

360

2-208.21

APPROVAL OF OU 2 OSDF PRE-FINAL DESIGN

08/07/96

USEPA  
15  
APPROVAL

DOE-FN



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

J-26001

6446.3

AUG 7 1996

REPLY TO THE ATTENTION OF: SRF-5J-

Mr. Johnny W. Reising  
United States Department of Energy  
Feed Materials Production Center  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705

RE: Approval of OU 2 OSDF  
Pre-Final Design

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) Operable Unit (OU) 2 pre-final design package (90 percent) for the On-Site Disposal Facility (OSDF).

The pre-final design package includes design drawings, technical specifications, design criteria, support plans, and the Remedial Action work plan for the OSDF.

U.S. EPA's previous comments on the intermediate design have been incorporated into the pre-final design, the design is technically adequate, and meets the requirements of the OU 2 Record of Decision.

Therefore, U.S. EPA approves the pre-final design package for the OSDF pending incorporation of adequate responses to the attached comments into the design documents. U.S. DOE can proceed to the next step in the design process. However, this approval in no way certifies the design for construction. In addition, U.S. EPA's approval does not imply that the remedy, when constructed, will meet the performance standards or be accepted.

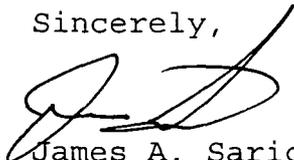
U.S. DOE must submit a response to comment document within thirty (30) days receipt of this letter. Upon U.S. EPA concurrence with the responses the design will be finalized.

*[Handwritten signature and illegible text]*



Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,



James A. Saric  
Remedial Project Manager  
Federal Facilities Section  
SFD Remedial Response Branch #2

Enclosure

cc: Tom Schneider, OEPA-SWDO  
Jack Baublitz, U.S. DOE-HDQ  
John Bradburne, FERMCO  
Charles Little, FERMCO  
Terry Hagen, FERMCO  
Tom Walsh, FERMCO

bcc w/attachment:  
Sharon McLellan, PRC

bcc w/o attachment:  
Roger Grimes, ORC  
Cheryl Allen, OPA







**Impacted Materials Placement Plan**

Commenting Organization: U.S. EPA  
 Section #: NA Page #: NA  
 Original General Comment #: 7

Commentor: Saric  
 Line #: NA

Comment: The impacted materials placement plan describes procedures to be used for materials acceptance, placement, compaction, and quality assurance (QA) and quality control (QC) activities during the operation of the on-site disposal facility. The only aspect of material acceptance and placement that is not clearly described is the length of material that will be accepted from the dismantling operations at Operable Unit (OU) 3. The plan should specify the maximum length for material acceptance and that this maximum length is necessary to ensure that soil placed around the material is properly compacted.

**Postclosure Care and Inspection Plan**

Commenting Organization: U.S. EPA  
 Section #: NA Page #: NA  
 Original General Comment #: 8

Commentor: Saric  
 Line #: NA

Comment: The postclosure care and inspection plan (PCCIP) is not complete. Various sections (such as Section 5.3) are left out for future development, and the date for completing these sections is not provided. The PCCIP should be completed and, if certain sections are to be completed later, the date for completing such sections should be specified.

**SPECIFIC COMMENTS****Design Criteria Package**

Commenting Organization: U.S. EPA  
 Section #: 1.5.1 Page #: 1-9  
 Original Specific Comment #: 1

Commentor: Saric  
 Line #: NA

Comment: The text lists various standard building codes used to support the design of the OSDF. However, the text does not include a separate subsection in Section 1.5 to cite all appropriate standard building codes used in the design of the OSDF. The text should be revised to include a subsection in Section 1.5 that lists all appropriate building codes used in the design of the OSDF.

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 2.4.9 Page #: 2-39 Line #: NA  
 Original Specific Comment #: 2  
 Comment #: The text states that immersion procedures for representative geomembrane specimens should be conducted in accordance with U.S. EPA Method 9090. The text should be revised to cite the reference and include it as a reference in Section 2.4.10.

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 2.5.3 Page #: 2-51 Line #: NA  
 Original Specific Comment #: 3  
 Comment #: The text states that liquid in the leak detection system of an OSDF cell should flow by gravity through a double-walled HDPA pipe, which penetrates through the liner system to a leak detection system manhole located on the west side of the OSDF. The text should be revised to discuss the seal for the liner system around the double-walled HDPA pipe.

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 2.8.3 Page #: 2-90 Line #: NA  
 Original Specific Comment #: 4  
 Comment: The original specific comment 3 on the IDP requests that DOE provide additional information on the discharge of storm water runoff from the OSDF watershed and on restricting the discharge rate to the predevelopment rate. DOE's response indicates concurrence with the comment but does not address how the restricted discharge rate will be implemented. The certified for construction (CFC) design package should address how the restricted discharge rate will be implemented, and the text should be revised to indicate that the CFC design package will incorporate this information.

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 3.2.7 Page #: 3-15 Line #: NA  
 Original Specific Comment #: 5  
 Comment #: The text identifies administrative requirements for the design package regarding the preparation of project deliverables, and a list of cost estimates that should be prepared for implementation. U.S. EPA recommends that the text be revised to include a cost estimate for Borrow Area Restoration.

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: Appendix B Page #: 3-3 Line #: 24  
 Original Specific Comment #: 6  
 Comment: The text briefly addresses the design life of the liquid waste transfer system and its ability to accommodate maximum and minimum flow rates expected during and after the

OSDF is capped. The postclosure plan, which is included in the PDP, provides additional information regarding the design life of the system. The text should be revised to include a reference to the postclosure plan.

Commenting Organization: U.S. EPA  
 Section #: Appendix B Page #: 8-1  
 Original Specific Comment #: 7  
 Comment: Table 8.0 in Appendix B does not provide correct project milestones dates. The table should be removed or revised to provide correct project milestone dates. The correct dates are included in the August 1995 draft remedial design work plan for OU2 and subsequent, U.S. EPA-approved revisions of the milestone dates.

Commenting Organization: U.S. EPA  
 Section #: Appendix F Page #: NA  
 Original Specific Comment #: 8  
 Comment: Appendix F contains a table that provides the volumes of impacted material and a schedule for OSDF disposal. DOE indicated in responses to comments on the OSDF preliminary design package that Appendix F would be removed from the DCP and a meeting would be scheduled with U.S. EPA to present a revised concept of material flow. Appendix F should be modified by replacing the table with text describing DOE's refined material flow concept and intentions for presenting the concept to U.S. EPA.

#### OSDF Drawings

Commenting Organization: U.S. EPA  
 Drawing: Sheet No. G-12 Page #: NA  
 Original Specific Comment #: 9  
 Comment: Section D/G-12 on this sheet shows anti-seep collars and cut-off trenches. However, it is not clear what these items are and what purpose they may serve. Additional details should be shown to clarify the section.

Commenting Organization: U.S. EPA  
 Drawing: Sheet No. G-17 Page #: NA  
 Original Specific Comment #: 10  
 Comment: A circled area is indicated as "Liner system at perimeter berm and impacted run-off catchment area," with a detail number 18/G-22. The circled area is not an impacted area; the reference and the detail number should be removed.











Commenting Organization: U.S. EPA  
Section #: 6.4  
Original Specific Comment #: 29

Commentor: Saric  
Page #: 6-6  
Line #: 26

Comment: The text in this section presents an overview of the leachate management system. The text states that "the locations of the LCS, LDS, and LTS (leachate transmission system) pipes, manholes, and gravity lines are shown in the as-built construction drawings. The text should be revised to state that the pipes, manholes, and gravity lines "will be" instead of "are" shown in the as-built construction drawings.

Commenting Organization: U.S. EPA  
Section #: Table 6-1  
Original Specific Comment #: 30

Commentor: Saric  
Page #: 6-7  
Line #: NA

Comment: In Table 6-1, Note 2, the text states that the leachate collection and leak detection system shall be inspected after the occurrence of major earthquakes. U.S. EPA recommends that an inspection be completed after each earthquake in the OSDF area. The text should be revised accordingly.

### Systems Plan

Commenting Organization: U.S. EPA  
Section #: 1.3  
Original Specific Comment #: 31

Commentor: Saric  
Page #: 1-4  
Line #: 4

Comment: U.S. EPA's original specific comment #60 on the IDP requests that DOE provide additional information regarding maintenance of the leachate management system (LMS). DOE's response is that the LMS will be maintained; however, no indication is made regarding who be responsible for LMS maintenance. The text should be revised to clarify who will be responsible for maintenance of the LMS.