



Department of Energy

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**JUL 24 1998
DOE-1027-98**

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

**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 DRAFT PRE-CERTIFIED FOR CONSTRUCTION AREA 1, PHASE II SITE PREPARATION PACKAGE

Enclosed are the formal responses to the Ohio Environmental Protection Agency (OEPA) comments on the draft Pre-Certified for Construction Site Preparation Package for Area 1, Phase II. The U.S. Environmental Protection Agency (U.S. EPA) had no comments on the package. The responses to comments will be incorporated into the following documents, which will be transmitted with a separate letter:

- **Drawings**
- **Specifications**
- **Surface Water Management Plan**
- **Design Criteria Package**
- **Site Preparation Workplan**

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If you have questions or comments, please contact Robert Janke at (513) 648-3166.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Nickel

Enclosure: As Stated

cc w/enc:

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**RESPONSES TO OHIO EPA COMMENTS ON THE
AREA 1, PHASE II SITE PREPARATION WORK PLAN PACKAGE
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

Site Preparation Work Plan

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

Comment: The site preparation package should be revised to incorporate changes based upon the revised A1P2 Certification Report. For example, include removal of lead hot spot and disposition of portions of the conveyance ditch to the OSDF.

Response: As discussed in the Area 1 Phase II Sector 1, 2a and Conveyance Ditch Certification Report, all certification units (CUs) passed certification. However, evaluation of the certification data set and the certification statistics showed two anomalies, specifically, elevated results in the CU representing the interceptor ditches around the trap range (A1PII-S1-19) and the Conveyance Ditch CU (A1PII-S3-CD).

One sample in CU A1PII-S1-19 showed arsenic (FRL = 12 mg/kg) and lead (FRL = 400 mg/kg) results of 37 mg/kg and 1152 mg/kg, respectively. As discussed with the regulatory agencies, the corrective action will be to take a six inch stripping around a sixteen foot radius of sample A1PII-S1-19-10, approximately 15 cubic yards. The excavated material will be stockpiled in the trap range to be stabilized before final disposition in the OSDF.

There is some contamination within the Conveyance Ditch CU which is localized in two areas. The first area is the northern portion of the CU, where the total uranium results for CU samples were 51.20 ug/g, 51.20 ug/g, and 40.70 ug/g, respectively. The second area is close to STP Access Road in the southern portion of the CU. The total uranium result for this sample is 102.00 ug/g. Since the elevated values in this CU are localized, and the UCL for the CU (63.58 ug/g) exceeds the ALARA 50 ug/g goal, DOE will excavate any material up to one foot in depth above northing 479959 (midpoint from sample #11 and #12) to the northern boundary of the CU. Furthermore, a separate excavation one foot deep and extending laterally in a 20 foot radius will be centered around sample #2. This excavation will terminate at the STP Access Road at the northern edge of the pavement. Additionally, this one foot excavation will extend 60 feet beyond the radius in the ditch, for a total of 80 feet both upstream and downstream from sample #2. The excavation width will be from the northern edge of the STP Access Road through the centerline of the ditch and include the ditch's northern bank. Excavated soil from both areas will be dispositioned in the West Impacted Material Stockpile (or the OSDF if the OSDF contractor is awarded the work).

Action: The site prep construction drawings will be revised in accordance with this discussion.

000003

Commenting Organization: OEPA

Commentor: OFFO

Section #: 3.1

Pg #: 4

Line #:

Code: C

Original Comment #: 2

Comment: Ohio EPA disagrees with the proposed preliminary activities. As stated on the drawings, "Sediment trap shall be constructed and operational before upslope land disturbance begins." Ohio EPA does not believe adequate storm water controls will be in place to allow initiation of borrow activities prior to completion of the sediment trap. Work sequencing should be revised to ensure adequate storm water controls are in place prior to initiation of any other construction activities.

Response: The OSDF contractor responsible for excavating soil from the OSDF Borrow Area for Cell 2 liner construction is required to excavate the sediment basin approximately one foot above final grade. The OSDF contractor will be excavating before the A1PII Site Preparation contractor is selected and mobilized. OSDF technical specifications for the performance of this work require the contractor to complete construction of a sediment trap east of the South Entrance Road and installation of silt fence (as shown on Sketch #20711-SK-001 "Area 1/Phase II - Site Preparation/OSDF Borrow Area Erosion & Sediment Control - 1998) in accordance with ODNR Rainwater & Land Development prior to stripping topsoil as discussed with OEPA on June 18, 1998. The sketch was finalized and dated June 19, 1998 based on those discussions.

Note: although the A1PII Site Preparation Package is designed to be a separate contract, the OSDF contractor may be awarded the work through a contract modification. Should this be the result, the sediment basin will excavated to the final grade.

The sediment trap shown in the A1PII Site Preparation Drawings in the Outfall Area west of the South Entrance Road is designed to address erosion and sediment controls for the Outfall Area and South Access Road crossings.

Action: Note 1 on drawing 92-X-5900-G-00467 will be revised to read "Sediment Trap shall be constructed and operational before upslope land disturbance begins within the Outfall Area."

Commenting Organization: OEPA

Commentor: DSW

Section #: 3.2.3

Pg #: 6

Line #: 3-7

Code: C

Original Comment #: 3

Comment: The order of construction of the surface water management components should be from downstream to upstream so that the sediment trap and sediment basin are constructed first, prior to any additional clearing and grubbing.

Response: See response to comment #2.

Action: The work plan text which lists surface water management components will be reworded and reordered from downstream to upstream.

Commenting Organization: OEPA
 Section #: 3.2.4.2 Pg #: 7 Line #: 22-24 Commentor: OFFO
 Original Comment #: 4 Code: C

Comment: It appears that MTL A12-009 may be located on top of above WAC Tc-99 concentrations. Ohio EPA recommends not using this location until such time as WAC delineation at the STP is completed.

Response: MTL A12-009 as shown was too large an area for the volume of material that could potentially be stockpiled there. The actual stockpile footprint will be shown as approximately 1/4 the size of the area currently shown, and will be located in the northwest corner of the area currently shown. At this time, unvalidated Tc-99 results are below the Tc-99 WAC sampled at locations along and just within the north Sewage Treatment Plant security fence. These results are being validated and will be presented in the next revision of the A1PII Implementation Plan. The above-WAC Tc-99 excavation will be shown on the next revision of the STP Excavation construction drawings.

If the OSDF contractor is awarded the A1PII Site Preparation work, the MTL A12-009 will be designated on the construction drawings as a contingency to hauling directly to the OSDF. Otherwise, any other contractor will be hauling and unloading to MTL A12-009 for the STP Excavation contractor to take to the OSDF.

Action: MTL A12-009 will be revised on construction drawings as stated above. The work plan will be revised to reflect the present contracting strategy.

Commenting Organization: OEPA
 Section #: 3.5 Pg #: 9 Line #: Commentor: OFFO
 Original Comment #: 5 Code: C

Comment: The document should include a discussion of the basis for assuming interim seeding is appropriate in the channel and disturbed areas. Is it expected the channel and basin will be removed within two years?

Response: Agreed. The channel and basin are expected to be excavated and recertified within two years.

Action: Discussion will be added to justify the use of interim seeding in the channel and disturbed areas.

Design Criteria Package

Commenting Organization: OEPA
 Section #: General Comment Pg #: Line #: Commentor: OFFO
 Original Comment #: 6 Code: C

Comment: It appears that this document was not revised to reference only the site preparation activities. The other documents in the package only reference site prep activities while this one continues to refer to above WAC material excavation and other activities that are expected to occur in latter phases.

000005

Response: The A1PII Design Criteria Package applies to all phases of the project and will be updated and revised as the various A1PII packages become finalized.

Action: No action at this time.

Commenting Organization: OEPA
 Section #: 1.3.1 Pg #: 1-6 Line #: Paragraph 4 Commentor: OFFO
 Original Comment #: 7 Code: C

Comment: This sentence is not clear on whether materials above WAC will be transferred to SP-5 stockpile or a stockpile near SP-5. Please clarify.

Response: Technetium-99 above-WAC soil will be located within the SP-7 Stockpile area under the STP excavation scope, not the Site Preparation Scope. However, the technetium-99 above-WAC soil will be maintained as a separate stockpile from other above-WAC soil. SP-7 will be constructed in the same location as SP-5, after the below-WAC portion of SP-5 is excavated and removed.

Action: The text will be revised to clarify placement of above-WAC materials. The next revision of the A1PII Implementation Plan will present further information on the above-WAC separate stockpiles within the SP-7 Stockpile Area.

Commenting Organization: OEPA
 Section #: 1.3.4 Pg #: 1-7 Line #: Commentor: DSW
 Original Comment #: 8 Code: C

Comment: The site wide problems with treatment of storm water should be addressed. The site already is unable to adequately treat the storm water from the various source and this proposes an additional source to the BSL.

Response: Disagree. The FEMP continues to evaluate new sources of wastewater and storm water discharged to the site wastewater treatment system. The waste stream in question is identified in the Operations and Maintenance Master Plan for the Aquifer Restoration and Wastewater Treatment Project (page 4-9).

The waste stream will be being discharged to the BSL during STP excavation scope. The FEMP projects that this wastewater stream can be adequately managed through the BSL. DOE is continuing to evaluate issues such as increasing treatment efficiencies, increased BSL pump-out capacities, etc. to ensure the BSL maintains the necessary hydraulic capacity. The FEMP continues to meet uranium loading and concentration limitations and complies with NPDES permit limitations more than 99% of the time.

A meeting between the DOE, OEPA, and US EPA has been established for July 28, 1998, to discuss OEPA's concerns with on-site wastewater/stormwater issues along with project-specific contingencies when the BSL's capacity is reached.

Action: No action.

000006

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.3.4 Pg #: 1-8 Line #: Paragraph 4 Code: C
 Original Comment #: 9

Comment: If the LCS is primarily for OSDF use, won't this be a problem for the STP excavation area in the event of a storm? The potential for storm event water loads should be considered into the LCS for both OSDF and the STP.

Response: Per OEPA's request, the OSDF will be given priority regarding the LCS in a storm event, and the A1PII project will not discharge water to the LCS if the additional flow would result in overloading the system. In such an event, excavation in the STP will be temporarily suspended. This issue will be further addressed in the STP Excavation Design Package.

Additionally, both a 10-year, 24-hour and 25-year, 24-hour storm event are being investigated on their impact to the LCS and STP excavation operation. This information will also be considered concerning any potential impacts to the BSL (see Comment 8).

Action: Results from the storm event investigation will be reported when available.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.3.5 Pg #: 1-8 Line #: Paragraph 3 Code: C
 Original Comment #: 10

Comment: What is PO-175? Please clarify.

Response: PO-175 is the project order identifier for A1PII design work being performed by the architect/engineering firm for the FEMP.

Action: No action.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.3.8 Pg #: 1-9 Line #: Paragraph 1 Code: C
 Original Comment #: 11

Comment: The first section is somewhat unclear. Wouldn't it be best to go ahead with restorative grading, as much as possible in this area?

Response: This paragraph is intended to state that a restorative grading plan for the A1PII area will be developed, based on creating positive drainage, stable slopes, and minimizing the need for future regrading. Due to the uncertainty of the extent and duration of borrow activities in A1PII, it will be difficult to anticipate how close the borrow activity grading will be able to accommodate natural resource restoration grading. Near completion of borrow activities, the Natural Resource Restoration Design Plan will be developed to determine restoration grading.

Action: No action.

Commenting Organization: OEPA
 Section #: 1.3.12 Pg #: 1-10 Line #: Commentor: OFFO
 Original Comment #: 12 Code: E
 Comment: Editorial comment: remove "on" in the sentence.

Response: Noted.

Action: The sentence will be revised to read as follows: "Title III services provide, on an as-needed basis, engineering support...".

Commenting Organization: OEPA
 Section #: 2.3.1 Pg #: 2-10 Line #: Commentor: OFFO
 Original Comment #: 13 Code: C
 Comment: Excavated areas are to initially serve as sumps for stormwater control. Additional detail is required concerning this proposed practice.

Response: Excavated areas will be low points in the project area. The surrounding areas will be graded to drain to the low points, which can then act as sumps, collecting water and sediment prior to pumping to the LCS. This issue will be further addressed in the STP Excavation Design Package.

Action: No action.

Surface Water Management Plan

Commenting Organization: OEPA
 Section #: Executive Summary Pg #: ES-1 Line #: Commentor: DSW
 Original Comment #: 14 Code: C
 Comment: This states that a minimum of 27 cubic yards of sediment storage area per acre of drainage is provided in Sediment Basin 1. Although correct for sediment storage, a minimum of 67 cubic yards of storage area in the basin is required per Rainwater and Land Development, this includes pool volume. The statement in the document can be misleading and should reference the total storage volume of the sediment basin. Smaller pool volumes will reduce detention time and the basin will not operate efficiently.

Response: The statement in the document will be clarified and rewritten to state: "Sediment Basin 1 will be a new basin constructed to accommodate runoff from the STP and Trap Range excavation areas and is designed to have a minimum storage volume of 67 cubic yards per acre watershed area. A minimum of 27 cubic yards per acre watershed area of sediment storage will be provided in this basin."

Action: As stated in the response.

Commenting Organization: OEPA
 Section #: 2.3.6 Pg #: 2-4 Line #: Commentor: DSW
 Code: C
 Original Comment #: 15
 Comment: Please add that the elevation of the toe of the downstream check dam should be the same as the elevation of the top of the upstream check dam (so the check dams create a series of pools).

Response: The intent of the comment is noted; the application of check dams for sediment control was incorrect. It is understood that check dams are designed to address ditch flow velocity. The check dams will therefore be removed from the design.

Additionally, a note will be added for the contractor to seed and mulch the area just downstream of the Outfall Area Sediment Trap soon after its excavation.

Action: Check dams will be removed and the above note added from the construction drawings.

Commenting Organization: OEPA
 Section #: 4.2.1 Pg #: 4-2 Line #: Commentor: DSW
 Code: C
 Original Comment #: 16
 Comment: Please add that the downgradient perimeter silt fence will be installed along the contour.

Response: See response to OEPA comment #17.

Action: See action for OEPA comment #17.

Commenting Organization: OEPA
 Section #: 5 Pg #: 5-1 Line #: Commentor: DSW
 Code: C
 Original Comment #: 17
 Comment: What is the reason for installation of silt fence along drainage ditches?

Response: The original purpose for the silt fence installation was to prevent sediments from storm water runoff during Conveyance Channel 1 construction from reaching the existing ditch just east of the North Access Road. After reviewing the existing topography, only a portion of the silt fence would be necessary (e.g., storm water runoff from portions of the Conveyance Channel 1 construction just north of the STP Access Road). Silt fences will be installed along a topographic contour.

Action: Portions of the silt fence along Conveyance Channel 1 will be removed, and only those portions necessary for sediment control will remain.

Commenting Organization: OEPA
 Section #: 5.2.3 Pg #: 5-3 Line #: Commentor: DSW
 Code: C
 Original Comment #: 18
 Comment: There is a section of the trap range that appears to be a wetland area not yet delineated or added to the site wetland inventory. This area should be assessed prior to any disturbance of the trap range.

Response: This area will be assessed to determine wetland status. If the area does meet the criteria for a wetland, a letter will be sent to US EPA and OEPA declaring it a wetland and proposing that it be added to mitigation requirements for other impacted wetlands.

Action: Wetland status will be assessed.

Technical Specifications

Commenting Organization: OEPA
 Section #: 02100 3.8B Pg #: 5 Line #: Commentor: OFFO
 Code: C
 Original Comment #: 19

Comment: Ohio EPA was under the understanding that FDF would be responsible for maintaining the woodchip pile. Is the text proposing a change in roles or is this simply carry over language from a previous document?

Response: The text is carry over language from a previous document. FDF will be responsible for maintaining the woodchip pile.

Action: The following will be deleted from the specification: "The stockpile of woodchips from this work shall be turned by the Contractor every month for the duration of the contract unless otherwise directed by the Construction Manager."

Additionally, Section 3.2.4.1 Clearing and Grubbing, Lines 27 and 28 of page 6 of the workplan will be clarified and rewritten to state "FDF will have the responsibility of maintaining the wood chip stockpile." The work plan information in italics Lines 1 through 7 of page 7 will be removed as italicized information and incorporated in both the workplan and specification for the Contractor to not chip any tree greater than twelve inches in diameter. The branches from these trees will be removed and chipped. The resulting logs will be stored at the wood chip stockpile for any future bioengineering needs.

Finally, Section 3.2.4.1, Clearing and Grubbing, Lines 10 and 12 of page 7 will be removed as italicized information and the specification will be revised to indicate that the tree stump grindings will be transported and placed at the OSDF Grubbing Pile.

Commenting Organization: OEPA
 Section #: 02100 3.8D Pg #: 6 Line #: Commentor: OFFO
 Code: C
 Original Comment #: 20

Comment: The text should be revised to state that pipes greater than or equal to 12" must be split lengthwise.

Response: The concrete pipe and corrugated metal pipe are surface water drainage culverts. They are not process piping and can be crushed in the field rather than split. They are required to meet the size criteria of less than 10 feet long and 18 inches thick.

Action: A Page Change Notice (PCN) is being prepared to allow for crushing of surface water drainage culverts to reduce void space to the "Impacted Materials Placement Plan" physical waste acceptance criteria culverts.

Commenting Organization: OEPA

Commentor: OFFO

Section #: 02206

Pg #:

Line #:

Code: C

Original Comment #: 21

Comment: It is very difficult upon reviewing this specification to determine the requirements being placed on the liner material for the basin. The document should be revised to clarify total and lift thickness, compaction/moisture requirements, rock size and testing requirements for the liner of the basin.

Response: Paragraph 3.7. Subgrade Preparation, subparagraph A and E of Specification 02206 provides the minimum requirement for the subgrade of the A1PII Sedimentation Basin. It ensures that there is a minimum of 8" of compacted soil.

Action: No action.

Commenting Organization: OEPA

Commentor: OFFO

Section #: 02270 2.1

Pg #: 4

Line #:

Code: C

Original Comment #: 22

Comment: Ohio EPA recommends use of biodegradable erosion blankets. Previous uses of UV stabilized netting at Fernald have had significant drawbacks including lifting by growing grass, entrapment of birds, and failure to decompose after long periods of time. Ohio EPA recommends use of a coconut mesh similar to that used on the recent Paddys Run stabilization effort.

Response: Noted.

Action: The use of coconut mesh will be incorporated into plans and specifications.

Commenting Organization: OEPA

Commentor: DSW

Section #: 02270 3.4

Pg #: 6 and 7

Line #:

Code: C

Original Comment #: 23

Comment: Stabilization of disturbed areas that are planned to be left idle for more than 45 days must be stabilized as soon as possible but no longer than 7 days after the last activity. Part A of this section reads as though the area must be stabilized with 7 days of deciding to suspend excavation (so that a contractor could claim to have decided he was not going to work an area weeks after performing their last activity there). Section B seems to indicate that an area can be left unstabilized for 45 days, whereas 7 days is the maximum that any area should be left unstabilized (unless it is being actively worked). Stabilization of disturbed areas that are planned to be left idle for more than 45 days must be stabilized as soon as possible but no longer than 7 days after the last activity.

Response: Agreed.

Action: The specification will be rewritten to clarify that disturbed areas which are planned to be left idle for more than 45 days must be stabilized within 7 days after the last activity.

Commenting Organization: OEPA
 Section #: 02270 3.7A Pg #: 8 Line #: Commentor: DSW
 Code: C

Original Comment #: 24

Comment: Please add that the elevation of the toe of the downstream check dam should be the same as the elevation of the top of the upstream check dam (so that the check dams create a series of pools).

Response: See response to OEPA comment #15.

Action: No action required.

Commenting Organization: OEPA
 Section #: 02900 Pg #: Line #: Commentor: OFFO
 Code: C

Original Comment #: 25

Comment: This specification should be replaced with the June 10, 1998 version provided to Ohio EPA by facsimile.

Response: Noted.

Action: The specification will be replaced to reflect the most current version.

Drawings

Commenting Organization: OEPA
 Section #: Sheet G0006 Pg #: Line #: Commentor: DSW
 Code: C

Original Comment #: 26

Comment: Bentonite Plug Detail. Detail on drawing does not match detail in 4/24/98 drawing received from Tom Crawford (e.g., drawing shows 3.5' projection of plug whereas 4/24/98 drawing shows 4' minimum projection, 6" lifts with hand compaction to form surface contact with pipe included). Detail referred to in specifications is hard to locate, recommend that appropriate detail be added to notes in the drawing.

Response: The required projection is determined by required increase in flow line length. The 3.5' is supported by calculation and is a refinement of the initial 4' estimate.

A note will be added to the drawing detail explaining the loose lift thickness requirement and compaction using hand-operated equipment.

Action: The detail will be revised to include the compaction requirements.

Commenting Organization: OEPA
 Section #: Sheet G0005 Pg #: Line #: Commentor: DSW
 Code: C

Original Comment #: 27

Comment: Sediment Basin 1. In vicinity of installation of posts for construction fence to be used as baffle, liner must be deep enough to accommodate installation of posts (e.g., posts installed to 1'6", liner to be 6", then liner in vicinity of posts should be at least 2' to accommodate posts and maintain integrity of liner).

Response: As noted in response to comment #21, the sediment basin will have a minimum of 8" of compacted in-place soil (or fill if existing soil is unsuitable) as specified. While the liner is not expected to be impermeable, it will meet its requirement to retain sediment. In view of these considerations, it does not seem appropriate to take special measures where fence posts are installed.

Action: No action required.

Commenting Organization: OEPA
Section #: G0006 Pg #: Line #: Commentor: DSW
Code: C
Original Comment #: 28

Comment: Sediment Basin 1. It appears as though a mark has been added to outlet structure to indicate maximum level of sediment. Drawing should indicate color and purpose of mark.

Response: Acknowledged. The sediment cleanout level has been calculated as 569.78' in the "Surface Water Management Plan." However, for field denotation, the sediment cleanout level will be established as 569.75' and will be indicated by a mark on a stake driven near the principal spillway riser. When sediment reaches that elevation it is to be removed.

Action: The sediment cleanout level and marked stake will be shown on the construction drawings.

Commenting Organization: OEPA
Section #: Pg #: Line #: Commentor: DSW
Code: C
Original Comment #: 29

Comment: The documents refer to installation of silt fence as indicated on the drawings and the only silt fence on the drawings is along a conveyance channel not along a contour. This is not a correct installation of silt fence and no other silt fence installation is indicated. Please clarify.

Response: See response to OEPA comment #17.

Action: See action for OEPA comment #17.