



Department of Energy

Ohio Field Office  
Fernald Area Office  
P. O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 648-3155

4-40915



2169

APR 20 1999

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5<sup>th</sup> Street  
Dayton, Ohio 45402-2911

DOE-0661-99

Dear Mr. Schneider:

**TRANSMITTAL OF RESPONSE TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY'S  
COMMENTS FOR AREA 7, PHASE II SOIL SAMPLING STRATEGY (SILOS PROJECT AREA)**

This letter transmits responses to the Ohio Environmental Protection Agency's (OEPA) comments for the proposed Phase II sampling strategy for Soil Remediation Area 7 for your review.

Please contact Robert Janke at (513) 648-3124 if you have any questions or comments.

Sincerely,

FEMP:R.J. Janke

Johnny W. Reising  
Fernald Remedial Action  
Project Manager

Enclosure

1

Mr. Tom Schneider

-2-

APR 20 1990

cc w/enclosure:

G. Jablonowski, USEPA-V, SRF-5J  
R. Beaumier, TPSS/DERR, OEPA-Columbus  
J. Saric, USEPA, SRF-5J  
T. Schneider, OEPA-Dayton (three copies of enclosure)  
F. Bell, ATSDR  
M. Schupe, HSI GeoTrans  
R. Vandegrift, ODH  
F. Barker, Tetra Tech  
AR Coordinator, FDF/78

cc w/o enclosure:

N. Hallein, EM-42/CLOV  
R. J. Janke, OH/FEMP  
K. Nickel, OH/FEMP  
A. Tanner, OH/FEMP  
D. Carr, FDF/52-2  
T. Crawford, FDF/52-0  
T. Hagen, FDF/65-2  
J. Harmon, FDF/90  
R. Heck, FDF/2  
S. Hinnefeld, FDF/31  
E. Kroger, FDF/65-2  
T. Walsh, FDF/65-2  
E. Woods, FDF/65-2  
ECDC, FDF/52-7

**RESPONSES TO OHIO EPA COMMENTS ON THE  
PROPOSED PHASE II SOIL SAMPLING AND ANALYSES  
WITHIN SOIL REMEDIATION AREA 7**

2169

Commenting Organization: Ohio EPA

Commentor: OFFO

Section #: Table 1

Pg #:

Line #:

Code:

Original Comment #: 1

**Comment:** The last two columns of the table are unclear. The values listed in the "Range of Detections/Qual" column do not equate to the values listed in the "Maximum Non-Detection Concentration" column. For example, the range for total uranium is 1.09J to 110J mg/kg and the maximum non-detect concentration is listed as 15UJ mg/kg. Obviously, the maximum detected concentration is 110 mg/kg. Please revise the table.

**Response:** The table is an attempt to concisely present existing analytical data available in the Sitewide Environmental Database. It is correct to assess the values listed in the "Range of Detections/Qual" column do not equate to the values listed in the "Maximum Non-Detection Concentration" column."

The purpose of the "Range of Detections/Qual" column is to present either the range of actual (designated as "-") or the estimated (designated as "J") analytical values for the detections listed in the "No. of Detections" column. Additionally, any "No Detection" noted in the "Range of Detections" column will correspond to a "No Detection" noted in the "Range of Detections/Qual" column. This is also true for any constituent not analyzed (designated as "NA") as noted.

The purpose of the "Maximum Non-Detection Concentration" column is to present the greatest value for each constituent that, although not detected (designated as "U"), not detected but estimated (designated as "UJ"), or not validated-not detected (designated as "UNV") represents the greatest non-detection concentration.

**Action:** The table has been clarified to minimize any confusion between the two columns. The "Maximum Non-Detection Concentration" title has been revised to "Range of Non-Detections Reported" with the corresponding range if a range of concentrations existed.

Also, two errors were noted and corrected. The first was a typographic error for the concentration unit listed for the inorganic constituents (i.e., boron and mercury). The unit "ug/kg" will be replaced with the correct unit "mg/kg." The second error is in the row containing Uranium-238 information. Because of the 44 detections from the 44 samples, the "Range of Non-Detections Reported" will be revised from "0.6U" to "None."

The above modifications are shown in the attached Table 1 provided as Revision 1.

Commenting Organization: Ohio EPA  
 Section #: General Pg #:   
 Original Comment #: 2

Line #:   
 Commentor: OFFO  
 Code:

**Comment:** Both carbazole and chlordane were not analyzed in the samples taken from the berm. Previous samples in Area 7 showed no trace of carbazole, but no samples have every been analyzed for chlordane. Please provide a justification for not analyzing the chlordane.

**Response:** Although chlordane was not specifically analyzed and therefore not found in the initial Sitewide Environmental Database (SED) data pull, its isomers, alpha-chlordane and gamma-chlordane, were analyzed and both are subsequently presented. Eleven samples were analyzed for both isomers during the slant boring program. There were no positive detections.

In addition, a few positive detections of the chlordane isomers do exist within the FEMP boundary, but are significantly below the OSDF WAC. In the Operable Unit 5 (OU5) Record of Decision (ROD), only alpha-chlordane has a WAC associated with it at 2890 ug/kg. The data for alpha-chlordane and gamma-chlordane in surface and sub-surface soil within the FEMP boundary is summarized as Table 4-14 and Table 4-15 of the OU5 Remedial Investigation (RI) Report and presented in summary below:

For Surface Soils (Depth = 0' to 1.5')

Constituent	Units	Frequency of Detection	Range of Positive Detections
Alpha-Chlordane	ug/kg	4 of 330 samples	2.10-9.70
Gamma-Chlordane	ug/kg	1 of 348 samples	5.30-5.30

For Sub-Surface Soils (Depth > 1.5')

Constituent	Units	Frequency of Detection	Range of Positive Detections
Alpha-Chlordane	ug/kg	0 of 253 samples	No detections
Gamma-Chlordane	ug/kg	0 of 253 samples	No detections

It was therefore concluded that due to absence of detections from soil under the silos berm and the existence of infrequent positive detections with concentrations far below its WAC, alpha-chlordane is not a constituent of concern within Area 7 or the berm soil.

**Action:** Table 1 has been revised to show alpha-chlordane and its corresponding data.

TABLE 1  
AREA 7: EXISTING SILO BERM DATA SUMMARY

Constituent	WAC	No. of Samples	No. of Detections	Range of Detections/Qual.	Range of Non-Detections Reported
<u>Radionuclides (pCi/g)</u>					
Neptunium-237	3.12E+09	11	No Detections	No Detections	0.6U
Strontium-90	5.67E+10	11	1	0.816-	0.5U
Technetium-99	2.91E+01	11	No Detections	No Detections	0.9U
Uranium, Total (mg/kg)	1.03E+03	48	39	1.09J to 110J	320U to 15UJ
Uranium-238	3.46E+02	44	44	0.76J to 53.4-	None
<u>Inorganics (mg/kg)</u>					
Boron	1.04E+03	1	1	24J	None
Mercury	5.66E+04	17	3	0.11J to 0.13J	0.124UNV; 0.10UJ to 0.12U
<u>Organics (ug/kg)</u>					
Bis(2-chloroisopropyl)ether	24.4	23	No Detections	No Detections	370U to 430U <sup>Note 1</sup>
Bromodichloromethane	903	22	No Detections	No Detections	5U to 6U
Carbazole	7.72E+07	NA	NA	NA	NA
Alpha-Chlordane	2890	U	0	No Detections	89U to 100U
Chloroethane	3.92E+08	23	No Detections	No Detections	11U to 13U
1,1-Dichloroethene	11,400	22	No Detections	No Detections	5U to 6U
1,2-Dichloroethene	11,400	22	No Detections	No Detections	5U to 6U
Tetrachloroethene	128,000	22	1	4J	5U to 6U
Trichloroethene	128,000	22	No Detections	No Detections	5U to 6U
Toxaphene	1.06E+08	11	No Detections	No Detections	180U to 210U
Vinyl Chloride	1510	22	No Detections	No Detections	11U to 13U
4-Nitroaniline	44.2	23	No Detections	No Detections	1700U to 2100U <sup>Note 1</sup>

NA: Not Analyzed  
 U: Not Detected  
 J: Estimated  
 UJ: Estimated, Non-Detected  
 UNV: Not Validated, Not Detected  
 -: Actual

Note 1: High detection limit due to sample dilution during analysis

14