UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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REPLY TO THE ATTENTION OF:
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Mr. William T. Taylor
United States Department of Energy
Fernald Area Office
P.O. Box 398705
Cincinnati, Ohio 45239-8705

Subject: Submittal of Final Explanation of Significant Differences for Operable Unit 4 Silos 1 and 2 Remedial Action

Dear Mr. Taylor:

The United States Environmental Protection Agency (EPA) received the above-referenced document (ESD), dated November 12, 2003, on November 13, 2003. The enclosed ESD was signed by the Manager of the United States Department of Energy, Ohio Field Office on November 7, 2003, and was signed by the EPA Region 5 Superfund Division Director on November 24, 2003. If you have any questions or concerns, please contact me at (312) 886-4591.

Sincerely,

Gene Jablonowski
Project Manager
Federal Facilities Section
Superfund Division

Enclosure

cc: Tom Schneider, OEPA-SWDO
Johnny Reising, U.S. DOE-Fernald
Sally Robison, U.S. DOE-HDQ
Jamie Jameson, Fluor Fernald
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bcc: Michelle Cullerton, Tetra Tech
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Gene Jablonowski, SRF-5J
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REVIEW SIGN-OFF

Explanation of Significant Difference for Operable Unit 4 Silo 1 and 2 Remedial Actions

U.S. Department of Energy Fernald Closure Project

Gene Jablonowski – Remedial Project Manager	11/19/03 Date
Brian Barwick – Attorney-Adviser	11/20/03 Date
Connie Pulchulski – Supervisory Attorney-Adviser	11/21/03 Date
Gary Schafer – Section Chief	11/24/03 Date
Wendy Carney – Branch Chief	11/24/03 Date
William Muno – Division Director	11/26/03 Date

SUMMARY:

Provided for review and signature is EPA's concurrence with the ESD for Operable Unit 4 Silos 1 and 2 Remedial Action. The ESD explains recommended changes to the Silo 1 and 2 selected remedy as previously described in the 1994 Operable Unit 4 ROD and the 2000 ROD Amendment for Silos 1and 2. The ESD modifies the selected remedy as follows:

1. removes the quantitative TCLP performance standard as a relevant and appropriate regulatory requirement, cost-effectively aligning the remedy with the waste acceptance criteria of the disposal facilities and reducing radiation exposure to workers; and
2. allows the option of disposal of the chemically stabilized Silos 1 and 2 waste at an appropriately permitted commercial disposal facility in addition to, or instead of, the Nevada Test Site.

Basis for removal of the quantitative TCLP performance standard:

In February 2002, the Department of Energy's Nevada Test Site (NTS), in conjunction with the state and federal regulatory agencies that oversee the facility's waste disposal operations, updated the waste acceptance criteria (WAC) for the facility. Prior to the update, the WAC required that "low-level waste offered for disposal *must not* exhibit characteristics of, or be listed as, hazardous waste...." This language was modified in February 2002 and now states that "waste regulated under Title 40 CFR 261-268 [the RCRA hazardous waste regulations] and state of Nevada hazardous waste regulations *shall*

not be accepted for disposal." Therefore, materials that are not regulated under Title 40 CFR 261-268 or State of Nevada hazardous waste regulations, such as 11e.(2) materials or waste from the beneficiation of ores, no longer need to meet TCLP-based acceptance criteria, provided the waste is otherwise disposed of in a manner that is protective of human health and environment. The Silo 1 and 2 materials have always been considered to be 11e.(2) materials and no longer need to meet TCLP-based acceptance criteria prior to disposal at NTS. Removal of the quantitative TCLP performance standard eliminates waste product sampling, as well as the associated hazards and expense (approximately $400,000).

Basis for allowing disposal at a permitted commercial disposal facility:

Shipment of the treated Silo 1 and 2 wastes to NTS will require approximately 3,800 truck shipments. It has been an objective of DOE, stakeholders and regulators to explore options that could reduce transportation risks, such as intermodal transport or use of a commercial disposal facility with rail access.

Since the time of the 2000 Operable Unit 4 Silos 1 and 2 ROD Amendment was prepared, potential commercial disposal options aside from NTS were identified. Prior to and during the development of this ESD, it appeared that Envirocare of Utah would be able to accept treated Silos 1 and 2 materials without applying TCLP limits as quantitative performance standards, provided the material was deemed eligible for disposal by the facility's regulatory agency (the Nuclear Regulatory Commission).

On November 19, 2003, after intense criticism, Envirocare withdrew its intention to accept Silos 1 and 2 wastes for disposal. DOE believes that it can still ship the Silos 1 and 2 wastes to NTS with project completion by 2006, although there are many uncertainties with respect to funding, scheduling, technical risk, etc. If project operations extend past 2006, a permitted commercial disposal facility may still emerge that meets the disposal needs of the Silos Project, whether it is Envirocare or another facility. If a commercial disposal facility becomes available, up to $30-million may be saved in shipping costs.

The Ohio EPA and stakeholders, through various meetings and focused technical workshops held over the past year, are fully aware and comfortable with the Silos 1 and 2 ESD.

If you have any questions or concerns, please contact Gene Jablonowski at 6-4591.