



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

February 21, 1989

MEMORANDUM

SUBJECT: TVA-Paradise SIP Package

FROM: Eric O. Ginsburg, Chief *Eric Ginsburg*  
Sulfur Dioxide Programs Section (MD-15)

TO: R. Doug Neeley, Chief  
Stationary Source Planning Section  
Region IV

We have received notice of your request for the return of several sulfur dioxide SIP's to be processed under the SIP processing reform. It is encouraging to see the regions taking an active role in the SIP processing reform.

Among the SO<sub>2</sub> SIP packages that you requested returned is the SIP revision for the TVA Paradise plant. While we have returned that package, you should be aware that under SIP processing reform guidance all sources with SO<sub>2</sub> emissions greater than 25,000 tpy have a 30-day Headquarters review during which time we are allowed to comment. Since the Paradise emissions likely exceed 25,000 tpy, and because of the long history and sensitivity of the central issue involved with the SIP, we plan to exercise our review prerogative on all future Federal Register packages (proposal and final action).

The central issue concerning the approvability of the Paradise SIP revision is whether the plant should have been modeled using on-site meteorological data as input. The Model Clearinghouse has had a number of discussions with Region IV on this issue and has reviewed several Federal Register packages involving this issue in recent years. Our position has always been that if at least 1 year of on-site meteorological data are available, these data should be used in modeling.

Available guidance relating to the issue is contained in the Guideline on Air Quality Models (Revised) (Guideline). Prior to September 1986 the Guideline was not explicit as to whether on-site or off-site data should be used if both were available. (However, our technical opinion always has been that on-site data are clearly more representative and would thus provide a more accurate estimate of the concentrations in the vicinity of a source.) The 1986 revisions to the Guideline make this aspect of

the issue very clear: "If one year or more, up to five years, of site-specific data are available, these data are preferred for use in air quality analyses."

The latest SIP revision package for Paradise reviewed by the Model Clearinghouse was not explicit on when the modeling was done. However, dates on the model output included in the package indicate that it was done on or after March 1987. Thus the applicable guidance appears to be the 1986 revisions to the Guideline, so that if on-site data were available, they should have been used.

The technical support document for the latest SIP package also contains some technical reasoning why historical data from an existing 60m on-site tower should not be used in the modeling. We do not necessarily agree that this technical rationale is defensible; however, we do understand (but have not investigated) that there may be some quality assurance problems with that data. In any event, we understand that in 1984 TVA erected a 20m tower at Paradise and that data from this tower have been subjected to quality assurance procedures. We also understand that Region IV is requesting the State of Kentucky to explain why data from the 20m tower were not used.

When an answer is received from the State on the appropriateness of using the 20m tower data, Region IV should either request that the source be remodeled with these data as input, or revise the Federal Register package to fully justify the use of off-site data. If the latter is the case, then we believe that the SIP processing reform procedures require that the package undergo full Headquarters review and signoff by the Administrator, since it then becomes a "SIP revision . . . based on . . . deviations from EPA's modeling guidance."

If you have any questions, please contact me and I will arrange a conference call with OAQPS staff to discuss this action further.

Attachment

cc: D. Grano  
J. Pearson  
S. Reinders  
J. Tikvart  
J. Vitas  
✓ D. Wilson