



Department of Energy

Ohio Field Office  
Fernald Closure Project  
175 Tri-County Parkway  
Springdale, Ohio 45246  
(513) 648-3155



SEP 30 2004

Mr. Paul Pardi, RCRA Group Leader  
and FFCA Project Manager  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402-2911

DOE-0425-04

Dear Mr. Pardi:

**PROPOSED AMENDMENTS TO FERNALD CLOSURE PROJECT'S FEDERAL FACILITY COMPLIANCE ACT SITE TREATMENT PLAN**

Pursuant to Section D.i and D.iii of the October 5, 1995 Federal Facility Compliance Act (FFCA) Director's Findings and Orders, this letter provides notification of the need to amend the Fernald Closure Project's (FCP) FFCA Site Treatment Plan (STP) and transmits the amended STP.

The following amendments were discussed in a September 21, 2004 meeting with representatives from Fluor Fernald, the U.S. Department of Energy and Ohio Environmental Protection Agency (OEPA) and a September 23, 2004 telephone call with Paul Pardi of OEPA and are proposed with this transmittal:

- 1) An extension to the schedule for completing shipments of Batch 14 to the TSCA Incinerator in Section 3.1.7.1 (Waste Streams for Which Technology Exists – Preferred Option: TSCA Incinerator, Phase II) from September 30, 2004 to October 31, 2004. This extension is necessary due to unanticipated delays in obtaining the required approvals to ship as well as the limited availability of certified tanker trucks to complete the shipments.
- 2) A revision to the description of the Uranium Waste Disposition (UWD) Materials and T-Hopper Wastes Project in Section 3.1.10 to include several small-volume waste streams with limited disposition pathways. Specific information on this inventory is provided as Enclosure 1.

The proposed amendments to the STP are provided as replacement pages and are included as Enclosure 2.

Mr. Pardi

-2-

DOE-0425-04

If you have any questions, please contact Ed Skintik at (513) 246-1369.

Sincerely,

  
William Taylor  
Director

FCP:Skintik

Enclosures: As Stated

cc w/enclosures:

E. Brucken, Fluor Fernald, Inc./MS52-3  
AR Coordinator, MS78

cc w/o enclosures:

K. Alkema, Fluor Fernald, Inc./MS01  
B. Schulten, Fluor Fernald, Inc./MS52-3

ENCLOSURE 1

CONTAINERS OF MIXED WASTE IN FERNALD CLOSURE PROJECT'S FY2003 FFCCT SITE TREATMENT PLAN INVENTORY  
 PROPOSED FOR TRANSFER TO THE URANIUM WASTE DISPOSITION (UWD), T-HOPPER AND SMALL-VOLUME WASTE  
 STREAM PROJECT

5692

INVENTORY NO	MEF NO	DESCRIPTION	EPA WASTE CODES	NET WT (LB)	PROJECT ASSIGNED IN FY2003 STP UPDATE	REASON FOR TRANSFER
W207183	2987	Dust and Dust Bags from Trane Incinerator	D008, F002	390	Organic Treatment Project	U235 concentration exceeds off-site WAC
W207184	2987	Dust and Dust Bags from Trane Incinerator	D008, F002	180	Organic Treatment Project	U235 concentration exceeds off-site WAC
W234711	10027	Oily Sludge	D039, D040, F002	464	Organic Treatment Project	U235 concentration exceeds off-site WAC
W234882	10027	Oily Sludge	D039, D040, F002	286	Organic Treatment Project	U235 concentration exceeds off-site WAC
W234852	10027	Oily Sludge	D039, D040, F002	380	Organic Treatment Project	U235 concentration exceeds off-site WAC

## ENCLOSURE 1

CONTAINERS OF MIXED WASTE IN FERNALD CLOSURE PROJECT'S FY2003 FFCACT SITE TREATMENT PLAN INVENTORY  
PROPOSED FOR TRANSFER TO THE URANIUM WASTE DISPOSITION (UWD), T-HOPPER AND SMALL-VOLUME WASTE  
STREAM PROJECT

INVENTORY NO	MEF NO	DESCRIPTION	EPA WASTE CODES	NET WT (LB)	PROJECT ASSIGNED IN FY2003 STP UPDATE	REASON FOR TRANSFER
W234848	2975	Sulfuric Acid	D002	796	Inorganic Treatment Project	Originally thought to be low conc. H <sub>2</sub> SO <sub>4</sub> - higher conc. (36M) discovered during repackaging. Waste no longer meets Envirocare WAC - need to finalize disposal path.
W234873	2975	Sulfuric Acid	D002	794	Inorganic Treatment Project	Originally thought to be low conc. H <sub>2</sub> SO <sub>4</sub> - higher conc. (36M) discovered during repackaging. Waste no longer meets Envirocare WAC - need to finalize disposal path.
W234874	2975	Sulfuric Acid	D002	797	Inorganic Treatment Project	Originally thought to be low conc. H <sub>2</sub> SO <sub>4</sub> - higher conc. (36M) discovered during repackaging. Waste no longer meets Envirocare WAC - need to finalize disposal path.

5692

**ENCLOSURE 1**  
**CONTAINERS OF MIXED WASTE IN FERNALD CLOSURE PROJECT'S FY2003 FFACT SITE TREATMENT PLAN INVENTORY**  
**PROPOSED FOR TRANSFER TO THE URANIUM WASTE DISPOSITION (UWD), T-HOPPER AND SMALL-VOLUME WASTE**  
**STREAM PROJECT**

569.2

INVENTORY NO	MEF NO	DESCRIPTION	EPA WASTE CODES	NET WT (LB)	PROJECT ASSIGNED IN FY2003 STP UPDATE	REASON FOR TRANSFER
W233409	2954	Samples	D002, D006, D007	6	Wastewater Treatment Project	Container originally characterized as samples of thorium nitrate solution. However, this characterization could not be confirmed based on review of existing documentation. Requires additional information in order to determine disposal path.
W246713	None	Samples	TBD	2	Organic Treatment Project/Inorganic Treatment Project	Container of unknown samples from containers originally assigned to several STP Projects. Currently not able to identify samples from existing documentation. Requires additional information in order to determine disposal path.

ENCLOSURE 1

CONTAINERS OF MIXED WASTE IN FERNALD CLOSURE PROJECT'S FY2003 FFACT SITE TREATMENT PLAN INVENTORY  
 PROPOSED FOR TRANSFER TO THE URANIUM WASTE DISPOSITION (UWD), T-HOPPER AND SMALL-VOLUME WASTE  
 STREAM PROJECT

5692

INVENTORY NO	MEF NO	DESCRIPTION	EPA WASTE CODES	NET WT (LB)	PROJECT ASSIGNED IN FY2003 STP UPDATE	REASON FOR TRANSFER
W236141	2990	Consolidated Samples - Contaminated Water or Sump Liquor	F002, F005	15	Organic Treatment Project	Currently not able to identify samples from existing documentation. Requires additional information in order to determine disposal path.
W236910	60058	Beryllium Powder	Was characterized as D001, D008, D029, F002	33	Organic Treatment Project	Container was originally believed to contain waste solvent. Visual inspection identified this as a container marked "Beryllium Powder". Requires additional information to determine disposal path.

ENCLOSURE 1

CONTAINERS OF MIXED WASTE IN FERNALD CLOSURE PROJECT'S FY2003 FFCCT SITE TREATMENT PLAN INVENTORY  
 PROPOSED FOR TRANSFER TO THE URANIUM WASTE DISPOSITION (UWD), T-HOPPER AND SMALL-VOLUME WASTE  
 STREAM PROJECT

5692

INVENTORY NO	MEE NO	DESCRIPTION	EPA WASTE CODES	NET WT (LB)	PROJECT ASSIGNED IN FY2003 STP UPDATE	REASON FOR TRANSFER
W236136	2952	Expired Organic Standards - PCB	D001, F027, P004, P022, P037, P048, P050, P051, P059, P071, P082, P094, P123, U002, U004, U012, U019, U021, U022, U024, U027, U028, U031, U036, U037, U039, U043, U044, U045, U047, U048, U050, U052, U055, U057, U060, U061, U066, U068, U070, U072, U073, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U088, U101, U102, U105, U106, U112, U120, U127, U128, U129, U130, U131, U141, U154, U159, U161, U165, U167, U168, U169, U170, U171, U179, U183, U185, U187, U188, U191, U192, U196, U203, U207, U208, U209, U210, U220, U226, U227, U228, U239	27	Organic Treatment Project	F027 waste code presents problems for treatment/disposal. Currently, there is no facility in the country that is permitted to dispose of mixed, treated F027 residue.

5692

**ENCLOSURE 2**

**PROPOSED SITE TREATMENT PLAN AMENDMENT  
SEPTEMBER 2004**

**3.1.7 Waste Streams for which Technology Exists - Preferred Option:  
TSCA Incinerator, Phase 1**

**Project Name: Liquid Mixed Waste Project**

The FCP mixed waste streams (liquid portion only) for which the Preferred Option is identified as the TSCA Incinerator are listed in Table 7 of the Background Volume. Treatment of these waste streams will occur off-site at the DOE K-25 site in Oak Ridge, Tennessee.

The FCP is allotted capacity at the TSCA Incinerator on a fiscal year basis. Detailed information on this treatment is located in Section 3.1.7 of the Background Volume.

Bulking and transport of these wastes was implemented as part of CERCLA Removal Action #9 (RA #9). These activities began after obtaining Ohio EPA approval. Activities conducted under this removal action have been incorporated into the Operable Unit 3 Final Record of Decision (ROD).

The milestone dates for TSCA Incinerator are shipping dates. The shipping dates are dependent on acceptance of the waste by the TSCA Incinerator and the State of Tennessee.

The Liquid Mixed Waste Project is designed to address treatment and disposal of all liquid mixed waste currently in storage through the WWTS or the TSCA Incinerator Preferred Options.

**MIXED WASTE STREAMS FOR WHICH TECHNOLOGY EXISTS**

Project Start Date: October 1994 (COMPLETED)

Schedule for submitting all applicable permit applications: Not applicable. This project was initiated as part of RA #9. (COMPLETED)

Schedule for entering into contracts: Contracting complete (DOE facility to DOE facility agreement). (COMPLETED)

Schedule for initiating construction: No construction is required for this project.

Schedule for conducting systems testing: Tank set-up and testing were completed in October 1994. (COMPLETED)

**3.1.7 Waste Streams for which Technology Exists - Preferred Option: TSCA Incinerator (cont.)**

Schedule for commencing operations: Operations began with the bulking of waste streams. June 30, 1995 **(COMPLETED)**

Schedule for processing backlogged and currently generated mixed wastes: June 30, 1995 through September 30, 1996 **(COMPLETED)**

Project Completion Date: Shipments from the FEMP to the TSCA Incinerator will be complete by September 30, 1996† **(COMPLETED)**

**3.1.7.1 Waste Streams for which Technology Exists - Preferred Option: TSCA Incinerator, Phase II**

Phase II of the TSCA Incinerator Preferred Option provides updated schedules for the shipment of individual batches of liquid mixed waste to the TSCA Incinerator and/or commercial mixed waste incineration facilities. These schedules are based on the TSCA Incinerator Burn Plan and commercial facility waste acceptance timeframes. Since capacity at the TSCA Incinerator is allocated on a fiscal year basis, schedules for shipping additional batches of liquid mixed waste will be established in future amendments to the STP. This project is scheduled to be completed by ~~September 30, 2004~~ [REDACTED]

Schedule for Completing Shipment: Shipment of Batch 9 to the TSCA Incinerator will be completed by September 30, 2000†. **(COMPLETED)**

Shipment of Batch 10 to the TSCA Incinerator or a commercial mixed waste incineration facility will be completed by September 30, 2001†. **(COMPLETED)**

Shipment of Batch 11 to the TSCA Incinerator will be completed by September 30, 2002†. **(COMPLETED)**

Schedule for Providing Additional Milestones for Shipment: Schedules for shipping additional batches of mixed waste to the TSCA Incinerator or a commercial mixed waste incineration facility will be provided by December 31, 2001†. **(COMPLETED)**

Schedule for Completing Shipment: Shipment of Batch 12 to the TSCA Incinerator or a commercial mixed waste incineration facility will be completed by October 31, 2002 †. **(COMPLETED)**

Schedule for Completing Shipment: Shipment of Batch 13 to the TSCA Incinerator or a commercial mixed waste incineration facility will be completed by September 30, 2003 †. **(COMPLETED)**

Schedule for Completing Shipment: Shipment of Batch 14 to the TSCA Incinerator or a commercial mixed waste incineration facility will be completed by ~~September 30, 2004~~ [REDACTED].

† Denotes milestone dates

**3.1.10 Waste Streams for Which Technology Exists - Uranium Waste Disposition (UWD) Materials, and T-Hopper Wastes ~~and Small Volume Waste Streams~~**

The FCP has identified mixed waste which is primarily included in a population of uranium materials declared waste in December 1998. A portion of these materials are enriched (contain >1% U235) and may require blending to reduce uranium content prior to processing. In addition, the FCP has identified approximately 270 kilograms of mixed waste containing transuranic constituents above 100 nCi/g and 170 kilograms of mixed low-level waste formerly stored in two T-hopper containers ~~and several small volume waste streams within disposal tanks~~. Options being evaluated for these project waste streams include on-site treatment of a portion of these wastes through AWWT and securing a contract with an off-site treatment facility. Also being considered is the possibility of coordinating with another site's disposition path for the 270 kilograms of mixed waste containing transuranic constituents. This project is scheduled to be completed by September 30, 2005.

Schedule for Entering into Contract: The contract for implementation of this preferred option will be entered into by June 30, 2003†. **(COMPLETED)**

Schedule for Providing Additional Milestones for Treatment: Additional milestones for treating the UWD inventory and the T-Hopper Wastes will be provided by December 31, 2003†. **(COMPLETED)**

Schedule for Completing Shipments for Off-Site Treatment of the UWD inventory, and the T-Hopper Wastes, ~~and small volume waste streams~~ Identified in the Most Recent Version of the Annual STP Update: September 30, 2005†.

† Denotes milestone dates