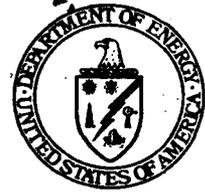




**Department of Energy**

**Ohio Field Office  
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(513) 648-3155



MAY 3 2002

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-0463-02

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

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF COMMENT RESPONSES AND THE REVISED PROJECT SPECIFIC PLAN  
FOR DELINEATING KNOWN EXCEEDANCES OF THE ON-SITE DISPOSAL FACILITY  
WASTE ACCEPTANCE CRITERIA IN AREAS 3B/4B/5**

- References:
1. Letter, J. Saric to J. Reising, "Area 3B/4B/5 WAC Exceedance PSP," dated February 12, 2002
  2. Letter, T. Schneider to J. Reising, "PSP for Delineating Known Exceedances of the OSDF Waste Acceptance Criteria in Areas 3B/4B/5," dated February 12, 2002

Enclosed for your approval are responses to the United States Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (OEPA) comments and the revised Project Specific Plan for Delineating Known Exceedances of the On-Site Disposal Facility Waste Acceptance Criteria in Areas 3B/4B/5. This Project Specific Plan has been revised based on the enclosed comment responses as noted from the above-listed references.

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Mr. James A. Saric  
Mr. Tom Schneider

-2-

DOE-0463-02

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

Sincerely,



Johnny W. Reising  
Fernald Remedial Action  
Project Manager

FEMP:R.J. Janke

Enclosures: As Stated

cc w/ enclosures:

- R. J. Janke, OH/FEMP
- T. Schneider, OEPA-Dayton (three copies of enclosure)
- M. Wojciechowski, Tetra Tech
- AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosures:

- R. Greenberg, EM-31/CLOV
- R. J. Janke, OH/FEMP
- A. Tanner, OH/FEMP
- R. Abitz, Fluor Fernald, Inc./MS60
- D. Carr, Fluor Fernald, Inc./MS2
- J. Chiou, Fluor Fernald, Inc./MS64
- T. Hagen, Fluor Fernald, Inc./MS65-2
- M. Jewett, Fluor Fernald, Inc./MS52-2
- E. Kroger, Fluor Fernald, Inc./MS90
- A. Madani, Fluor Fernald, Inc./MS64
- F. Miller, 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  
DELINEATING KNOWN EXCEEDANCES OF THE ON-SITE DISPOSAL FACILITY  
WASTE ACCEPTANCE CRITERIA FOR AREAS 3B/4B/5  
(20810-PSP-0004, REVISION A)**

**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

**SPECIFIC COMMENT**

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.1.6

Page #: 2-5

Line #: NA

Original Specific Comment #: 1

**Comment:** Page 2-5 states that the alternative location for boring A5-HSB-02 could be 20 feet south of the known location where total uranium concentrations exceed the WAC. However, the sampling data for other locations in Areas 3B/4B/5, which are discussed earlier in the document, show that some areas whose total uranium concentrations exceed WAC are less than 20 feet across. Therefore, sampling of the alternative location for boring A5-HSB-02 may not produce samples that are representative of the target area (Zone 1-55). If it is not practical to drill borings in close proximity to this target area, sampling should be delayed until above-ground decontamination and demolition activities allow collection of representative samples.

**Response:** Agree.

**Action:** The Project Specific Plan (PSP) will be revised to state that sampling in the Health and Safety Building area will take place after decontamination and dismantlement of the building is completed, and references to the alternate sampling location will be removed from the PSP.

**RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS  
ON THE DRAFT PROJECT SPECIFIC PLAN FOR DELINEATING  
KNOWN EXCEEDANCES OF THE ON-SITE DISPOSAL FACILITY  
WASTE ACCEPTANCE CRITERIA IN AREAS 3B/4B/5  
(20810-PSP-0004, REVISION A)**

**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

**SPECIFIC COMMENTS**

Commenting Organization: Ohio EPA  
Section #: 1.3 Pg. #: 1-2 Lines #: 8-14 Commentator: OFFO  
Original Comment #: 1 Code: C

**Comment:** The scope of the investigative sampling for Areas 3B/4B/5 has been broken down into several segments and documents already. Is there a specific reason why these projects are being separated in this manner? Ohio EPA feels that it is much more beneficial to have one larger sampling plan which will show both AWAC and FRL investigations simultaneously, as was done in the PSP for Area 3A/4A Subsurface Predesign Investigation. With numerous documents, as is presented here, the likelihood of important details and information being lost increases greatly. Also, it makes it very difficult to ensure adequate coverage with this piecemeal approach. Please clarify.

**Response:** We agree that minimizing the number of plans to investigate these areas is appropriate. To that end, there are only three Project Specific Plans (PSPs) that will cover the investigation of Areas 3B/4B/5. The first of which was the approved PSP for the potentially characteristic area west of the Pilot Plant. The second is this one, the investigation of known locations that are above-waste acceptance criteria (WAC). The third and final PSP will be directed toward final remediation level (FRL) attainment for all three areas. This investigative approach is being conducted in order to address the most problematic areas where potentially Resource Conservation and Recovery Act (RCRA) material or above-WAC contamination is known to exist, such as the Pilot Plant Sump, and to provide critical design parameters for the on-going remedial design for those locations. Once above-WAC contamination is delineated, the next step is to address attainment of FRLs in Area 3B/4B/5. The Draft Integrated Remedial Design Plan (IRDP) will present all of the sampling results and allow your evaluation of adequate coverage. If necessary additional sampling can still be conducted prior to excavation.

**Action:** No action required.

Commenting Organization: Ohio EPA  
Section #: 2.1 Pg. #: 2-1 Line #: Third Bullet Commentator: OFFO  
Original Comment #: 2 Code: C

**Comment:** Due to the historical evidence of Tc-99 in the locations of the Former Production Area, possible data gaps may exist in this project from lack of Tc-99 data, and the mobility of Tc-99. Ohio EPA believes that additional Tc-99 sampling is needed. Collecting additional samples now would avoid resampling the same areas in the future for Tc-99 determination. It would also appear to be more cost effective to collect as much data as possible in one sampling round, so the information can be used later.

**Response:** We agree that collection of additional technetium-99 data may be warranted. The remedial investigation/feasibility study (RI/FS) process, through process knowledge, targeted the likeliest areas of contamination. Through this plan, we are building on that investigation to further bound the known areas of high uranium and high technetium concentrations. The timing of this plan, however, is in support of the IRDP for Areas 3B/4B/5, which will be submitted at the end of September of this year. So, directing the sampling approach towards the worst case is our highest priority. As time permits, further investigation will be performed for technetium-99 away from these initial target areas.

**Action:** No action required.

**Commenting Organization:** Ohio EPA

**Commentator:** OFFO

**Section #:** 2.1.2

**Pg. #:** 2-3

**Lines #:** 1-4

**Code:** C

**Original Comment #:** 3

**Comment:** a) This section states that there will not be a boring 15 feet north of 1199 because it would be inside Plant 6. To follow the prescribed method of "5 feet and 15 feet", it would appear to make the most sense to sample as close to the Plant 6 building as possible.

b) Also, this section states "the above-WAC soil likely does not extend beneath the building". How was this assumption made? As contamination has been known to extend under other buildings and pads on site, this seems like an unjustified assumption without more data. Is there more sampling data then presented in this package?

**Response:** a) We believe that Ohio EPA was referring to Plant 2, where boring 1199 is located. Adding another (i.e., the 15-foot) boring as close to Plant 2 would place this boring only a few feet north of boring A4B-P2-16, thus providing information of little additional value. However, another boring will be added inside Plant 2, consistent with the sampling strategy provided in the PSP.

b) The assumption that above-WAC soil is unlikely to extend beneath the building was based on the high surface contamination (5,685 ppm), but considerably lower contamination at deeper intervals. This type of pattern indicates a localized area of process material. If the Plant 2 building has not undergone D&D by the time sampling begins, then boring A4B-P2-23 will be collected, but only if results from A4B-P2-16 have been received and indicate above-WAC conditions.

**Action:** a) An additional boring, A4B-P2-23, will be added inside Plant 2. Figure 2-2 will be updated to include this additional boring location.

b) Section 2.1.2 will be revised to reflect the inclusion of the additional boring, and note that it may not be sampled if results from boring A4B-P2-16 indicate below-WAC contamination.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: 2.1.5

Pg. #: 2-4, 2-5

Lines #: 33-37, 1-2

Code: C

Original Comment #: 4

**Comment:** This section states the borings around Zone 1-66 will not be collected 15 feet out. It is clear that these samples cannot be collected north or east because of the location near the Lab Building. Samples south and west can and should be collected to follow the sampling procedure used throughout the document. While there is a RI/FS data point (1266) located in the vicinity of what would be the western sample point, several other locations are being sampled in this document regardless of nearby BWAC RI/FS samples. Please be consistent and add the south and west sample locations.

**Response:** DOE agrees on the importance of consistency, and will add a sample point 15 feet to the south of boring Zone 1-66. DOE also believes it is important to take advantage of existing data to avoid unnecessary sampling. Because below-WAC data are available from RI/FS boring 1262, which is only a couple feet from what would be the 15-foot western sample, adding the point 15 feet to the west would not provide additional information. The other borings in this PSP with nearby RI/FS samples, as mentioned in the comment, did not actually include analysis of the above-WAC COC(s). For example, boring 1674 in the Pilot Plant did not include technetium-99 analyses, so there actually were no below-WAC results nearby. However, boring 1262 included below-WAC results for both technetium-99 and total uranium, and therefore, bounds the WAC exceedance at Zone 1-66 to the west.

**Action:** An additional boring location, A4B-LAB-18, will be added to the south of RI/FS boring Zone 1-66. Figure 2-5 will be updated to include this additional boring location. Section 2.1.5 will be revised to reflect the inclusion of this additional boring.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: 2.2

Pg. #: 2-6

Lines #: 7-17

Code: C

Original Comment #: 5

**Comment:**

- a) OEPA has never seen this method of including additional soil in a previously defined interval, or assigning an interval to less than a 6-inch sample and rounding. No similar approach was presented in sampling other areas of the Production Area. What method was used in other Production Area samples?
- b) OEPA also takes issue with the attitude that a non-precise sampling interval will "not be significant" after reviewing the extremely detailed excavation plans for 3A/4A.

**Response:**

- a) The method described in Section 2.2 is consistent with the method that is described in 20200-PSP-0008, "Project Specific Plan for Area 4B Potentially Characteristic Area and West of Pilot Plant Predesign Investigation," which was approved by OEPA on October 15, 2001. The intent of this paragraph is to describe, as accurately as possible, the actual sampling interval from the surface. In the case of sampling below concrete, asphalt or gravel, the surface is defined as the top of the slab or gravel. The survey data for the sample locations established in this PSP show the surface (i.e., slab) elevation for each boring, but the sample depth intervals are measured from the top of the soil rather than the top of the slab. Therefore, it is essential to account for the soil depth in addition to the thickness of any overlying material when establishing the true depth from the surface.

- b) In reference to a) above, the potential 3-inch discrepancy is mentioned to account for the thickness of the overlying material, such as slabs or gravel, which would be removed as part of the excavation process.

Action: No action required.

Commenting Organization: Ohio EPA  
 Section #: 2.2 Pg. #: 2-7 Lines #: 17-19 Commentator: OFFO  
 Original Comment #: 6 Code: C

Comment: Sentences 17-19 discusses "insufficient soil mass" in regards to the collection of a sampling interval. In the past, sampling protocol has always seemed to follow collecting additional soil from an identical interval by adding another push next to the original location, rather than collecting soil from an adjoining interval to make up the difference. Ohio EPA believes that collecting a sample for one interval via an adjoining interval could become inaccurate and possibly confusing during the actual sample collection. Please provide clarification on this issue and an example of when this was used in the past.

Response: For this PSP, we do not anticipate needing an inordinate amount of sample mass. To that end, we will delete the concept of obtaining additional soil mass from adjoining intervals and implement an extra push if additional sample mass is needed.

Action: Section 2.2 of the PSP will be revised to read as follows:

"If a 6-inch interval contains insufficient soil mass for the necessary analyses, additional material can be obtained by performing an additional push."

Commenting Organization: Ohio EPA  
 Section #: 2.2 Pg. #: 2-7 Lines #: 21-23 Commentator: OFFO  
 Original Comment #: 7 Code: C

Comment: Please provide clarification regarding why the lithological characterization will not be recorded during this sampling investigation. Have the logs been previously recorded?

Response: For each boring, there will be a physical description of the material, consisting of general color, material type, frisker/PID readings, and foreign material, at each 6-inch interval. This description will be performed by the sampling personnel. If anomalous material is found in the boring, a geologist will be called in to further define its characteristics. The full lithological characterization by a geologist, including Munsell chart, grain size, moisture, plasticity, and density, will not be performed on every boring.

Action: Section 2.2 of the PSP will be revised to include this type of description being performed by the sampling personnel and to notify a geologist when anomalous material is encountered.

Commenting Organization: Ohio EPA  
 Section #: 2.1.5 Pg. #: 2-5 Lines #: 7-9 Commentator: OFFO  
 Original Comment #: 8 Code: C

Comment: How were these sampling locations picked? They do not follow the sampling procedure listed in the document, and no reasoning is given for the locations.

**Response:** These locations were selected to surround the contiguous area, such that it was considered one large source of above-WAC contamination, and bound the area. The sampling methodology described in the document is intended for isolated borings with above-WAC results. Using that rationale here would have resulted in the collection of many more borings without providing any better information. Therefore, a different (and more appropriate) strategy was used.

**Action:** The following statement will be added to the end of the above-referenced paragraph:

“This sampling approach is being used to bound the contiguous area since it is considered a single source of above-WAC contamination.”

**Commenting Organization:** Ohio EPA **Commentator:** OFFO  
**Section #:** Figure 2-3 **Pg. #:** Legend **Line #:** **Code:** C  
**Original Comment #:** 9  
**Comment:** Please make corrections to the “Legend.” The “symbol” for the RI/FS results is switched with the “symbol” for the Proposed Boring Location.

**Response:** Agree that the Legend is in error.

**Action:** Make the corrections as noted in the comment.

**Commenting Organization:** Ohio EPA **Commentator:** OFFO  
**Section #:** 3.4 **Pg. #:** 3-2 **Lines #:** 21-26 **Code:** C  
**Original Comment #:** 10  
**Comment:** This section discusses how changes will be implemented via V/FCN. In previous PSPs, the QA section has used language that refers to the V/FCN must be approved by Ohio EPA before implementing changes. Changes are defined as “significant” and “non-significant” and the definitions are made clear in the Proposed SDFP Sampling PSP Planning Guidelines.

**Response:** Agree that the Ohio EPA will still review and approve Variance/Field Change Notices (V/FCNs). This language was inadvertently omitted from the PSP, and this response serves as documentation that the Ohio EPA review will still take place.

**Action:** The following text will be added to Section 3.4:

“All significant field changes (sample moves greater than 3 feet, changes from the SEP certification strategy, etc.) require regulatory agency approval.”

**Commenting Organization:** Ohio EPA **Commentator:** OFFO  
**Section #:** Appendix D **Pg. #:** D-1 **Line #:** **Code:** C  
**Original Comment #:** 11  
**Comment:** The RMDL’s for this sampling are set at high numbers because this PSP only covers AWAC samples. Although the intention of this PSP is only for WAC attainment, OEPA finds no reason not to set the RMDL’s low enough to be used for FRL sampling. It would be more in line with the sitewide goal of expediated remediation to collect as much data as possible in one sampling round, so it can be used for future investigations.

Response: Agree.

Action: The Target Analyte List tables will be revised to place the Requested Minimum Detection Limit (RMDL) at 10 percent of the soil FRL.