AR226 - 1185

TAFT, STETTINIUS & HOLLISTER LLP

425 WALNUT STREET, SUITE 1800
CINCINNATI, OHIO 45202-3957

513-381-2838
FAX: 513-381-0205

www.taftlaw.com

NORTHERN KENTUCKY OFFICE
SUITE 340
1717 DIXIE HIGHWAY
COVINGTON, KENTUCKY 41011-4704
606-331-2838
513-381-2838
FAX: 513-381-6613

CLEVELAND OHIO OFFICE
3500 BP TOWER
200 PUBLIC SQUARE
CLEVELAND OHIO 44114-2302
216-241-2838
FAX: 216-241-3707

COLUMBUS, OHIO OFFICE
21 EAST STATE STREET
COLUMBUS, OHIO 43215-4221
614-221-2838
FAX 614-221-2007

ROBERT A. BILOTT
(513) 357-9638
bilott@taftlaw.com

August 19, 2002

TELECOPY

Perry D. McDaniel, Esq.
West Virginia Department of
Environmental Protection
Office of Legal Services
1356 Hansford Street
Charleston, WV 25301

Re: WVDEP Document Production Issues

Dear Perry:

This letter responds to your letter of August 12, 2002, requesting that we identify "any particular documents or category of documents that have not been produced to date" in response to "outstanding document requests and the issues raised in the order by Judge Hill." As the party requesting the documents from WVDEP, we obviously are not in a position to know whether WVDEP has, in fact, produced all of the documents it is required to produce and must rely upon WVDEP's representations in that regard. As the party possessing the documents at issue, WVDEP has the burden to demonstrate compliance with its document production obligations and cannot shift that burden to the party requesting the documents. We, therefore, request that WVDEP confirm, in writing, that it has produced all of the documents at issue or identify, in writing, what has not yet been produced.

Upon review of documents that have been produced to date by WVDEP, it appears that there may be certain recently-generated documents that have not yet been produced. As explained below, it appears that there must have been recent modifications to the Consent Order between DuPont and WVDEP that allows WVDEP to prepare the final CAT Team reports, as opposed to allowing WVDEP's contractor - TERA - to do that work. If such modifications to the CAT Team procedures have occurred, we have not yet received those documents.

CONTAIN NO CBI

Upon review of the documents produced to date by WVDEP, we understand that TERA prepared a draft document allegedly summarizing the results of the meeting of the CAT Team in Cincinnati on May 6 and 7, 2002, and that TERA made that document available to the various CAT Team members for review and comment. We understand that TERA also prepared a draft document reflecting the CAT Team's selection of a "screening level" for C-8 in air, and that TERA also made that document available to the CAT Team members for review and comment. Among other things, that particular draft document from TERA set forth a proposed air screening level range for C-8 as low as 0.3 ug/m.[3] We further understand that, rather than forward to TERA each of the CAT Team members' comments on TERA's draft screening level documents so that TERA could incorporate the comments into its final report, WVDEP's employee, Dr. Staats, unilaterally assumed the task of deciding which of the CAT Team members' comments to incorporate, and how those comments would be incorporated into the final TERA reports. More specifically, we understand that Dr. Staats reviewed each of the comments submitted by the CAT Team members, and prepared a color-coded revised version of TERA's draft report setting forth her views as to which of the comments should be incorporated and how best to incorporate those comments into the final version of the TERA report. At this point and time, it is not clear to us why TERA was not permitted to perform this task, as contemplated under the Consent Order that set up the CAT Team, or why TERA - the contractor retained by WVDEP to prepare the CAT Team reports - was not permitted to decide which comments to incorporate into the final report or whether the comments were, in fact, consistent with what was actually discussed or determined during the actual CAT Team meeting. This raises the question as to whether the Consent Decree between DuPont and WVDEP was modified somehow to allow WVDEP's employee to unilaterally take over these tasks.

In addition, it is not clear why a non-CAT Team member, John Butenhoff of 3M, is now being permitted wide latitude to suggest numerous substantive revisions to the conclusions in TERA's draft report or why WVDEP now has the power to unilaterally decide which comments from which CAT Team members/observers will be incorporated into the final CAT Team report, and which will not. In particular, we note that TERA's original drafts suggested a "screening level" range for C-8 in air as low as 0.3 ug/m^3. In fact, Joan Dollarhide of TERA, specifically stated in response to TERA's draft report that the 0.3 ug/m^3 lowest level of the "screening level" range for C-8 in air should be selected as the final screening level "because this is the more public health protective choice." (*See* Attachment A.) Although WVDEP apparently received and reviewed TERA's recommendation in this regard, it appears from the documents recently produced by WVDEP that Dr. Staats is suggesting to revise TERA's report to select 1 ug/m^3 as the "screening level" for air, as opposed to the lower 0.3 ug/m^3 "screening level" recommended and reconfirmed as the appropriate screening level by TERA. It is not clear to us how WVDEP has the authority to reject the CAT Team contractor's recommendation in this regard and unilaterally change the air screening level under the procedures set up under the original Consent Order between DuPont and WVDEP. Particularly troubling in this regard is the fact that WVDEP and Dr. Staats are well-aware that DuPont's own air modeling data confirms that

DuPont's air emissions would exceed a 0.3 "screening level" for C-8 in the surrounding community. Again, it seems that the Consent Order must have been modified somehow to give WVDEP new power to unilaterally alter the CAT Team's recommended "screening levels.".

Based on the foregoing, it is not clear at this time whether WVDEP has produced all of the documents it is required to produce relating to the CAT Team activities. Recent actions by WVDEP to change the final CAT Team reports seems to suggest that there must have been some recent modification of some sort to the Consent Order between DuPont and WVDEP that set up the CAT Team procedures. If that is the case, we have not yet received those documents. We request, therefore, that WVDEP confirm, in writing, whether there are any additional responsive documents to be produced and when WVDEP plans to produce them. Thank you.

Very truly yours,

Robert A. Bilott

RAB/mdm
Attachment
cc: R. Edison Hill, Esq.
Larry A. Winter, Esq.

From: "Joan Dollarhide" <dollarhide@tera.org>
To: "Andy Maier" <maier@tera.org>, "Michael Dourson" <dourson@tera.org>
Date: 7/12/02 3:41PM
Subject: C8 RfC

Hi,

Just read this, nice work Andy! My only comment - I was the only holdout for a UFs of 10 for both potential critical effects. Even though I still believe a total UF of 3,000 is appropriate for the RfD, I can live with the use of 1,000. I like the way you presented the range of the RfC. But I would recommend making the final pRfC choice and resulting air screening level the lower value in the range, rather than a median value, because this is the more public health protective choice. Given the existing uncertainties and the uproar at this site, it makes sense to be as conservative as is reasonable.

Joan
----- Original Message -----
From: "DEE ANN STAATS" <dstaats@mail.dep.state.wv.us>
To: <whysner@aol.com>; <jzw1@cdc.gov>; <cicmanec.john@epa.gov>; <rotenberg.samuel@epa.gov>; <seed.jennifer@epa.gov>; <jim.sferra@epa.state.oh.us>; <jlbutenhoff@mmm.com>; <:maier@tera.org>; <dollarhide@tera.org>; <dourson@tera.org>; <:gerald.l.kennedy@usa.dupont.com>
Sent: Wednesday, July 03, 2002 8:46 AM
Subject: Fwd: Fw: C8 pRfC

Hello again everyone,

I am forwarding to you an email from Andy Maier that explains the post-meeting action items that he has completed - essentially development of the pRfC and air screening level. The supporting calculations etc are attached as well.

Please reveiw these to make sure they accurately reflect the meeting and it's directions for the post meeting actions to be taken, just as you are doing on the meeting notes. Please send me and Mike Dourson you comments (or a no comment statement) by close of business on July 17.

Thank you again for your time and assistance.
das

Dee Ann Staats, Ph.D.
Science Advisor
WVDEP
Executive Office
1356 Hansford Street
Charleston, WV 25301-1401
phone: 304-558-2508 ext 309
fax: 304-558-3998

DAVE WATKINS - DAQ/DuPont Meeting on 4/24/02

From: "M. Ann Bradley" <abradley@spilmanlaw.com>
To: "John Benedict (E-mail)" <JBENEDICT@mail.dep.state.wv.us>
Date: 4/19/02 3:10 PM
Subject: DAQ/DuPont Meeting on 4/24/02
CC: "Robert L. Ritchey (E-mail)" <Robert.L.Ritchey-1@USA.dupont.com>, "Bernard J. Reilly Esquire (E-mail)" <Bernard.J.Reilly@usa.dupont.com>

John,

As we discussed by phone, here is a suggested agenda for the meeting to be held next week. Also attached is a report of the modeling work prepared by DuPont with respect to C8 emissions from the Washington Works. If you have questions concerning either of these, please let me know.

We look forward to meeting with you and other DAQ representatives next week.

Ann

Proposed Agenda for Meeting Between DAQ and DuPont, 4/24/02

1:00- 1:10 Introductions and agenda review
1:10- 1:30 DuPont Modeling Methodology and input data
1:30-2:00 DuPont Modeling Results
2:00-2:30 DAQ Modeling approach and plans
2:30-3:00 Discussion and path forward
3:00 Adjourn

<<Air Modeling Report 4-17-02.doc>>

ISC Modeling Methodology and Results

Emission Source Information

The ISC3 model was used to calculate ambient ground-level vapor concentrations and deposition rates for year 2000 actual C8 emissions from the Washington Works site. Table 1 shows the stack parameters used in the model for each emission point. Table 2 shows the emission rates used. The stack parameters and emission rates used are those that were available as of 12/17/01, and are identical to those submitted pursuant to Consent Order GWR-2001-019. Since the C8 emissions are partitioned between the vapor and particle phases, deposition runs were completed by modeling each phase separately. (Modeling runs to determine ground-level concentrations were based on the total emissions.)

Deposition modeling requires particle size distribution information and scavenging coefficients for each phase of emissions (vapor and particle). The size distribution information used in the modeling for the particle phase was obtained from testing at the Washington Works site. The scavenging coefficients used for the particle phase were obtained from Figure 1-11 of the EPA ISC3 User's Guide. The vapor phase scavenging coefficients used were based on calculations by DuPont which were submitted under the Consent Order. This data shows the calculated vapor scavenging coefficient based on rain intensity. Since only one value of the scavenging coefficient can be entered into the ISC3 model, the largest scavenging coefficient was chosen to ensure that the model predictions were conservative. Table 3 shows the gas and particle data used in the model and, additionally, shows the basis for the vapor scavenging coefficient used in the model.

Modeling Methodology

Dispersion and deposition modeling was performed using the Industrial Source Complex 3 Model (ISC3), version 00101, provided by Lakes Environmental. All modeling was done in accordance with the procedures in EPA's Guideline on Air Quality Models (40 CFR Part 51, Appendix W). The EPA regulatory default options and rural dispersion coefficients were used in the model.

The C8 emission sources were evaluated for downwash effects from surrounding buildings. The Lakes Environmental BPIP View model was used to provide wind direction specific building parameters. All buildings on the site were evaluated to determine if they could potentially impact the stack by causing building downwash effects. A plot plan showing the location of buildings included in the model is shown in Figure 1. (The buildings included in the model are identical to the list submitted under Consent Order GWR-2001-019).

A 100-meter grid extending out 4,000 meters from the source was used. In addition, discrete receptors with 100-meter spacing were placed on the plant property line. Terrain elevations were imported from electronic files obtained from the U.S. Geological Survey.

An additional receptor grid was used to determine deposition to the watershed for the Little Hocking Water Association well field. A USGS topographical map was used to identify the

general area of the watershed (Figure 2), and a receptor grid with 100 meter spacing was placed within this watershed (Figure 3).

One year of on-site meteorological data (1996) was analyzed. The data was processed by Trinity consultants, using Wilmington, Ohio for the upper air data. Missing data and measured wind speeds of less than 1 m/s were treated consistent with the recommendations made in EPA's On-site Meteorological Program Guidance for Regulatory Modeling. An anemometer height of 10 meters was used for the modeling.

Modeling Results

An averaging time of one year was used to determine the annual average vapor concentrations and annual deposition rates over the entire receptor grid. A contour plot of the annual average vapor concentrations is shown in Figure 4. Contour plots of the total deposition rates for the particle and vapor phases are shown in Figures 5 and 6. The maximum off-site values predicted by the model were:

Maximum Annual Average Ground-Level Concentration = 2.806 $\mu g/m^3$

Particle Phase: Maximum Dry Deposition Rate = 0.1345 $g/m^2/yr$
Maximum Wet Deposition Rate = 0.0479 $g/m^2/yr$
Maximum Total Deposition Rate = 0.1824 $g/m^2/yr$

Vapor Phase: Maximum Wet Deposition Rate = 0.0085 $g/m^2/yr$

The maximum ground-level concentration and all of the maximum deposition rates were predicted to occur at the same receptor (442135.47E, 4346899N), which is located on the plant fenceline north of the plant. The maximum annual ground-level concentration predicted to occur in areas where people may reside in the community is approximately 0.8 $\mu g/m^3$.

Additionally, a smaller receptor grid was used to determine the annual deposition rate to the Little Hocking well watershed. The model was run to calculate vapor and particle phase deposition rates for each receptor, which rates were then imported into a spreadsheet. An average deposition rate was calculated for all of the receptors and multiplied by the receptor grid area (2.57 km^2) to get a total deposition per year over the entire watershed. The deposition amounts calculated were:

Particle Phase: Total Dry Deposition = 6,966 g/yr
Total Wet Deposition = 12,484 g/yr
Total Deposition = 19,450 g/yr

Vapor Phase: Total Wet Deposition = 1642 g/yr

Table 1

Stack Parameters

Permit Number	Permit Vent ID	Reg 29 Vent ID	Zone 17 UTM-E	UTM-N	Stack Height (ft)	Stack Diameter (ft)	Stack Flow (ft^3/min)	Stack Velocity (ft/s)	Stack Temperature (F)
1823A	T7IME	662	442025	4346847	150	1.33	3,349	40.2	172
815D	T6IFCE	644	442084	4346835	59	1.5	18,000	169.8	111
815D	T6IZCE	699	442091	4346836	63	18 -1 ft	18000[a]	21.2[b]	111
1353A	164-5E	652	441920	4346767	70	1.96	9,800	54.1	200
Pre-Existing	164-2E	658	441923	4346756	68	1.63	2,800	22.4	300
614A	163-E-26	231	441952	4346776	93	0.67	500	23.6	130
614A	163-E-11	232	441953	4346766	81	0.67	600	28.4	130
781	163-E-33	216	441960	4346788	60	1.3	2,750	34.5	158
1953	242	242	441954	4346741	114.5	0.5	1,250	106.1	200
2365A	C1FSE	274	441787	4346744	110	0.69	1,000	44.6	255
Semiworks Application	RO22EEF6		442086	4346624	47	2.5	8836	30.0	80
Semiworks Application	RO22EEF86		442069	4346627	49	2.0	7540	40.0	80
Semiworks Application	RO22EEF87		442058	4346634	49	2.0	1885	10.0	80
Semiworks Application	RO22EEF89		442063	4346635	49	2.0	3770	20.0	80

[a]Vent ID T61ZCE consists of 18 one-foot diameter vents. The flow rate given is the total for all 18 vents.

[b]The velocity listed is the velocity calculated for one individual vent.

Table 2
Emission Information

Permit Vent ID	Reg 29 Vent ID	Particle Mass Fraction	Vapor Mass Fraction	Year 2000 Actual C8 Emissions (lb/yr)	Year 2000 Actual C8 Emissions (g/s)	2000 Actual Particle Phase Emission Rate (g/s)	2000 Actual Vapor Phase Emission Rate (g/s)
T7IME	662	0	1	0	0	0	0
T6IFCE	644	0.54	0.46	13,977	0.2010	0.1086	0.0925
T6IZCE	699	0.9	0.1	0	0	0	0
164-5E	652	0.9	0.1	33	0.0005	4.27E-04	4.75E-05
164-2E	658	0.9	0.1	79	0.0011	0.00102	1.14E-04
163-E-26	231	0.11	0.89	3,541	0.0509	0.00560	0.0453
163-E-11	232	0.09	0.91	4,680	0.0673	0.00606	0.0613
163-E-33	216	0	1	0	0	0	0
242	242	0.9	0.1	3,510	0.0505	0.0454	0.00505
C1FSE	274	0.03	0.97	5,414	0.0779	0.00234	0.0755
RO22EEF6		1	0	12	1.73E-04	1.73E-04	0
RO22EEF86		1	0	0.3	4.32E-06	4.32E-06	0
RO22EEF87		1	0	3	4.32E-05	4.32E-05	0
RO22EEF89		1	0	0.6	8.63E-06	8.63E-06	0

Table 3
Gas & Particle Data

Particle Phase:

Particle Diameter (microns)	Mass Fraction	Particle Density (g/cm^3)	Scavenging Coefficients Liquid Precipitation ($s^{-1}/mm\text{-}h^{-1}$)	Scavenging Coefficients Frozen Precipitation ($s^{-1}/mm\text{-}h^{-1}$)
0.2	0.538	2.2	$1.2x10^{-4}$	$4x10^{-5}$
0.4	0.267	2.2	$5x10^{-5}$	$1.67x10^{-5}$
0.75	0.035	2.2	$4x10^{-5}$	$1.33x10^{-5}$
2.0	0.127	2.2	$1.3x10^{-4}$	$4.33x10^{-5}$
4.0	0.033	2.2	$2.8x10^{-4}$	$9.33x10^{-5}$

Vapor Phase:

Liquid Scavenging Coefficient ($s^{-1}/mm\text{-}h^{-1}$) = $6.4x10^{-6}$
Frozen Scavenging Coefficient ($s^{-1}/mm\text{-}h^{-1}$) = $6.4x10^{-6}$

Calculations of Vapor Scavenging Coefficient:
- vapor scavenging coefficients are presented in the consent order submittal as a list of values for different rainfall intensities
- the vapor scavenging coefficient that is entered into the ISC model is in units of $s^{-1}/mm\text{-}h^{-1}$. therefore the scavenging coefficients shown in the consent order must be adjusted to the proper units and then divided by the rainfall intensity
- to ensure that model predictions would be conservative, the scavenging coefficient based on a 1 mm/hr rain intensity was used, as this gives the largest value for input into the model

$$2.311x10^{-2}\,\frac{1}{hr}\times\frac{hr}{3600s}\times\frac{hr}{1mm}=6.4x10^{-6}\,\frac{hr}{s\cdot mm}=6.4x10^{-6}\,\frac{s^{-1}}{mm\cdot hr^{-1}}$$

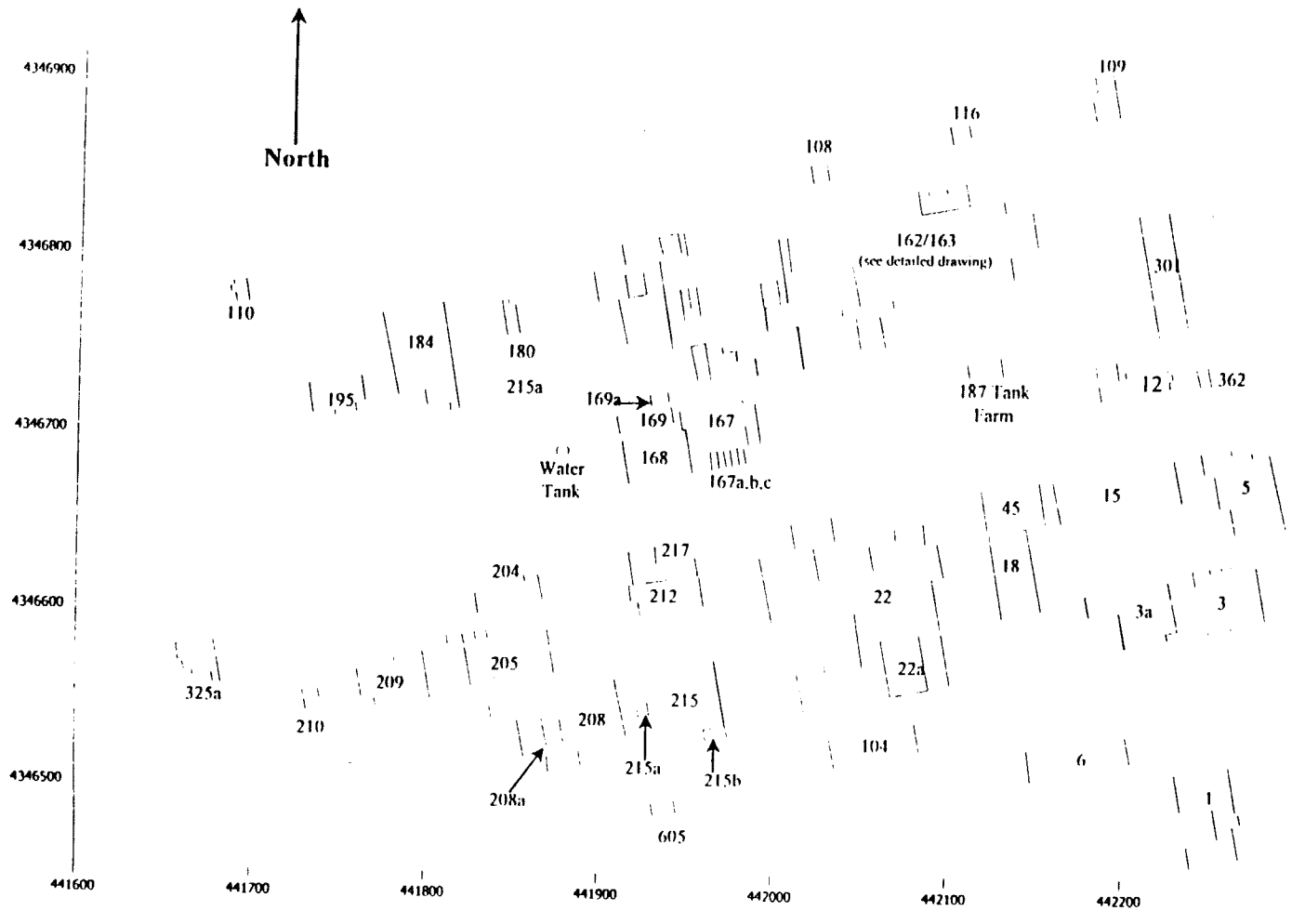

Figure 1 – Building Plot Plan

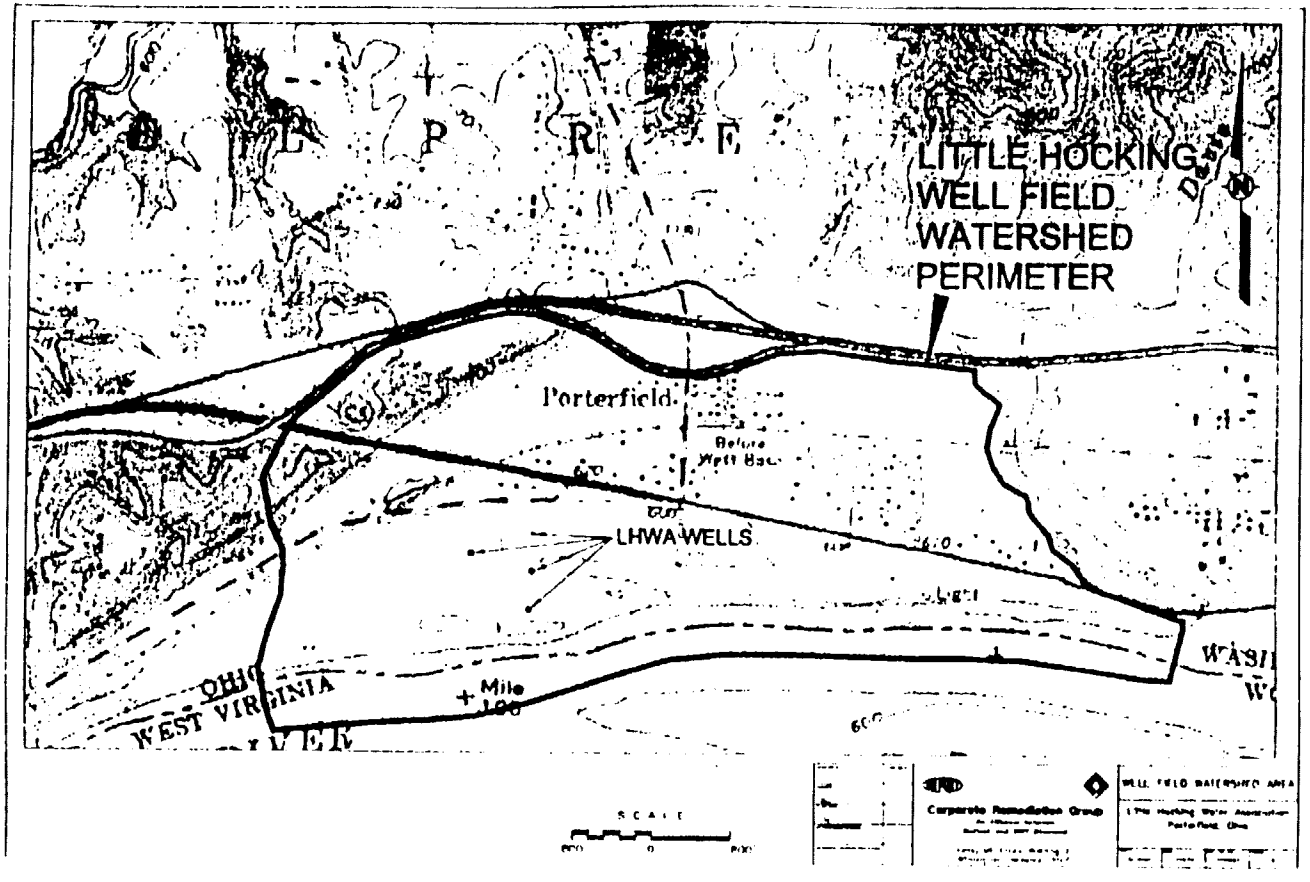

Figure 2

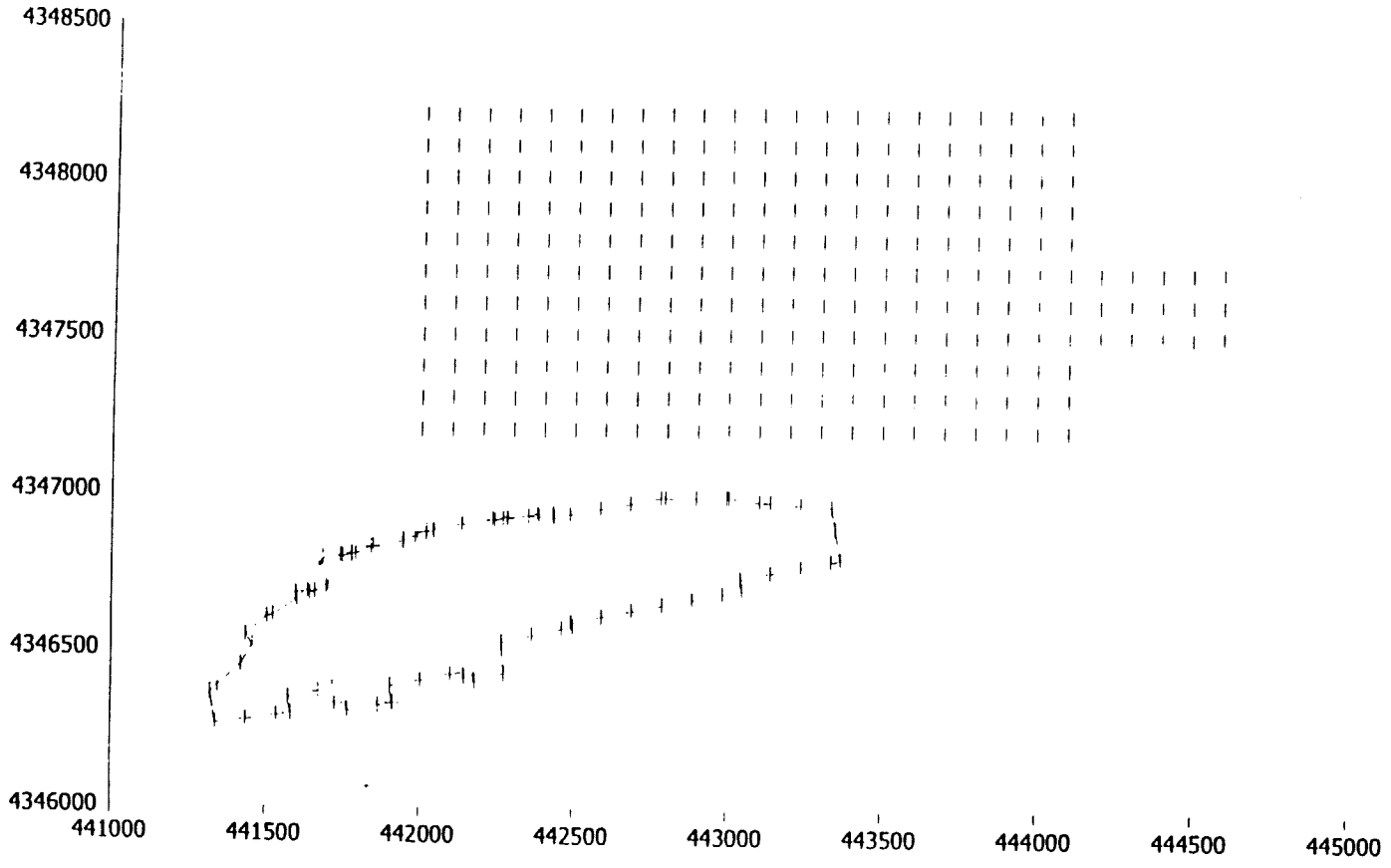

Figure 3
Little Hocking Well Watershed Receptors Modeled

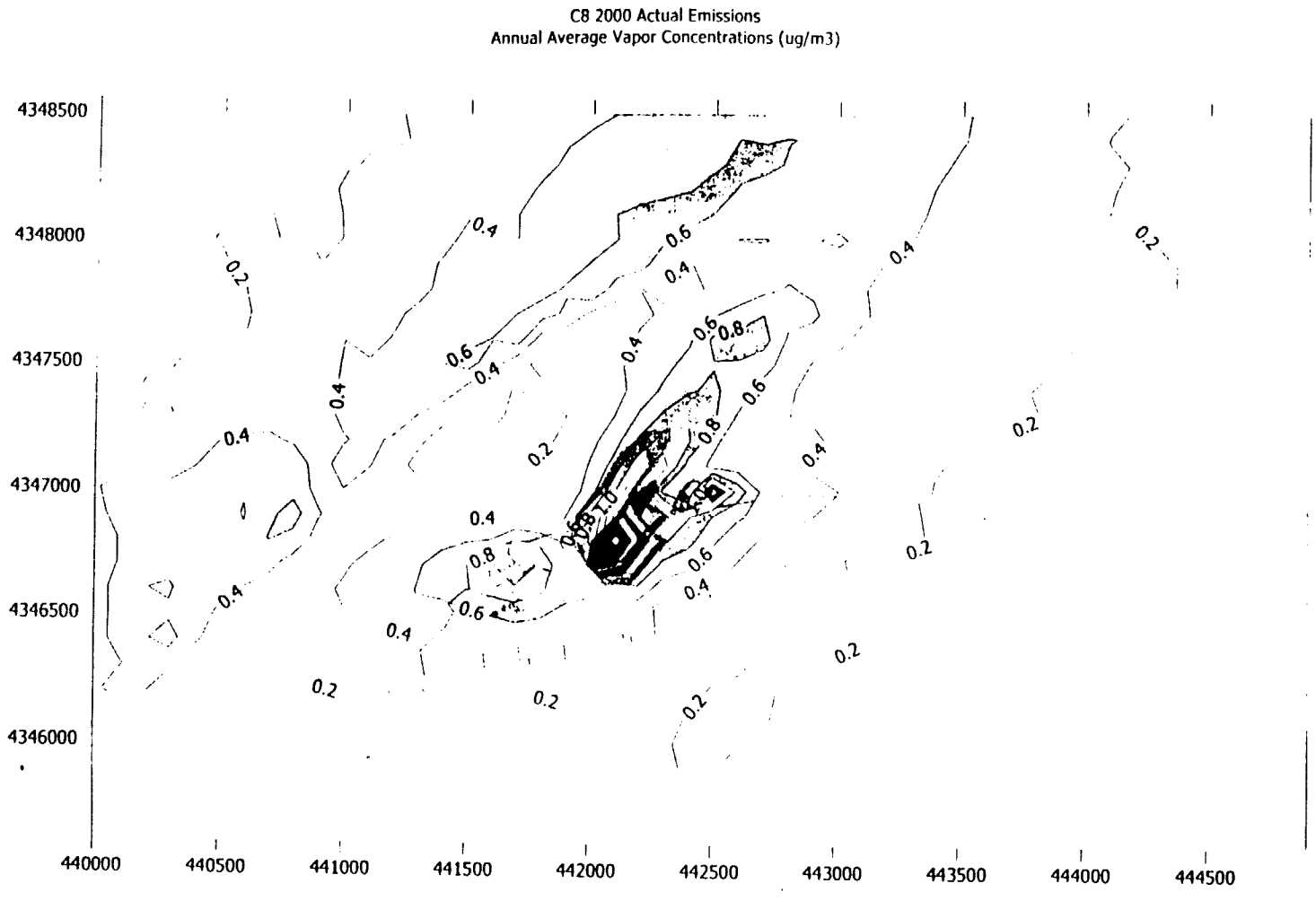

Figure 4
Maximum Ground-Level Concentrations

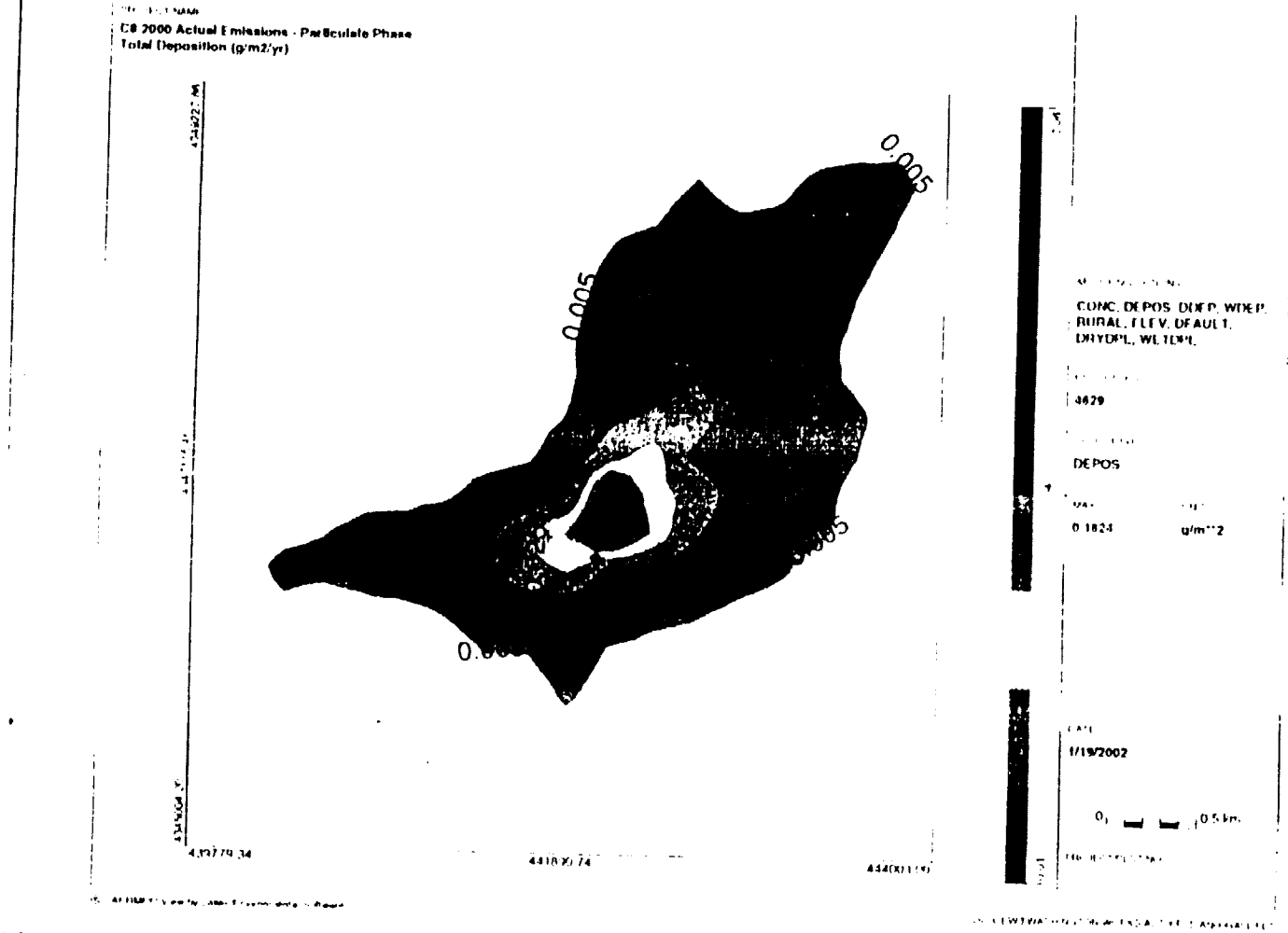

Figure 5 – Particle Phase Total Deposition Rates

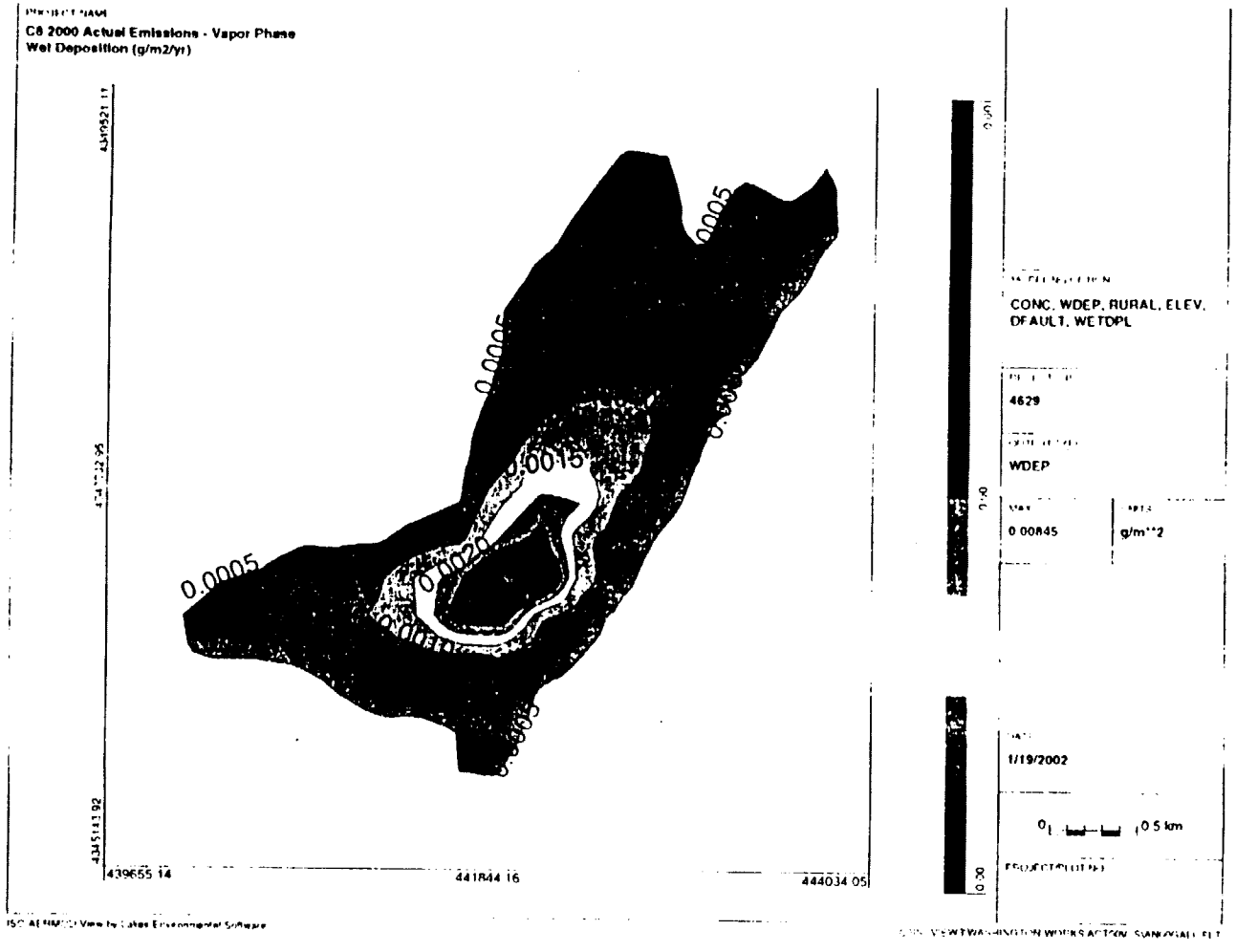

Figure 6 – Vapor Phase Wet Deposition Rates