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**PROPOSED ACTIONS FOR REMOVAL ACTION 17 IMPROVED STORAGE
OF SOIL AND DEBRIS**

11/18/94

DOE-0201-95
DOE-FN EPAS
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LETTER



Department of Energy
Fernald Environmental Management Project
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NOV 18 1994
 DOE-0201-95

Mr. James A. Saric, Remedial Project Manager
 U.S. Environmental Protection Agency
 Region V - 5HRE-8J
 77 W. Jackson Boulevard
 Chicago, IL 60604-3590

Mr. Tom Schneider, Project Manager
 Ohio Environmental Protection Agency
 40 South Main Street
 Dayton, OH 45402-2086

Dear Mr. Saric and Mr. Schneider:

PROPOSED ACTIONS FOR REMOVAL ACTION 17 IMPROVED STORAGE OF SOIL AND DEBRIS

- References: (1) Letter DOE-1832-94, J. Craig to J. Saric and T. Schneider, "Proposed Changes to Removal Action 17 Improved Storage of Soil and Debris", dated May 31, 1994.
- (2) Letter HRE-8J, J. Saric to J. Craig, "Proposed Changes to Removal Action 17", dated August 4, 1994.
- (3) Letter MSL# 531-0297, T. Schneider to J. Craig, "Operable Unit 3 Modification-Approval", dated August 26, 1994.

The actions proposed within the attached document, "Proposed Actions for Removal Action 17 - Improved Storage of Soil and Debris", are being provided in response to the concerns raised by the United States and Ohio Environmental Protection Agency's (USEPA and OEPA) on the proposed changes to the Removal Action 17 (RA 17) scope previously submitted in Reference 1. References 2 and 3 contain the USEPA and OEPA responses and concerns to Reference 1. The Department of Energy, Fernald Area Office (DOE-FN) provides this letter and enclosed document to serve as a request for EPA concurrence with the reduced scope and revised milestone schedule dates described herein for RA 17.

The proposed actions within the enclosed document have been developed as a result of the continuing evolution of waste and debris management at the Fernald Environmental Management Project (FEMP) site. As the overall storage issues become more clear, changes in strategy for interim debris storage and treatment methodologies become necessary and are proposed herein for RA 17. These changes are consistent with the DOE's responsibility to conduct site-wide integration of remediation activities at the FEMP. The success of these

changes is linked to the timely disposition of FEMP legacy waste to provide room for staging of construction debris and other materials involved in the remedial and removal action activities being conducted at the FEMP.

Contaminated soil and debris will continue to be managed in accordance with Phase I policies described in the RA 17 work plan. The DOE-FN will continue to proceed only with the Soil and Rubble Pile regrading and seeding and residue/debris removal at the former Scrap Metal Pile (SMP) site, unless EPA response to the proposed actions directs otherwise.

If you have any questions, please contact Art Murphy at (513) 648-3132.

Sincerely,

Johnny Reising

for

Jack R. Craig
Fernald Remedial Action
Project Manager

FN:Murphy

Enclosure: As Stated

cc w/enc:

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**PROPOSED ACTIONS FOR REMOVAL ACTION 17 -
IMPROVED STORAGE OF SOIL AND DEBRIS**

INTRODUCTION

The proposed actions outlined within this document are being provided in response to the concerns raised by the US and Ohio EPAs regarding some of the proposed changes to the RA 17 scope previously submitted in May 1994 (reference 1). The US and Ohio EPA concerns are contained in references 2 and 3. FERMC0 proposes two actions in this document that address; ⁽¹⁾ a change in strategy for the utilization of the Central Storage Facility (CSF) tension support structure (TSS) -- which will postpone construction of the CSF in the short term, and ⁽²⁾ the deletion of the Decontamination Facility Pad (DFP) TSS from the RA 17 scope. These two proposed actions differ from the previously submitted proposed changes contained in the May 1994 letter.

The Scrap Metal Pad (SMP) TSS construction has been deleted from the RA 17 scope through the concurrence granted previously by the EPAs (refer to references 2 and 3) and will not be addressed further in this document. The regrading and seeding of the Soil and Rubble Pile North of Third Street is currently progressing forward with mobilization activities planned for early October and will not be addressed further in this document.

SUMMARY OF PREVIOUSLY PROPOSED CHANGES - MAY 1994 LETTER

The previously submitted letter, (DOE-1832-94, "Proposed Changes to RA 17", dated May 31, 1994), was provided to the agencies to address the public concern regarding additional new construction activities at the FEMP (because it is a Super-fund site) and to provide results of a re-evaluation of the activities planned as a part of RA 17. The results of the re-evaluation efforts regarding the proposed use of improved storage facilities indicated that the CSF's primary purpose would be for the management of contaminated (especially radiologically contaminated) soil. It was also determined that the use of the CSF for interim bulk storage of hazardous debris had become less significant due to improved strategies developed for managing debris waste, accelerated waste shipments of existing and legacy wastes, and recycling efforts.

From the above-mentioned results and conclusions, the proposed changes to RA 17 included: ⁽¹⁾ the relocation of the CSF and ancillary structures near OU-5 proposed soil treatment facilities; ⁽²⁾ the deletion of the SMP TSS construction from the RA 17 scope; ⁽³⁾ the DFP TSS would remain in the scope of RA 17 as planned, but would become a separate construction procurement from the CSF since delays for redesign of the CSF were anticipated; and ⁽⁴⁾ revised Consent Agreement schedules and new milestone completion dates were proposed to reflect these changes.

PROPOSED ACTIONS FOR RA 17

The proposed actions listed below have been revised from the proposed changes previously submitted in the May 31, 1994 letter as a result of evolving waste and debris management methodologies and changing OU remedial alternative strategies. The proposed actions are as follows:

- 1) Postpone CSF Construction and re-evaluate the need for the CSF once the Waste Acceptance Criteria (WAC) has been established for the wastes planned for placement into the on-site disposal cell. The WAC will be established through the issuance of the ROD for OU2.

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NOTE: A related action is also proposed that would remove the CSF from the scope of RA 17 and place this scope and budget for the CSF construction and related redesign into the OU3 Remedial Action (ROD) activities in the event that CSF was deemed necessary as a result of the future re-evaluation.

- 2) Delete the DFP from the scope of the RA 17 work plan and do not construct this TSS.

The approximately 7,100 cubic yards of radiologically contaminated soil currently stored in piles throughout the FEMP that were intended to require interim storage in the CSF (once constructed) are now proposed to continue to be managed according to policies in Phase I of RA 17 work plan. This radioactively contaminated soil is considered to be greater than 100 pCi/g total U, or above the radiological disposition levels for the other isotopes established in the approved RA 17 work plan. See Attachment A for Phase I policy details for other soil and debris waste streams.

Future generated excess contaminated soil will be managed according to the policies in Phase I of the RA 17 work plan which includes covering with tarpaulins or containerization (for hazardous soil) to be protective by mitigating the potential migration of contaminants until ROD implementation. It has been estimated that approximately 1,100 more cubic yards of radioactively contaminated and/or hazardous soil will be generated prior to 1998 as a result of ongoing or future remedial actions, construction projects, and removal actions.

Hazardous and Mixed Debris that were intended for the CSF will continue to be managed on-site either in waste containers, on existing pads (such as Plant 1 Pad), or in existing structures until ROD implementation.

Additional staging areas will become available as waste inventories are removed and D&D projects and removal actions are completed.

JUSTIFICATION FOR PROPOSED ACTIONS FOR RA 17

CSF

Several issues and sitewide strategy changes have surfaced since the submittal of the proposed changes contained in the May 1994 letter which have prompted further examination of those proposed changes. The conclusions drawn as a result of the more recent evaluations are described in the following paragraphs.

The understanding that the CSF would be needed primarily for staging of excess contaminated soil and a less significant need for hazardous debris is still valid. Since the current and short term (approximately the next 3 years) above-ground D&D projects will not generate large quantities of soil, there is no immediate need for the CSF.

The change in strategy for the utilization of the CSF from a interim storage area for current IROD activities to a staging area for Remedial Actions (i.e. ROD activities) would be contingent upon the approved waste acceptance criteria that will be established for wastes designated for placement into an on-site waste disposal cell (to be constructed as part of the ROD). Since the waste acceptance criteria will not be determined and concurred upon by the EPAs until the ROD for OU-2, the re-design of the CSF structure (if deemed necessary) should be postponed until the level of contamination for soil and debris that would be planned for storage or staging into this CSF structure has been determined. Once the levels of contamination are known, the evaluation of the need for a CSF structure can be determined.

If the CSF is deemed necessary, the quantity of soil requiring storage in the CSF could be more accurately defined, enabling effective design modifications of the current completed design. In turn, the facility can be sited in a practical location on site to support implementation of the OU-5 (ROD) remedial actions.

Revised strategies in waste management have been investigated in order to minimize containerization and shipment of some contaminated materials to approved disposal facilities (NTS, etc) due to the limited availability and potential discontinuation of waste shipments to these facilities anticipated from FERMC0 management. Current remedial alternatives indicate storage of materials and debris from remedial actions for subsequent on-site disposal into a disposal cell.

It is anticipated that the availability of storage (staging) pad space will increase with the completion of D&D projects such as the current Plant 7 Dismantlement (RA 19) and Plant 1 pad upgrade projects. Future above-ground dismantlement of large facilities such as Plant 4 will provide future staging areas as well.

The public still has great concern regarding the construction of new facilities on a Super-fund site planned for total demolition.

As the removal of waste inventories progresses, the temporary utilization of existing buildings/structures becomes available for staging of waste materials until such time that building/structure would be dismantled.

DFP

The Decontamination Facility Pad (DFP) TSS was intended to temporarily stage decontaminated metal and equipment processed through the Material Release Facility (MRF) - Building 78 (also identified as the new Decontamination & Decommissioning Facility). With this TSS the decontaminated metals and equipment would be protected from the weather and potential airborne contamination until sold for recycle or reuse to outside vendors.

The MRF has been operating recently over the past several months through its pilot program. A recent evaluation was conducted to re-assess the need for this facility. Although this DFP TSS was determined to aid in the efficient productivity of the MRF, it was determined that the MRF can function, with considerable success, through the storage of decontaminated metals/equipment into available containers on-site until a buyer could inspect for recycle or reuse potential.

SCHEDULE FOR COMPLETION OF THE PROPOSED ACTIONS

The schedule for completion of the aforementioned proposed actions is contingent upon the EPAs concurrence of reducing the scope of RA 17 (deleting the construction of the SMP and the DFP, and deferring the CSF (out of RA 17 scope) into OU-3 Remedial Actions work scope as proposed in this document.

The remaining scope for RA 17, therefore, shall include ⁽¹⁾ the regrading and seeding of the Soil and Rubble Pile North of Third street (which includes engineered drainage controls for run-on and runoff), and ⁽²⁾ the removal and containerization of the residue/debris remaining from the former scrap metal pile located on the concrete pad (Building 69 Decontamination Pad) that had been sited for the SMP TSS. Although the SMP TSS was deleted from the scope of RA 17, it was determined that the residues in this area should be removed to mitigate the potential for airborne contamination in and make this pad suitable for container staging.

CURRENT AND PROPOSED RA 17 WORK PLAN MILESTONE DATES 6189

Milestone Description	Current Date	Proposed Date
Field Work Complete	5/31/95	8/31/95
Submit draft Final Report to DOE	8/15/95	10/16/95
Submit Final Report to EPA	10/16/95	12/5/95
Improved Storage Complete	11/15/95	1/3/96

The milestone descriptions; "Complete Mobilization" and "Complete Preparation of New Procedures" (required for operation of the new facilities), which are included in the current revision No. 2 of the RA 17 Work Plan, have been deleted from the proposed milestone dates since these milestones are no longer applicable.

Summary of Phase I Policies According to the RA 17 Work Plan

Excess soil will be managed utilizing controlled stockpiles for soil (including engineered run-on and runoff controls) that has a field correlated total uranium activity concentration of less than or equal to 100 pCi/g, 5 pCi/g total radium, 50 pCi/g total thorium, and is not contaminated with non-radiological regulated waste materials.

Excess soil that has a total uranium activity concentration that exceeds 100 pCi/g uranium, 5 pCi/g radium, 50 pCi/g thorium, and is not contaminated with other non-radiological regulated waste substances will be stored under tarpaulins until the improved storage facilities become available (existing pads, on-site disposal cells), or are constructed (like the CSF).

Excess soil that contains hazardous waste or PCBs at concentrations that exceed the regulatory standards will be containerized and stored in designated storage facilities on site until the improved storage structures are constructed. Any soil that contains hazardous waste at concentrations that exceed regulatory standards will be containerized regardless of the uranium, radium, and thorium activity concentrations.

Debris will be decontaminated and recycled/re-used if possible.

Recoverable contaminated debris will be stored under tarpaulins prior to being decontaminated.

Non-recoverable radiologically contaminated debris will be containerized and shipped for off-site disposal if possible.

Non-recoverable debris that can not be shipped off-site (hazardous, mixed) will be containerized until an on-site or off-site disposal facility is identified.

Uncontaminated debris that can not be shipped off-site to an industrial solid waste landfill will be stored in appropriate containers (i.e., Sea-Land containers) until a disposal facility is identified.

Recoverable, uncontaminated debris will be placed in containers or under tarpaulins prior to shipment for recycle, reuse, or sale to vendors.