

From: Rosendo Majano
To: Sal Mohammad
CC: Matthew P. Lydon; Steve Marks; Susan Jenkins; Tyneshia Tate
Date: 5/27/2011 10:11 AM
Subject: RE: Effingham County Power

Thank you Sal for your response. A couple of comments:

- For NO2. EPA's written guidance is not clear regarding the use of SUSD scenarios to determine the SIA and we received verbal guidance from Region-IV suggesting that the SIA should be determined with normal operating conditions and not with SUSD. Therefore, I am conducting my significance modeling following R-IV's suggestions. That's the source of the discrepancy between the SIA values. Your approach is more conservative anyway , so I don't see a problem with it.

- For PM2.5, by force of habit I initially did the modeling based on the overall distribution of the 24-hr values instead of the receptor-specific 5-yr average. I corrected that and got your same results, so there is no problem here either.

I had already figured all this out a few days ago so there is no longer any outstanding issue, hence, there is no need for any further discussion.

Thanks,

Rosendo Majano

 Rosendo Majano
 Data and Modeling Unit
 EPD Air Protection Branch
 GA Dept. of Natural Resources
 4244 International Pkwy., Suite 120
 Atlanta, GA 30354
 (404) 363-7022
 rosendo_majano@dnr.state.ga.us

>>> "Mohammad, Sal" <Sal_Mohammad@golder.com> 5/27/2011 8:59 AM >>>

Hi Rosendo,

Regarding the 1-hour NO2 significant impact distance (SID), modeling analysis for the project was performed in early June 2010 (before EPA's first NO2 memo). The 4.2 km SID was based on worst-case impacts using startup-shutdown (SUSD) emissions and operating parameters and assumed a significant impact level (SIL) of 5% NAAQS and NO2/NOx ratio of 0.75. The 1-hour average concentration predicted at each receptor was based on the average over the 5 years. The receptor grid was refined to 100 meters out to 2 km and 250 m beyond 2 km. Because the maximum predicted impacts were well within 2 km, additional refinements were not required since any differences in SID would not significantly change the results from those presented in the report (i.e., compliance with NAAQS).

Regarding PM2.5, the 24-hour SID of 1.7 km was based on five 24-hour concentrations averaged over 5 years (per the March 23, 2010 EPA guidance) and a SIL of 1.2 ug/m3. A 2.0-km receptor grid with 100-m spacing was used for the PM2.5 NAAQS analysis, again indicating compliance with the standard.

If you wanted to discuss these further, we can call you at a time suitable for you.

Regards,
Sal

 Sal Mohammad | Senior Project Engineer | Golder Associates Inc.
 6026 NW 1st Place, Gainesville, Florida 32607, USA
 T: +1 (352) 336-5600 | F: +1 (352) 336-6603 | E: Sal_Mohammad@golder.com | www.golder.com

-----Original Message-----

From: Rosendo Majano [<mailto:Rosendo.Majano@dnr.state.ga.us>]
Sent: Friday, May 13, 2011 3:13 PM
To: Mohammad, Sal
Cc: Matthew P. Lydon; Susan Jenkins; Tyneshia Tate
Subject: Effingham County Power

Hello Sal,

I'm reviewing the NAAQS and Increment modeling for this facility and I found a discrepancy between the extent of the SIA that I calculated and the one that you have used in your modeling analysis.

Your reported values are (See page 61 and appendix E of the report):

1-hr NO2 -- SIA = 4.2 km
24-hr PM2.5 -- SIA = 1.7 km

The values I got are:

1-hr NO2 -- SIA = 2.41 km
24-hr PM2.5 -- SIA = 2.12 km

Certainly your SIA is more conservative for 1-hr NO2, but the receptor grid you have used is not refined to 100 meters.

Could you send me an explanation of how these values were calculated? I have to clarify this before moving on with the AERMOD runs.

Thanks.

Rosendo Majano.

Rosendo Majano
Data and Modeling Unit
EPD Air Protection Branch
GA Dept. of Natural Resources
4244 International Pkwy., Suite 120
Atlanta, GA 30354
(404) 363-7022
rosendo_majano@dnr.state.ga.us