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Department of Energy

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JUN 21 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-0265-05

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 COMMENTS ON THE DRAFT EXCAVATION PLAN FOR AREA 6 WASTE PITS AND GENERAL AREA

References:

1) Letter, J. Saric to J. Reising, "Area 6 Waste Pits and General Area Excavation Plan," dated June 7, 2005

2) Letter, T. Schneider to W. Taylor, "Disapproval - Excavation Plan for A6 Waste Pits and General Area," dated June 8, 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 6 Waste Pits and General Area. Upon approval, these comment responses will be incorporated into the final Excavation Plan.

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

Sincerely,

W J Taylor

William J. Taylor
Director

FCP:Reising

Enclosures: As Stated

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

cc w/o enclosures:
K. Alkema, Fluor Fernald, Inc./MS01
J. Chiou, Fluor Fernald, Inc./MS88
F. Johnston, Fluor Fernald, Inc./MS99
C. Murphy, Fluor Fernald, Inc./MS77
ECDC, Fluor Fernald, Inc./MS52-7

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RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT EXCAVATION PLAN FOR AREA 6 WASTE PITS AND GENERAL AREA

FERNALD CLOSURE PROJECT
FERNALD, OHIO

JUNE 2005

U.S. DEPARTMENT OF ENERGY

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS ON THE DRAFT EXCAVATION PLAN FOR THE AREA 6 WASTE PITS AND GENERAL AREA (20600-PL-0005, REVISION A)

General Comments on Draft Excavation Plan

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.4 Page #: Not Applicable (NA) Line #: NA
Original General Comment #: 1

Comment: The document describes a number of excavations planned for various locations. It is not clear, however, what will be done after the excavations are completed. The document does not discuss any type of backfilling and revegetation of the excavated areas. It is also not clear whether the deep excavations will be backfilled to prevent storm water from accumulating in the holes. Because the site soils are of low permeability, the holes would contain standing water after a storm. The document should be revised to clarify these matters.

Response: The Excavation Plan for Area 6 Waste Pits and General Area governs the removal of at-grade structures such as pads and parking lots, below-grade structures such as building foundations and underground utilities, and impacted soil (soil contaminated above the final remediation levels for various constituents as developed under the Operable Unit (OU) process under CERCLA and quantified in the OU1 and OU5 Records of Decision). As such, the design is targeted on identifying the location and depth of impacted soil and at- and below-grade manmade structures that are not required for post-closure activities (e.g., groundwater remediation) and presenting the information regarding extent of excavation and material disposition in a useful format for the governing agencies your review. The Integrated Remedial Design Package (IRDP) includes the Implementation or Excavation Plan, design drawing package, and technical specification package. The remediation of above-grade structures is not addressed in this IRDP submittals process instead it is covered by the approved OU1 Decontamination and Demolition Plan.

Since the soil remediation of the site is being self-performed by Fluor Fernald Inc., many of the contractual requirements usually associated with subcontracted construction work are not addressed in detail within the IRDP. The IRDP's focus is primarily on the safe removal and disposal of contaminated soils and debris and addresses four of the six programmatic strategy developed in the Sitewide Excavation Plan (SEP). This includes predesign investigations, remedial design, remedial action, and precertification of excavated areas. The certification of excavated areas and post-remedial actions, which encompasses final grading and restoration of the area are not governed by the IRDP. Post-remediation actions are performed in accordance with the Natural Resource Restoration Design Package, which will be submitted separately.

Since 1999, Fluor Fernald Inc. has remediated over 128 acres of the Former Production Area of the site. This area contained approximately 200 buildings of various sizes, a multitude of underground utilities and over 1,000,000 cubic yards of impacted soil. The buildings within the Former Production Area ranged in size from small huts and storage sheds to major production facilities. To date under various agency approved IRDPs, the remedial of the Former Production Area is almost complete. The majority of concrete removed from the Former Production Area has been size reduced to meet the On-Site Disposal Facility waste acceptance criteria. Several efficient and safe practices for concrete breaking and size reduction have been utilized. The at- and below-grade structures in Area 6 are not as complex

as those found in the Former Production Area and should be demolished efficiently with standard practices routinely utilized in the last six years by Flour Fernald Inc.

The technical specifications included in the Area 6 Waste Pits and General Areas IRDP 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.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.4 Page #: NA Line #: NA
Original General Comment #: 2
Comment: The text in various subsections of Section 3.4 calls for demolition of railroad tracks, track hardware, concrete slabs, concrete foundations, pavements, manholes, and other underground structures. It is not clear, however, how this demolition will be performed because the attached specifications do not have a section covering this type of demolition work. The document should be revised to include a specification section describing the procedures required to dismantle, demolish, and remove the above-mentioned items. If recycling and reuse are planned for some of the materials that will be demolished, the specification section should present the associated requirements as well.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Specific Comments on Draft Excavation Plan

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 1.0 Page #: 1-1 Line #: 10-18
Original Specific Comment #: 1
Comment: The text states that the Fernald Closure Project (FCP) was reorganized into nine remediation areas and that Area 6 is divided into five components: the Solid Waste Landfill and Fire Training Facility, Operable Unit 1 Stockpile Area, Former Production Area, Waste Pits, and General Area. These components should be shown and labeled in Figure 1-2, and Figure 1-2 should be cited in the text. The document should be revised accordingly.

Response: Agree. However, Figure 1-2 is cited in the text (see quote in next comment).

Action: Figure 1-2 will be revised accordingly.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 1.2 Page #: 1-3 Line #: 23 and 24
Original Specific Comment #: 2
Comment: The text states that "the Area 6 Waste Pits and General Area is in the western and northern portion of the FCP (see Figure 1-2)." However, Figure 1-2 shows only a portion of the FCP site, so it is difficult to visualize the western and northern portions of the site. The text should be revised to cite Figure 1-1 instead.

Response: See Response to Excavation Plan Original Specific Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 2.3.1 Page #: 2-5 Line #: 24
Original Specific Comment #: 3
Comment: The misspelling "technetium-99" should be corrected to read "technetium-99."

Response: Agree.

Action: The spelling correction will be made in text.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2.5 Page #: 3-2 and 3-3 Line #: NA
Original Specific Comment #: 4
Comment: The text states that excavation water, surface water, and perched groundwater will be collected within excavations throughout Area 6 as shown in the drainage plan drawings. However, the drainage plan drawings were not submitted with the draft excavation plan. These drawings should be included in the next version of the excavation plan for review.

Response: The text is incorrect in its reference to the drainage plan drawings. The actual drawings included and submitted with the design package are title Dewatering Plan (West) and Dewatering Plan (East) (drawings 99X-5500-G-00866 and 99X-5500-G-00867, respectively).

Action: Change the text in Section 3.2.5 to refer to these drawings as "Dewatering Plan drawings".

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.4.4 Page #: 3-13 Line #: 15 and 16
Original Specific Comment #: 5
Comment: The text states that utility lines that remain after general excavation has reached the design grade will be removed using a backhoe and trench excavation techniques as detailed on Civil Detail Sheet 1 of 2 among the drawings. However, the two civil detail drawings were not included in the draft excavation plan. These two drawings should be included in the next version of the excavation plan for review.

Response: The text is incorrect in that only one Civil Detail drawing was included with the drawing package. The Civil Detail drawing was distributed for the design review. Apparently it was not included in the set reviewed by USEPA.

Action: Remove "...Sheet 1 of 2..." from line 16 in Section 3.4.4. The drawing will be included in all sets.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.5 Page #: 3-14 Line #: 8 to 16
Original Specific Comment #: 6
Comment: The text states that at-grade concrete and asphalt pads and road will be removed to prepare Area 6 for general soil excavation activities. It is not clear, however, how concrete and asphalt pads and roads, foundations, manholes, and other structures will be demolished. The text does not discuss this work in any detail, and the technical specifications do not include a section covering demolition of such structures. As an example, concrete building foundations area usually heavily reinforced with steel rebars, and concrete slabs and pavement area also reinforced with steel wire or rebars. To remove such items, they must be cut into small,

manageable sections. Depending on the final disposition of the materials, the reinforcing steel may need to be removed from the concrete. The text should be revised to discuss removal of the above-mentioned structures in greater detail, and a specification section describing the required removal procedures should be added to the technical specifications.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

General Comments on Technical Specifications and Drawings

Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Page #: NA Line #: NA
Original General Comment #: 1
Comment: The specification sections included in the draft excavation plan refer to other specification sections that are not included in this document but are bound separately as "Referenced OSDF Specifications." It is not clear why these referenced sections were not bound together with the technical specifications. Typically all the specifications for a given project area bound in one document because they all specify the materials, equipment, and procedures required to complete the project. The excavation plan should be revised to explain why the specification sections are presented in separate documents.

Response: The referenced specifications have been reviewed and approved previously and are readily available for construction personnel. See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Page #: NA Line #: NA
Original General Comment #: 2
Comment: As stated in other comments, a specification section covering demolition work should be included in the technical specifications.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Page #: NA Line #: NA
Original General Comment #: 3
Comment: Typically excavation work is shown on cross sections and profiles so that the proper volumes of materials to be removed can be estimated. Cross sections and profiles are also required to show the final grades and proper slopes of excavated areas. The drawings should be revised to include appropriate cross sections and profiles that clearly show the proposed finished grades and required slopes.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Specific Comments on Technical Specifications and Drawings

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02205 Section #: 3.4 B Lines #: 8 of 18
Original Specific Comment #: 1
Comment: The text states that debris removed from above-waste acceptance criteria areas will be pressure-washed to remove soil and residue. The text, however, does not state where this debris will be washed, how the wash water will be contained, or what will be done with the wash water and the solids in it. Moreover, the drawings do not show any area where removed debris will be pressure-washed. The specifications and drawings should be revised to present the missing information.

Response: This requirement is not applicable to soil remediation and will be removed from the technical specifications.

Action: Item 3.4.B in Section 02205 will be deleted from Technical Specification 20300-TS-0001.

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02205 Sections #: 3.5 D to F Line #: 9 of 18
Original Specific Comment #: 2
Comment: The text states that Resource Conservation and Recovery Act (RCRA) hazardous soil and gravel will be loaded and hauled to "an appropriate stockpile." However, the text does not state where this stockpile will be located. Also, the text requires additional excavation if sample analyses identify additional RCRA hazardous material beyond the limits shown on the construction drawings. It is not clear what measures will be taken to protect the excavation from weather during the 10-working day turnaround period for sample analytical results. The text should be revised to clarify these matters.

Response: There are no known RCRA materials in this area. If encountered during excavation, a specific plan will be developed based on the actual materials and quantity. See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02205 Sections #: 3.6 D to F Line #: 9 of 18
Original Specific Comment #: 3
Comment: Specific Comment 2 on Sections 3.5 D to F also applies to Sections 3.6 D to F.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02205 Section #: 3.7 Line #: 10 of 18
Original Specific Comment #: 4
Comment: This section discusses removal of underground storage tanks (USTs) but the information provided in this section is minimal. For example, the sizes of the USTs are not presented, and it is not clear what materials the USTs are made of. Normally, a separate specification is used to provide UST removal details. The technical specifications should be revised to include a section providing all necessary information and requirements for removal of the USTs.

Response: There are no known USTs in this area. Therefore no specific information is necessary. See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02205 Section #: 3.11 Line #: 12 to 18
Original Specific Comment #: 5
Comment: This section requires size reduction of concrete pavements, concrete foundations, steel piping and equipment by mechanical means only. It is not clear why torch cutting is not permitted. Cutting steel mechanically is not very efficient and is time-consuming. Cutting steel rebars mechanically will slow down the demolition of foundations considerably. The text should be revised to allow use of torches for cutting steel components, particularly reinforcing steel.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02205 Section #: 3.14 J Line #: 14 of 18
Original Specific Comment #: 6
Comment: This section requires stockpiling of excavated aggregate materials and size-reduced concrete and asphalt for use as temporary aggregate materials. The text, however, is not clear regarding how size-reduced concrete containing reinforcing steel will be used as aggregate. Specialized equipment will be required to break the concrete into aggregate-size particles and separate them from the reinforcing steel. However, the text does not state a requirement for furnishing this type of specialized equipment. The text should be revised to clarify this matter.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

Commenting Organization: U.S. EPA Commentor: Saric
Specification Section 02206 Section #: NA Line #: NA
Original Specific Comment #: 7
Comment: This section, which generally covers excavation of fill materials, placement of fill materials, and interim and final grading has several deficiencies. First, the drawings are not very clear regarding where the fill materials will be placed and to what thicknesses. Such information is typically indicated in cross sections, which were not provided. Second, it is impossible to determine the volume of backfill material required based on the information provided. Third, the section does not call for application of topsoil, which is normally required for proper revegetation of disturbed areas and erosion protection. Fourth, Section 3.6, Final Grading, calls for installation of erosion control blankets but does not call for seeding of the areas where the blankets are to be installed. An erosion control blanket has a relatively short life and is useful only when it is installed over a seeded area. Section 02206 should be revised to address these issues.

Response: See Response to Excavation Plan Original General Comment No. 1.

Action: None.

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE EXCAVATION PLAN FOR AREA 6 WASTE PITS AND GENERAL AREA (20600-PL-0005, Revision A)

COMMENTS

1. Commenting Organization: OEPA Commentor: OFFO
Section #: General Pg #: Line #: Code: C
Original Comment #: 1
Comment: This document includes the railroad as part of Area 6. No information is given regarding when and under what mechanism the railroad removal will take place. How will the ballast material be removed and disposed of?

Response: The removal of the railroad tracks, associated hardware, and ballasts is included in Section 3.4.2.14 of the Excavation Plan and is controlled per drawings 99X-5500-G-00860, 99X-5500-G-00861, 99X-5500-G-00868, and 99X-5500-G-00869.

Action: None.

2. Commenting Organization: OEPA Commentor: OFFO
Section #: General Pg #: Line #: Code: C
Original Comment #: 2
Comment: The document should be revised to include a section describing the removal of all visible waste, man made materials, and stained soils. In order to comply with the OU1 and OU5 RODs these materials must be excavated and properly disposed. This is in particular reference to the visible white waste along the berm of Pit 3 that don't appear to be addressed anywhere within this document and any similar material.

Response: All visible waste, manmade materials, and stained soil in the Waste Pits area will be removed and disposed of in accordance with all of the applicable requirements.

Action: Text will be revised in Section 1 accordingly.

3. Commenting Organization: OEPA Commentor: OFFO
Section #: 1.0 Pg #: 1-2 Line #: 12-16 Code: C
Original Comment #: 3
Comment: This section states that some of the excavations are bounded by 'the last above-FRL sample location'. This is clearly not the approach agreed upon in the SEP for determining the depth of an excavation. According to the SEP, excavations must be bounded by below-FRL results. Using the Excavation Control PSP to perform additional sampling when the last above-FRL location is removed is unacceptable. If DOE wishes to deviate from proper predesign bounding sampling, a new method must be agreed upon where the regulatory agencies are given the ongoing sampling data and can concur that the excavation has captured all contamination.

Response: Agree. There were many constraints for predesign sampling in the waste pits' footprints in order to protect the Great Miami Aquifer (GMA) per OEPA requests such as refraining from advancing borings into the sand of the GMA and reducing the depths of the adjacent borings if any boring encountered sand. Details of these constraints are described in the predesign Project Specific Plan (PSP). As a result, some of the areas are not completely bounded. The intent of this design was to immediately capture the known contamination in order to protect the GMA. This excavation represents the beginning quantity of material that will be removed. In areas where discrete bounding was not completely performed, excavation

control with real-time measurement systems and physical sampling at the proposed design grade for final remediation level (FRL) verification will be utilized to demonstrate that the contamination has been removed. If the results of this excavation control scanning or sampling at the designed depth demonstrate above-FRL conditions, additional impacted soil will be removed until below-FRL conditions are reached. The results of all such excavation control samples in the areas that have not been discretely bound will be forwarded to the agencies as they are received from the laboratories for their concurrence that all contamination has been captured.

Action: A figure will be incorporated into the IRDP that highlights all areas that have not been discretely bound. Section 2 will be revised to incorporate this approach. Figure 2-20 will be incorporated into the document.

4. Commenting Organization: OEPA Commentor: OFFO
Section #: 1.2.1 Pg #: 1-3 Line #: 32 Code: E
Original Comment #: 4
Comment: Change the word 'deleted' to 'depleted'.

Response: Agree.

Action: The word will be changed from 'deleted' to 'depleted'.

5. Commenting Organization: OEPA Commentor: OFFO
Section #: 1.5.3 Pg #: 1-10 Line #: 15-18 Code: C
Original Comment #: 5
Comment: It is acceptable and common practice to use real-time surveys to minimize the excavation volume of above-WAC soils, but it not acceptable to use real-time to reduce below-FRL soil volumes for excavation. FRL excavations should be bound by physical sampling results.

Response: Agree.

Action: This sentence will be rewritten as follows:

"In particular, real-time surveys will be used to minimize the excavation volume of above-WAC uranium contamination (Section 3.3) and to evaluate potential increase of the above-FRL soil volume that must be hauled to the OSDF."

6. Commenting Organization: OEPA Commentor: OFFO
Section #: 1.5.3 Pg #: 1-10 Line #: 27 Code: C
Original Comment #: 6
Comment: Permanent seeding is not to take place until after certification. Please correct.

Response: Agree. Seeding will be performed after certification sampling results are back and show that all the certification criteria are met, unless otherwise approved by the agencies.

Action: The last sentence of this section will be removed form text.

7. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3 Pg #: 2-3 Line #: 25-29 Code: C
Original Comment #: 7
Comment: See Comment Number 3.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

8. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.1 Pg #: 2-6 Line #: 5-8 Code: C
Original Comment #: 8
Comment: Lines 4-5 state that this above-WAC result was not bound vertically, and yet Line 8 states an excavation depth. Please explain how the excavation depth was decided with no bounding information.

Response: As stated in the Response to Comment No. 3, this excavation represents the minimum volume required to be removed. As always, real-time scans and/or physical samples will be collected at design grade at a much greater density than during predesign. If any sample result demonstrates above-WAC conditions, the above-WAC excavation will be expanded to fully capture all above-WAC material. As always, this iteration will continue until results demonstrate below-WAC conditions.

Action: None.

9. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.1 Pg #: 2-6 Line #: AWAC Area #5 Code: C
Original Comment #: 9
Comment: Why was no attempt made to bound A6-SA4-26? Also, this area is only bound on three sides by sampling. How was the fourth (southeast) excavation boundary delineated (especially since several above-WAC samples lie near this boundary)?

Response: Boring A6-SA4-26 is only one sample within the designed above-WAC area. All other borings within this designed above-WAC area are vertically bound and therefore establish the depth of excavation. However, upon further review, we agree that the southeast section of this area is lacking adequate data. Therefore, an additional bounding point will be placed in the southeast direction for this area.

Action: Place a boring southeast of boring A6-SA4-26 and collect samples at the 0 to 0.5-foot, 3 to 3.5-foot, and 5.5 to 6.0-foot intervals to laterally bound this area.

10. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.1 Pg #: 2-7 Line #: AWAC Area #9 Code: C
Original Comment #: 10
Comment: No additional sampling under the SP-7 footprint is mentioned. Characterization beyond the additional 6 inches below the bottom of the pile is necessary. The agencies will need to concur on this sampling as well, as mentioned above.

Response: Sampling under the footprint of SP-7 is planned according to the PSP for Predesign Sampling in Area 6 SP-7/OU1 Stockpile Area that was submitted in the summer of 2003 but has yet to be completed. This section should have made reference to this PSP and described that this sampling will occur when SP-7 plus a minimum of 6 inches of the footprint have been removed.

Action: The text of Section 2.3.1 will be revised to include a reference to the PSP for Predesign Sampling in Area 6 SP-7/OU1 Stockpile Area as well as the discussion related to the timing of the completion of this PSP.

11. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.1 Pg #: 2-8 Line #: AWAC Area #10 Code: C
Original Comment #: 11
Comment: Line 3 stated that it is believed that the top liner maintained its integrity, yet in a TIE Meeting held with the agencies on May 24 it was stated that there are known holes in the top liner. Also, it was stated that the levels of above-WAC concentrations in the BSL are very high. Without any sampling results to prove that the secondary liner meets FRLs, it is unacceptable to send it to the OSDF. During the TIE Meeting sampling of the sand layer to verify the FRL status was mentioned. If DOE wants to send the bottom liner to the cell as below-WAC, please provide details on sampling of the sand layer to verify this.

Response: Agree. It is still believed that historically the top liner maintained its integrity. The Technical Information Exchange (TIE) Meeting was held after the sludge/sediment removal process began, and it is suspected that the holes in the liner were created during this removal process. Once the sludge/sediment and the top liner have been removed, samples of the underlying sand will be collected and analyzed to ensure that the sand and subsequent liner systems meet the OSDF WAC.

Action: The text of Sections 2.3.1 and 3.4.3.11 will be revised to incorporate language describing the sampling of the sand beneath the top liner of the Biodenitrification Surge Lagoon (BSL) once the sludge/sediment and the top liner have been removed.

12. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.1; 3.4.11 Pg #: 2-8; 3-10,11 Line #: 1-20; 6-15 Code: C
Original Comment #: 12
Comment: What measures will be taken to assure that there are no contaminated soils under the BSL? There is no evidence that any sampling has been done there. Also, we have addressed stormwater storage in unlined excavations in other documents. Water should be pumped out of unlined excavations that have not been certified. Only water that is free of contaminants can be pumped into unlined excavations that are certified. Without both conditions being met, there is a potential for adding contaminants to groundwater.

Response: The soil beneath both liner systems of the BSL will be sampled according to the PSP for the Predesign of Area 6 Subareas 3 and 4 to evaluate for FRL conditions after removal of the liner systems. After further consideration, DOE has decided that the BSL footprint will not be used for storage of impacted stormwater.

Action: This section will be rewritten to remove the language that discusses using the BSL as an impacted stormwater storage basin once the liner systems have been removed.

13. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-8 Line #: Waste Pit 1 Code: C
Original Comment #: 13
Comment: This section states that there is above-FRL contamination located both in the floor and sidewalls of Waste Pit 1, which is bound vertically. It does not appear these areas are bound laterally. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

14. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-9 Line #: 3-4 Code: C
Original Comment #: 14
Comment: This section states that there is above-FRL contamination for radionuclides, metals, and PCBs in seven borings, but the results are only bound vertically. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

15. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-9 Line #: 17-18 Code: C
Original Comment #: 15
Comment: This section states that there is above-FRL contamination in the sidewall of Waste Pit 4, which is bound vertically by sampling. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

16. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-9 Line #: Waste Pit 5 Code: C
Original Comment #: 16
Comment: This section states above-FRL results were found and bound vertically on the floor, in the sidewalls and outside of Pit 5. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

17. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-10 Line #: 10-12 Code: C
Original Comment #: 17
Comment: This section states above-FRL results were found and bound vertically on the floor of Pit 6. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

18. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-10 Line #: 27-32 Code: C
Original Comment #: 18
Comment: This section discussed historical locations for above-FRL samples, and states that samples were taken to vertically and laterally bound this location. It is then stated that the area is bound vertically. No mention is made of the lateral bounding locations. Therefore, OEPA concludes that the samples taken were insufficient to laterally bound this excavation. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

19. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-11 Line #: Clearwell Code: C
Original Comment #: 19
Comment: This section states above-FRL results were found and bound vertically in the sidewall and on the berm of the Clearwell. With no lateral bounding, this area has not been properly characterized for excavation.

Response: See Response to Comment No. 3.

Action: See Action to Comment No. 3.

20. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-11 Line #: 33 Code: C
Original Comment #: 20
Comment: What depth was the arsenic found in the historical sample location WPA15? If this depth is deeper then the newer thorium contamination, sampling will still need to be done for the arsenic.

Response: Location WPA15 was above-FRL for arsenic at the 0 to 0.5-foot interval. This location is beneath the liner that held the surrogate from the Silos test operations that was analyzed and found to be above-FRL for thorium-232. The remainder of the surrogate, along with the liner and an additional 6 inches of soil will be removed from this area, which will be controlled for thorium-232. Arsenic will be retained as an area-specific constituent of concern for certification.

Action: Section 3 will be rewritten to provide the details for this removal of the liner in this area as well as the additional 6 inches.

21. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-12 Line #: 17-19 Code: C
Original Comment #: 21
Comment: Was the area under the SWM pond characterized before the basin was put in? If not, how can DOE assume it to be below-FRL?

Response: Agree. Additional samples will be collected beneath the liner of the SWM Pond similar to the samples being collected for the BSL.

Action: The text of Section 2.3.2 will be revised to incorporate language describing the sampling of the sand beneath the top liner of the SWM Pond once the sludge/sediment and the liner have been removed.

22. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-13 Line #: 10-11 Code: C
Original Comment #: 22
Comment: Has this area north of the former SWL been bound either vertically or laterally? How was the excavation size determined?

Response: The excavation size encompasses borings 11202, 11203, CIS_SYSGEN_882, and CIS_SYSGEN_879. Bounding to the south, southeast, and southwest was achieved by borings A6-SA3-71, A6-SA3-72, and CIS_SYSGEN_884 respectively. The designed borings for bounding to the north, northeast, and northwest (A6-SA3-70 and A6-SA3-30, A6-SA3-33, and A6-SA3-73) have not been collected due to the rail line. This will be performed as described in response to Comment No. 3.

Action: See Action to Comment No. 3.

23. Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.5 Pg #: 2-3 Line #: 32 Code: C
Original Comment #: 23
Comment: This sentence states that 'runoff from excavation areas will be allowed to enter certified areas'. It is never acceptable for water from excavation areas to enter certified areas. Please correct.

Response: This is actually Section 3.2.5, Page 3-3, Line 2-3. This statement is actually correct. The removal of the railroad tracks and underlying ballast material at the OU1 Railyard will be performed as "clean" work. As such runoff from this area will not require treatment at the Converted Advanced Waste Water Treatment Facility. Silt fence will be placed around the railyard and approaching track to control sediment in the runoff into two adjacent ditches that drain to Paddys Run. Hence, runoff will drain into certified areas. This is detailed in Section 3.3.4. However, the statement in Section 3.2.5 is misleading implying that runoff from excavations will be allowed to enter certified areas in general. This is not the case. The statement was meant to apply to the OU1 railyard excavation only.

Action: The sentence in question will be removed from Section 3.2.5.

24. Commenting Organization: OEPA Commentor: DSW
Section #: 3.3.1 Pg #: 3-3 Line #: 20-30 Code: C
Original Comment #: 24
Comment: There needs to be a contingency if you are unable to pump to the Cement Pond. This has been known to fill (and overflow) from the perimeter drain feeding it. It is possible that a rain event or series of rain events would fill this and render it unavailable to pump to. It is noted that the current version of the site OMMP states that "Several gasoline powered pumps have been temporarily staged at this sump (Cement Pond) in order to provide additional pumping capacity as needed to counter the decrease in permanently installed pumping capacity. These pumps will be used to relay pump the water to the former Waste Pit 1 excavation if needed. Water temporarily stored in the Pit 1 excavation will be routed back to the cement pond after the storm event ceases. This mode of operation will be utilized until sufficient drainage area has been routed away from the sump." Is this part of the Area 6 storm water contingency as well?

Response: Yes. The emergency pump location for the Cement Pond is the Waste Pit 1 footprint via use of temporary pumps.

Action: Section 3.3.1 will be revised to address the use of temporary pumps to provide additional pumping capacity as needed to counter the decrease in permanently installed pumping capacity in the Cement Pond and Waste Pit 1 footprint as a temporary holding basin for that water.

25. Commenting Organization: OEPA Commentor: DSW
Section #: 3.3.4 Pg #: 3-4 Line #: 20-25 Code: C
Original Comment #: 25
Comment: Note that disturbance in the drainage to these ditches draining to Paddys Run will initiate checking for sediment loads from the drainage ditch into Paddys Run during rain events (as part of the Sloan's Crayfish monitoring plan). Any increase in sediment load over ambient in Paddys Run will mean corrective action must be taken upgradient to lower the sediment load.

Response: Agree.

Action: Text in Section 3.3.4 will be revised accordingly.

26. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.1 Pg #: 3-6 Line #: 10-11 Code: C
Original Comment #: 26
Comment: What stockpile will materials containing above-WAC organic constituents be hauled to? What would the treatment plan be?

Response: There are no indications that any material contains above-WAC organic constituents. If such material is encountered during excavation, a specific plan will be developed based on the actual material and quantity.

Action: None.

27. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.1 Pg #: 3-6 Line #: 11-19 Code: C
Original Comment #: 27
Comment: All soils from an excavation area designated as excavation for above-WAC should be hauled straight to SP-7. Working stockpiles should not be created for above-WAC soils. Also, doing real-time scans or taking physical samples from an area after the soil has been removed (i.e., below where the removed soil was) and using that data to determine the disposition location of that soil is unacceptable. Either sample before excavating, or direct haul the soil away as above-WAC.

Response: Disagree. This has been the excavation method approved in previous Implementation and Excavation Plans (e.g., Area 3B/4B/5 Implementation Plan, Revision 0, dated February 2004, Section 3.6.1, Page 3-20, third paragraph:

"The CM will direct the use of working stockpiles for materials removed from the side slopes of excavations designated as above-WAC for radiological constituents. Disposition of these materials requires the results of: 1) real-time scans performed on the slope formed by the removal of the soil or 2) analytical analyses performed on soil samples collected from the slope. Upon completion of sampling or real-time scanning, this material will be transported from the working stockpile(s) to WPRAP or the OSDF."

This has been the approved methodology for above-WAC excavation.

Moreover, SP-7 is an active loadout pile. Therefore, as best as possible, materials being sent to SP-7 need to be characterized to meet Envirocare WAC. A working stockpile has been established south of the burn pit footprint.

Action: None.

28. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.3.1 Pg #: 3-8 Line #: 8-9 Code: C
Original Comment #: 28
Comment: This section states that no known excavation of the sidewall is required to meet OU5 FRLs. Section 2.3.1, Page 2-8, Lines 23-25 state that two borings in the sidewalls are above-FRL for total uranium. Please clarify.

Response: Section 3.4.3.1 is incorrect. There are excavations in the sidewalls of the pits.

Action: This section will be changed accordingly.

29. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.3.3 Pg #: 3-8 Line #: 25-26 Code: C
Original Comment #: 29
Comment: This section states that no known excavation of the sidewall is required to meet OU5 FRLs. Section 2.3.1, Page 2-9, Lines 8-10 state that the planned predesign boring have not been sampled on the sidewalls yet. This section should state that it is unknown if the sidewalls meet FRLs yet due to lack of sampling data.

Response: Agree.

Action: Section 3.4.3.3 will be revised accordingly.

30. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.3.11 Pg #: 3-10, 3-11 Line #: 36, 1-2 Code: C
Original Comment #: 30
Comment: See Comment Number 11.

Response: See Response to Comment No. 11.

Action: See Action to Comment No. 11.

31. Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.3.15 Pg #: 3-12 Line #: 33-35 Code: C
Original Comment #: 31
Comment: With this above-WAC soil being removed after the rail line is gone, how will this soil be shipped off site?

Response: Since the above-WAC area underneath the railroad track is located near the former Solid Waste Landfill, the tracks and ballasts over this location can be removed while rail service is still available at the site. The portion of railroad track required to maintain a reduced rail service at the time of this excavation is the track section north of Waste Pit 5 to the site property boundary.

If SP-7 is no longer available to temporary stage above-WAC material, then above-WAC material can be loaded directly into railcars.

If both SP-7 and on-site rail service are no longer available, then above-WAC material will be loaded into shipping containers directly at the excavation site and transported by truck for intermodal rail transportation to the off-site disposal facility.

Action: Section 3.4.3.15 will be revised accordingly.

32. Commenting Organization: OEPA Commentor: DSW
Section #: 3.7 Pg #: 3-15 Line #: 23-28 Code: C
Original Comment #: 32

Comment: Note that contrary to Section 02206, Item 305.A.2 and 3, and 3.6.E, smooth slopes and draining readily are two criteria that will not be important for restoration. Preferably the slopes will be rough and flow will be interrupted. Will backfilling be done in accordance with Section 02206, Item 3.2?

Response: Interim restoration is performed at the completion of excavation and does not address final restoration, unless specifically included in the design otherwise. In this case it has not. As such, a final restoration design will be developed for this area and submitted to the agency for review. Interim restoration is necessary to assist the precertification process. It assists with vehicular access to the areas and real-time monitoring.

Section 02006 Items 3.2 A. and 3.2.E. apply to this design; however, large scale backfilling or GMA plug in the Waste Pits Area is not required.

Action: None.