RECORD OF COMMUNICATION

___TELEPHONE CALL ___MEETING x ___CONFERENCE CALL ___OTHER

INFORMATION COPIES TO: Dennis, Joe, D. Lohman. B. Kelly

TO: D. Wilson, D. Doll
FROM: B. Kelly, R-II; D. Lohman, R-III; Alan Dresser, NJ
DATE: 2/19/97
TIME:
SUBJ: Protocol for Regulatory Modeling for Martins Creek PP

SUMMARY OF COMMUNICATION:
1. R-III has called PP&L and found out that there are valid on-site met. data continuously from mid June 1991 to the end of Sept., 1994.
2. PP&L is adamant about wanting to use only the 2 calendar years (1992 & 1993) for regulatory modeling. PA backs them up on this point.
3. D. Wilson discussed the issues of EPA requiring that the partial years of met. be used. See attached summary. The main point we made was that while we could probably accept modeling over 3-365 day periods, ending in Sept 1994, we could not require that it be done. We also agreed that from a purely technical sense, the use of all of the data would provide a better answer and would be more protective of the NAAQS.
4. D. Wilson suggested that an option would be for the Regions to write a memo to the C/H stating their rationale for modeling 3-365 day periods. The C/H would then coordinate the response with the other Regions, the policy people and with OGC.
5. Alan Dresser stated that NJ does have a State standard of exceedances over a 365 day period. D. Wilson said that NJ could try to force PA and PP&L to meet their standards but that EPA could not help them since we cannot enforce anything more strict than the NAAQS.
6. The Regions and NJ decided to do the following:

a. R-III will call PP&L and try to convince them to use all of the data to the extent possible (e.g. 3-365 day periods) in the interest of good technical practice.
b. If PP&L is not agreeable to the technical argument, they would agree to let them only model the two calendar years, but would discuss the issue in the FR proposal and solicit public comment on it.
c. The two Regions may run the issue by their Regional Counsels but were not hopeful because it usually takes so long to get an opinion.

FOLLOWUP ANTICIPATED:
1. Region III will set up a conference call between the 2

Regions, the 2 States and PP&L to discuss the issue. The C/H will not need to be in on that call.
2. Regardless of where we are at the time the Regions and NJ want to air the issue at the May modelers conference. Al Cimorelli will be at the conference and, based on his past viewpoints, will likely argue for the NJ position.

MODEL CLEARINGHOUSE RECORDS INFORMATION:
SOURCE NAME: PP&L
LOCATION: PA
SOURCE TYPE: PP
POLLUTANTS: SO2
REGULATION(S) INVOLVED: Redesignation
MET. DATA BASES (ON/OFF-SITE): On
MODEL(S) USED: LAPPES

Attachment

2/19/97
Dennis--
Regarding the 2/13/87 fax from Alan Dresser and our discussions related to the telephone call that you had with Regions II & III and PA & NJ on 2/14, here are some thoughts regarding the use of the multiple years of meteorological data available for the regulatory modeling analysis of the Martin's Creek power plant.

First, I should note that these thoughts are based on Model Clearinghouse history and on previous Federal Register determinations. In order to get an official response on the issue, we would need a memo from the Region(s) which analyzes the issue and states their position. This memo and proposed response would likely need to be run by the Office of General Counsel for concurrence.

The basic issue inherent in the several options proposed by NJ is that when doing the regulatory modeling for the power plant can one somehow make use of the partial years of meteorological data that have been collected? NJ proposes several options on how these data can be utilized, or not utilized in the regulatory analysis.

One factor to be considered relates to the nature of the ambient standard, against which the model estimates will be compared. EPA's NAAQS are interpreted in terms of "block averages." The short term NAAQS for SO_2 are written in terms of maximum concentrations in 3-hour and 24-hour (day) blocks "not to be exceeded more than once per year," where "year" is taken to mean

the block calendar year. Thus, one would need to collect a calendar year of ambient data or modeled data in order to make a comparison to such NAAQS. Thus, our regulatory models historically have always required a full calendar year of meteorological data before they will make a calculation. That is not to say that the models cannot be fooled into thinking that they have a calendar year with input of data from a shorter period of time, or substituting some data from another year to "make up" a calendar year. For Martins Creek for example, one might model 6 months of data (June-Dec.) from 1991, full years for 1992 and 1993, and 9 months (Jan.-Oct.) for 1994. The high-second-high's for each of these periods could then be compared to the NAAQS. Alternatively, one could take the Jan. to May data from 1994 and mix it with the June to Dec. data from 1991 to "make up" a calendar year for modeling purposes. In this case you would have 3 years of high-second-highs for comparison to the NAAQS, two calendar years and one "made up" calendar year.

While the above examples may seem creative and intuitively acceptable, it is doubtful that the high-second-high from the partial year or "made up" year runs could be strictly compared to the NAAQS. In developing the Guideline on Air Quality Models, we have strived to be consistent with the way in which monitoring is used to determine compliance with the NAAQS. We don't think that partial year monitoring or "made up" year monitoring could be required for determining NAAQS compliance. Pursuant to the monitoring interpretation, for modeling data we do not think that the creative methods could be required.

On another twist, States are always permitted to be more stringent than the NAAQS and they could, say, define their ambient standards in terms of "not to be exceeded more than once in 365 consecutive days." In this way they could create three years of modeling data for Martins Creek by starting in June, 1991, modeling for three consecutive 365 day periods, and comparing the three sets of high-second-high's with the redefined ambient standards. (Or, they could start in Nov. 1991 and model the three consecutive 365 day periods in order to use the "latest" three years of data.). In order to do this it seems that NJ would need to have such a redefined standard in their regulations. However, they would be "on their own" in enforcing it, since EPA cannot enforce standards more stringent than the NAAQS. This might prove to be difficult for the State to enforce such a standard against a source in another state.

Similarly, back to the creative data base examples above, there is nothing in the EPA requirements to restrict the State(s) from using such procedures since they seem to be more restrictive than EPA requirements, but it might prove difficult to impose them on the source.

Looking back through the Model Clearinghouse records, we find that there are two types of problems where EPA has permitted modeling on other than a calendar year basis. One is for ozone where violations can be presumed only to occur in the warmer months and there is no need to model say, in January. The other type is when source begins collecting on-site meteorological data at some time other than January 1, and collects the minimum required one year of data spanning parts of two calendar years. We have accepted such data in the interest of expediency on the assumption that the procedure would not be expected to be "climatologically biased," and the results would be expected to be at least as restrictive as if it were done on a calendar year basis. The important point here is that the procedure was accepted, but not required by EPA.

Looking at the four alternatives proposed by NJ, it seems that their logic for rejecting Alternatives 1 & 2 seem OK. On Alternative 3, while we agree that that the Alternative itself is supportable, we disagree with the statement that there is no requirement that the modeled period run from Jan. 1 to Dec. 31. Alternative 4 could be accepted but not imposed or enforced by EPA.

Incidently, the issue of modeling with block vs. running averages has been challenged before. See the May 20 1988 F.R., p18039, on the Muskingum River power plant for good discussion on this subject.

It is good that this issue is to be brought out at the modelers' workshop. I would be interested in getting other perspectives on it.

Dean Wilson
2/19/97