



Debbie J Mulrooney
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To: Catherine A Barton/AE/DuPont@DuPont
cc:
Subject: Fayetteville Results

Cathie,

Here is a summary of vapor phase modeling results for the four cases we've looked at so far. I added all of the stack parameters for each case, so we know what we are looking at. Case 4 is with the recent info that Rob sent.

Do you want me to go ahead and run the Risk Generator for Case 4? I took a look at the LaPorte files that were generated for input to the risk model. For each phase (vapor, particle and particle-bound) there is an average concentration listed in addition to the deposition rates. The average concentrations for the particle and particle-bound phase are less than those for the vapor phase, which I think tells me that these concentrations somehow take into account losses by deposition and depletion. (The mass balance thing that Charlie mentioned.)

One other thing I may need to fix. I used the flow rates that Rob gave us in scfm units. If the stack really is 400 K (which is what I seem to have in the model), the acfm rate will be higher. Acfm is what is supposed to be used in the model. Although, in this case, using scfm is conservative.



Fayetteville Results.xls

Debbie

CAB000200

EID547049

Fayetteville Modeling Results

	Case 1	Case 2	Case 3	Case 4
	(ug/m3) Location	(ug/m3) Location	(ug/m3) Location	(ug/m3) Location
1995	0.01298 696200E 3856100N	0.02189 696200E 3856100N	0.00824 696200E 3856100N	0.13125 697500 3857725
1996	0.01124 698400E 3858600N	0.02428 698400E 3858600N	0.00667 698400E 3856000N	0.12863 697800 3858125
1997	0.01050 696200E 3856100N	0.02346 698400E 3858600N	0.00685 696200E 3856100N	0.12860 697800 3858025
1998	0.01036 696050E 3856525N	0.01875 696050E 3856525N	0.00660 696200E 3856100N	0.11887 697800 3858025
1999	0.01115 696200E 3856300N	0.02043 698400E 3858600N	0.00733 696200E 3856100N	0.12573 697800 3858025
Release Rate (g/s)	0.07	0.07	0.07	0.07
Stack Flow Rate (scfm)	10000	5000	15000	8500
Stack Velocity (m/s)	64.7	32.3	97.0	55.0
Stack Height (ft)	90	90	90	85
Building Height (ft)	60	60	60	55
Stack Diameter (ft)	1	1	1	1
Temperature (K)	400	400	400	400

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