



Department of Energy

**Ohio Field Office
Fernald Area Office**

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



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SEP 07 1999

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-1100-99

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 OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS AND THE REVISED PROJECT SPECIFIC PLAN FOR PREDESIGN SAMPLING IN
THE AREA 2, PHASE I NON-WASTE UNITS AND AREA 2, PHASE II - PART ONE**

Reference: Letter, T. Schneider to J. Reising, "Comment on the PSP for the Predesign
Sampling in the A2PI NWU and A2PII - Part One," dated August 9, 1999

Enclosed for your review and approval are responses to the Ohio Environmental Protection
Agency (OEPA) comments to the revised Project Specific Plan (PSP) for Predesign Sampling
in the Area 2, Phase I Non-Waste Units and Area 2, Phase II - Part One. Also enclosed is
Revision 0 of this PSP that incorporates these comment responses.

If you have any questions or require additional information, please contact Robert Janke at
(513) 648-3124.

Sincerely,

for Wayne Reising

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:R.J. Janke

Enclosures

Mr. James A. Saric
Mr. Tom Schneider

-2-

SEP 07 1999

cc w/enclosures:

G. Jablonowski, USEPA-V, 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 enclosures:

N. Hallein, EM-42/CLOV
A. Tanner, OH/FEMP
D. Carr, FDF/52-2
J. Chiou, FDF/52-0
T. Crawford, FDF/52-0
T. Hagen, FDF/65-2
J. Harmon, FDF/90
R. Heck, FDF/2
S. Hinnefeld, FDF/31
M. Rolfes, FDF/60
T. Walsh, FDF/65-2
ECDC, FDF/52-7

**DRAFT RESPONSES TO OHIO EPA COMMENTS ON THE
PROJECT SPECIFIC PLAN FOR PREDESIGN SAMPLING IN THE
AREA 2, PHASE I NON-WASTE UNITS AND AREA 2, PHASE II - PART ONE
(REVISION B)**

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

Commenting Organization: Ohio EPA
Section #: General Comment Pg #: Line #: Commentor: OFFO
Original Comment #: 1 Code: C

Comment: Based upon a field inspection Ohio EPA conducted of the proposed sampling area, we believe additional field reviews of the area by the PSP writers are necessary. The document should point out areas of known disposal and waste material types. These areas are especially evident between the SWU's and Paddys Run/SSOD.

Response: Agree. Additional field reviews were conducted and areas with partially-buried construction debris will be identified on a map in the PSP.

Action: Add text and new map to the PSP depicting construction debris.

Commenting Organization: Ohio EPA
Section #: General Comment Pg #: Line #: Commentor: OFFO
Original Comment #: 2 Code: C

Comment: In order to locate areas of past disposal outside the boundaries of the SWU, DOE should consider the use of magnetometer or ground penetrating radar. An additional technique that could be considered would be exploratory trenches.

Response: Agree. In the investigation area between Retention Basin 2 and the storm sewer outfall ditch (SSOD), a magnetometer will be used to scan the surface. Exploratory trenching may be considered based on the initial non-intrusive magnetometer and real-time scanning. The flexibility to use the trenching technique will be discussed as a potential option in the PSP.

Action: Add text to the PSP discussing the use, operating parameters, and trigger levels of the magnetometer. Also add a brief discussion of the potential trenching based on the magnetometer and real-time *in situ* gamma measurements.

Commenting Organization: Ohio EPA
Section #: General Comment Pg #: Line #: Commentor: OFFO
Original Comment #: 3 Code: C

Comment: Given the fact that disposal activities have obviously occurred in the area south of the SWU, the PSP writers should interview individuals who have conducted operations in the area, including SWU Site Prep and installation of the box culvert over the SSOD, for additional information on disposal activities. A review of historical aerial photographs may provide additional information.

Response: Agree. A review of historical aerial photographs does not provide conclusive evidence of any disposal activities south of the SWUs. However, a walkdown of the area and additional interviews with construction personnel involved in the installation of the box culvert confirm

the presence of partially-buried construction debris in the area between Basin 2 and the storm sewer outfall ditch (SSOD).

Action: Identify the areas of partially-buried construction debris on map and discuss expected remediation of the impacted material regardless of investigation scanning and analytical data.

Commenting Organization: Ohio EPA
Section #: 1.1 Pg #: 1-1 Line #: Commentor: OFFO
Code: C
Original Comment #: 4

Comment: The section states the purpose of the PSP is to determine if additional excavation is necessary. Ohio EPA believes it is obvious that substantial excavation will be necessary between the SWU and Paddy's Run/SSOD. Therefore, we believe the PSP should be aimed at refining excavation strategy. A re-evaluation of the PSP strategy and associated sampling is necessary with these consideration in mind.

Response: Comment noted.

Action: Modify the PSP to clarify the intent of the additional scanning and sampling and identify the locations of construction debris within the investigation area, Paddys Run, and the SSOD.

Commenting Organization: Ohio EPA
Section #: 1.2 Pg #: 1-3 Line #: Commentor: OFFO
Code: C
Original Comment #: 5

Comment: Due to A2PI's history and the uncertainties built into the past thorium results, it would seem to be in DOE's best interest to further investigate the thorium contamination of the locations in question. Can these sources of uncertainty be affirmed by DOE?

Response: Comment noted. The most elevated thorium contamination location (055476) is being further investigated at depth as stated in the text. The other thorium-228 contamination location (055446) is close to final remediation levels (FRLs) and has below-FRL data bounding intervals. In addition, if confirmed, remediation of sample location 055476 can encompass the 055446 location due to the close proximity. As a result, additional investigation of the 055446 location is not planned unless field conditions or results warrant otherwise.

Affirmation of the potential sources of the uncertainty may be assessed from the field and analytical results of this predesign investigation. Previous data associated with these locations are inconclusive. To further delineate the presence of the thorium isotopes in the area of concern, the primary radionuclide contaminants will be the target analytes for the samples south of Basins 2 and 3 since these areas are more suspect and have previous results above-FRL for thorium-228 & -232 and radium-226.

Action: Add thorium-228, thorium-232, radium-226, and radium-228 to the target analyte list for sample locations A2P1-NWU-16 through -30.

Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 1.3 Pg #: 1-4 Line #: 2 Code: C
 Original Comment #: 6

Comment: Ohio EPA feels that it would be beneficial to perform real-time scanning on all accessible areas within the scope of the PSP, not just portions of the perimeter. Please correct.

Response: Comment noted. Effectively, the scan area identified in Figure 2-2 covers most of the accessible area. Portions of the terrain west of the Inactive Flyash Pile (IFP) and Basin 1 are unsafe for scanning or are covered with riprap. The area east of Basin 1, south of the IFP and west of the Firing Range hillside (turnaround area) is covered by the non-impacted material stockpile and gravel roads. Predesign scanning at this time does not present significant value until the non-impacted material stockpile is removed. Scanning east of the Active Flyash Pile (AFP) can be added.

Action: Modify Figure 2-2 to reflect additional scanning east of the AFP.

Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.1 Pg #: 2-3 Line #: 6-9 Code: C
 Original Comment #: 7

Comment: Why are the locations A2P1-NWU-8 through A2P1-NWU-15 being excluded from submitting the first 12-inch interval if no other interval shows beta-gamma activity? Please clarify.

Response: These sample locations were chosen to assist in the cross-sectional determination of remediation depth beneath the Non-Impacted Material Stockpile (NISP). DOE recognizes that pockets of flyash are anticipated beneath the NISP based on site preparation and IFP excavation process knowledge. The intent of these sample locations is to provide lithological information regarding the depth of required excavation to remove all flyash.

Action: Add text to Section 2.2 paragraph one to clarify lab submittal strategy.

Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.1 Pg #: 2-3 Line #: 10-11 Code: C
 Original Comment #: 8

Comment: All intervals not being analyzed should be archived for possible future analysis. Please correct.

Response: DOE recognizes the potential benefit of utilizing archived samples. However, DOE also recognizes the additional costs of generating, storing, maintaining custody and disposing of over 200 additional samples for this sampling effort. The generation and storage of archive samples for each sampling effort needs to be weighed against the value added and the ease of resampling. Since these locations are more accessible relative to a production area sampling event under a concrete foundation, archiving will be conducted in accordance with current guidance in Revision B of the PSP.

Action: None required.

Commenting Organization: Ohio EPA
 Section #: 2.2.1 Pg #: 2-3 Line #: 16-21 Commentor: OFFO
 Code: C
 Original Comment #: 9

Comment: This paragraph explains that a description of the material collected will be noted. However, there is no mention of how the gross fragments will be handled when they are separated from the soil during the sampling event. Please clarify.

Response: Comment noted. The gross fragments may be placed on the ground near the sample location if material meets the OSDF WAC. Category 2 material will be placed in SWU-004 or other Category 2 pile for OSDF placement. If the gross fragments are OSDF prohibited, the material will be placed in SP-7 or other designated above-WAC locations. These decisions will be determined by the Waste Acceptance Organization (WAO).

Action: Text added to Section 2.2.4 to discuss clarification of gross fragment disposition.

Commenting Organization: Ohio EPA
 Section #: 2.3 Pg #: 2-4 Line #: 13 Commentor: OFFO
 Code: C
 Original Comment #: 10

Comment: Again, Ohio EPA feels that it would be beneficial perform real-time scanning on all accessible areas within the scope of the PSP. Please correct.

Response: See response to OEPA Comment No. 6.

Action: See action to response to OEPA Comment No. 6.

Commenting Organization: Ohio EPA
 Section #: 3.0 Pg #: 3-1 Line #: 3-14 Commentor: OFFO
 Code: C
 Original Comment #: 11

Comment: Due to the unknown disposal history in the areas proposed for sampling, Ohio EPA believes it is appropriate for all samples to be analyzed for total uranium, thorium-228, thorium-232 and radium-226. Ohio EPA does not believe the primary radionuclide contaminant list should be reduced, especially in areas of unknown disposal activity.

Response: Comment noted. The primary radionuclide contaminants will be the target analytes for the samples south of Basins 2 and 3 since these areas are more suspect and have previous results above the FRLs for thorium-228, thorium-232 and radium-226.

Action: Add thorium-228, thorium-232, radium-226, and radium-228 to the target analyte list for sample locations A2P1-NWU-16 through -30.

Commenting Organization: Ohio EPA
 Section #: General Pg #: Line #: Commentor: OFFO
 Code: C
 Original Comment #: 12

Comment: a) Table 3-1 is not clear on what method will be used for a specific analyte. Please clarify this in the table.
 b) Please provide a column indicating the detection limits that will be used for each analyte and the associated method.

Response: Comment noted. The method detection concentration (MDC) is already listed in Appendix C. An approximate method detection limit will be added to Table 3-1 and is also referenced in the Sitewide CERCLA Quality Assurance Project Plan (SCQ).

Action: Add the method detection limit, along with clarification of available methodology, to Table 3-1.

Commenting Organization: Ohio EPA
Section #: 4.0 Pg #: 4-1 Line #: 7 Commentor: OFFO
Original Comment #: 13 Code: C

Comment: This line states that sample material will be managed per PWID #467. Reference to the PWID does not provide sufficient detail for evaluation of the appropriateness of material disposition. Please provide more information

Response: Comment noted. The FDF sampling team coordinates with WAO to determine the appropriate disposition of sample material. WAO evaluates the sample material and determines the disposition based analytical data, material type, and location using the decision criteria in response to OEPA Comment No. 9.

Action: Remove the reference to a specific PWID and revise text to clarify disposition of sample material.

Commenting Organization: Ohio EPA
Section #: 4.0 Pg #: 4-1 Line #: 8-9 Commentor: OFFO
Original Comment #: 14 Code: C

Comment: Ohio EPA would expect decontamination waters to be discharged to a waste water system rather than a storm water basin under normal circumstances. Is discharge of decon water to the storm water system standard procedure or was this developed for the PSP?

Response: FDF sampling follows site procedure EP-0005 which requires Soil and Water Project Environmental Compliance personnel to evaluate and determine the discharge location. The decontamination waters are closely related to investigation-derived waste (IDW), and discharge into a storm water basin is consistent with IDW policy and the NPDES permit.

Action: None required.

Commenting Organization: Ohio EPA
Section #: 4.0 Pg #: 4-1 Line #: 16 Commentor: OFFO
Original Comment #: 15 Code: C

Comment: Please include in the PSP the location for the disposition of archive soil samples.

Response: Determining the location for disposition prior to sample collection and analyses is difficult. The location for disposition of these soils is determined by the WAO Lead or designee based upon analytical results, stockpile availability and/or remediation of the investigation area. FDF sampling will coordinate with WAO personnel to determine the proper disposition location.

Action: None required.