

**Department of Energy**

**Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
Springdale, Ohio 45246
(513) 648-3155**

**OCT 31 2005**

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

DOE-0013-06

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF RESPONSES TO U.S. ENVIRONMENTAL PROTECTION
AGENCY AND OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON
THE DRAFT EXCAVATION PLAN FOR AREA 7 SUPPORT AND SILOS PROCESS
AREAS**

- References:
- 1) Letter, T. Schneider to W. Taylor, "Comments Excavation Plan for Area 7 Support and Silos Process Areas," dated October 6, 2005
 - 2) Letter, J. Saric to J. Reising, "A7 Excavation Plan for Support and Silos Process Area," dated October 19, 2005

Enclosed for your approval are responses to U.S. Environmental Protection Agency and Ohio Environmental Protection Agency comments on the draft Excavation Plan for Area 7 Support and Silos Process Areas.

If you have any questions or require additional information, please contact me at (513) 648-3139.

Sincerely,

Johnny W. Reising
Director

Mr. James A. Saric
Mr. Tom Schneider

-2-

DOE-0013-06

Enclosure

cc w/enclosure:

J. Desormeau, OH/FCP
J. Reising, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SR-6J
C. Connell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS6

cc w/o enclosure:

J. Chiou, Fluor Fernald, Inc./MS88
M. Jewett, Fluor Fernald, Inc./MS1
F. Johnston, Fluor Fernald, Inc./MS12
C. Murphy, Fluor Fernald, Inc./MS1

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**RESPONSES TO U.S. AND
OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS ON THE DRAFT EXCAVATION PLAN
FOR AREA 7 SUPPORT AND SILOS PROCESS AREAS**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**

OCTOBER 2005

U.S. DEPARTMENT OF ENERGY

Appendix C states: "The technical specifications have not been submitted with this plan as they have been previously approved."

Action: None.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: NA

Page #: NA

Line #: NA

Original General Comment #: 4

Comment: The drawings submitted have been reduced in size and are very difficult to read and review. Full-scale drawings should be submitted to facilitate proper review of this submittal.

Response: One set of half-sized drawings were submitted to both the U.S. EPA and Ohio EPA.

Action: None.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.0

Page #: 1-1

Line #: 6-14

Original Specific Comment #: 1

Comment: The text states that the Fernald Closure Project (FCP) was reorganized into nine remediation areas (Figure 1-1). Area 7 is located generally around the southern and western perimeters of the southern portion of the Former Production Area (Areas 4A and 5) and includes the K-65 Silos, Operable Unit (OU) 4 operation and remediation areas, and many of the FCP's support areas and facilities (Figure 1-2). The text further lists these support areas and facilities. Figure 1-2, however, only shows an outline of Area 7. The various support areas and facilities in Area 7 are not labeled. Figure 1-2 should be revised to show and label these components.

Response: Agree.

Action: Figure 1-2 will be revised to show and label the various support areas and facilities in Area 7.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.0

Page #: 1-3

Line #: 9-10

Original Specific Comment #: 2

Comment: The text states, "Any impacted material generated after the OSDF has been closed will be shipped by truck or rail for off-site disposal." The text should be revised to include the name of the facility to which the impacted material will be shipped in case the On-Site Disposal Facility (OSDF) has been closed.

Response: Once the OSDF has been closed, impacted material will be shipped off site to a DOE or privately owned disposal facility licensed to take low-level radioactive waste. Currently, above-waste acceptance criteria (WAC) soil and decontamination and dismantlement debris are being shipped to Envirocare.

Action: The text will be modified to read as follows:

"Any impacted material generated after the OSDF has been closed will be shipped by truck or rail for off-site disposal to a DOE or privately owned disposal facility licensed to receive low-level radioactive waste."

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.1

Page #: 1-3

Line #: 17-21

Original Specific Comment #: 3

Comment: The text states that "... the Area 7 components for the Western Access Road, K-65 Silos, SWRBs, TACO office trailer complex, Security Trailer Complex, Building 82A, the former Lime Sludge Ponds footprint, and the Cement Pond (18N) (see Figure 1-4) are excluded from this document." Figure 1-4 does not show an outline of Area 7 and shows only some of the listed components, making it difficult to visualize where the excluded and included areas are. Figure 1-4 should be revised to clearly indicate the locations of all Area 7 components, both included and excluded. The figure should also include a legend.

Response: Figure 1-4 lists all the components listed in the text [Western Access Road, K-65 Silos, Storm Water Retention Basins (SWRBs), TACO office trailer complex, Security Trailer Complex, Building 82A, the former Lime Sludge Ponds footprint, and the Cement Pond (18N)].

Figure 1-4 will not be revised to indicate the locations of all Area 7 components. That is not the purpose of this figure. Figure 1-3 indicates the location of the Area 7 components that are addressed by this Excavation Plan. Figure 1-4 indicates the location of the Area 7 components that are not addressed by this plan. Hence, Figure 1-3 shows the included components and Figure 1-4 shows the excluded components. This was done to make it clear which components are included and which are excluded from the document. If all Area 7 components are shown, it will be less clear as to which components are included versus excluded.

Action: The boundary of the excluded portion of Area 7 will be added to Figure 1-4.

AREA 7 SUPPORT AND SILOS PROCESS AREAS EXCAVATION PLAN DRAWING PACKAGE FOR 20500

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: NA

Page #: NA

Line #: NA

Original General Comment #: 1

Comment: Typically, excavation work is shown on cross sections and profiles so that volumes of materials to be removed can be estimated. Cross sections and profiles are also required to show the final grade and proper slopes. None of these items have been included in this submittal. The drawings should be revised to include the appropriate cross sections and profiles that clearly show the proposed finished grades and required slopes. The drawings should be revised accordingly and resubmitted in full scale.

Response: There are a number of methodologies that can be used to estimate excavation volumes. Using cross-sections and profiles is one such method but is not the only one. Since the excavation contours are created in a three-dimensional computer file, the computer can be used to calculate an excavate volume. Therefore, cross-sections and profiles are not included for volume calculation purposes. Typically cross-sections are only included in drawings of a soil remedial design package where deeper excavations are planned. There is only one excavation associated with this Excavation Plan that contains a deep excavation (see Drawing 99X-5500-G-00909). The deep excavation shown on this drawing is a temporary excavation that will be backfilled once the 60-inch storm sewer has been removed. This excavation already has a cross section of the excavation shown on the 36-inch Pipe Profile Detail shown on the same drawing.

Action: None.

3. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 2.3.2 Pg #: 2-6 Lines #: 30-33 Code: C
Original Comment #: 3

Comment: Once again, this area was not bound to the northwest. This section mentions additional sampling (A7-SA-52) will be done to bound this area. Provide results for this sampling location and any others that should have been done prior to this submittal to bound this location.

Response: Agree. Two additional sample locations had to be collected to bound this area (A7-SA-52 and A7-SA-53). Point 52 demonstrated results above-final remediation level (FRL). Therefore, point 53 was added and collected. Point 53 had a result of 8.26 mg/kg and, therefore, was used as the bounding location.

Action: The text of the section and Figure 2-9 will be amended to reflect the bounding of this above-FRL area using boring location A7-SA-53.

4. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 2.3.3 Pg #: 2-7 Lines #: 19-23 Code: C
Original Comment #: 4

Comment: This section does not include any information in regards to when the soil will be sampled or scanned to demonstrate that it is clean. Again, this information needs to be provided in the text.

Response: Agree. The soil beneath the concrete slabs that are described in this section will be sampled by boring through the concrete for certification.

Action: The text will be amended to state that after all activities in this area are done, certification samples will be collected from beneath the concrete as part of the certification process.

5. Commenting Organization: Ohio EPA Commenter: DSW
Section #: 3.3.1, 99X-5500-G-00904 Notes 4 and 5 Pg #: 3-3 Lines #: 29-37 Code: C
Original Comment #: 5

Comment: Water that collects in above-WAC excavations, area north of the SWRB, and the CAWWT excavations will be held for treatment in the CAWWT. However, other excavation water is to be pumped for eventual discharge, without testing, to the PPDD. Water in excavations needs to be tested prior to discharge and those that are above groundwater FRLs for any contaminant should be sent for treatment rather than discharged to the PPDD.

Response: As the text states, storm water runoff collected in excavations will be tested before discharge to the Pilot Plant Drainage Ditch (PPDD) is approved. Storm water collected in excavations in above-FRL soil locations will be pumped to the former Lime Sludge Ponds. Disposition from the former Lime Sludge Ponds will be based on specific testing of collected storm water within the ponds. Storm water collected in excavation in above-WAC locations will be routed to treatment either at Converted Advanced Wastewater Treatment (CAWWT) Facility or the Silos Wastewater Treatment Facility (not yet constructed).

Storm water runoff not evaluated is that runoff that freely drains from the area to the OU4 Detention Basin. As indicated, steps will be taken to mitigate sediment loading in this runoff. However, there is no need to capture this runoff and perform any specific testing.

Action: None.

6. Commenting Organization: Ohio EPA Commenter: DSW
 Section #: 3.4 Pg #: 3-5 Line #: 1-31 Code: C
 Original Comment #: 5

Comment: Water should not be held in excavations longer than absolutely necessary prior to being sent to the CAWWT for treatment. We have specified a maximum of 24 hours previously. The capacity of the CAWWT basin and the potential open excavation water load need to be calculated so that there is sufficient capacity to remove water from excavations within this time frame.

Response: Agree that water should not be held in excavations longer than absolutely necessary. The requirement for pumping water out of deeper excavations is within 3 days of the last rainfall as established in the Technical Specifications. Technical Specifications Section 02275, Subsection 3.1.D states: "...Excavation water collected within active excavations and below design grade utility removal shall be pumped to the appropriate sediment control basin as shown on Construction Drawings. Collected water shall be pumped down to a depth of less than one foot remaining in the bottom of the excavation within 3 days of the last rainfall." However the actual operational goal for management of storm water at the site is to avoid bypassing water to the Great Miami River via the outfall line without being treated or overflowing water from the SWRB to Paddys Run. There is no requirement and there has been no agreement to remove water from active excavations any sooner than within 3 days of a rain event. Water from active excavations will not be pumped to the CAWWT Backwash Basin when the basin is approaching its freeboard limit; therefore, water will be held temporarily in active excavation, if required, to prevent a bypass or overflow condition until sufficient holding capacity has been reestablished. As stated in Section 3.4 of the Excavation Plan, CAWWT has a treatment capacity of 600 gpm. The intention is to comply with the 3 day pump out requirement established in the Technical Specifications except in situations where additional time is required for the site's waste water treatment systems to digest collected water in order to avoid a bypass or overflow condition.

Since the time of the Revision A submittal, the design of the CAWWT Backwash Basin has progressed. The current design is for a single above-grade modular tank that will be submitted to the agencies as part of an Aquifer Restoration/Wastewater Project Design Change Notification (DCN). The design for the CAWWT Backwash Basin is not addressed in this Excavation Plan.

Action: Change the reference in Section 3.4 from two above-grade modular tanks to one above-grade modular tank. No change to the pumping requirements of active excavations will be made.

7. Commenting Organization: Ohio EPA Commenter: OFFO
 Section #: 3.5.1 Pg #: 3-6 Line #: 17-20 Code: C
 Original Comment #: 7

Comment: This section contradicts what is presented in Section 2.3.1 and shown on Figure 2-8. Section 2 of this document states that there are two above-WAC areas as well. Both sections agree that the K-65 trench is an above-WAC area, but the other area listed in Section 2 is a small area located north of the K-65 trench. Section 3 refers to the sediments in the SWRB as the only other above-WAC area in the document. Reconcile these two sections.

Response: Agree. The two above-WAC areas covered in this plan include the K-65 trench and the small area located north of the K-65 trench, as described in Section 2.

Action: Section 3.5.1 will be rewritten to be in agreement with Section 2.

8. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 3.5.3 Pg #: 3-8 Line #: 2 Code: C
Original Comment #: 8

Comment: This line states that the excavations covered under this area will remove 401,000 yd³ of above-FRL but below-WAC soil. This number greatly exceeds the design capacity of the remaining cell area available, and does not correspond with the excavations proposed in the document. It appears to be a typo, please correct.

Response: Agree. The value should have been 41,000 yd³ of above-FRL but below-WAC soil.

Action: Correction will be made.

9. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 3.5.3 Pg #: 3-8 Line #: 6-11 Code: C
Original Comment #: 9

Comment: This section discusses excavating soil from the existing isolation trenches. These trenches are being excavated because of suspected contamination, not because of sampling results. When will these trenches be backfilled, and how will they be sampled prior to backfill to confirm below-FRL results?

Response: These isolation trenches will be sampled to confirm or deny the presence of suspect contamination. If no contamination is present, the trenches will remain unexcavated. However, if contamination is found, the trenches will be excavated and left in a safe configuration without backfill and will represent final grade. These exposed surfaces will then be certified along with the rest of the final grade surface.

Action: Revise the text in Section 3.5.3 to incorporate the strategy described above.

10. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 3.5.5 Pg #: 3-9 Line #: 28-32 Code: C
Original Comment #: 10

Comment: This section, along with other sections and documents mentions a small area that will need to be taken care of as part of Area 10. These small pipe areas, underground utility areas, etc., should be placed on a map that can be updated with new information during each submittal. This will assist everyone in making sure all of the 'pieces parts' stay tracked and none get overlooked when remediating Area 10.

Response: Agree that underground utilities that will remain in-place after post-closure should be identified on a drawing or series of drawings that covers the entire site. Has such, it is beyond the scope of any individual IRDP; therefore, it will be contained in a separate submitted identifying underground utilities and structure not removed as part of closure that will be addressed during the remediation of Remediation Area 10.

Action: This drawing or series of drawings will be created and submitted to the agencies after the bulk of remedial excavation has been performed. This series of drawings will be submitted to the agencies for review after the completion of the Area 7 soil remediation.

11. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 3.5.5 Pg #: 3-10 Line #: 6-9 Code: C
Original Comment #: 11

Comment: Why is the design to reinstall the OSDF Leachate Line not included in this document? Please submit this drawing.

Response: This design to reinstall the OSDF Leachate Line will be addressed and submitted to the agencies for review as a DCN to the OSDF Leachate Conveyance System Design.

Action: The DCN and associated drawing will be submitted to the agencies for review. This submittal is scheduled for agency review in December 2005.

12. **Commenting Organization:** Ohio EPA **Commenter:** OFFO
Section #: 3.8 **Pg #:** 3-14 **Line #:** 11-15 **Code:** C
Original Comment #: 12

Comment: This section refers to technical specification 02206, which was not included in the package for review. Please include this technical specification. This section refers to "Interim Restoration" however, the grading described appears to be "interim grading" and noted in the first sentence and is as defined in that sentence, i.e., to prevent unsafe working conditions. Interim restoration would be grading to approach the final design in the NRRDP for that area and vegetate according to the seeding specification. Section 3.8 is better titled "Interim Grading."

Response: Agree with title change. The technical specifications used to govern the remediation of Area 7 Silos and General Area are the same technical specifications used to remediate much of the Former Production Area and have only undergone minor changes since the Area 3B/4B/5 IRDP was approved and finalized in February 2004. Please refer to most recent submittal of the Excavation Plan for Area 6 Waste Pits and General Area (20600-PL-0005) for copies of these specifications.

Appendix D states: "The technical specifications have not been submitted with this plan as they have been previously approved."

Action: The title to Section 3.8 will be changed to "Interim Grading."

