APPENDIX IV

LEAD MODELING (IUEBK PROGRAM) OUTPUT FILE

LEAD MODEL FOR WINDOWS Version 1.0

Model Version: 1.0 Build 261
User Name: Franklin Engineering Group
Date: 10/25/05
Site Name: Onyx Environmental Services
Operable Unit: Units 2, 3, and 4
Run Mode: Research

The time step used in this model run: 2 - Daily (once a day).

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (ug Pb/m^3)
.5-1	1.000	2.000	32.000	0.102
1-2	2.000	3.000	32.000	0.102
2-3	3.000	5.000	32.000	0.102
3-4	4.000	5.000	32.000	0.102
4-5	4.000	5.000	32.000	0.102
5-6	4.000	7.000	32.000	0.102
6-7	4.000	7.000	32.000	0.102

****** Diet ******

Age	Diet Intake(ug/day)
.5-1	5.585
1-2	5.835
2-3	6.545
3-4	6.295
4-5	6.065
5-6	6.395
6-7	7.055

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 4.000 ug Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 150.173 ug/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
.5-1	200.002	150.173
1-2	200.002	150.173
2-3	200.002	150.173
3-4	200.002	150.173
4-5	200.002	150.173

5-6	200.002	150.173
6-7	200.002	150.173

****** Alternate Intake ******

Age	Alternate (ug Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

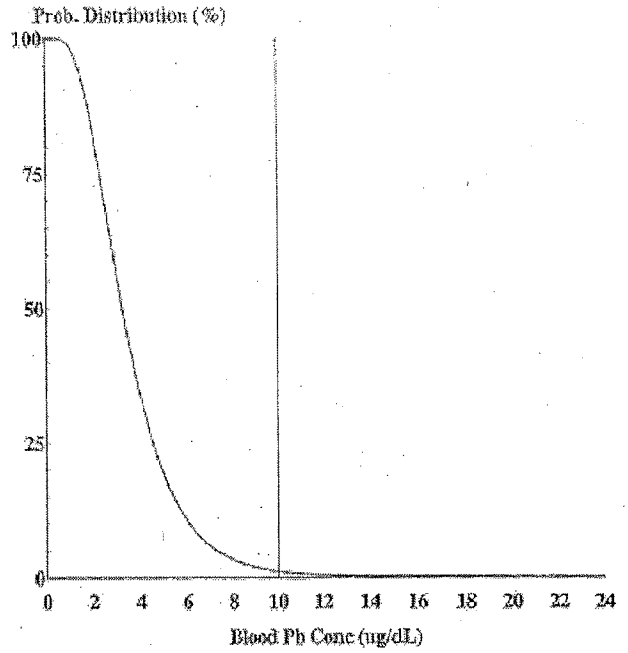
****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 2.500 ug Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (ug/day)	Diet (ug/day)	Alternate (ug/day)	Water (ug/day)
.5-1	0.021	2.577	0.000	0.369
1-2	0.035	2.672	0.000	0.916
2-3	0.063	3.027	0.000	0.962
3-4	0.068	2.944	0.000	0.992
4-5	0.068	2.889	0.000	1.048
5-6	0.095	3.066	0.000	1.112
6-7	0.095	3.393	0.000	1.135

Year	Soil+Dust (ug/day)	Total (ug/day)	Blood (ug/dL)
.5-1	4.062	7.030	3.8
1-2	6.401	10.024	4.2
2-3	6.465	10.516	3.9
3-4	6.539	10.542	3.7
4-5	4.932	8.936	3.1
5-6	4.468	8.742	2.8
6-7	4.233	8.855	2.5



Cutoff = 10.000 ug/dl
Geo Mean = 3.419
GSD = 1.600
% Above = 1.120

Age Range = 0 to 84 months
Time Step = Daily
Run Mode = Research

ATTACHMENT 4

External Email correspondence from Ted Dragovich

"Dragovich, Ted"
<Ted.Dragovich@Illinois.gov>

08/15/2011 10:43 AM

To
"Dennis.Warchol@veoliaes.com"
<Dennis.Warchol@veoliaes.com>

cc
"Lambesis.Christopher@epa.gov"
<Lambesis.Christopher@epa.gov>,
"Ramaly.Todd@epa.gov"
<Ramaly.Todd@epa.gov>

Subject
RE: Sampling and Analysis Plan for the Lakes at Frank Holten State Park

Dennis,

We will have some initial comments back to you in about a week. These will include USEPA's comments. I wanted to warn you that some basic information appears to be missing that will be necessary to develop a plan to demonstrate trophic levels should be adjusted in the risk assessment.
Veolia did not state the purpose of the plan. Is the study's intent is to determine the lake's fish trophic level? Remember that USEPA adjusted the trophic level down from 4 to 3.5 for the last risk assessment. Also note that initial fish, water and sediment samples are currently assumed to be "zero" in the risk assessment, so the study would not be of any benefit for adjusting those parameters. I hope I have reported this to you accurately.
I just wanted to give as much early warning as possible that the plan you submitted may not be adequate.

ATTACHMENT 5

Frank Holten Park Fish Stocking Records

St. Clair County:

Frank Holten Main Lake:

Year	Species	Number	Size	Date
2006	Rainbow Trout	5,135	10"-14"	03/30/06+10/19/06
2006	Channel Catfish	4,752	8"	06/21/06
2007	Rainbow Trout	7,200	10"-14"	04/05/07+10/19/07
2007	Channel Catfish	3,995	8"	07/27/07
2008	Rainbow Trout	6,940	10"-14"	04/03/08+10/16/08
2008	Channel Catfish	6,949	8"	06/26/08+08/26/08
2009	Rainbow Trout	3,026	12"-18"	04/02/09+10/14/09
2009	Channel Catfish	4,104	8"	07/24/09
2010	Rainbow Trout	4,675	12"-18"	04/01/10+10/13/10
2010	Channel Catfish	4,104	7"	06/23/10
2010	Largemouth Bass	2,400	4.0"	09/15/10
2011	Channel Catfish	4,378	7"	06/22/11

Frank Holten Lake #3:

Year	Species	Number	Size	Date
2006	Channel Catfish	3,844	8"	06/21/06
2007	Channel Catfish	2,426	8"	07/26/07
2008	Channel Catfish	4,220	8"	06/26/08+08/26/08
2009	Channel Catfish	2,492	8"	07/24/09
2010	Largemouth Bass	2,083	4.0"	09/15/10
2010	Channel Catfish	2,492	7"	06/23/10
2011	Channel Catfish	1,803	7"	06/22/11

ATTACHMENT 6

Frank Holten State Park Lakes: Phase III, Post-Restoration Monitoring