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*4/27/93*  
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Shawn B. Kendall  
Executive Assistant

April 26, 1993

Mr. J. W. Yarbrough  
GT-AN Air Program  
USEPA Region VI  
1445 Ross Avenue  
Dallas, TX 75202

Dear Mr. Yarbrough:

As you are aware, we are in the process of monitor site selection for deployment of the eight solar powered SO<sub>2</sub> monitoring stations to be used to gather data for the model performance evaluation. This siting study is based on model results from the first full year of data with the 150-meter tower (February 1, 1992 through January 31, 1993). You may recall that we were having difficulties with our sodar, and had the sodar upgraded. The upgrade was performed at the end of April 1992, with high quality sodar available beginning May 1, 1992. Because a full year of sodar data was not available, initial monitor siting was done with only the tower data.

As was discussed in the Technical Comparison Document, sodar data is planned to be used in the model performance evaluation. Because Phelps Dodge has committed to begin collection of performance evaluation data August 1, 1993, modeling had to be performed without the sodar, since less than 90 percent of the data was available.

In order to verify that the exclusion of the sodar data would not change the spatial distribution of sulfur dioxide concentrations (and the locations of the monitor sites), I asked Mr. Robert Paine of ENSR to do an additional set of CTDMPLUS modeling runs with and without the nine months of available sodar data. The results of the runs, which became available last Friday, April 23rd, were analyzed using the monitor siting scoring system by Mr. Alex Bealer of Reese-Chambers to determine the locations for monitor deployment.

To our disappointment, the inclusion of the sodar data materially effected the locations for monitoring. Specifically, the second and third highest monitors for CTDM were changed from being located northwest of the plant, to locations that were to the

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southeast of the plant (a 180° change in orientation). It is therefore reasonable to expect that the monitor locations would be materially different if a full year data set which includes sodar data were used for monitor siting.

Based on these findings, it is my recommendation that the monitor siting study be done using the period from May 1, 1992, through April 30, 1993, which includes a full year of sodar data. The data from this period will be available to use as model input by the end of May 1993 (i.e., quality assurance review completed). This would require the beginning of the performance evaluation data collection period to be rescheduled from August 1, 1993, to October 1, 1993.

If this is agreeable, please so indicate by written response at your earliest convenience. Thank you for your continued support of this project.

Sincerely,



Shawn B. Kendall  
Project Director  
Hidalgo GEP Stack Height Review Project

SBK/la

cc: B. R. Nicholson, NMED  
R. J. Paine  
D. A. Godden  
A. W. Bealer  
L. M. Pruett