jets are recurring features of the summertime mid-Atlantic region under conditions of weak synoptic forcing. It has been shown by means of two case studies that their influence on the local and regional meteorology and chemistry can be dramatic."[4] "... The nocturnal Low Level Jet can transport pollutants hundreds of kilometers without generating much of a signal at the surface. Then as the boundary layer develops the following morning, pollutant concentrations, often double the background values, mix down to the surface to produce rapid increases in pollutant concentrations that cannot be explained by local urban primary and secondary production."[5]

2) In light of the meteorological effects and the lack of progress in improving the United States aircraft engine standards, any increase in activity could lead to continued nonattainment, therefore, these air traffic actions can not be presumed to conform.

3) Insufficient supporting information, as defined in Section 93.153(g)(1) or (2) of the General Conformity regulation, was provided in the draft notice for the Airport Safety and Airport Maintenance Facilities categories. NJDEP is concerned that the emissions associated with building, replacing, or expanding may be above the de minmis levels and may not qualify as presumed to conform.

4) NJDEP is requesting that the FAA consult with the applicable State Implementation Plan air pollution control agencies before a decision is made to exclude a presumed to conform action if more than one is present in a combined action.

Section IV of the draft notice discusses how the FAA will apply the presumed to conform list. The draft notice indicates that "agency officials maintain the right to select the specific presumed to conform action to exclude if more than one is present in the combined action."

New Jersey is especially concerned about emissions, since it is in nonattainment for ozone and thirteen counties are in nonattainment for fine particulate matter. In order for New Jersey to meet the National Ambient Air Quality Standards, emissions reductions from stationary, area, and mobile sources will be required. New Jersey has three major airports located in the 8-hour

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[2] Brett F. Taubman et.al, Airborne Characterization of the Chemical, Optical, and Meteorological Properties, and Origins of a Combined Ozone-Haze Episode over the Eastern United States, Journal of Atmospheric Sciences, pg. 1782.
[3] Ibid.pg. 1782.
[4] http://ams.confex.com/ams/pdfpapers/28931.pdf
[5] http://ams.confex.com/ams/pdfpapers/28931.pdf

ozone nonattainment area. These airports had more than 10,000 aircraft operations in 1999.[6] Growth in the aviation industry is expected to continue. "Commercial Aviation is expected to reach a billion passengers in 2015. A growth in passengers of 3.5% and a growth in capacity of 4.3% is expected. The fleet is expected to grow to about 275,000 by 2020, an increase if 51,000. General aviation hours will climb to 43.9 million by 2020, an increase almost 17 million. Cargo is expected to grow 5.3%. Tower operations should grow 2% and en route operations by more than 3%."[7] According to the Northeast States for Coordinated Air Use Management's (NESCAUM's) report entitled, Controlling Airport-Related Air Pollution (June 2003), while emissions from most source sectors are declining due to the implementation of various national, state, and local control programs, the rapid growth air travel and the lack of technology-forcing federal or international control program is resulting in increased pollution form airports.

Thank you for an opportunity to comment on the Federal Presumed to Conform Actions Under General Conformity.

Sincerely,

Sandra Kvietkus for

Chris N. Salmi
Assistant Director

c: Nancy Wittenberg, Assistant Commissioner

[6] http://www.nescaum.org/activities/major-reports, Controlling Airport -Related Air Pollution, pg. I-3.
[7] http://www.faa.gov/data_statistics/aviation/aerospace_forecasts/2007-2020/media/FORECAST%20BOOK%20SM.pdf,