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United States Government

Department of Energy
Fernald Area Office

memorandum

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DATE: DOE-0443-98

REPLY TO ATTN OF: FEMP:Skintik

SUBJECT: **NATIONAL ENVIRONMENTAL POLICY ACT SUPPLEMENT ANALYSIS FOR SILOS 1 AND 2 ACCELERATED WASTE RETRIEVAL PROJECT**

TO: Sue Smiley, NEPA Compliance Officer, DOE-OH

Attached for your review is a draft National Environmental Policy Act (NEPA) Supplement Analysis for the Silos 1 and 2 Accelerated Waste Retrieval (AWR) project. Your editorial comments have been incorporated in the revised draft.

The concept of the AWR project has been presented to the Fernald Environmental Management Project (FEMP) local community in the last few months and their response has been quite positive for this effort. Copies of the draft Supplement Analysis was made available to the FEMP stakeholders at the January 13, 1998 Cleanup Progress Briefing and to the Nevada Test Site stakeholders at the January 6, 1998 meeting of the Nevada Test Site Citizens Advisory Board. To date, no comments have been received from either group of stakeholders.

In order to keep this project on its current path and make the appropriate decisions concerning future actions, please provide your response to our office by February 27, 1998.

If you have any questions concerning this action, please contact Ed Skintik at (513) 648-3151, NEPA Document Manager or Nina Akgunduz, (513) 648-3110, DOE Operable Unit 4 Team Leader.

Dave Kozlowski
Associate Director,
Office of Safety and Assessment

Attachments: As Stated

Recycled and Recyclable

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SILOS 1 AND 2 ACCELERATED WASTE RETRIEVAL

NEPA SUPPLEMENT ANALYSIS

ACRONYM LIST

AWR	Accelerated Waste Retrieval Project
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DOE	United States Department of Energy
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEMP	Fernald Environmental Management Project
FCAB	Fernald Citizens Advisory Board
FS/PP-EIS	Feasibility Study/Proposed Plan-Environmental Impact Statement
NEPA	National Environmental Policy Act
NTS	Nevada Test Site
OSDF	Onsite Disposal Facility
OU	Operable Unit
RCS	Radon Control System
ROD	Record of Decision
SEIS	Supplemental Environmental Impact Statement
TTA	Transfer Tank Area

1.0 NEPA Supplement Analysis

1.1 Requirements for Conducting a Supplement Analysis

This analysis provides an evaluation of the Silo 1 and 2 Accelerated Waste Retrieval (AWR) project and includes a recommendation as to the appropriate level of National Environmental Policy Act (NEPA) evaluation required for the action. The remediation of the Fernald Operable Unit 4 (OU4) silos, including retrieval of the material from Silos 1 and 2, was evaluated in the OU4 Feasibility Study/Proposed Plan-Environmental Impact Statement (FS/PP-EIS) which was approved by United States Department of Energy Fernald Field Office (DOE-FN) and United States Environmental Protection Agency (EPA) through the issuance of a Record of Decision (ROD) on December 7, 1994.

After issuance of the ROD, it was determined that a modest cost savings could be achieved by shipping material for disposal via truck as opposed to the combination of rail/truck evaluated in the OU4 FS/PP-EIS. Therefore, a Supplement Analysis to the original EIS was prepared and approved on January 9, 1996 by DOE concluding that preparation of a full Supplemental Environmental Impact Statement (SEIS) was not required (*OU4 Path Forward Summary/Supplement Analysis Report on Container Optimization for Vitrified K-65 and Silo 3 Residues*, October 5, 1995).

A second Supplement Analysis to the OU4 FS/PP-EIS was prepared and approved by DOE - Ohio Field Office (DOE-OFO) in December 1996 to evaluate alternate remedies for treatment of Silo 3 residues. Again, it was determined that a SEIS was not required (*Draft Final Evaluation of Silo 3 Alternatives, Volume 2 Revision B, 2504-RP-0001*, December 16, 1996)

During recent reevaluations of the path forward for remediation of OU4, it was identified that accelerating the waste retrieval portion of the Silos 1 and 2 remedial alternative could potentially result in significant programmatic and environmental benefit. The remainder of this document provides a third Supplement Analysis to the OU4 FS/PP - EIS to evaluate the AWR project.

1.2 Evaluating Proposed Changes

There are two relevant regulations dealing with the decision whether or not to prepare a SEIS. These regulations are the Council on Environmental Quality's (CEQ's) NEPA implementation regulations (40 CFR 1500) and the DOE's NEPA implementing regulations (10 CFR 1021). Both the CEQ and DOE regulations require an agency to prepare a SEIS where the agency has made a substantial change in a proposed action, or if there are new significant circumstances in the proposed EIS action that are relevant to environmental concerns. The agency may also prepare a SEIS if the agency determines that the purposes of NEPA would be furthered by the supplement.

In addition, the DOE NEPA regulations require the preparation of a "Supplement Analysis" where the decision to prepare a SEIS is unclear (10 CFR 1021.314). The Supplement Analysis should discuss the changed or new circumstances that are pertinent in

determining whether or not to prepare a SEIS. The discussion should therefore contain sufficient information for DOE to determine whether a SEIS, new EIS, or no new NEPA documentation is required.

1.3 Applying "Rule of Reason"

It is inevitable that new information will be learned after the finalization of an EIS, and NEPA case law confirms that an agency does not need to supplement an EIS every time new information comes to light. The agency should however, take a hard look at the environmental impacts of its planned action. It should apply a "rule of reason" in deciding whether or not to prepare a SEIS.

In applying this rule of reason, the agency should evaluate factors related to the new information or circumstances for the action. These factors should include the environmental significance of the new information or circumstances; its probable accuracy; the care that the agency used to evaluate the information and its impact; and the degree to which the agency supports its decision to prepare or not prepare a SEIS.

1.4 Approval of Supplement Analysis and SEIS by DOE

If a Supplement Analysis is developed to determine whether or not to prepare a SEIS, this information should be made available to the public for information. If the Supplement Analysis results in a decision to prepare a SEIS, DOE must meet the same requirements for filing an EIS (e.g., preparing a Record of Decision).

1.5 Public Involvement

A significant level of public involvement has been maintained during evaluation of the Accelerated Waste Retrieval concept, including preparation of this Supplement Analysis. Stakeholder groups, including the Fernald Citizens Advisory Board (FCAB), the Nevada Test Site Community Advisory Board (NTSCAB), Ohio EPA, and U.S. EPA, have been made aware of, and had the opportunity to express comments or concerns on, the concept during briefings and workshops. This Supplement Analysis was made available for stakeholder review while being reviewed by DOE-FEMP and DOE-OFO. After approval by DOE-OFO, the approved Supplement Analysis will again be made available for public inspection for at least 15 days before initiating field work for the project.

DOE has committed to maintaining public involvement throughout the planning, design and implementation of the AWR project.

2.0 EVALUATION OF ALTERNATIVES

2.1 Interim Storage in Current Configuration - Retrieval Integrated with Final Remediation

This alternative is the 'base case' evaluated in the original OU4 FS/PP - EIS. The K-65

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material would continue to be stored in Silos 1 and 2 until it is retrieved for treatment through the alternative identified in the revised FS/PP and ROD Amendment. The duration of this interim storage period would correspond to the time required for preparation, review and approval of the FS/PP and ROD amendment and for design and construction of the selected treatment alternative. Design and construction of a new Radon Control System would be necessary to provide attenuation of radon emissions from the silo headspace during the period of interim storage. This system would then be expanded to treat radon emissions during the retrieval and treatment of the K-65 material. The waste retrieval system would be designed and constructed as an integral part of the treatment alternative, currently projected to begin operations in 2006.

Under this alternative, removal of the material from Silos 1 and 2, and therefore decontamination and decommissioning of the Silos themselves, would not be completed until after completion of Silos 1 and 2 residue treatment, currently projected for 2008. Characterization and determination of treatment and disposal requirements for the debris, soil and other waste resulting from demolition of the silos would therefore be delayed until well after the projected closure of the Onsite Disposal Facility (OSDF) and completion of other FEMP waste treatment and disposal activities.

2.2 Accelerated Waste Retrieval (AWR)

This alternative involves retrieval of the K-65 residues from Silos 1 and 2 and interim storage in a Transfer Tank Area (TTA) during the period before the initiation of treatment. This alternative allows retrieval to take place well in advance of the construction and start-up of the facility for treatment of Silos 1 and 2 material. The TTA would be designed and constructed to provide environmentally sound storage during the interim period until the full-scale stabilization facility is operational. As is the case in the previous alternative, the AWR project would include design and construction of the Radon Control System to control radon emissions during storage in the K-65 Silos, as well as during actual retrieval and transfer to the TTA, and during interim storage in the TTA. This system would also provide radon control during treatment of the Silos 1 and 2 material.

The retrieval portion of this alternative is no different from the retrieval portion of the remedy evaluated in the original OU4 FS/PP - EIS. Interim storage of the K-65 material in the TTA would provide several potential benefits from an environmental impact standpoint compared to storage in the K-65 silos until treatment is available. First, the TTA would provide greater assurance of storage integrity and thereby reduced risk of releases to the environment compared to the K-65 Silos which were constructed in the early 1950s. The TTA would be designed and constructed to facilitate environmentally safe retrieval of material for purposes such as process optimization testing and retrieval for transfer to the full-scale stabilization facility.

Early removal of the material from Silos 1 and 2 would allow the silos to be decontaminated and decommissioned much earlier than would be possible under the current alternative. Characterization of the debris and soil, and determination of disposal

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requirements could then be accomplished before completion of other FEMP waste disposal activities.

Environmental impacts resulting from construction of the TTA would be minimal because the construction would take place in a previously disturbed area of the site with appropriate engineering controls employed. No wetlands, floodplains, sites of archaeological significance, or threatened or endangered species would be impacted by construction of the TTA.

3.0 CONCLUSION

As required under the DOE NEPA regulations, this Supplement Analysis has been conducted to determine whether or not a SEIS must be conducted for implementation of the Silos 1 and 2 AWR project. Based upon the results of this analysis, it has been determined that the AWR project would not constitute a substantial change in project scope nor result in the availability of significant new information related to potential environmental impacts compared to what was evaluated in the original OU4 FS/PP - EIS. Therefore, a preparation of a SEIS is not recommended for the AWR project.