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OCT 15 2003

Mr. James A. Saric, Remedial Project Manager  
United States Environmental Protection Agency  
Region V, SR-6J  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

DOE-0016-04

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

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF RESPONSES TO COMMENTS AND THE REVISED CERTIFICATION  
DESIGN LETTER AND PROJECT SPECIFIC PLAN FOR AREA 9, PHASE II CERTIFICATION  
SAMPLING**

- References:
1. Letter, J. Saric to J. Reising, "A9 Phase 2 Certification Design Letter," dated February 20, 2003
  2. Letter, T. Schneider to J. Reising, "Disapproval - Certification Design Letter for Area 9, Phase II," dated February 21, 2003
  3. Letter, T. Schneider to J. Reising, "Disapproval - Project Specific Plan for Area 9, Phase II Certification Sampling," dated February 21, 2003
  4. Letter, J. Saric to J. Reising, "A9 Phase 2 Certification Sampling," dated March 4, 2003

Enclosed for your approval are responses to the United States Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (OEPA) comments and the revised Certification Design Letter and Project Specific Plan for Area 9, Phase II (A9PII) Certification Sampling. The comment responses have been incorporated into these revised documents. Based on the comments regarding dioxins and furans in A9PII, revisions were also made to the sampling strategy.

OCT 15 2003

Mr. James A. Saric  
Mr. Tom Schneider

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DOE-0016-04

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If you have any questions or need further information, please contact Johnny Reising at (513) 648-3139.

Sincerely,



for Glenn Griffiths  
Acting Director

FCP:Reising

Enclosures: As Stated

cc w/enclosures:

J. Reising, OH/FCP  
T. Schneider, OEPA-Dayton (three copies of enclosures)  
G. Jablonowski, USEPA-V, SR-6J  
F. Bell, ATSDR  
M. Cullerton, Tetra Tech  
M. Shupe, HSI GeoTrans  
R. Vandegrift, ODH  
AR Coordinator, MS78

cc w/o enclosures:

R. Greenberg, EM-31/CLOV  
N. Hallein, EM-31/CLOV  
K. Johnson, OH/FCP  
R. Abitz, Fluor Fernald, Inc./MS64  
D. Arico, Fluor Fernald, Inc./MS64  
J. Chiou, Fluor Fernald, Inc./MS64  
M. Frank, Fluor Fernald, Inc./MS64  
T. Hagen, Fluor Fernald, Inc./MS1  
F. Miller, Fluor Fernald, Inc./MS64  
T. Poff, Fluor Fernald, Inc./MS65-2  
D. Powell, Fluor Fernald, Inc./MS64  
ECDC, Fluor Fernald, Inc./MS52-7

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY  
TECHNICAL REVIEW COMMENTS ON THE  
DRAFT PROJECT SPECIFIC PLAN FOR  
AREA 9, PHASE II CERTIFICATION SAMPLING  
(21130-PSP-0003, REVISION A)

FERNALD CLOSURE PROJECT

GENERAL COMMENT

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: Not Applicable (NA)

Page #: NA

Line #: NA

Original Specific Comment #: 1

**Comment:** The project specific plan (PSP) adequately addresses the certification sampling procedures for Area 9, Phase II (A9P2), but precertification activities in this area have not yet been completed. Specifically, real-time monitoring in the wooded portion of A9P2 has not been completed as planned. A Variance/Field Change Notice (V/FCN) for the PSP for the A9P2 precertification real-time scan has been issued. The V/FCN, which is dated February 13, 2003, indicates that physical soil samples will be collected in the wooded area but states that "physical sampling will not be used in place of real-time monitoring." However, the V/FCN does not clearly state the purpose of the physical samples. If this physical sampling is to be used in place of real-time monitoring, this fact should be stated in the PSP and a revision to the Certification Design Letter for A9P2 should be issued that includes the physical sample analytical results.

**Response:** The physical samples collected in the NE wooded area were intended to supplement the data from real-time scanning that was planned for the wooded area. Real-time scans have since been performed.

**Action:** All physical sampling and the additional real-time scan maps associated with the NE wooded area will be incorporated into the CDL.

**RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS  
ON THE DRAFT PROJECT SPECIFIC PLAN FOR  
AREA 9, PHASE II CERTIFICATION SAMPLING  
(21130-PSP-0003, REVISION A)**

**FERNALD CLOSURE PROJECT**

**GENERAL COMMENTS**

Commenting Organization: Ohio EPA  
Section #: General Pg. #: N/A Line #: N/A Commentator: OFFO  
Code: C  
Original Comment #: 1

Comment: Reclassification of Certification Units to all Group 1's and resize boundaries. DOE will revise Group 2 CUs to Group 1's and resize boundaries according to Section 3.3.3.2 in the SEP. DOE's proposed CU change was submitted to Ohio EPA on February 18, 2003 via Figure 4-2 to be incorporated into the revised PSP for precertification.

Response: Agree.

Action: The PSP will be revised to incorporate the figure submitted to Ohio EPA on February 18, 2003. The figure depicts resized Group 2 CUs as well as redefined boundaries for CUs 3 and 4 to more accurately reflect the Removal Action 14 excavation area. Section 2.1 will be updated to discuss the size of CU 2. It was attempted to make CU 2 a Group 1 CU but it was desirable to keep the wooded and uncultivated CU as a single CU, therefore CU 2 is still a Group 2 CU. It is approximately 71,600 square feet, just above the maximum allowable Group 1 CU size of 62,500 square feet.

Commenting Organization: Ohio EPA  
Section #: General Pg. #: N/A Line #: N/A Commentator: OFFO  
Code: C  
Original Comment #: 2

Comment: The incomplete precertification real-time scan in the NE corner of A9P11. DOE proposed to complete the real-time scanning in the NE area and collect additional physical samples, which is documented by way of Variance 21130-PSP-0001-1. The data will be submitted to Ohio EPA through a variance on the PSP for Precertification Real Time Scan and included into the revised PSP for A9P11 for Certification Sampling.

Response: Physical samples have been collected as described in Variance 21130-PSP-0001-1. Real-time scans have also been performed in the NE wooded area. This data will be discussed in Section 1.1 of the Certification PSP. However, to remain consistent with the formats of the Certification Design Letters and Certification PSPs, all new physical precertification data will be incorporated in the CDL as Appendix C. The additional real-time scans will be incorporated into the CDL in Appendix B.

Action: Incorporate all newly collected data into the Certification Design Letter.

Commenting Organization: Ohio EPA  
Section #: General Pg. #: N/A Line #: N/A Commentator: OFFO  
Code: C  
Original Comment #: 3

Comment: The incomplete baseline evaluation on cultivated subsurface soils. DOE proposed to collect subsurface samples from the cultivated soil and evaluate via Variance 21130-PSP-0001-1. The data will be incorporated into the revised PSP for A9P11 Certification Sampling.

Response: Physical samples have been collected as described in Variance 21130-PSP-0001-1. This data will be discussed in Section 1.1 of the Certification PSP. However, to remain consistent with the formats of the Certification Design Letters and Certification PSPs, all new physical precertification data will be incorporated in the CDL as Appendix C.

Action: Incorporate all newly collected data into the Certification Design Letter.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: General

Pg. #: N/A

Line #: N/A

Code: C

Original Comment #: 4

Comment: Include dioxins into the COC list for precertification in the NE corner. DOE proposed to include dioxins into the sampling analyte list for precertification sampling.

Response: Agree. Variance 21130-PSP-0001-1 to the precertification PSP added the sampling of the NE corner of A9PII. Additionally, after verbal approval to begin sampling in A9PII was granted due to time constraints outlined in the A9PII access agreement, the draft certification PSP was modified and samples were collected throughout the cultivated area of A9PII for the entire list of dioxins and furans.

Action: Include dioxins into the COC list for precertification of the NE corner using variance 21130-PSP-0001-1.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: General

Pg. #: N/A

Line #: N/A

Code: C

Original Comment #: 5

Comment: Revise to discuss what, if any backfill occurred in the excavation areas.

Response: Agree.

Action: Section 1.1 of the Certification PSP will be revised to incorporate all documented occurrences of backfill.

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY  
TECHNICAL REVIEW COMMENTS ON THE  
DRAFT CERTIFICATION DESIGN LETTER FOR AREA 9, PHASE II  
(21130-RP-0001, REVISION A)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.1

Page #: 2-1

Line #: 29 and 30

Original Specific Comment #: 1

Comment: The text does not list the above-final remediation level (FRL) radionuclides that were targeted during Removal Action 14, nor does it present justification for removing only most of the above-FRL radionuclides instead of all of them. The text should be revised to include this information.

Response: Agree. Removal Action 14 confirmation sampling was done in 1993 and 1994 which was prior to the OU5 ROD and establishment of FRLs.

Action: Section 2.1.2 will be revised to discuss the targeted radionuclides during Removal Action 14 and will include the driver of excavation.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.1.2 and 2.1.3

Page #: 2-2

Line #: NA

Original Specific Comment #: 2

Comment: The text acknowledges sampling results above the off-property FRLs during Predesign Investigation activities, and Section 2.3 provides a reason for the exceedances. However, no such acknowledgement or reason is provided for above-FRL results associated with Removal Action 14 confirmation sampling. The text should be revised to include this information.

Response: Agree. Removal Action 14 confirmation sampling was done in 1993 and 1994 which was prior to the OU5 ROD and establishment of FRLs.

Action: Section 2.1.2 will be revised to discuss timeframe of sampling and the excavation drivers.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.1.3

Page #: 2-2

Lines #: 22 and 23

Original Specific Comment #: 3

Comment: The text states that two borings exhibited sampling results above the off-property FRL for beryllium. The results listed in the text (0.91 and 0.62 milligrams per kilogram) are inconsistent with the values listed in Appendix A. The text or appendix should be revised for accuracy.

Response: Agree. 0.62 mg/kg was a typographical error in the text. The text should state 0.69 mg/kg to be consistent with the value listed in Appendix A.

Action: The text in Section 2.1.3 will be revised to state, "...[0.91 milligrams per kilogram (mg/kg) and 0.69 mg/kg]." and will be consistent with the values listed in Appendix A.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.2

Page #: 2-3

Line #: 28 and 29

Original Specific Comment #: 4

Comment: The text states that Phase II confirmation measurements were not necessary because Phase I measurements were performed with high-purity germanium detectors. The text should be revised to explain why the sodium iodide measurements were omitted.

Response: Agree.

Action: Section 2.4 will be revised to explain why the sodium iodide measurements were omitted.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: Figure 2-2

Page #: NA

Lines #: NA

Original Specific Comment #: 5

Comment: The figure indicates that ten results from Removal Action 14 confirmation sampling were above FRL. According to Appendix A, only three of the ten results listed were above the FRLs. The figure or appendix should be revised for accuracy and all results above FRLs should be referenced in the text.

Response: Figure 2-2 shows the locations of all samples collected from within A9PII that were in support of Removal Action 14 including samples that were excavated during the removal action. Figure 2-2 and the other figures included in Section 2 are intended to depict conditions that existed throughout the history of A9PII. Figure A-1 and the corresponding table in Appendix A are intended to depict current field conditions after all excavation has taken place. Therefore, only the above FRL results listed in Appendix A will be shown on Figure A-1.

Action: The text in Section 2.1.2 will be revised to further explain what Figure 2-2 represents.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: Appendix A

Page #: NA

Lines #: NA

Original Specific Comment #: 6

Comment: The appendix lists sampling locations G2 and I4 as having uranium 238 concentrations of "99" picoCuries per gram. The appendix should be revised to clarify the meaning of the "99" value.

Response: At the time of sample analysis and database entry, an MDL was not provided, therefore, a "99" was used to signify a non-detect value since a numeric value was required to be entered. The "99" does not reflect in any way a numerical concentration for these analytes.

Action: The appendix will be revised to incorporate a list of abbreviations and symbols used as well as their corresponding definitions.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: Appendix A

Pages #: NA

Lines #: NA

Original Specific Comment #: 7

Comment: The appendix should be revised to define all abbreviations and symbols used in the tables. In addition, for each sample, the appendix should identify the associated sampling event and the sampling date.

Response: Agree.

Action: The appendix will be revised to incorporate a list of abbreviations and symbols used as well as their corresponding definitions. The appendix will also be revised to include sampling events and dates for each sample.

**RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS  
ON THE DRAFT CERTIFICATION DESIGN LETTER FOR AREA 9, PHASE II  
(21130-RP-0001, REVISION A)**

**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

**GENERAL COMMENTS**

Commenting Organization: Ohio EPA  
Section #: General Pg. #: N/A Line #: N/A Commentator: OFFO  
Code: C  
Original Comment #: 1

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Response: Agree.

Action: The CDL will be revised to incorporate the figure submitted to Ohio EPA on February 18, 2003. The figure depicts resized Group 2 CUs as well as redefine the boundaries of CUs 3 and 4 to more accurately reflect the Removal Action 14 excavation area. It was attempted to make CU 2 a Group 1 CU but it was desirable to keep the wooded and uncultivated CU as a single CU, therefore CU 2 is still a Group 2 CU. It is approximately 71,600 square feet, just above the maximum allowable group 1 CU size of 62, 500 square feet.

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Section #: General Pg. #: N/A Line #: N/A Commentator: OFFO  
Code: C  
Original Comment #: 2

Comment: The incomplete precertification real-time scan in the NE corner of A9P11. DOE proposed to complete the real-time scanning in the NE area and collect additional physical samples, which is documented by way of Variance 21130-PSP-0001-1. The data will be incorporated into the revised CDL.

Response: Physical samples have been collected as described in Variance 21130-PSP-0001-1. Real-time scans have also been performed in the NE wooded area.

Action: All new physical precertification data will be incorporated in the CDL as Appendix C. The additional real-time scans will be incorporated into the CDL.

Commenting Organization: Ohio EPA  
Section #: General Pg. #: N/A Line #: N/A Commentator: OFFO  
Code: C  
Original Comment #: 3

Comment: The incomplete baseline evaluation on cultivated subsurface soils. DOE proposed to collect subsurface samples from the cultivated soil and evaluate via Variance 21130-PSP-0001-1. The data will be incorporated into the revised CDL.

Response: Physical samples have been collected as described in Variance 21130-PSP-0001-1.

Action: Incorporate all newly collected data as Appendix C of the CDL.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: General

Pg. #: N/A

Line #: N/A

Code: C

Original Comment #: 4

Comment: Include dioxins into the COC list. DOE proposed to include dioxins into the sampling analyte list.

Response: Verbal approval to immediately collect samples in A9PII due to time constraints outlined in the access agreements was granted after these comments were received. The draft Certification PSP was modified to include additional locations to be sampled for dioxins and furans. Samples were collected throughout A9PII in both the wooded and cultivated areas to evaluate dioxins and furans for their applicability as ASCOCs in A9PII. The results of these samples indicated the presence of several common congeners of dioxins and furans. However, the data were further evaluated using the current EPA guidance for evaluation of dioxins and furans. In short, this guidance directs the use of Toxicity Equivalence Factors (TEFs) that have been established to assess each congener against 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), as TCDD is the most toxic. The prescribed method is to multiply the reported concentrations of each dioxin/furan congener by its respective TEF and sum the results. However, as a conservative and simpler approach, the maximum concentration of each dioxin/furan was multiplied by its respective TEF and the results were summed. The sum was compared to a limit of 1 part per billion (ppb). The result of this evaluation yielded 0.00209 ppb, which is significantly lower than the limit of 1 ppb and demonstrates that the levels of dioxins and furans are well within the acceptable risk level. Therefore, dioxins and furans will not be included as ASCOCs for A9PII. All results and calculations are presented in Appendix C and Table C-1 respectively.

Action: The above text will be incorporated into Section 2.3 of the CDL.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: General

Pg. #: N/A

Line #: N/A

Code: C

Original Comment #: 5

Comment: Revise to discuss what, if any backfill occurred in the excavation areas.

Response: Agree.

Action: Section 2.3 of the CDL will be revised to incorporate all documented occurrences of backfill.