

From: ANNAMARIA COLECCHIA
To: doll-dennis
Date: 3/13/97 9:30am
Subject: Lovett Data

Dennis,

Hi there. I was about to finalize the attached letter and was not sure if I needed the Modelclearinghouse concurrence. The letter is in response to New York State's request to allow the use of CTDMPLUS for a modification to a PSD permit at the Lovett Generating station.

As you may recall, the met and monitoring data collected by Lovett in the late 1980's was one of the data bases used by EPA to approve CTDMPLUS as a guideline model. It seems strange now that the facility wants to use the same data base for regulatory purposes but does not meet some of the minimum data requirements. I think I addressed the concern adequately. But since this would be an application of the model which is not in conformance with the Guideline on Air Quality Models, do I need approval from the modelclearing house? I already spoke to Steve Perry who talked to Al Cimorelli. Their comments are reflected in my letter.

I am attaching the letter to this message and will not finilze until I hear back from you. If I need to formally submit, I will. Thanks.
My number is (212) 637-4016.

Arthur J. Fossa, P.E., Director
Division of Air Resources
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-3254

RE: Orange and Rockland Utilities Lovett Generating Station
PDD Applicability

Dear Mr. Fossa:

This letter is in response to your request for the Environmental Protection Agency's (EPA) concurrence on determinations made by your staff regarding a proposed modification at the Orange and Rockland Utilities Lovett Generating Station (Lovett) units 4 and 5. Lovett is proposing to increase the SO₂ limit from 1.0 lb/mmBtu to 1.2 lb/mmBtu when both units 4 and 5 are operating on coal. You have asked for EPA concurrence on: a) the decision that the proposed change to a higher SO₂ emission rate is subject to PDD; and b) the decision to use the CTSMPPLUS model is appropriate to calculate impacts from the proposed project.

With regards to the PDD applicability, the EPA agrees with your office's assessment that the proposed modification to increase the SO₂ emission rate to 1.2 lb/mmBtu would be subject to PDD. While a previous change by Lovett to use coal was considered exempt from PDD as an alternative fuel, this new change to increase the SO₂ emission rate is not exempt under any criteria in 40 CFR 52.21(b)(2)(iii). Therefore, if this change in the method of operation results in a net emission increase above 40 tpy of SO₂, the source is subject to PDD. Therefore, the EPA concurs with your decision that all PDD requirements would apply to this proposed modification.

In response to the request to use CTSMPPLUS, it may be acceptable provided that a demonstration of proper model performance is made. The reason for this is that the meteorological data collected by Orange and Rockland in support of the SDP variance (which would also be used in this case) does not meet the minimum requirements to use the CTSMPPLUS for regulatory purposes as specified in section 5.2.2 of the Guidelines on Air Quality Models. Specifically, the data base does not include meteorological data measurements up through the representative plume heights of interest (i.e., the plume height(s) above stack top which are important to the determination of the design concentration) or net radiation information. It did include a 100 meter meteorological tower, properly instrumented at 3 levels.

However, in this case, the Lovett data base was also used in a CTSMPPLUS model evaluation study which involved comparing model performance at 12 ambient monitors installed in the area surrounding the Lovett stack. Therefore, in order to use CTSMPPLUS in this regulatory mode, it needs to be shown that the ambient monitor locations, where the model was evaluated and shown to perform well, were also representative of the worst case impacts regardless of the lack of some meteorological measurements. This demonstration may be done by using CTSGREEN (the same model as CTSMPPLUS but with out the actual meteorological data) with a comprehensive receptor grid throughout the potential impact domain. If the CTSGREEN model shows that the monitors were situated in the area of worst case impacts and it is documented for the administrative record that the model performed well in these locations, then CTSMPPLUS may be used.

If you have any questions, please have your staff contact Chris Fazio regarding PDD applicability at 212-637-4015 or Annamaria Colechia regarding the modeling at 212-637-4016.

Sincerely

Steven C. Riva, Chief
Permitting Section, Air Programs Branch

bcc: C. Fazio

A. Colechia

J. Siegel, ORC

S. Perry, OASD-ORL

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