



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

FEB 22 2000

Mr. Leon Sedefian
New York State Department of Environmental Conservation
80 Wolf Road
Albany, New York 12233-3253

Re: Sunset Energy Facility Modeling Protocol

Dear Mr. Sedefian:

The U.S. Environmental Protection Agency, Region 2 Office has reviewed the November 17, 1999 Air Quality Modeling Protocol for the proposed Sunset Energy Facility. This facility consists of a 520 MW combined cycle generating station which would be fired by natural gas and 0.05% sulfur distillate oil as backup. The facility would be installed on three "fixed position" barges on the Gowanus Bay in Brooklyn. This protocol was submitted for the purpose of addressing air quality impacts under the New York State Article X process. However, the EPA reviewed this protocol pursuant to the Federal Prevention of Significant Deterioration (PSD) of Air Quality Regulations. It was concluded that there are points that need to be clarified or additional information must be provided. These points are discussed below:

- There needs to be a discussion which justifies the representativeness and the reasons for selecting the meteorological data collected at Newark Airport rather than that collected at LaGuardia.
- Page 4-10 states that the final design is not yet determined. The design must be finalized before the final application is submitted since design changes may call for changes in the method in which the modeling analysis is performed.
- Page 4-23 states that it is anticipated that there will be significant impacts for SO₂ and PM₁₀ on a short term average basis only. However, it should be recognized that when the short term average significant impact levels are triggered the subsequent NAAQS and PSD increment analyses must be performed for all the averaging times for which an air quality standard exists for that pollutant.
- Page 4-30 states that the PM₁₀ NAAQS is based on the High 5th High. This should be revised to be H-6-H. (However, note that the PM₁₀ increment is based on the High Second High.)

- It should be ensured that any new complete air quality application that was submitted to NYSDEC and is proposed to be located within or nearby the significant impact area must be included in the emission inventory.

- Page 4-8 says the 1 hour Valley concentration is used to obtain the 24 hour. This should be corrected since the VALLEY model calculates a 24 hour average concentration.

- The protocol mentions that if a more detailed analysis is needed in complex terrain, SHORTZ would be used. However, we believe that better techniques exist for these calculations. SHORTZ was intended more for an urbanized valley situation. In addition, it is currently slated to be removed from the Guideline on Air Quality Models. We would suggest the use of CTSCREEN.

If you have any questions regarding this letter, please call Annamaria Colecchia of my staff at (212) 637- 4016.

Sincerely yours,



Steven C. Riva, Chief
Permitting Section
Air Programs Branch

bcc: W. Peters, OAQPS
D. Wilson, OAQPS (email)
A. Colecchia