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RESPONSE TO COMMENTS ON REMOVAL ACTION 13 - PLANT 1 ORE SILOS WORK PLAN

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LETTER

[redacted]

Department of Energy
Fernald Environmental Management Project
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JUN 2 3 1992

DOE-1977-92

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

Mr. Graham E. Mitchell, Project Manager
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402-2086

Dear Mr. Saric and Mr. Mitchell:

RESPONSE TO COMMENTS ON REMOVAL ACTION 13 - PLANT 1 ORE SILOS WORK PLAN

This letter transmits for your review and approval, the responses and actions addressing each of the comments received from the United States Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (Ohio EPA), on May 15, 1992.

The Revised Removal Number 13 for Plant 1 Ore Silos Work Plan will be submitted to your offices by July 15, 1992.

If you or your staff have any questions, please contact Anand C. Shah at FTS/Commercial 513-738-6156.

Sincerely,

Jack R. Craig
Fernald Remedial Action
Project Manager

FN:Shah

Enclosure: As Stated

Recycled and Recyclable

cc w/enc.:

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RESPONSE TO EPA COMMENTS TO REV. 1 OF PLANT 1 ORE SILO'S REMOVAL ACTION 13 WORK PLAN (MARCH 1992)

OHIO EPA Part I

General Comments

1. The executive summary states that the material in the appendices is included for informational purposes only and is not subject to approval. As a result, the attachments were not reviewed. EPA's previous comments, such as those on the Quality Assurance Plan (Appendix G) may still apply. Specific quality assurance requirements incorporated into written and approved procedures, as stated in Section 10, should be submitted to the EPA for review and approval.

   Response:
   The last statement relating to "informational purposes only", contained in the executive summary will be deleted. Appendix G will also be eliminated since the WEMCO Quality Assurance Program Plan does not provide relevant project specific QA procedures for the implementation of this RA.

   Section 10 will be revised to identify the specific quality assurance requirements related to all work conducted on the Plant 1 Ore Silos.

2. Section 8.3 which discusses sampling and monitoring related to dismantling activities, is vague. Furthermore, it does not specify what waste streams may be generated as a result of dismantling activities. This section should clearly indicate what rationale will be used to identify the need for waste characterization sampling and how sampling will be implemented. Sampling and analysis of these waste streams should be addressed here and in Section 6.6.

   Response:
   Waste streams generated as a result of dismantling activities will be identified in Section 6 and cross-referenced in Section 8. In general, process knowledge, historical data and analytical data utilized in RSE will be utilized to characterize each waste stream for determining the proper disposition of the waste. Additional sampling and analyses (eg TCLP test) will be conducted to adequately characterize the silo residues.

3. Section 8.4, which discusses the post-dismantling environmental monitoring, should state that soil sampling will be conducted in any area affected by spills that occur during the removal action.

   Response:
   Will comply. Section will state that sampling will be done after a spill is cleaned up should a spill occur. The proper characterization and remediation of the underlying soils will be addressed as part of the remediation (RI/FS) efforts for Operable Units 3 and 5.

   Section 8.4 will be revised to clarify that the post-dismantling groundwater and soil monitoring will be conducted as part of the normal environmental monitoring.

4. The schedule (Section 7.2) and reporting (Section 7.3) components of the work plan do not include a report. At a minimum, the removal action should be documented with a final report. This report should meet the same content requirements as On-Scene Coordinator (OSC) reports. These requirements are defined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Subpart 300.165.

   Response:
   Will comply. Milestones will be revised to include issuance of a final report.

5. The cover letter for the work plan references a set of responses and actions addressing EPA and OEPA comments. EPA did not receive or review a summary of these comments and DOE responses and actions.

   Response:
   The referenced responses are attached.

Specific Comments

- Section 4, page 4-1, para. 1 and 3: The work plan says that grab samples were taken from inside the tile silos. However, paragraph 3 states that Toxicity Characteristic Leaching Procedure (TCLP) tests are available for the concrete silos only. This inconsistency should be explained.

  Response:
  Both statements are correct. Grab samples of the waste residue were collected from both the tile and concrete silos. These samples were analyzed for total metals and radionuclides. The samples collected from the concrete silos were also analyzed using the TCLP. Human error resulted in the tile silo sample not being analyzed by way of TCLP.

  A summary table of the analytical results will be added to Section 4 to clarify.

- Section 6.4.2, page 6-5: The removal sequence does not address the dismantling-related sampling that is required to determine the material's character and disposition. EPA recommends that dismantling-related sampling steps be included in the removal sequence.

  Response:
  Section 6 will be expanded to address dismantling-related sampling within the context of the removal sequence.

  Process knowledge, historical data, and information compiled for the RSE, will be the primary means for determining the material's characterization and disposition. The Material Evaluation Form (MEF) process outlines a series of steps which determine whether a waste/material should be characterized as RCRA. Sometimes additional samples, aside from existing data, are collected and analyzed to complete the MEF process (FMPC procedure SSOP-0002) and to ensure proper disposition of the wastes. Samples from the waste residues, motor oils and machine lubes will be submitted for TCLP analysis which will determine final disposition. Samples will be collected from 10% of the waste containers in accordance with "Sampling Plan for Drummed Waste at the FMPC" (FMPC - 2185).

The re-evaluated sampling scheme consists of the following:

Pre-construction sampling	3 concrete corings and 3 tile corings for TCLP/METALs and alpha/beta radioactivity screening.
Dismantling sampling	Air monitoring for radionuclides and storm sewer sampling during significant storm events for total uranium and thorium
Post Construction Sampling	Residue sampling which will include 10% of the containers containing residues

Frisker surveying will be done at access/egress points.

Materials intended to be released from the control zone to the FEMP production area for further decontamination and potential off-site release for unrestricted use will be surveyed for removable and total radioactivity according to SP-P-35-010. Specifically, release from the site will be according to the limits specified in DOE Order 5400.5.

Removable contamination will be removed with brushing and vacuuming techniques to the limits specified in DOE Order 5480.11, Attachment 2, or the materials will be packaged prior to their exit from the control zone.

- Section 8.1, page 8-1: The sampling objectives are clear; however, the manner in which objectives 2 and 3 will be met during the removal action should be elaborated upon in Section 8.3.

  Response:
  Section 8 is being revised and will be clarified. See response to #1 under specific comments, US EPA.

- Section 8.3, page 8-4, paragraph 2: According to the text, surface water samples will be collected at the entrance to the storm sewer system during significant storm events. However, surface water samples should be collected from within the temporary dike provided at the base of the containment areas. If contaminants are found in these samples, the water can be pumped to the treatment plant before discharge into the storm sewer system.

  Response:
  Will comply. Surface water samples will be collected from within the temporary dike provided at the base of the containment areas. If containments are found in these samples, the water will be pumped to the treatment plant before discharge into the storm sewer system.

- Section 8.3.1, page 8-4, paragraph 8: The portions of the site-wide quality assurance project plan (QAPjP) that are applicable to the sampling and analysis activities in this removal action should be referenced in this section. The representativeness of the samples collected during the dismantling-related sampling should also be discussed.

  Response:
  The applicable sections of the RI/FS QAPP or SCQ (Site Wide CERCLA Quality Assurance Project Plan) will be referenced in the revised work plan. The non-recoverable material and residues which is dispositioned off-site (Nevada Test Site) will meet the criteria of NVO-325, criteria specifying waste acceptance to NTS. The recoverable materials will be surveyed for loose contamination and then stored depending on the concentrations of fixed versus removal contamination. These recoverable materials will be stored according Removal Action Number 17.

US EPA Radiation Section

General Comments

1. In general, response to previous comments were satisfactory and addressed points of concern. In view of the reorganization of the work plan, a special effort needs to be made to incorporate the changes noted in the response to comments into the body of the work plan in appropriate sections. In a number of instances, although U.S. Department of Energy (DOE) indicated that changes would be made, they failed to include these changes in text within the work plan. Such cases are noted below in Specific Comments.

   Response:
   A special effort will be put forth to revise the Work Plan in accordance with the proposed responses.

Specific Comments

1. Response to Comments, USEPA, Part III, No. 17 - The response here states that all pre-construction samples will undergo analysis for full radiological parameters as well as full HSL constituents and TCLP. This requirements needs to be included in the text of Section 8-2 of the revised work plan. (See revised work plan, Section 8-2, p. 8-2, paragraph 1). Full radiological analysis is mentioned later in the section, but should be included everywhere that sampling parameters are described.

   Response:
   Since the issuance of the Removal Action Work Plan, Revision 1, DOE has reconsidered the sampling and analysis requirements needed to implement this removal action. Section 8 will be revised to provide a more streamline approach with the primary focus on obtaining analytical data to properly manage and dispose the waste streams (SEE COMMENT RESPONSE TO OEPA SPECIFIC COMMENT NUMBER 2).

   In general, process knowledge, historical data and information used for the RSE will be utilized to characterize each waste stream for determining the proper disposition of the waste. Additional sampling and analyses (eg TCLP test) will be conducted to adequately characterize the silo residues.

This approach was discussed between DOE and U.S. EPA on May 22, 1992 and tentative agreement was reached. The phone conversation covered the reduction of proposed Sampling and Analysis tests outlined in Rev 1 of the Plant 1 Ore Silos Removal Action #13. The phone conversation covered the reduction of sampling based on the commitment on the part of DOE that all residues and non-recoverable materials will be dispositioned off-site within six months of generation.

Using process knowledge, historical data and the RSE information an adequate determination can be made for any Health and Safety needs. Six samples will be collected (3 tile and 3 from the cement silos) during the preconstruction stages. All residues generated from the removal action will be drummed and 10% of drummed residue population will be sampled and submitted for TCLP analysis, which will be used in meeting NTS acceptance criteria.

FEMP made the commitment that all wastes will be shipped to NTS.

2. Response to Comments, USEPA, Part III, No. 21 - The response here notes that the text in Section 8-3 will be rewritten to include information on release of materials that have potential for decontamination. No such modification appears in the revised work plan. Section 8-3 needs to be amended to reflect the changes noted by DOE in response to comments.

   The last paragraph of Section 8-3 notes that materials intended for release will be surveyed in accordance with SP-P-35-010. Response to comments (see No. 23) states that a copy of this procedure will be attached to the work plan, but no such procedure was submitted. A copy of SP-P-35-010 needs to be submitted for review so that any inconsistencies between it and other decontamination limits cited can be resolved.

   Response:
   a) Sections 6 and 8 are being revised and clarified to incorporate comments.
   b) A copy or SP-P-35-010 will be attached.

3. Response to Comments, USEPA, Part III, No. 29 - USEPA recognizes its error in stating the contamination limits that apply to release of personnel and equipment. Otherwise, the comment stands as originally stated, and was not adequately addresses. Special attention needs to be given to the monitoring technique used to determine if contamination limits are being exceeded. Standard frisking distance and rates (one-half inch away from the surface at one to two inches per second, for example) may not allow for detection of levels as low as 300 dpm/100 cm^2. Specific guidelines for conducting surveys of equipment and personnel for release from a controlled area should be developed to ensure that the lower limits of detection will include levels at 300 dpm/100 cm^2. An outline of such procedures (or at least a reference to the method contained in appendices, if necessary) should be included in the body of the work plan.

   Also, although the response to comments noted that the contamination limit that applies is 300 dpm/100 cm^2, this information is not included in Section 8.2 of the revised work plan. The limit should be stated on p. 8-[illegible] where release of materials from a controlled zone is discussed.

Response:
Radiological Contamination surveys will be conducted for items to be released as part of this removal action for unrestricted release. These items include the scaffolding, contractor material and equipment, and containment sheeting. Since all of these items will be used for a short period of time, contamination associated with these items is expected to be removable. As such, the primary means of determining compliance with the free release criteria of NRC Guide 1.86 will be the results of the smear testing. The smear samples will be analyzed using a Tennelec Automatic Low Background Counting System to meet the 20 dpm(alpha)/100 cm^2 limit for removable contamination specified in NRC Guide 1.86. In addition to the smear samples, gross alpha and gross beta/gamma field instruments will be used to determine the potential presence of other types of contamination. Based upon the results of the smear tests and field measurements, compliance with the free release criteria will be assessed.

Items which will not be released for unrestricted use include the structural steel less than 1/4 inch thick, silo rubble and debris, asbestos materials, and waste residues. These items will be packaged and shipped to the Nevada Test Site (NTS). Radiological contamination surveys will be conducted as required to ensure worker safety and compliance with NTS waste acceptance criteria.

Structural steel greater than 1/4 inch thick will be placed into storage for eventually decontamination. Since the decontamination operations are beyond the scope of this removal action, provisions for free release surveys were not included. However, radiological contamination surveys will be conducted as required to ensure worker safety. The following table outlines the FEMP's approach to the dispositioning of both recoverable and non-recoverable materials:

RECOVERABLE:	Steel > 1/4 inch
NON-RECOVERABLE CONTACT:	Wait for MEF on Residues, pack separately. Contact items include: tiles, concrete, hoppers, conveyors.
NON-CONTACT:	Packed and dispositioned immediately. Non-contact items include: miscellaneous steel and footers and transite (asbestos).

The above approach will be clarified within the revision of Section 8.