

Robert F Pinchot 07/12/2001 12:33 PM

To: David M Rurak/AE/DuPont@DuPont, H David Ramsey/SE/DuPont@DuPont, Stephen J Gissy/AE/DuPont@DuPont, Robert L Ritchey/CL/DuPont@DuPont, John J Mentink/CL/DuPont@DuPont, Chris E Shoop/AE/DuPont@DuPont, Bernard J Reilly/AE/DuPont@DuPont, John R Bowman/AE/DuPont@DuPont, Andrea V Malinowski/AE/DuPont@DuPont, Oscar T Garza/AE/DuPont@DuPont
cc: Maurice Astorga/AE/DuPont@DuPont, Debbie J Mulrooney/AE/DuPont@DuPont, Catherine A Barton/AE/DuPont@DuPont
Subject: Air dispersion modeling strategy

I have talked with a number of people yesterday and today concerning modeling of APFO emissions from Washington Works. Here are the facts as I understand them at the current time.

1. Jesse Hanshaw, WVDEP permit writer has called Chris Shoop asking for actual emission rates and UTM coordinates for the stacks that emit APFO. He asked this so that the WVDEP can do modeling of airborne exposures.
2. Over the last few weeks in cooperation with legal and DuET, I have developed a modeling proposal to model airborne exposures to better understand exposure potential from all sources at WW. I have approval from Dave Rurak to pursue this program. This modeling program has three parts, the first of which will model, based on actual emissions, the average annual concentration to which a person would be exposed by location; basically the model will generate isopleths of average annual concentration.
3. The modeling that DuET will be doing for this project meets the requirements of 40CFR51 App. W., the standard to which the state regulations refer for modeling. Note to John M.: The model that will be used for this first part of the analysis assumes that the particle size is "small" and the concentrations "low" so that the material acts as air when it comes out the stack.
4. Ann Bradley has discussed the issue with Mr. Hanshaw and he has agreed to wait for the process information until after discussions with Bob R. when he returns from vacation next Monday.
5. WVDEP has a modeler on staff. What models he plans on using for this study are unknown at this time. We will use Industrial Source Complex v. 3 for this modeling.
6. Deb Mulrooney, DuET, has the site specific input files for WW that includes meteorology and site buildings/terrain. To run the model she will need the following information for each release point:
 - UTM Coordinates
 - Actual Emission rate (and permitted emission rate if we want to model the maximum allowable by the permit)
 - Stack Height
 - Stack Velocity
 - Stack Diameter
 - Emission Temperature.
7. Barring any computer problems, Ms. Mulrooney will need approximately 1 day of undivided work to model the first phase of the program after she has the data in 6. above. She is unavailable on Monday and Tuesday of next week.
8. It is Ms. Bradley's opinion that regardless of what we do, the WVDEP will want to run their own models. It is unknown at this time what concentration the state will use to compare with the model results.

Based on the above facts, the strategy I propose is as follows:

1. Conduct our modeling of average annual air concentrations as soon as possible.
2. Work with the WVDEP to persuade the agency to use our modeling work. Keep them

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informed of the modeling progress and make available all the input data and modeling techniques to allow the agency to conduct their own study if warranted. If the state wants to do modeling in addition to ours from the outset, get agreement from them that they will share the methods and results with our experts for our understanding.

3. Try to understand what purpose this modeling will serve for the state. Will it be used to set permit limits? If so, what concentration standard will they use to set the permit limits?

To implement this strategy, I propose the following next steps:

- Forward this note to Ann Bradley, I don't have access to her e-mail address (Bernie, 7/12)
- Get the data in item 6 above for each emission point to Deb Mulrooney (Chris S. as soon as possible)
- Run the dispersion model (Deb by 7/20)
- Set up a conference call for Monday, 7/16 to further develop strategy outlined in 2 and 3 above. Participants should include at a minimum Bernie Reilly, Bob Ritchey, Chris Shoop, Ann Bradley, Trini Garza, and myself. (Bernie, could you please arrange; my secretary is out ill the rest of the week).
- Set up a meeting/conference call with WVDEP personnel based on the outcomes of the Monday conference call (Bob Ritchey).

Let the entire group know if I have missed something.

Regards,
Rob

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