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**CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT AND REMEDIAL
INVESTIGATION/FEASIBILITY STUDY MONTHLY PROGRESS REPORT
FOR JUNE 1995**

07/19/95

DOE-1246-95
DOE-FN EPAS
65
REPORT



Department of Energy
Fernald Environmental Management Project
 P. O. Box 398705
 Cincinnati, Ohio 45239-8705
 (513) 648-3155

JUL 19 1995

DOE-1246-95

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. Tom Schneider, Project Manager
 Ohio Environmental Protection Agency
 401 East 5th Street
 Dayton, Ohio 45402-2911

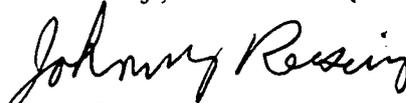
Dear Mr. Saric and Mr. Schneider:

CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/FEDERAL FACILITY
 AGREEMENT AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY MONTHLY PROGRESS REPORT
 FOR JUNE 1995

Enclosure 1 is the consolidated CA/FFCA/FFA and RI/FS Monthly Progress Report,
 which describes the activities accomplished June 1 through 30, 1995, and
 planned actions for the period of July 1995. Also, enclosed are diskettes
 containing Lotus 1-2-3 (Version 2.2) data files of the K-65 hourly data (see
 Enclosure 2).

If you or your staff should have any questions, please contact me at
 (513) 648-3107.

Sincerely,

for 
 Jack R. Craig
 Fernald Remedial Action
 Project Manager

Enclosure: As Stated

cc w/enc:

K. H. Chaney, EM-423/GTN
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Introduction

The Consent Agreement (CA) As Amended under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Sections 120 and 106(a), the Federal Facility Compliance Agreement (FFCA), and the Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (FFA-CARE) between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (U.S. EPA) signed September 20, 1991, July 18, 1986, and November 19, 1991, respectively, require that monthly reports be submitted to the U.S. EPA regarding progress made to meet the provisions of those agreements. This report fulfills those requirements by describing actions undertaken at the Fernald Environmental Management Project (FEMP) during the period June 1 through June 30, 1995, and planned actions for the period July 1 through July 31, 1995.

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WORK ASSIGNMENTS AND PROGRESS

Descriptions of work progress are presented in the following sections and/or enclosures to this report:

- CA Section IX - Removal Actions
- CA Section X - Remedial Investigation/Feasibility Study
- Enclosure A - Waste Water Flows and Radionuclide Concentrations under CA Section XXIII.B
- Enclosure B - FFCA: Initial Remedial Measures and Other Open Actions
- Enclosure C - FFA: Control and Abatement of Radon-222 Emissions
- Enclosure D - Effluent Radiation Discharges to the Great Miami River

CA Section IX. Removal Actions

This section provides an update of activities associated with the implementation of Removal Actions (RAs) at the FEMP during June 1995. Information is presented for each of the Removal Actions identified in the Consent Agreement As Amended.

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REMOVAL ACTION SUMMARY

NO.	TITLE	SCOPE	STATUS
Phase I			
1	Contaminated Water Under FEMP Buildings	Pump water from extraction wells underneath Plants 2/3, 6, 8, and 9. Treat extracted water for volatile organic chemicals and uranium removal before discharge.	Plant 6 & 8 Operational Plants 2/3 & 9 Temp. Inoperable
2	Waste Pit Area Run-off Control	Collect and treat contaminated storm water run-off from the waste pit area.	Operational: 7/30/92 Operation Ongoing
3	South Groundwater Contamination Plume	Part 1 - Install new alternate water supply and transfer to industrial user. Part 2 - Pump and discharge groundwater from South Plume. Part 3 - Install and operate Interim Advanced Waste Water Treatment system to reduce uranium contaminant loading to the Great Miami River. Part 4 - Conduct groundwater monitoring and institutional controls by sampling private and existing R/VFS wells in the South Plume area and installing homeowner treatment systems. Part 5 - Conduct groundwater modeling and geochemical investigation to define the extent of the groundwater plume contaminated with uranium. OU 2 Dispute Resolution Supplemental Project - Provide for partial treatment of the South Plume discharge to further reduce uranium flow to the Great Miami River.	Operational: 12/7/92 Operation Ongoing Operational: 8/27/93 Operation RW 5 offline indefinitely Operational: 7/30/92 Operation Ongoing Ongoing Completed: 2/25/94 Operational: 3/31/94 Operation Ongoing
4	Silos 1 & 2	Install bentonite cap to reduce and monitor radon emissions. Provide follow-on monitoring.	Cap Completed: 11/28/91 Monitoring: Ongoing

* Shading denotes completed actions

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REMOVAL ACTION SUMMARY

NO.	TITLE	SCOPE	STATUS
5	Decant Sump Tank	Periodically remove liquid from K-65 decant sump tank.	Ongoing
6	Waste Pit 6 Residues	Eliminate potential airborne contamination by resubmerging exposed pit material.	Completed: 12/19/90
7	Plant 1 Pad Continuing Release	Stage I - Implement run-on/off control measures.	Completed: 1/17/92
		Stage II - Install new pad.	Completed: 12/4/92
		Stage III - Upgrade existing Plant 1 Storage Pad	Ongoing
Phase II			
8	Inactive Flyash Pile Control	Install plastic chain-link barrier and post warning signs.	Completed: 12/23/91
9	Removal of Waste Inventories	Disposition of low-level waste off-site.	Ongoing
10	Active Flyash Pile Controls	Phase I - Complete interim surface stabilization.	Completed: 6/29/92
		Phase II - Complete active flyash pile controls.	Maintenance: Ongoing
11	Pit 5 - Experimental Treatment Facility	Remove contents, structure, and filter material. Backfill and cap with clay cover.	Completed: 3/20/92
12	Safe Shutdown	Remove uranium and other material from former processing equipment and ship material and equipment off-site.	Ongoing
13	Plant 1 Ore Silos	Dismantle fourteen ore silos and their support structures.	Completed: 11/18/94
14	Contaminated Soil Adjacent to Sewage Treatment Plant Incinerator	Isolate or remove and dispose of contaminated soils from the vicinity of the sewage treatment plant.	Final Report Submitted 11/18/94
15	Scrap Metal Piles	Phase I - Disposition LLW ferrous/non-ferrous scrap metal	Ongoing
		Phase II - IIA - Containerization of scrap copper	Completed: 8/29/92
		IIB - Disposition of scrap copper	Ongoing
16	Collect Uncontrolled Production Area Run-off - Northeast	Collect storm water run-off from the northeast perimeter of the former production area in the Storm Water Retention Basin.	Completed: 8/20/93

* Shading denotes completed actions

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NO.	TITLE	SCOPE	STATUS
17	Improved Storage of Soil and Debris	Improve storage of existing and future generated soils and debris.	Ongoing
18	Control Exposed Material in Pit 5	Eliminate potential airborne contamination by re-submerging exposed pit material.	Completed: 5/13/93
Phase III			
19	Plant 7 Dismantling	Dismantle and dispose of the Plant 7 structure.	Completed: 11/18/94
20	Stabilization of UNH Inventories	Neutralize, filter and package UNH inventory.	Ongoing
21	Expedited Silo 3	Mitigate the potential release of hazardous waste material by covering and sealing dust collector hopper, removing dust collector, and capping and covering obvious release pathways.	Completed: 2/24/93
22	Waste Pit Area Containment Improvement	Stabilize south berm of Pit 4; regrade drainage ditches along Pits 3, 4, 5, and 6; and resurface road between Pits 3, 4, 5, and 6.	Completed: 7/30/93
23	Inactive Flyash Pile	Conduct field investigation to identify locations requiring material removal.	Completed: 4/30/92
24	Pilot Plant Sump	Remove liquid and sludge from the sump.	Completed: 10/15/93
25	Nitric Acid Tank Car and Surrounding Area	Remove residual contents from tank car and decontaminate and dispose of tank car.	Completed: 10/11/93
26	Asbestos Removals (Asbestos Program)	Mitigate the potential for contaminant and migration of asbestos fibers.	Ongoing
27	Management of Contaminated Structures at the FEMP	Submit an Engineering Evaluation/Cost Analysis for managing contaminated structures. Identify alternatives for managing contaminated structures.	Final EE/CA Approved 6/16/93
28	Contamination at the Fire Training Facility	Remove, decontaminate, dispose, treat or store contaminated structures, equipment, and soil from the former Fire Training Facility.	Ongoing
29	Erosion Control at Inactive Flyash Pile	Mitigate the threat of erosion induced slope failure and discharge of flyash to Paddy's Run.	Final Report Submitted to DOE 2/94 Maintenance: Ongoing
30	Seepage Control at the South Field and Inactive Flyash Pile	Minimize future groundwater contamination by intercepting contaminated seeps that drain from the South Field and Inactive Flyash Pile and infiltrate to the GMA.	Ongoing

*Shading denotes completed actions

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Removal Actions

RA No. 1, Contaminated Water Under FEMP Buildings

Current Month:

The Plant 2 extraction wells remain down awaiting replacement of the hold tank level gauges while the Plant 9 system is awaiting functional testing. The Volatile Organic Compounds (VOC) Treatment Facility and the Plant 6 perched water system continue to operate.

Planned Activities:

- Repair Plant 2 system.

RA No. 3, South Groundwater Contamination Plume

Part 1 - Alternate Water Supply

Current Month:

The U.S. Army Corps of Engineers, through an Interagency Agreement (IA), is proceeding with obtaining the necessary documents to transfer easement rights to Albright and Wilson Americas (A&W).

The contractor for Project A of the Public Water Supply (PWS) continues work and is tunneling under U.S. Route 27. Bridge work is complete and the remainder of Project A is progressing. Work at the Bolton Water Plant is also underway.

The analysis of cultural resources and final report for data recovery field work for Project B of the PWS is in progress. Field work has been completed. The final report which includes analysis of the findings will continue to December 1995.

Projects B and C will be awarded for construction in early July with construction activity expected to begin in mid-July.

Project D Public Hearing was held June 28, 1995, at Crosby School—anticipate advertisement for bids in mid-July.

Planned Activities:

- Continue proceedings to transfer ownership of the pumping and piping equipment as well as the easement rights to Albright and Wilson in accordance with the agreement of 1990.
- Continue to support Hamilton County Department of Public Works (HCDPW) on installation of the entire PWS including service connections.

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Removal Actions

RA No. 3, South Groundwater Contamination Plume

Part 1 - Alternate Water Supply

Planned Activities: (continued)

- Continue providing cultural resource monitoring during construction of Project A, and begin monitoring for Projects B and C.
- Assist Hamilton County Department of Public Works (HCDPW) with monitoring and administering the DOE grant. Establish estimated share of costs for Projects B and C based on successful contractor(s) bid items.

Part 2 - Pumping and Discharge System

Current Month:

Comments were received from the U.S. and Ohio Environmental Protection Agencies (EPAs) on the Design, Monitoring, and Evaluation Program Plan (DMEPP) covering March 1994 through December 1994. Comment resolution documents have been prepared and are being reviewed prior to formal submittal to DOE.

Modeling efforts have been expanded to assess optimization of the existing recovery wellfield for uranium extraction.

Planned Activities:

- Perform data validation for the DMEPP report for the period beginning January 1995 and ending July 1995.

Part 3 - Interim Advanced Waste Water Treatment (IAWWT)

IAWWT Storm Water Retention Basin (SWRB) Unit

Current Month:

Nothing to report.

Planned Activities:

- Continue to operate.

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RA No. 3, South Groundwater Contamination Plume

Part 3 - Interim Advanced Waste Water Treatment (IAWWT) (continued)

IAWWT Bionitrification Effluent Treatment System (BDN-ETS) Unit

Current Month:

Unit has ceased operation since the Advanced Waste Water Treatment (AWWT) became operational in January.

Planned Activities:

- None.

Part 4 - Groundwater Monitoring and Institutional Controls

Current Month:

Nothing to report.

Planned Activities:

- Continue to monitor performance of the ion exchange units installed at private residences.

Operable Unit 2 Dispute Resolution Supplemental Project (Uranium Reduction in FEMP Discharge)

Step 1

Install 200 gallons per minute (gpm) system dedicated to the treatment of a portion of the extracted South Plume groundwater—commonly known as South Plume Interim Treatment (SPIT) System.

Current Month:

Nothing to report.

Planned Activities:

- Continue to operate.

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RA No. 3, South Groundwater Contamination Plume

**Operable Unit 2 Dispute Resolution Supplemental Project (Uranium Reduction in FEMP
Discharge) (continued)**

Step 2

Utilization of off-peak Advanced Waste Water Treatment (AWWT) capacity.

Current Month:

The 700 gpm system at AWWT was damaged and taken out of service due to over-pressurization of a tank. Repairs are underway for a mid-July restart.

Planned Activities:

- Make necessary repairs to 700 gpm system and restart.

Step 3

Elimination of low uranium concentration streams.

Current Month:

Nothing to report.

Planned Activities:

- Continue to operate.

Step 4

Extend operating life/increase capacity of the IAWWT (SWRB).

Current Month:

Action is complete.

Planned Activities:

- Change out ion exchange resin within the vessels.

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Removal Actions

RA No. 7, Plant 1 Pad Continuing Release

Current Month:

A contract continues to be prepared for the expansion joint, control joint and construction joint repairs.

Planned Activities:

- To start subcontractor on completion of repairs to the Plant 1 Pad.
- Subcontractor to sawcut/remove deteriorated concrete and install patch compound in joints.

RA No. 9, Removal of Waste Inventories

Current Month:

The volume of low-level waste shipped off-site in June 1995 was 10,485 drum equivalents (DEs) for a total of 65,295 DEs dispositioned to NTS and SEG in FY-95. This volume includes approximately 17,691 drums of residues removed from inventory. Inventory reduction volumes include 4,930 containers of legacy trash materials and 1,365 containers of residues shipped to SEG for compaction prior to burial at NTS. Low level waste disposition volumes do not include approximately 61 roll-off bins and 17 Top Load containers of Plant 7 steel materials shipped to the ALARON recycling facility in Pennsylvania.

Low level waste volumes in the remainder of this report and subsequent status reports will be quantified in terms of cubic feet (cf) to maintain consistency with DOE-HQ imposed internal and external disposal limits of 594,000 cf and 650,000 cf for FY-95. In addition, use of cf rather than DEs as a performance indicator will allow for more accurate assessment and better management control of low level waste packaging and shipment processes. As of June 30, 1995, NTS has received 461,591 cf (internal) and 578,753 cf (external) of FEMP-generated low level waste for burial.

The FY 1995 volume (in cf) dispositioned to NTS is ahead of schedule, primarily due to ISO and large metal box shipments of process area scrap materials, and additional resources applied in support of residue material packaging operations. Assuming waste material packaging and shipping volumes remain at current rates, the FEMP could reach the external volume limit by July 28, 1995. Therefore, the FEMP has requested that DOE-HQ increase the external volume limit based on current bulking factors. Assuming DOE-HQ, grants the FEMP's request, the internal volume limit could be reached by September 1, 1995.

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Removal Actions

RA No. 9, Removal of Waste Inventories (continued)

The volume of low level waste materials shipped to NTS in FY-95 per waste stream is as follows:

WASTE STREAM	INTERNAL VOL. (cf)	EXTERNAL VOL. (cf)
Process Area Scrap	183,808	213,387
Thorium	5,334	6,622
Residues to NTS (FEMP + SEG)	114,514	168,523
Contaminated Trash	14,076	16,188
Construction (Legacy)	36,706	45,759
Construction (Newly Generated)	107,153	128,274

Note : 1 drum equivalent = 7.5 cubic feet

DOE-NV performed an annual recertification audit of the FEMP low level waste program (characterization, operations, and quality assurance/quality control) on June 19 - 28, 1995. In general, the FEMP received recertification to continue shipment of low level waste to NTS; however, several deficiencies were noted and will be identified through NTS Corrective Action Requests (CARs).

The Liquid Mixed Waste Project is comprised of five batches of waste. Each batch represents one compatibility group. Four out of five batches of waste have been transferred from the drums in which the waste has been stored into four temporary storage vessels. The transfer of batch four was completed on June 30, 1995. The transfer of batch five will begin on July 5, 1995 and is scheduled to complete approximately July 21, 1995.

Batches one through three of the Liquid Mixed Waste Project have been sampled in support of the Waste Acceptance Criteria at the TSCA Incinerator at Oak Ridge. Analytical data from batch one was received on June 30, 1995. Preliminary review of the data has not revealed any data which would prevent shipment of batch one to TSCA.

For the Mobile Mixed Waste Stabilization Project, FERMCO awarded a subcontract for stabilization of approximately 1500 drum equivalents of mixed waste to Perma-Fix Environmental Services, Inc. on May 31, 1995. A post-award meeting was held with Perma-Fix on June 5, 1995 and draft engineering documents were submitted to FERMCO by PERMA-Fix on June 16, 1995. Perma-Fix will submit final engineering documents on July 5, 1995. During the month of June the decision was made to utilize the south end of Plant 6 as the work location assigned to Perma-Fix.

For the Chemical Treatment Project, on June 26, 1995 FERMCO authorized NFS to proceed with treatability studies in support of the project.

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Removal Actions

RA No. 9, Removal of Waste Inventories (continued)

Planned Activities:

- Maintain current levels of effort for low level waste packaging and shipping operations in July 1995.
- Evaluate deficiencies identified during the annual recertification audit and identify/implement corrective actions as warranted or feasible.
- Chemical Treatment Project treatability samples will be shipped from the FEMP to NFS on July 5, 1995.
- Shipment of the Liquid Mixed Wastes Project's batch one to the TSCA Incinerator is scheduled to begin approximately July 12, 1995.

RA No. 12, Safe Shutdown

Current Month:

Early June, 1995 some Plant 1 work was shifted from the day shift to the mid shift to avoid heat stress stay time considerations.

Implementation Plans have been completed for the Titan Mill, east sump, various dust collectors, drum dumping system, Zenith Mill, Hammer Mill and floor conveyors.

The RDA system in TS 4 and 5, to support the temporary storage of "rabbit hutch" material, installation was completed, alarms tested and placed into service. Holdup removal activities on the west side of Plant 1 were curtailed to allow the rabbit hutch relocation project to commence on 27 June. Repackaging has commenced with a forecasted duration of six weeks. With the delay of the start by DOE and by starting work out-of-sequence on the west side, completion of the safe shutdown of Plant 1 has been influenced.

Pilot Plant Utility Disconnections were continued. Work continues on supporting Waste Programs Management (WPM) in the movement of mass restricted red drums.

Work in Plant 9 has been started. A schedule of events leading up to the removal of holdup material in Plant 9 was prepared. Key events include the de-energization of MAWS and relocation of the Wise Construction shop.

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RA No. 12, Safe Shutdown (continued)

The path forward on an additional temporary support structure is dependent on the movement of mass restricted material from Plant 5 offsite. If offsite shipments do not support the Safe Shutdown schedule, WPM will erect a support structure for temporary storage. Kickoff of the power redistribution is behind schedule. Plant 5 is the termination point of many electrical power feeds. Design, procurement, and installation needs to be started. Delays will impact Safe Shutdown progress.

Planned Activities:

- Complete the repackaging and relocation of the "rabbit hutch" material.
- Complete holdup removal in the East side of Plant 1.
- Complete the relocation of stored enriched restricted material from the Pilot Plant.
- Initiate Plant 9 utility disconnects. Make preparations to support the removal of the first holdup material on August 1, 1995.

RA No. 13, Plant 1 Ore Silos

Current Month:

The Final Report was submitted to U.S. EPA/Ohio EPA on June 9, 1995 for their review and comment.

Planned Activities:

- None to report.

RA No. 15, Scrap Metal Piles

Current Month:

Phase I: None to report.

Phase II: A Statement of Work (SOW) continues to be developed for a treatability test to demonstrate a process for decontamination of copper.

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RA No. 15, Scrap Metal Piles (continued)

Planned Activities:

- Phase I: Final disposition of the waste streams continues to be determined.
- Phase II: Determine path forward for project since it is not currently baselined.

KEY MILESTONES	STATUS	DUE DATE
Phase I - On-Site Processing Off-Site Processing	Completed Completed	Sept. 30, 1993 March 25, 1994
Phase I - Submit draft Final Report to U.S. EPA	Completed	October 4, 1994
Phase IIB: Submittal of Subcontractor's Removal Action Project Plan	Cannot proceed until treatability/engineering study is completed.	Sept. 30, 1993
Phase IIB: Submittal of Final Report	Cannot proceed until treatability/engineering study is completed.	March 30, 1995

RA No. 17, Improved Storage of Soil and Debris

Current Month:

June activities included the completion of all field work for the soil & rubble pile North of Third Street. This includes the removal of waste containers filled with construction debris and visible/exposed debris removed from the pile.

The removal and containerization of the residue/debris is the only remaining scope (as part of the RA 17 scope) for the Scrap Metal Pad (SMP) area. One specific labor crew will be dedicated to complete this removal and containerization effort.

Planned Activities:

- Restart and continue containerization and removal of the remaining debris/residue at the Scrap Metal Pad area scheduled for the first week of July.

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RA No. 19, Plant 7 Dismantling

Current Month:

June activities included completion of the Operational Readiness Assessment of SEG for processing Plant 7 lead. Processing of Plant 7 steel continued at ALARON. As of June 27, 142,970 pounds have been initially processed with 95,280 pounds having been free-released.

Planned Activities:

- Ship lead containers to SEG by Mid-July.
- Sample and analyze Plant 7 structural steel waste.
- Start shipments of 16 reusable roll-off containers back to Fernald.

RA No. 20, Stabilization of UNH Inventories

Current Month:

Weekly telephone conferences between Ohio EPA, DOE-HQ, DOE-OH, DOE-FN, FERMCO, and the Defense Nuclear Safety Board (DNFSB) occurred on a regular basis throughout the month of June. These calls keep all parties aware of project events. However, with startup of transfer operations on June 15, there has been a mutual agreement to end the conference calls in June 1995.

The "insitu" magnesium oxide neutralization process started on March 24, 1995 was discontinued with the startup of the transfer operation per agreement with OEPA.

The leak control program continues to be very effective. The leaks for this month remained at three (all in secondary containment).

The following major scheduled activities were completed during June:

- The reconfiguring of the OK Liquor tank, the last of the tanks needing to be reconfigured for bottom discharge, was completed.
- The addendum to the Removal Action Work Plan reflects changes made to accelerate processing and other changes which have been deemed necessary, received approval from U.S. and Ohio EPA.
- All ORR items were addressed and approval to start processing was received from DOE-HQ on June 15.

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RA No. 20, Stabilization of UNH Inventories (continued)

- A revised tank processing sequence was prepared and issued to OEPA. The revised sequence was deemed necessary to have the best chance of meeting the September 25 target completion date. It was deemed justifiable as the number of leaking tanks has been significantly reduced. Approval of the revised sequence was received from OEPA.
- Transfer and Neutralization began on June 15, 1995.
- A letter was received from OEPA which concurred with FEMP's interpretation of several of the requirements specified in the December 25, 1994 Director's Final Findings and Orders (DF&O). The letter was sent in response to a previous DOE letter issued to spell out the interpretation.
- A second draft of an Amendment to the December 27 Consent Decree was received from OEPA. The amendment was based on the March 1, 1995 settlement meeting.

Planned Activities:

- Continue evaluating the necessity of implementing a parallel neutralization/solidification effort.
- Process according to the revised tank sequencing plan.

RA No. 26, Asbestos Removals (Asbestos Program)

Current Month:

New direction is being implemented for management of the Asbestos Program. Further asbestos work shall be completed in conjunction with site decontamination and dismantlement (D&D) activities. Efforts are underway to prioritize all maintenance work orders (MWOs) for asbestos abatement.

Planned Activities:

- Continue to estimate quantities of outside pipe line insulation.
- Continue to prioritize maintenance work orders (MWOs) for asbestos abatement.

RA No. 28, Contamination at the Fire Training Facility

Current Month:

Size reduction of the open top tank was completed. The transfer of remaining containerized wastes to site storage areas was completed, except for the open top tank size-reduced components at the D&D facility.

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Removal Actions

RA No. 28, Contamination at the Fire Training Facility (continued)

Planned Activities:

- Validation of the final four analytical data sets continues.
- Transfer the open top tank sized-reduced components to site storage areas.

RA No. 30, Seepage Control and Removal of Sediment at the South Field and Inactive Flyash Pile

Current Month:

Formal EPA approval of the Work Plan was received from the U.S. EPA on May 11, 1995.

Construction of an access road in the area immediately west of the Inactive Flyash Pile is in progress. An 18" stormwater bypass pipe was installed adjacent to the Inactive Flyash Pile. Installation of the 4" and 2" diameter pipe and rigging of electrical hardware are ongoing. Sumps at the East and West pump station were installed. Additionally, three cleanout manholes and one meter manhole were installed. Preparation for the removal of sediment has been initiated in the southeast corner of the South Field.

Planned Activities:

- Complete installation of 4" & 2" HDPE pipe and HDPE manholes.
- Complete sediment removal portion of the project.
- Complete rigging of electrical hardware.

KEY MILESTONES	STATUS	DUE DATE
Submit RSE	Completed	October 11, 1994
Submit work plan to DOE	Completed	December 22, 1994
Submit work plan to EPA	Completed	January 20, 1995
Complete Removal Action	Began Construction April 25, 1995	October 17, 1995

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Remedial Investigations/Feasibility Studies

1.0 Operable Unit 1

Operable Unit 1 (OU 1), as defined in the Amended Consent Agreement, includes Waste Pits 1 - 6, Clearwell, Burn Pit, berms, liners, and soil within the operable unit boundary.

1.1 RI/FS Work Plan

Status:

Complete.

1.2 Remedial Investigation

Status:

Complete.

1.3 Feasibility Study/Proposed Plan

Status:

Complete.

1.4 Treatability Studies

Status:

A kickoff meeting for Phase III, Dewatering activities was held on May 9, 1995. Current geotechnical CPT and boring information obtained during DEEP Phase I activities was given to B&B Drilling to assist in the preliminary design of the dewatering wells. Preliminary design was completed June 9, 1995. Final design is currently undergoing FERMCO review. B&B Drilling will begin mobilization and subsequent installation of the dewatering wells on July 19, 1995.

Issues/Corrective Actions:

None to report.

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1.5 Record of Decision

Status:

Complete.

Issues/Corrective Actions:

None to report.

1.6 RD/RA Work Plan

The Remedial Design Work Plan identifies the design deliverables and presents the schedule for their submittal to U.S. EPA (in coordination with Ohio EPA) for the implementation of the selected remedy described in the OU 1 Record of Decision. The Remedial Action Work Plan provides the basis for implementation of the Remedial Design Work Plan and includes, but is not limited to, the following: Safety & Analysis Plan, Quality Assurance Project Plan, Health & Safety Plan, Operations & Maintenance Plan, and a plan for satisfying permitting requirements.

Status:

The draft RD Work Plan was submitted to U.S. EPA and Ohio EPA on April 25, 1995 for review, approximately one week ahead of the required submittal date of May 1, 1995. On May 30, 1995 Ohio EPA responded with conditional approval of the plan. On June 21, 1995, U.S. EPA approved the RD Work Plan without comment. Responses to the Ohio EPA comments and a Final RD Work Plan reflecting changes made to address these comments are being prepared and will be submitted to U.S. EPA and Ohio EPA by July 21, 1995.

The Remedial Action Work Plan is scheduled for submittal to U.S. EPA and Ohio EPA by October 22, 1996, as stated in the Remedial Design Deliverable Schedule submitted as part of the RD Work Plan.

Issues/Corrective Actions:

None to report.

1.7 Planned Activities for July 1995

- Concurrence and completion of the final dewatering well design with mobilization for field work to begin July 10, 1995.
- Finalize responses to Ohio EPA comments on the RD Work Plan and final version of the RD Work Plan (reflecting changes made to address Ohio EPA comments) for submittal to U.S. EPA and Ohio EPA by July 21, 1995.

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2.0 Operable Unit 2

Operable Unit 2 (OU 2), as defined in the Amended Consent Agreement, includes the Flyash Piles, other South Field disposal areas, Lime Sludge Ponds, Solid Waste Landfill, berms, liners, and soil within the operable unit boundary.

2.1 RI/FS Work Plan Addendum

Status:

Complete.

2.1.1 RI Field Investigation

Status:

Complete.

2.2 Remedial Investigation

Status:

Complete.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 2 REMEDIAL INVESTIGATION REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIV E FROM EPA	FINAL DUE DATE TO EPA	ACTUAL DATE SUBMITTED
Details the nature and extent of contaminants within the OU 2 study area. Estimates the volume of contaminated media and materials. Provides a baseline risk assessment and establishes remedial action objectives.	2/18/94 C	4/22/94	1/21/95	1/20/95

C = Consent Agreement Date

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Remedial Investigations/Feasibility Studies

2.3 Feasibility Study/Proposed Plan

Status:

Complete.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 2 FEASIBILITY STUDY/PP REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT DRAFT TO EPA	RECEIVE FROM EPA	SUBMIT FINAL DRAFT TO EPA	ACTUAL FINAL SUBMITTAL TO EPA
Describes and analyzes potential remedial alternatives. A comparative analysis will be performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	4/29/94 C	7/5/94 C	8/24/94 C	3/1/95

C = Consent Agreement Date

2.4 Treatability Studies

Status:

None to report.

Issues/Corrective Actions:

None to report.

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Remedial Investigations/Feasibility Studies

2.5 RD/RA Work Plan

Status:

The Operable Unit 2 Remedial Design Work Plan report was submitted to DOE for review on June 27, 1995. The report is scheduled to be submitted to the EPA on August 7, 1995.

Planned Activities for July:

Address DOE comments on OU 2 Remedial Design Work Plan.

2.6 Record of Decision

Status:

The Record of Decision (ROD) was signed by DOE and submitted to the Environmental Protection Agency on May 12, 1995. Formal approval was received from the EPA June 8, 1995 and the Final Operable Unit 2 ROD was submitted to the EPA and general distribution was completed.

2.7 Pre-Design Field Investigation

Status:

A draft Predesign Investigation Report was submitted to DOE for review on June 12, 1995. This report defines the location of the On-Site Disposal Facility, after comments are received from DOE the report will be revised and submitted to EPA and OEPA on July 31, 1995.

Planned Activities for July:

- Respond to comments received on Draft Predesign Report.

2.8 Geotechnical Field Investigation

Status:

Except for hydrological testing, all field investigative activities related to the Phase III of the Site-Wide Disposal Facility Field Investigation have been completed. Field restoration of ground disturbances caused by drilling rigs being moved across non-paved/graveled areas during wet field conditions have not yet been performed.

A draft Geotechnical Work Plan for on-site clay Borrow Material, off-site material sources and the OU 2 waste units was submitted to DOE on June 30, 1995.

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Remedial Investigations/Feasibility Studies

2.8 Geotechnical Field Investigation (continued)

Planned Activities for July 1995

- Respond to comments received from DOE on the draft Geotechnical Work Plan Report.

2.9 Disposal Facility

Status:

- Negotiations with the top ranking disposal facility design firms are scheduled to begin July 14, 1995.

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3.0 Operable Unit 3

Operable Unit 3 (OU 3), as defined in the Amended Consent Agreement, includes the Production Area and production-associated facilities and equipment (including all above-and below-grade improvements) including all structures, equipment, utilities, drums, tanks, solid waste, waste, product, thorium, effluent lines, K-65 transfer lines, waste water treatment facilities, fire training facilities, scrap metal piles, feed stocks, and coal pile.

3.1 Remedial Investigation/Feasibility Study Report

Status:

A streamlined and combined Draft RI/FS Report was submitted internally for review on May 11, 1995. Comments on this draft document have been received and responses are being incorporated into the revised document. A meeting was held on June 28 with Ohio and U.S. EPA to discuss preliminary leachability data, WAC sensitivity to the K_L Study, and the concrete chips v. concrete core approach.

Issues/Corrective Actions:

A path forward for resolution of the leachability study issue was discussed with the EPAs on June 28. Several options for determination of OU 3 waste acceptance criteria (WAC) for concrete were presented to the EPAs with the understanding that the final WAC approach could not be determined until after completion of the current leachability study. Upon completion of this study and assessment of the data, the FEMP preferred approach would be presented to the EPAs in early August with the final WAC being incorporated into the September 11 submittal of the RI/FS Report.

OPERABLE UNIT 3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Details the nature and extent of contaminants within the OU 3 study area. Estimates the volume of contaminated media and materials. Characterizes contamination in the former production area. Develops remedial action objectives and describes and analyzes potential remedial alternatives. A comparative analysis will be performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	09/11/95 C	12/05/95 C	01/24/96 C

C = Consent Agreement Date
F = Forecast Date

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Remedial Investigations/Feasibility Studies

3.2 Engineering Studies

Status:

The laboratory analysis from the transite sample is being incorporated into the draft for the EET Decontamination of Transite Engineering Study. ALARON is continuing to process structural steel as part of the Recycling of Structural Steel from Plant 7 Metals Project. The Request for Proposals (REP) on the Copper Metal Pile Engineering Study has been completed and is being reviewed by the Contract Review Board. Working on the draft final report for the Surface Decontamination/Removal of Metal Engineering Study. Work continues to quantify the penetration depth of the radioactive contamination on transite for the Transite Characterization Engineering Study.

Issues/Corrective Actions:

None to report.

3.3 Interim Remedial Action

Status:

The final Operable Unit 3 Remedial Design Prioritization and Sequencing Report (PSR) was submitted to U.S. EPA and Ohio EPA on June 9, 1995, along with the responses to the three U.S. EPA and eighteen Ohio EPA comments on the draft version. The PSR provides a 30-year schedule for the submittal of complex-specific implementation plans for the dismantlement of all OU 3 above-grade components.

A meeting was held between CRU3, DOE-FN, DOE EM-50, and DOE METC to discuss CRU3 submitting a proposal for additional funding to dismantle Phase I of the Plant 1 Complex. If approved, the dismantlement of these facilities would be planned for FY-96. The implementation plan for this remedial action project is currently being prepared and internally reviewed. Also, planning for the dismantlement of the Minimum Additive Waste Stabilization (MAWS) equipment from Plant 9 is underway.

Issues/Corrective Actions:

None to report.

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3.4 Planned Activities for July 1995

- Complete validation of all CRU3 data and data quality control checks.
- Complete responses to all comments on the first OU 3 draft RI/FS Report and incorporate revisions into the document.
- Continue source term refinement and calculation based on all validated data.
- Finalize current leachability study used to determine waste acceptance criteria for concrete and paint.
- Develop maps and graphs depicting volumes of materials that potentially exceed the waste acceptance criteria within components.
- Finalize the OU 3 volumes document, which details the methodology and assumptions supporting the OU 3 volumes estimates.
- Revise the methodology for the short-term risk assessment calculations to accurately reflect the approach to implement each alternative within the RI/FS Report.
- Incorporating comments from the CRU3 internal review of the final report on the Chemical Leaching of Concrete Engineering Study.
- Continue writing final treatability reports for the following Engineering Studies: Chemical Leaching of Concrete and the Kelly Decontamination of Concrete.
- Complete the final draft of the Thorium/Plant 9 Complex Implementation Plan.
- Vendor testing of paint removal techniques to be completed at Florida International University (FIU) as part of the Surface Decontamination/ Removal of Metal Engineering Study.
- The Request for Proposals (RFP) to be sent to five potential vendors for the Recycling of Copper Engineering Study.

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Remedial Investigations/Feasibility Studies

4.0 Operable Unit 4

Operable Unit 4 (OU 4), as defined in the Amended Consent Agreement, consists of Silos 1, 2, 3, and 4, the silo berms, the Decant Sump Tank System, and soil within the operable unit boundary.

4.1 RI/FS Work Plan

Status:

Complete.

4.2 Remedial Investigation

Status:

Complete.

4.3 Feasibility Study/Proposed Plan

Status:

Complete.

4.4 Treatability Studies

4.4.1 Bench Scale Treatability Studies

Status:

Complete.

4.4.2 Pilot Plant Treatability Studies

Status:

The Phase II Work Plan will be submitted to the U.S. EPA in July 1995.

Issues/Corrective Actions:

None to report.

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Remedial Investigations/Feasibility Studies

4.5 Record of Decision

Status:

Complete.

4.6 RD Work Plan

Status:

The Final Remedial Design Work Plan was submitted to the U.S. EPA and Ohio EPA on May 16, 1995. Final approval was received from the U.S. EPA on June 15, 1995. Currently, responding to Ohio EPA comments in order to submit the Final Remedial Design Work Plan to the OEPA in July 1995 for approval. A copy of the revised work plan will also be sent to U.S. EPA.

4.7 Planned Activities for July 1995

- Continue construction of the Phase I Pilot Plant facility.
- Submit Phase II Work Plan to the U. S. EPA for approval.
- Obtain approval on the Final Remedial Design Work Plan from the Ohio EPA.

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5.0 Operable Unit 5

Operable Unit 5 (OU 5) as defined in the Amended Consent Agreement, includes: groundwater, surface water, and soil not included in the definitions of Operable Units 1 through 4, sediment, flora and fauna.

5.1 Remedial Investigation

Status:

The Remedial Investigation Report was completed February 1995.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 5 REMEDIAL INVESTIGATION REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Details the nature and extent of contaminants within the OU 5 study area. Estimates the volume of contaminated media and materials. Provides a baseline risk assessment and establishes remedial action objectives.	06/24/94 C	09/12/94 C	11/01/94 C 11/01/94 A

C = Consent Agreement Date
A = Actual Date

5.2 Feasibility Study/Proposed Plan (FS/PP)

Status:

Change pages resulting from responding to comments from the USEPA on the conditionally approved FS Report, sent to the agencies in May, were approved by EPA on June 21. DOE is preparing the appropriate change pages and new covers, spines and title pages for distribution to all holders of the Operable Unit 5 FS Report.

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5.2 Feasibility Study/Proposed Plan (FS/PP) (continued)

Comments on the Operable Unit 5 Proposed Plan have been received throughout the extended public comment period, May 1 through June 30. Comments received have been summarized into issue categories and preliminary responses have been drafted. These comments become the Responsiveness Summary in the Operable Unit 5 Record of Decision.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 5 FEASIBILITY STUDY/PROPOSED PLAN

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Describes and analyzes potential remedial alternatives. A comparative analysis will be performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	11/15/94 C 11/15/94 A	01/16/95 C	02/14/95 C

C = Consent Agreement Date

A = Actual Date

5.3 RCRA Monitoring

Status:

Preparations are being made for third quarter RCRA groundwater sampling to be performed in July 1995.

Issues/Corrective Actions:

None to report.

5.4 Treatability Studies

Complete.

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5.5 Record of Decision (ROD)

Status:

The draft ROD document is being prepared for submittal to EPA and OEPA on August 2, 1995.

Issues/Corrective Actions:

None to report.

5.6 Planned Activities for July 1995

- Complete issuance of change pages, covers, spines and title pages to all holders of the Feasibility Study Report, making it the "Final" document. Place clean copies of Volume 1 in the administrative record.
- Complete preparation of the draft ROD and Responsiveness Summary for submission to EPA on August 2.
- Continue inputs to the Administrative Record for Operable Unit 5 documents.
- Prepare the South Field Pumping Test Report for submission to EPA around the middle of the month; this is a follow-on report under the Project-Specific Plan for Installation of the South Field Extraction System.
- Continue preparation of the Remedial Design Work Plan.

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6.0 Community Relations

Status:

On June 7, 1995 the monthly meeting for the Fernald Envoy Program was conducted. About 35 envoys attended and were updated on:

- Briefing from Manager of Operable Unit 4: Envoys were given a presentation which included:
 - An overview of remedial design activities scheduled within OU 4.
 - A summary of public involvement opportunities during remedial design.
 - A brief description of the characteristics and history of the silos.
 - A Vitrification Pilot Plant should be operational by February 1996.
- Site Updates: Status updates were given on Communications Improvements; the UNH Project; the On-site Disposal Facility, and upcoming opportunities for public involvement.

On June 8, 1995, U.S. EPA and DOE signed the Record of Decision for Operable Unit 2, approving on-site disposal of OU 2's 300,000 cubic yards of low-level waste.

DOE's EM program committed this year to more actively seek the input of its stakeholders and regulators in preparing the FY97 budget. On June 8, seven stakeholders along with representatives from DOE/FERMCO participated in an inter-active video-conference to discuss the FY97 budget process. Prior to the conference, Fernald had submitted 17 questions of which six were addressed by Thomas Grumbly during the 4-hour conference. Twenty-two sites were hooked up by satellite and 60 conference phone lines were available. The entire session was taped and videos were placed in the Public Environmental Information Center.

On June 10, 1995, the Fernald Citizens Task Force held their monthly meeting at the Joint Information Center in Fairfield, Ohio. Approximately 20 people were in attendance representing DOE, U.S. EPA and Ohio EPA, ODH, ATSDR, GCBCTC, FRESH, and other interested parties. At this meeting:

- The Director of the DOE Ohio Field Office reported on the FY97 budget meetings held in Washington D.C. The Director of the Fernald Area Office presented the accelerated cleanup budget plan for Fernald.
- Two Task Force members reported on their participation in and opinion of the June 8 DOE Stakeholder Video-conference on the FY97 budget process.

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6.0 Community Relations (continued)

- Modifications to the draft of the Final Report were discussed and voted upon. July 31 is the submittal date for the report. A section entitled "Next Steps" will be included and will deal with the future scope of the Task Force.

On June 21, the Agency for Toxic Substances and Disease Registry (ATSDR) held two information sessions (one in the afternoon and one in the evening) at the Plantation. The public was invited to come by at their convenience and ask questions, or give comment, on two recent ATSDR health reports addressing the public health implications of the K-65 silos and the milk produced at dairy farms near the site. About 20 residents took advantage of this opportunity.

Approximately 50 people, including representatives from U.S. EPA and OEPA, attended the June 13 Operable Unit 4 Remedial Design public workshop at the Plantation in Harrison, Ohio. Presentations included an Overview of OU 4; Vitrification Pilot Plant Program; Remedial Design Process; Radon-related Activities; and Public Participation Overview. The presentations were followed by a question & answer session.

The regular monthly meeting of the Fernald Residents for Environmental Safety and Health (FRESH) was held on June 22, 1995 with about 30 in attendance. After a briefing by OEPA on the environmental monitoring activities at the site, the DOE-FN Public Affairs representative's presentation included the following:

- DOE's proposal for an accelerated 10-year cleanup plan which could save approximately \$1.4 billion.
- A proposal to receive additional funding to remove seven structures within the Plant 1 complex. (The Vice President of FRESH has been working with EM-50 to acquire the needed funding.)
- Calendar of upcoming opportunities for public involvement.

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6.0 Community Relations (continued)

On June 24, ten members of FRESH toured the Fernald site by bus for about 3 hours. Points of interest on the itinerary included:

- Proposed location of on-site disposal facility,
- Southfield and Inactive Flyash Pile,
- Plant 4,
- Plant 1 pad,
- Plant 2/3 and the UNH tanks,
- Vitrification Pilot Plant,
- K-65 Silos,
- Waste Pits, and
- Walking tour of AWWT and outside pad.

On June 29, 1995, DOE conducted a site-wide transportation workshop for the public to discuss issues pertaining to transporting waste from Operable Unit 1 and Operable Unit 4 to off-site locations. Approximately 55 people attended including residents, DOE/FERMCO and others representing FRESH, Task Force, local townships, OEPA, local fire departments, and the OKI Council of Government. Presentations were given on: (1) the legacy waste shipping program; (2) the waste from the waste pits (OU 1) scheduled to be shipped by rail to Envirocare; and, (3) the waste from the K-65 silos (OU 4) scheduled to be shipped by truck to the Nevada Test Site. Exhibits were displayed showing the detailed routes of both truck and rail. Questions were asked throughout the presentations and responded to by various DOE and FERMCO managers.

Submittal of nominations for members for a Health Effects Subcommittee closed on June 30, 1995. The subcommittee is being sponsored by Centers for Disease Control (CDC) and the ATSDR and it will be a formal advisory body chartered under the Federal Advisory Committee Act. Approximately 20 nominations were received.

The public comment period on the Operable Unit 5 *Proposed Plan*, including the 30-day extension, ended on June 30. About 35 comments were received from the public and will be addressed in the Responsiveness Summary.

Issues/Corrective Action:

None.

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Remedial Investigations/Feasibility Studies

6.1 Planned Activities for July 1995

- Public comment period on Fernald's Proposed Site Treatment Plan will end July 6, 1995.
- The Fernald Citizens Task Force will meet July 8, 1995 at 8:30 a.m. at the Joint Information Center at 6025 Dixie Highway, Fairfield, Ohio. The Final Report will be discussed.
- On July 18, 1995, a DOE EM Public Participation Televideo Conference via satellite with confirmed sites will be aired.
- The regular monthly meeting of FRESH will be held on July 27, 1995 at the Venice Presbyterian Church in Ross, Ohio, beginning at 7:30 p.m. A guest speaker will discuss non-proliferation issues.
- DOE will hold its next Community Meeting on **August 8** at the Plantation beginning at 7 p.m. One topic will be the *Final Report of the Fernald Citizens Task Force* which will be submitted to U.S. EPA and DOE on July 31, 1995.

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PERIOD ENDING JUNE 30, 1995

ENCLOSURE A

**WASTE WATER FLOWS AND RADIONUCLIDE
CONCENTRATIONS UNDER CA SECTION XXIII.B**

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Introduction

The accompanying Effluent Radiation Reports provide, in accordance with the requirements of Section XXIII.B of the Consent Agreement As Amended under CERCLA Sections 120 and 106 (a), data on the daily waste water flows, radionuclide concentrations, and loadings released to the Great Miami River and an estimate of runoff and radionuclide concentrations to Paddy's Run during June 1995.

Summary - June 1995

The total quantity of uranium discharged from the FEMP to the Great Miami River via Manhole 175 (Outfall 11o00004001) was 0.85 kilograms. The average uranium concentration for the previous 12 months was 0.23 mg/L. This is 25.8% of the Derived Concentration Guide (DOE Order 5400.5) for ingested water.

The total quantity of uranium discharged from the FEMP to the Great Miami River via South Plume/Stormwater Retention Basin(Outfall SP3) was 8.53 kilograms. The average uranium concentration for the previous 12 months was 0.052 mg/L. This is 5.8% of the Derived Concentration Guide (DOE Order 5400.5) for ingested water.

There were no discharges from the Storm Water Retention Basin Spillway (Outfall 11o00004002) to Paddy's Run via the Storm Sewer Outfall Ditch in June 1995.

Based on 2.28 inches of rainfall in June 1995, the total quantity of uranium discharged to Paddy's Run from uncontrolled areas of the FEMP is estimated to be 6.48 kilograms.

The total quantity of uranium discharged during May 1995 via Manhole #175 was reduced from 4.40 kilograms to 4.09 kilograms based upon a recheck of a previous analytical result for May 27, 1995.

1707
**CONSOLIDATED CONSENT AGREEMENT FACILITY
 COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
 CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
 MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: 001 Total Discharge

DATE: JUNE 1995

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (ug/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.155	**	**	48	0.03	16
Max.	0.263	**	**	120	0.12	41
Min.	0.095	**	**	20	0.01	7

The average uranium concentration for the previous twelve months was 0.23 mg/l. This is 25.8 percent of the Derived Concentration Guide(DOE Order 5400.5) for ingested water.

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: 11O00004002
002 Discharge (Overflow) to Storm Sewer Outfall Ditch
Stormwater Retention Basin Spillway (Effluent to Paddy's Run)

DATE: JUNE 1995

There was no discharge to Paddy's Run from the Stormwater Retention Basin.

Based on 2.28 inches of rainfall for the month, the uranium discharge to Paddy's Run from uncontrolled areas of the FEMP is estimated to be 6.48 kgs.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

PERIOD ENDING JUNE 30, 1995

ENCLOSURE B

**FFCA: INITIAL REMEDIAL MEASURES
AND OTHER OPEN ACTIONS**

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

INTRODUCTION

Enclosure B describes actions undertaken at the FEMP during the period May 1, through June 30, 1995 that are not covered by the reporting requirements of the Consent Agreement As Amended under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Sections 120 and 106(a).

WORK ASSIGNMENTS AND PROGRESS

Descriptions of ongoing work progress are presented in the following sections of this report. The status of ongoing work in support of the Federal Facility Compliance Agreement (FFCA) is summarized in Table 1 of Enclosure B. Completed work previously reported upon has been eliminated for the sake of brevity. In this portion of the report and in Table 1, descriptions of actions are presented in a format consistent with that of the FFCA.

**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND
LIABILITY ACT (CERCLA)**

1. Initial Remedial Measures

Section C

K-65 Silo Project - Status information on the K-65 Silo project normally reported in this section is being provided under Operable Unit 4: Silos 1-4.

2. Remedial Investigation/Feasibility Study (RI/FS)

Status information on the Remedial Investigation/Feasibility Study (RI/FS) normally reported in this section is being provided separately in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA Sections 120 and 106(a).

3. Reports and Record Keeping

Section B

The RI/FS Monthly Technical Progress Report for April 1995 was transmitted to the U.S. EPA on May 17, 1995, as an integral part of the Consolidated Consent Agreement/Federal Facility Compliance Agreement/Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (CA/FFCA/FFA-CARE) Monthly Progress Report in accordance with the requirements of Section X of the Consent Agreement As Amended.

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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

CLEAN AIR ACT (CAA)

Section E

- The Quarterly Particulate Emissions Report will now be incorporated into the Annual NESHAP Compliance Report.

RADIATION DISCHARGE INFORMATION

Section A

This information will now be submitted on an annual basis as part of the FEMP Site Environmental Report.

REPORTING REQUIREMENTS

Section B

The Federal Facility Compliance Agreement Monthly Progress Report for April 1995, was transmitted to the U.S. EPA on May 17, 1995 as Enclosure B of the Consolidated Consent Agreement/Federal Facility Compliance Agreement/Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (CA/FFCA/FFA-CARE) Monthly Progress Report.

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TABLE 1

**STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON
FEDERAL FACILITY COMPLIANCE AGREEMENT ACTIONS**

June 30, 1995

<u>ACTION</u>	<u>DESCRIPTION</u>	<u>COMPLETION TIME AFTER FFCA SIGNED</u>	<u>FY1995 STATUS</u>
CERCLA			
1.	INITIAL REMEDIAL MEASURES		
1.C	Implement radon control plan approved by the U.S. EPA.	-----	No longer applicable. Progress on actions to address radon emissions from the K-65 Silos are being reported separately under Section IX-Removal Actions of the Consent Agreement/FFCA Monthly Progress Report.
2.	REMEDIAL INVESTIGATION/FEASIBILITY STUDY		No action required.
2.A	RI/FS work is to be conducted in accordance with the U.S. EPA guidelines.	N/A	
2.B	--No Action Required--	-----	Status information on the RI/FS is being reported in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA Sections 120 and 106(a).
2.E	Amend and submit revised RI/FS Work Plan to U.S. EPA if deficiencies are found.		Status information on the RI/FS is being reported in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA Sections 120 and 106(a).
2.F	Implement tasks described in the approved RI/FS Work Plan		Status information on the RI/FS is being reported in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA sections 120 and 106(a).
3.	REPORTS AND RECORD KEEPING		
3.B	Submit monthly RI/FS progress reports.	monthly	The RI/FS Monthly Progress Report for April 1995 was transmitted to the U.S. EPA on May 17, 1995.

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TABLE 1

**STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON
FEDERAL FACILITY COMPLIANCE AGREEMENT ACTIONS**

June 30, 1995

CLEAN AIR ACT

B.4	Prepare annual progress report installation and replacement of emission control devices.	yearly	The Sixth Annual Progress Report on the installation and replacement of emission control devices was prepared by the Effluent Monitoring and Control Section of the ES&H Division. The report was transmitted to DOE on July 15, 1994.
C.	Provide annual reports to the U.S. EPA per 40 CFR 61.94(c).	yearly	The Annual NESHAP Compliance Report for CY1993 was transmitted to the U.S. EPA on June 29, 1995
D.1	Provide U.S. EPA with yearly stack-testing schedule.	yearly	No stacks related to production were operating in 1994 or to this date in 1995.
			Due to the permanent shutdown of metals production, resumption of the FFCA Stack Testing Program is unlikely. A proposal is being developed to substitute the NESHAP Subpart H testing/monitoring program for the FFCA Stack Testing. When this proposal is completed it will be formally submitted to U.S. EPA.
D.2	Provide U.S. EPA with stack-test results for stacks tested that year.	45 days	<p>The following test were conducted in May 1995:</p> <p>May 9 Test contractor tests Laundry stack (6 hour test)</p> <p>May 10 Test contractor test EIMCO stack (3 hour test)</p> <p>The results of the stack test will be provided to U.S. EPA when received from the testing firm.</p>
E.1	Maintain records of monthly particulate matter emissions.	-----	Ongoing.

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TABLE 1

**STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON
FEDERAL FACILITY COMPLIANCE AGREEMENT ACTIONS**

June 30, 1995

RCRA

A.1	Conduct a hazardous waste determination on all waste streams.	30 days	Complete. Pursuant to the Proposed Amended Consent Decree, a RCRA waste evaluation was conducted on all identified waste streams pertaining to the PACD.
A.2	Commence a hazardous waste analysis program for materials in the landfill and going to the incinerator.	30 days	Complete. Operation of these units was discontinued and data on the waste which had gone to them was provided in a 30-day FFCA deliverable on August 17, 1986.
A.5	Update the facility closure plan to reflect the year the facility expects to begin closure.	30 days	The Facility closure date is dependent upon closure schedules for individual TSD units as presented most recently in Section I of the RCRA Part B Permit Application transmitted to the Ohio EPA and the U.S. EPA on March 26, 1993 (DOE-1471-93). Facility closure will be completed on a date the last TSD unit is closed.

REPORTING REQUIREMENTS

B.	Issue monthly progress report of actions taken to ensure compliance with FFCA requirements.	monthly	April's CA/FFCA Monthly Progress Report was transmitted to the U.S. EPA on May 17, 1995.
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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

PERIOD ENDING JUNE 30, 1995

ENCLOSURE C

**FEDERAL FACILITY AGREEMENT:
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS**

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

Introduction

The Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (FFA-CARE) between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (U.S. EPA), signed November 19, 1991, requires that a monthly report be submitted to the U.S. EPA regarding all steps undertaken in the preceding month to implement Part V of the agreement and that all data generated as a result of those actions be submitted.

Enclosure C fulfills those requirements by describing steps taken at the FEMP during the period June 1, through June 30, 1995, to implement Part V, Radon-222 Control and Abatement Plan, paragraphs 19-33 of the FFA-CARE.

Work Assignments and Progress

In this section of Enclosure C, action descriptions and work progress are presented in a format consistent with that of the FFA-CARE. Immediately following this section are the K-65 Silos Report and the Selected Radon Data Report. Reporting this data is also a requirement included in the U.S. EPA approved Silos 1 and 2 Removal Action Work Plan (Removal Action No. 4).

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

<u>FFA Part, Paragraph(s)</u>	<u>Description of Commitment</u>	<u>FFA Due Date</u>	<u>Status of Commitment</u>
Part V, 19 & 21	Implement the K-65 Silos 1 and 2 Removal Action in accordance with the approved Silos 1 and 2 Removal Action Work Plan.	12/1/91	Completed.
Part V, 20	Reduce radon-222 to a level As-Low-As Reasonably-Achievable (ALARA) with the goal as specified in the Silos 1 and 2 Removal Action Work Plan.	5/22/92	Completed.
Part V, 22	Submit proposed methodology for estimating radon-222 concentration reductions resulting from completion of the Silos 1 and 2 Removal Action.	Within 60 days of completing removal action; 1/27/92.	Completed.
Part V, 23	Evaluate performance of the removal action and determine whether or not additional actions are needed prior to final remediation.	None specified.	Completed.
Part V, 24, 25, and 33	Demonstrate compliance with NESHAP Subpart Q at the completion of final remediation using a methodology approved by the U.S. EPA. Applicable to: Silos 1, 2, and 3; Waste Pits 1, 2, 3, 4, and 5 and the Clearwell; and any newly discovered radon-222 emission sources.	None specified.	No information to report for June 1995.

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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

<u>FFA Part, Paragraph(s)</u>	<u>Description of Commitment</u>	<u>FFA Due Date</u>	<u>Status of Commitment</u>
Part V, 26	Directly measure radon-222 flux from Waste Pits 1, 2, 3, 4, and 5 and the Clearwell in the RI/FS under the CERCLA Consent Agreement.	None specified.	Radon sampling is complete for Pits 1, 2, and 3. All measurements were below the criteria set by the U.S. EPA. A final report was issued to the U.S. EPA on 6/25/92. A letter was received from the U.S. EPA on 10/16/92 giving approval of the proposed method for measuring the radon flux from Pit 4. The letter also stated that since the Clearwell is water covered, and Pit 5 is nearly 100% water covered, the flux from Pit 5 and the Clearwell may be assumed to be zero.
Part V, 27	Include direct measurement data from Waste Pits 1, 2, 3, 4, and 5 and the Clearwell in the RI/FS under the CERCLA Consent Agreement.	None specified.	See above.
Part V, 28	Estimate radon-222 emissions from Silo 3 based upon characterization data; include the estimated radon-222 emission data from Silo 3 in the RI/FS that includes Silo 3 under the CERCLA Consent Agreement.	None specified.	Completed.
	Submit documentation or estimates of current radon-222 emissions from existing but newly discovered sources that contain radium-226 in sufficient concentrations to emit radon-222 in excess of NESHAP Subpart Q prior to final remediation.	Within 30 days of discovery.	No new sources identified.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

<u>FFA Part, Paragraph(s)</u>	<u>Description of Commitment</u>	<u>FFA Due Date</u>	<u>Status of Commitment</u>
Part V, 30	Submit methodology for direct measurement or other appropriate means of characterization of the relevant emissions pursuant to paragraph 29 of the FFA.	Within 45 days of the U.S. EPA response pursuant to paragraph 29.	None required.
Part V, 31	Submit results of measurements pursuant to paragraph 30.	Within 30 days of U.S. EPA approval of characterization method.	None required.
Part VI, 31	Submit monthly report on steps undertaken to implement Part V of the FFA-CARE and the data obtained in the preceding month.	20th day of succeeding month.	The progress report being submitted herewith as an integral part of the CERCLA Consent Agreement Monthly Progress Report.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

Data Reporting Requirements: RA No. 4: Silos 1 and 2

As defined in the Silos 1 and 2 Removal Action Work Plan and the Federal Facility Agreement, data associated with monitoring the effectiveness of the bentonite installation are included in the following tables: the K-65 Silos Report and the Selected Radon Data Report.

The K-65 Silos Report includes data on the following parameters:

- Ambient temperature and pressure near the silos.
- Silos 1 and 2 headspace temperature.
- Silos 1 and 2 differential pressure.
- Silos 1 and 2 radon headspace concentration.
- Silos 1 and 2 headspace humidity

The Selected Radon Data Report includes radon data from the following locations:

- Air monitoring station number 5 (AMS-5)
- Air monitoring station number 6 (AMS-6)
- Pilot Plant
- Background data
- K-65 Monitoring Data (K-65 NW, K-65 SW, K-65 NE, K-65 SE).

The radon data submitted in Enclosure C: Due to its high source strength, unique measurement methods had to be devised to measure radon emissions from this nonstandard source. The data that has been gathered since 1992 is collected by qualified technicians using detailed procedures. This data although not yet verified, serves as a very good qualitative indicator of the integrity of the bentonite sealant layer covering the residues in the silos. Activities have been initiated to enhance the quality and independently verify the data that is being collected.

**CONSOLIDATED CONSENT AGREEMENT / FEDERAL FACILITY COMPLIANCE AGREEMENT/
FEDERAL FACILITY AGREEMENT MONTHLY PROGRESS REPORT**

MONTH: JUNE
YEAR: 1995

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 538704
Cincinnati, Ohio 45253 Hamilton

**K-65 SILO REPORT
RADON CONCENTRATIONS**
(Daily Summary of Recorded Headspace Concentrations)

REPORT GENERATED: 06/08/95

Daily Statistics	SILO 1				SILO 2			
	Average	Maximum	Minimum	Std. Dev.	Average	Maximum	Minimum	Std. Dev.
06/01/95	1,580,000	2,320,000	449,000	587,000	4,360,000	4,480,000	4,160,000	60,900
06/02/95	1,390,000	2,320,000	188,000	604,000	4,230,000	4,450,000	3,290,000	229,000
06/03/95	1,040,000	2,230,000	207,000	499,000	4,230,000	4,430,000	3,810,000	148,000
06/04/95	743,000	2,100,000	94,600	588,000	4,290,000	5,420,000	3,930,000	127,000
06/05/95	1,800,000	2,490,000	498,000	543,000	4,550,000	4,770,000	4,380,000	83,900
06/06/95	2,070,000	2,530,000	438,000	560,000	4,680,000	4,800,000	4,470,000	92,300
06/07/95	1,190,000	2,310,000	226,000	533,000	4,530,000	4,810,000	4,620,000	280,000
06/08/95	953,000	2,140,000	98,700	529,000	4,480,000	4,750,000	3,490,000	202,000
06/09/95	1,440,000	2,300,000	333,000	602,000	4,550,000	4,750,000	4,180,000	101,000
06/10/95	1,410,000	2,310,000	464,000	509,000	4,550,000	4,780,000	3,830,000	171,000
06/11/95	1,350,000	2,310,000	207,000	610,000	4,730,000	4,890,000	4,500,000	73,100
06/12/95	456,000	2,140,000	17,000	456,000	4,770,000	4,990,000	4,320,000	120,000
06/13/95	608,000	2,100,000	44,500	548,000	4,810,000	4,990,000	4,640,000	77,200
06/14/95	886,000	2,170,000	42,500	656,000	4,750,000	5,050,000	4,440,000	140,000
06/15/95	1,070,000	2,220,000	127,000	771,000	4,740,000	4,900,000	4,500,000	94,000
06/16/95	985,000	2,180,000	176,000	720,000	4,760,000	4,870,000	4,520,000	101,000
06/17/95	1,160,000	2,220,000	221,000	731,000	4,770,000	4,890,000	4,530,000	92,700
06/18/95	1,420,000	2,290,000	206,000	715,000	4,790,000	4,910,000	4,340,000	82,400
06/19/95	1,810,000	2,390,000	526,000	543,000	4,840,000	4,960,000	4,620,000	95,800
06/20/95	1,400,000	2,420,000	199,000	755,000	4,860,000	5,030,000	4,630,000	106,000
06/21/95	1,470,000	2,490,000	360,000	685,000	4,830,000	4,990,000	3,860,000	144,000
06/22/95	1,280,000	2,470,000	210,000	812,000	4,820,000	5,030,000	4,620,000	98,900
06/23/95	1,370,000	2,360,000	272,000	630,000	4,920,000	5,020,000	4,690,000	72,100
06/24/95	1,610,000	2,410,000	261,000	624,000	4,900,000	5,030,000	4,620,000	101,000
06/25/95	1,560,000	2,530,000	294,000	765,000	4,930,000	5,080,000	4,760,000	78,100
06/26/95	1,600,000	2,490,000	337,000	690,000	4,950,000	5,630,000	4,780,000	85,000
06/27/95	1,330,000	2,350,000	376,000	504,000	4,890,000	5,060,000	4,440,000	151,000
06/28/95	1,420,000	2,380,000	285,000	606,000	4,870,000	5,080,000	3,040,000	263,000
06/29/95	1,560,000	2,320,000	449,000	548,000	5,000,000	5,110,000	4,270,000	102,000
06/30/95	1,580,000	2,460,000	310,000	659,000	5,020,000	5,110,000	4,830,000	80,200

Grab Samples of Headspace

Date:	SILO 1 Concentration	SILO 2 Concentration
06/01/95	2,153,000	3,123,000
06/05/95	737,000	483,000
06/08/95	30,000*	840,000
06/12/95	39,000*	3,440,000
06/15/95	1,365,000	1,040,000
06/19/95	2,388,000	4,042,000
06/22/95	1,503,000	1,372,000
06/26/95	2,580,000	4,122,000
06/29/95	1,738,000	1,244,000

- Notes:
1. All values reported in pCi/L.
 2. Continuous data reported to three significant digits to remain consistent with the calibration data.
 3. *a* indicates that these radon grab sample results are lower than the true concentrations due to defective sampling equipment.

**CONSOLIDATED CONSENT AGREEMENT / FEDERAL FACILITIES AGREEMENT
FEDERAL FACILITIES AGREEMENT MONTHLY REPORT**

MONTH: JUNE
YEAR: 1995

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 538704
Cincinnati, Ohio 45253 Hamilton

SELECTED RADON DATA REPORT
(Monthly Summary of Selected Sampling Locations)

Daily Averages	K65-NW	K65-SW	K65-NE	K65-SE
	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)
06/01/95	2.0 (a)	1.8	5.0	2.9
06/02/95	0.7 (a)	1.8	6.7	2.9
06/03/95	n/a (a)	1.2	3.3	1.6
06/04/95	n/a (a)	1.5	2.3	1.2
06/05/95	1.3 (a)	2.7	9.2	4.4
06/06/95	2.0	2.9	9.0	5.7
06/07/95	0.5	1.2	2.5	0.5
06/08/95	1.3	2.2	3.2	0.5
06/09/95	1.0	1.3	1.0	0.3
06/10/95	1.3	2.1	3.6	1.8
06/11/95	1.3	1.5	2.5	0.8
06/12/95	0.5	1.3	0.9	0.5
06/13/95	1.0	1.4	2.3	1.6
06/14/95	1.1	1.4	3.7	1.9
06/15/95	1.3	1.5	3.6	1.9
06/16/95	1.4	1.6	2.7	1.9
06/17/95	1.6	1.7	3.4	2.3
06/18/95	1.2	1.5	3.9	2.0
06/19/95	2.0	2.6	6.3	3.6
06/20/95	1.4	1.7	4.6	2.4
06/21/95	1.2	2.0	3.0	2.2
06/22/95	1.1	1.6	2.6	1.4
06/23/95	2.0	1.8	5.7	2.2
06/24/95	1.8	2.4	4.7	2.2
06/25/95	1.5	1.6	4.3	2.4
06/26/95	1.6	1.9	3.3	2.1
06/27/95	1.3	1.3	1.5	0.9
06/28/95	1.8	1.7	2.2	1.4
06/29/95	1.8	1.8	4.3	2.5
06/30/95	1.6	1.5	3.9	2.1

Monthly Statistics	K65-NW	K65-SW	K65-NE	K65-SE
of Daily Averages:	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)
AVERAGE:	1.4	1.6	3.6	2.0
MAXIMUM:	2.0	2.9	9.2	5.7
MINIMUM:	0.5	1.2	0.9	0.3
MEDIAN:	1.3	1.7	3.4	1.9
STD. DEV	0.4	0.4	2.0	1.1

STANDARD LEGEND: 1. "(a)" indicates partial or complete data loss due to monitor malfunction.

**CONSOLIDATED CONSENT AGREEMENT / FEDERAL FACILITIES AGREEMENT
FEDERAL FACILITIES AGREEMENT MONTHLY REPORT**

MONTH: JUNE
YEAR: 1995

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 538704
Cincinnati, Ohio 45253 Hamilton

SELECTED RADON DATA REPORT
(Monthly Summary of Selected Sampling Locations)

Daily Averages	AMS #5 (pCi/L)	AMS #6 (pCi/L)	PILOT PLANT WAREHOUSE (pCi/L)	BKGD-1 (Fairfield) (pCi/L)	BKGD-2 (Miamitown) (pCi/L)
06/01/95	1.0	0.7	1.0	0.7	0.7
06/02/95	1.0	0.7	1.0	0.6	0.7
06/03/95	0.9	0.6	0.9	0.6	0.6
06/04/95	1.0	0.8	0.9	0.7	0.7
06/05/95	1.4	0.9	1.5	0.8	0.8
06/06/95	1.7	1.0	1.3	0.9	0.9
06/07/95	0.9	0.5	0.9	0.6	0.7
06/08/95	1.4	0.8	1.1	0.7	0.9
06/09/95	0.9	0.5	0.9	0.6	0.7
06/10/95	1.2	0.7	1.1	0.7	0.8
06/11/95	1.1	0.7	0.9	0.6	0.8
06/12/95	0.8	0.5	0.9	0.6	0.6
06/13/95	1.2	0.7	1.1	0.8	0.8
06/14/95	1.4	0.9	1.3	0.9	0.8
06/15/95	1.4	0.8	1.2	0.8	0.8
06/16/95	1.5	1.0	1.3	1.0	0.9
06/17/95	1.5	1.0	1.3	1.1	0.9
06/18/95	1.4	0.8	1.1	0.8	0.9
06/19/95	1.7	1.1	1.3	0.9	0.9
06/20/95	1.3	0.8	1.3	0.9	0.9
06/21/95	1.2	0.8	1.0	0.9	0.8
06/22/95	1.1	0.6	1.0	0.7	0.8
06/23/95	1.0	0.6	1.0	0.8	0.7
06/24/95	1.5	1.0	1.2	0.9	0.9
06/25/95	1.3	0.8	1.2	0.8	0.9
06/26/95	1.4	0.9	1.2	0.7	0.9
06/27/95	1.0	0.8	0.9	0.6	0.7
06/28/95	1.1	0.6	0.9	0.6	0.7
06/29/95	1.3	0.7	1.1	0.7	0.8
06/30/95	1.0	0.6	1.0	0.6	0.7

Monthly Statistics of Daily Averages:	AMS #5 (pCi/L)	AMS #6 (pCi/L)	PILOT PLANT WAREHOUSE (pCi/L)	BKGD-1 (Fairfield) (pCi/L)	BKGD-2 (Miamitown) (pCi/L)
AVERAGE:	1.2	0.8	1.1	0.7	0.8
MAXIMUM:	1.7	1.1	1.5	1.1	0.9
MINIMUM:	0.8	0.5	0.9	0.6	0.6
MEDIAN:	1.2	0.7	1.1	0.7	0.8
STD. DEV:	0.2	0.2	0.2	0.1	0.1

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

PERIOD ENDING JUNE 30, 1995

ENCLOSURE D

EFFLUENT RADIATION DISCHARGES TO THE GREAT MIAMI RIVER

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

Introduction

Enclosure D lists monthly discharges to the Great Miami River. This information is required by the DOE/U.S. EPA Agreement Resolving Dispute Concerning Denial of Request for Extension of Time to Submit Operable Unit 2 Document and discussed in the "Addendum No. 1 to the South Groundwater Contamination Plume Removal Action Parts 2 and 3 Work Plan."

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP1]
IAWWT - T108 (SWRB) Discharge
Interim Advanced Wastewater Treatment Effluent

DATE: MAY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	TSS (mg/l)	pH (MIN) (S.U.)	pH (MAX) (S.U.)
1	0.081	0.7	5.5 <	1.0	0.0003	1.2	8.0	8.0
2	0.000							
3	0.000							
4	0.065	1.4	4.7	1.0	0.0002	2.2	7.6	8.8
5	0.151	1.2	4.2 <	1.0	0.0006	2.0	7.8	8.0
6	0.158	1.2	5.2	1.0	0.0006	3.0	8.0	9.0
7	0.190	2.4	7.1	4.5	0.0032	2.2	8.5	8.6
8	0.166	3.1	8.3	5.8	0.0036 <	2.0	7.7	8.5
9	0.148	2.6	8.2	3.4	0.0019	1.2	8.1	8.2
10	0.150	1.1	5.7 <	1.0	0.0006	2.8	8.1	8.1
11	0.155	0.9	6.2 <	1.0	0.0006	1.8	7.8	8.1
12	0.119	5.6	11.0	11.8	0.0053	1.2	7.8	7.8
13	0.053	4.3	9.0	5.4	0.0011	3.2	7.9	8.2
14	0.119	1.8	5.5	1.0	0.0005	3.6	7.8	7.9
15	0.047	2.5	6.2 <	1.0	0.0002	2.0	7.7	8.3
16	0.155	1.5	5.8	1.0	0.0006 <	2.0	7.7	7.8
17	0.127	1.9	5.5	1.1	0.0005	1.4	7.7	7.7
18	0.099	2.1	5.1	2.9	0.0011	3.2	7.7	7.8
19	0.137	2.4	5.3	1.1	0.0006	2.6	7.6	7.7
20	0.139	2.0	6.6 <	1.0	0.0005	3.2	7.6	7.7
21	0.141	2.3	6.7	1.2	0.0006	4.6	7.6	7.8
22	0.146	2.1	5.0 <	1.0	0.0006	3.4	7.5	7.6
23	0.115	2.6	8.3	3.2	0.0014	2.8	7.6	7.7
24	0.142	2.5	8.7	4.9	0.0026	3.8	7.6	7.7
25	0.153	1.2	6.8	1.9	0.0011	3.4	7.6	7.9
26	0.082	1.5	6.0	1.3	0.0004	2.4	7.6	7.8
27	0.171	1.3	5.1	6.5	0.0042	4.0	7.6	7.7
28	0.128	***	***	1.1	0.0005	2.6	7.6	7.8
29	0.163	***	***	1.9	0.0012	4.8	7.6	7.7
30	0.170	***	***	1.7	0.0011	4.0	7.6	7.7
31	0.142	***	***	1.4	0.0008	5.0	7.6	7.6
Total	3.812				0.0365			

*** Analytical results not yet available.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP1] IAWWT - T108

DATE: MAY 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.123	1.7	5.4	2.5	0.0013
Max.	0.190	5.6	11.0	11.8	0.0053
Min.	0.000	0.7	4.2	1.0	0.0002

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP1]
IAWWT - T109 (SWRB) Discharge
Interim Advanced Wastewater Treatment Effluent

DATE: MAY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	TSS (mg/l)	pH (MIN) (S.U.)	pH (MAX) (S.U.)
1	0.095	1.7	5.5	1.0	0.0004	1.4	8.0	8.0
2	0.000							
3	0.000							
4	0.086	0.7	7.4 <	1.0	0.0003	1.6	7.6	8.8
5	0.194	1.1	4.7 <	1.0	0.0007	2.4	7.8	8.0
6	0.189	0.9	5.1	1.4	0.0010	2.8	8.0	9.0
7	0.188	2.2	6.5	3.8	0.0027 <	2.0	8.5	8.6
8	0.173	3.9	8.1	5.8	0.0038	2.0	7.7	8.5
9	0.164	1.9	6.9	3.9	0.0024	3.4	8.1	8.2
10	0.176	1.5	5.8 <	1.0	0.0007 <	2.0	8.1	8.1
11	0.193	1.0	6.4 <	1.0	0.0007	1.4	7.8	8.1
12	0.176	2.9	8.2	5.1	0.0034	7.0	7.8	7.8
13	0.082	2.6	7.9	4.7	0.0015	5.2	7.9	8.2
14	0.195	1.5	4.6	1.3	0.0010	3.4	7.8	7.9
15	0.102	1.5	4.0	4.2	0.0016	4.2	7.7	8.3
16	0.198	1.6	7.0	1.5	0.0011	4.4	7.7	7.8
17	0.177	1.8	5.8	1.3	0.0009	2.4	7.7	7.7
18	0.146	2.5	5.3	3.3	0.0018	5.8	7.7	7.8
19	0.165	2.7	5.2	1.3	0.0008	4.2	7.6	7.7
20	0.214	2.2	6.1	1.2	0.0010	3.2	7.6	7.7
21	0.219	2.2	5.9	1.3	0.0011	2.8	7.6	7.8
22	0.208	1.7	4.4 <	1.0	0.0008	3.0	7.5	7.6
23	0.194	2.9	6.1	4.1	0.0030	2.2	7.6	7.7
24	0.175	2.2	7.2	3.4	0.0023 <	2.0	7.6	7.7
25	0.211	1.8	5.7	1.9	0.0015	2.8	7.6	7.9
26	0.185	1.3	4.8	1.3	0.0009	3.0	7.6	7.8
27	0.152	***	***	1.0	0.0006	1.8	7.6	7.7
28	0.135	***	***	1.1	0.0006	4.6	7.6	7.8
29	0.160	***	***	1.8	0.0011 <	2.0	7.6	7.7
30	0.205	***	***	1.8	0.0014 <	2.0	7.6	7.7
31	0.218	***	***	1.7	0.0014	2.8	7.6	7.6
Total	4.975				0.0404			

*** Analytical results not yet available.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project
LOCATION: [SP1] IAWWT - T109
DATE: MAY 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.160	1.6	4.9	2.1	0.0014
Max.	0.219	3.9	8.2	5.8	0.0038
Min.	0.000	0.7	4.0	1.0	0.0003

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [606]
SWRB Pump Station Discharge
Stormwater Retention Basin Effluent

DATE: MAY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)
1	0.662	260	160	460	1.15
2	0.418	210	140	420	0.66
3	0.411	230	140	390	0.61
4	0.645	240	140	390	0.95
5	0.906	230	120	380	1.30
6	0.912	250	140	380	1.31
7	0.936	250	120	410	1.45
8	0.848	270	180	540	1.73
9	0.900	270	180	510	1.74
10	0.801	160	120	300	0.91
11	0.889	150	96	300	1.01
12	0.887	290	190	600	2.01
13	0.355	340	150	560	0.75
14	0.850	190	98	290	0.93
15	0.831	190	110	360	1.13
16	0.908	240	140	450	1.55
17	0.852	230	110	410	1.32
18	1.935	170	95	290	2.12
19	2.302	180	100	300	2.61
20	2.286	200	100	310	2.68
21	2.325	230	110	340	2.99
22	1.500	140	90	250	1.42
23	0.309	180	100	280	0.33
24	0.316	250	140	410	0.49
25	1.489	220	100	410	2.31
26	1.397	190	90	310	1.64
27	0.323	130	70	250	0.31
28	0.263	150	75	280	0.28
29	2.208	90	45	160	1.34
30	0.375	170	81	310	0.44
31	0.360	160	90	290	0.40
	30.399				39.89

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MAY 1995

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY-PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: (606) SWRB

DATE: MAY 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (mg/l)(2)	Total U (kgs)
Avg.	0.981	201	111	346.69	1.29
Max.	2.325	340	190	600.00	2.99
Min.	0.263	90	45	160.00	0.28

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [605]
Biodenitrification Tower
BDN Tower Effluent

DATE: MAY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)
1	0.199	490	1000	1300	0.98
2	0.199	440	1000	1300	0.98
3	0.198	540	1100	1300	0.97
4	0.216	550	870	1300	1.06
5	0.182	460	850	1300	0.90
6	0.191	500	940	1200	0.87
7	0.211	470	910	1300	1.04
8	0.185	530	850	1400	0.98
9	0.200	520	740	1400	1.06
10	0.197	590	940	1500	1.12
11	0.199	540	890	1500	1.13
12	0.198	630	760	1500	1.12
13	0.200	540	800	1500	1.14
14	0.199	520	730	1400	1.05
15	0.199	600	800	1400	1.05
16	0.199	500	770	1400	1.05
17	0.199	550	690	1600	1.21
18	0.202	490	500	1100	0.84
19	0.202	450	620	1100	0.84
20	0.202	570	650	1200	0.92
21	0.202	490	650	1300	0.99
22	0.202	550	570	1200	0.92
23	0.202	530	590	1200	0.92
24	0.202	520	700	1300	0.99
25	0.298	520	720	1300	1.47
26	0.200	500	680	1300	0.98
27	0.196	610	700	1400	1.04
28	0.199	560	750	1400	1.05
29	0.202	670	620	1500	1.15
30	0.199	610	730	1500	1.13
31	0.137	540	720	1500	0.78
Total	6.216				31.73

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
 COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
 CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
 MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: (605) BDN/ETS

DATE: MAY 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.201	535	768	1349	1.02
Max.	0.298	670	1100	1600	1.47
Min.	0.137	440	500	1100	0.78

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP2]
Stormwater Retention Basin Emergency Bypass
SWRB Bypass Effluent

DATE: MAY 1995

Day	Flow (MGD)
---	-----
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.000
18	1.389
19	1.979
20	1.933
21	1.965
22	1.145
23	0.000
24	0.000
25	1.125
26	1.130
27	0.000
28	0.000
29	1.886
30	0.000
31	0.000
Total	----- 12.552

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: Valve House
South Groundwater Contamination Plume

DATE: MAY 1995

Day	Flow (MGD)	Total U (ug/l)	Total U (kgs)
1	2.059	18.1	0.14
2	2.012	** 24.3	0.19
3	1.968	16.0	0.12
4	2.057	16.1	0.13
5	1.987	17.3	0.13
6	2.037	13.5	0.10
7	1.943	10.3	0.08
8	2.054	6.1	0.05
9	2.090	39.1	0.31
10	1.990	53.2	0.40
11	2.217	53.3	0.45
12	1.867	54.7	0.39
13	2.160	53.6	0.44
14	2.057	53.3	0.41
15	2.010	52.1	0.40
16	2.063	34.8	0.27
17	0.966	22.2	0.08
18	1.528	19.2	0.11
19	1.771	18.7	0.13
20	1.978	18.8	0.14
21	2.052	18.3	0.14
22	2.033	18.2	0.14
23	2.058	14.7	0.11
24	1.995	25.0	0.19
25	2.066	5.0	0.04
26	1.699	16.1	0.10
27	2.239	14.6	0.12
28	1.908	15.8	0.11
29	1.818	13.2	0.09
30	2.063	16.1	0.13
31	2.165	17.7	0.15
Total	60.910		5.78

** Monthly average value used for calculations.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [605]
Biodenitrification Tower
BDN Tower Effluent

DATE: MAY 1995

Day	C-BOD5 (mg/l)	TSS (mg/l)	NH3-N (mg/l)	NO3-N (mg/l)	Chromium (ug/l)	Copper (ug/l)	Nickel (ug/l)	Hex-Chrom (ug/l)
1								
2	1.60							
3	<	2	0.15	10.7 <	6.0 <	14.0 <	17.0 <	6.0
4								
5								
6								
7								
8								
9	1.49 <	2	0.11	11.5 <	6.0 <	14.0 <	17.0 <	6.0
10								
11								
12								
13								
14								
15		4	0.22	9.6 <	6.0	27.9 <	17.0 <	6.0
16	1.69							
17								
18								
19								
20								
21								
22								
23	1.13 <	2	0.13	8.0 <	6.0 <	14.0 <	17.0 <	6.0
24								
25								
26								
27								
28								
29								
30	1.40							
31								

000071

8205
**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: South Plume

DATE: MAY 1995

	<u>Flow (MGD)</u>	<u>Total U (ug/l)(2)</u>	<u>Total U (kgs)</u>
Avg.	1.965	25.1	0.19
Max.	2.239	54.7	0.45
Min.	0.966	5.0	0.04

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP3]
Valve House
South Plume/Stormwater Retention Basin *

DATE: MAY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	TSS (mg/l)	pH (Grab) (S.U.)
1	2.920	17 <	30	39	0.43		6.5
2	2.629	24	41	52	0.52		6.8
3	2.577	17 <	33	35	0.34		6.8
4	2.918	22 <	28	40	0.44		6.8
5	3.075	16 <	27	41	0.48	1.8	7.1
6	3.140	19 <	30	39	0.46		7.0
7	3.090	17 <	24	51	0.60		7.0
8	3.087	33	41	82	0.96		6.9
9	3.190	45 <	26	100	1.21		***
10	2.988	33 <	24	73	0.83		7.1
11	3.305	17 <	38	59	0.74 <	2.0	7.0
12	2.952	43 <	34	69	0.77		***
13	2.715	27	52	62	0.64		6.6
14	3.106	32	37	59	0.69		6.7
15	3.040	31	40	60	0.69		6.4
16	3.170	19	36	52	0.62		6.7
17	2.017	23	47	44	0.34		6.9
18	3.665	27	47	67	0.93	13.4	***
19	4.275	69	65	110	1.78		6.8
20	4.466	62	44	110	1.86		6.7
21	4.579	74	45	130	2.25		7.0
22	3.735	19 <	18	57	0.81		6.6
23	2.569	25	34	50	0.49		7.0
24	2.513	28	41	54	0.51		6.9
25	3.853	47	32	87	1.27	9.4	6.9
26	3.296	65	44	130	1.62		6.4
27	2.758	25	31	47	0.49		6.9
28	2.370	24	32	39	0.35		6.6
29	4.228	51	29	96	1.54		6.9
30	2.637	33	28	65	0.65		6.6
31	2.662	27	18	44	0.44		6.7
Total	97.525				25.74		

* Effective 3/11/94, the SWRB discharges were combined with the South Plume.

*** No sample collected.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP3] Valve House

DATE: MAY 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	3.146	35	36	70	0.83
Max.	4.579	74	65	130	2.25
Min.	2.017	16	18	35	0.34

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending June 30, 1995

EFFLUENT REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP4]
Parshall Flume
Effluent Downstream of Manhole 176B

DATE: MAY 1995

Day	Flow (MGD)	DO (mg/l)	IRON (mg/l)	MANGANESE (mg/l)
1	0.000	0.0	0.00	0.0
2	0.000	0.0	0.00	0.0
3	0.000	0.0	0.00	0.0
4	0.000	0.0	0.00	0.0
5	0.000	0.0	0.00	0.0
6	0.000	0.0	0.00	0.0
7	0.000	0.0	0.00	0.0
8	0.000	0.0	0.00	0.0
9	0.000	0.0	0.00	0.0
10	0.000	0.0	0.00	0.0
11	0.000	0.0	0.00	0.0
12	0.000	0.0	0.00	0.0
13	0.000	0.0	0.00	0.0
14	0.000	0.0	0.00	0.0
15	0.000	0.0	0.00	0.0
16	0.000	0.0	0.00	0.0
17	0.000	0.0	0.00	0.0
18	0.000	0.0	0.00	0.0
19	0.000	0.0	0.00	0.0
20	0.000	0.0	0.00	0.0
21	0.000	0.0	0.00	0.0
22	0.000	0.0	0.00	0.0
23	0.000	0.0	0.00	0.0
24	0.000	0.0	0.00	0.0
25	0.000	0.0	0.00	0.0
26	0.000	0.0	0.00	0.0
27	0.000	0.0	0.00	0.0
28	0.000	0.0	0.00	0.0
29	0.000	0.0	0.00	0.0
30	0.000	0.0	0.00	0.0
31	0.000	0.0	0.00	0.0
Total	0.000			

000075

0208
CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT

Period Ending June 30, 1995

EFFLUENT REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 00212

LOCATION: (S 4)
Parshall Flume
Effluent Downstream of Manhole 176B

DATE: MAY 1995

Day	DO (mg/l)	IRON (mg/l)	MANGANESE (mg/l)
1			
2			
3			
4	8.2	0.37	< 0.1
5			
6			
7			
8			
9			
10			
11	8.0	0.09	0.1
12			
13			
14			
15			
16			
17			
18	*	1.33	< 0.1
19			
20			
21			
22			
23			
24			
25	8.6	0.05	0.1
26			
27			
28			
29			
30			
31			

* Instrumentation inoperative.

000076

Monthly Composites

South Plume Valve House

Radionuclide	Jan (pCi/l)	Feb (pCi/l)	Mar* (pCi/l)	Apr (pCi/l)	May (pCi/l)	Jun (pCi/l)	Jul (pCi/l)	Aug (pCi/l)	Sep (pCi/l)	Oct (pCi/l)	Nov (pCi/l)	Dec (pCi/l)	MIN. (pCi/l)	MAX. (pCi/l)	AVG.* (pCi/l)	DOE DCG (pCi/l)	% DOE DCG #
Ac-228	1.20	1.20	1.80	0.22 <	0.28	4.00 <	2.40 <	2.80	3.20	2.70 <	2.80	3.40	0.22	4.00 <	2.08	6E+04	0.0035
Ra-224	<	0.03 <	0.04	0.04 <	0.04 <	0.04 X	0.04 X	0.04 X	0.01 X	0.02	0.06	0.06 X	0.01	0.06 <	0.04	4E+02	0.0095
Ra-226	0.32	0.27	0.30	0.25	0.26	0.21	0.25	0.23	0.15	0.19	0.21	0.26	0.15	0.32	0.24	1E+02	0.2429
Ra-228	<	1.20 <	1.20	0.22 <	0.28 <	4.00 <	2.40 <	2.80 <	3.20 <	2.70 <	2.80	3.40 <	0.22 <	4.00 <	2.08	1E+02	2.0838
Th-228	<	0.03 <	0.04	0.04 <	0.04 <	0.04 X	0.04 X	0.04 X	0.01 X	0.02 <	0.06 <	0.06 X	0.01 <	0.06 <	0.04	4E+02	0.0095
Th-230	<	0.06 <	0.05	0.20 <	0.05 <	0.05	0.20	0.15 <	0.05 <	0.05 <	0.06	0.13 <	0.05	0.25 <	0.12	3E+02	0.0396
Th-231	0.21	0.20	1.18	1.40	0.79	0.63	0.78	0.44	0.40	0.21	0.39	1.94	0.20	1.94	0.76	1E+05	0.0008
Th-232	<	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.03 <	0.02 <	0.03 <	0.03	5E+01	0.0663
Th-234	4.70	4.23	24.65	29.36	17.31	13.50	16.07	9.75	11.15	5.79	8.32	41.35	4.23	41.35	16.39	1E+04	0.1639
U-234	3.96	3.41	20.77	24.20	13.93	11.12	13.55	10.23	3.75	3.90	7.01	35.62	3.41	35.62	13.45	5E+02	2.6897
U-235	0.21	0.20	1.18	1.40	0.79	0.63	0.78	0.44	0.40	0.21	0.39	1.94	0.20	1.94	0.76	6E+02	0.1267
U-236	0.04	0.17	0.51	0.65	0.33	0.27	0.53	0.51	0.32	0.16	0.35	1.12	0.04	1.12	0.44	5E+02	0.0871
U-238	4.70	4.23	24.65	29.36	17.31	13.50	16.07	9.75	11.15	5.79	8.32	41.35	4.23	41.35	16.39	6E+02	2.7321

000077

AVG.* is flow-weighted and shown as <, if more than one quarter of the values are less than the detection limit.

% DOE DCG is based on the average concentration for the previous twelve months.

* Effective 3/11/94, the Storm Water Retention Basin Discharges were combined with the South Plume discharge.

X = Corrected analytical result is equal to the minimum detectable concentration.