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

06/16/95

DOE-1110-95
DOE-FN EPAS
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REPORT



Department of Energy
Fernald Environmental Management Project
P. O. Box 398705
Cincinnati, Ohio 45220-8705
(513) 648-3155

JUN 16 1995

DOE-1110-95

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 MAY 1995

Enclosure 1 is the consolidated CA/FFCA/FFA and RI/FS Monthly Progress Report, which describes the activities accomplished May 1 through 31, 1995, and planned actions for the period of June 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

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cc w/enc:

K. H. Chaney, EM-423/GTN
D. R. Kozlowski, 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 May 1 through May 31, 1995, and planned actions for the period June 1 through June 30, 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 May 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.	Operational: 12/7/92 Operation Ongoing
		Part 2 - Pump and discharge groundwater from South Plume.	Operational: 8/27/93 Operation RW 5 offline indefinitely
		Part 3 - Install and operate Interim Advanced Waste Water Treatment system to reduce uranium contaminant loading to the Great Miami River.	Operational: 7/30/92 Operation Ongoing
		Part 4 - Conduct groundwater monitoring and institutional controls by sampling private and existing RI/FS wells in the South Plume area and installing homeowner treatment systems.	Ongoing
		Part 5 - Conduct groundwater modeling and geochemical investigating to define the extent of the groundwater plume contaminated with uranium.	Completed: 2/25/94
		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: 3/31/94 Operation Ongoing
4		Silos 1 & 2	Install bentonite cap to reduce and monitor radon emissions. Provide follow-on monitoring.

* 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: 9/29/92
		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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REMOVAL ACTION SUMMARY

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. They are also working on the pipeline which crosses the bridge near Proctor and Gamble's Miami Valley Labs.

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 of the PWS were advertised for bid; bid openings were scheduled for June 1 and May 25, 1995, respectively.

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.
- Continue providing cultural resource monitoring during construction of Project A.
- Assist Hamilton County Department of Public Works (HCDPW) with monitoring and administering the DOE grant.

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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 are currently being prepared.

Modeling efforts are underway to assess the need for an additional recovery well east of the existing recovery wellfield.

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.

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.

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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.

Step 2

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

Current Month:

Nothing to report.

Planned Activities:

- Continue to operate.

Area -

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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.

RA No. 7, Plant 1 Pad Continuing Release

Current Month:

Concrete samples were taken to verify the existence of the waterproof coating and the air entrainment of the pad. A contract continues to be prepared for the expansion joint repairs.

Planned Activities:

- Evaluate results of the concrete samples.
- Start and complete the expansion joint material repairs by the end of June.
- Plug the remaining four monitoring wells located on the pad the week of June 19, 1995.

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RA No. 9, Removal of Waste Inventories

Current Month:

The volume of waste shipped off-site in May 1995 was 7,940 drum equivalents (DEs) for a total of 54,810 DEs dispositioned to NTS and SEG in FY-95. This volume includes approximately 11,257 drums of residues removed from inventory and shipped to-date. These 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.

The FY 1995 volume shipped to NTS and SEG is 6,739 DEs ahead of schedule, primarily due to release of ISO and large metal box shipments of process area scrap materials, and an additional level of effort of residue material packaging operations. Lastly, an additional 5,100 DEs of construction waste is being held pending development of a compaction plan. The compaction plan will reduce the volume of material shipped for disposal by 3,570 DEs.

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

<u>Waste Stream</u>	<u>DEs Shipped (5/26/95)</u>
Process Area Scrap	19,213
Thorium	776
Residues to NTS	10,627
Contaminated Trash	2,005
SEG Residues	2,095
Construction (Legacy)	5,052
Construction (Newly Generated)	15,042

No mixed waste from any project documented under RA 9 was generated in May 1995.

DOE-FN received permission from the U.S. EPA and Ohio EPA to proceed with bulking operations on the Liquid Mixed Waste project on April 28, 1995. Bulking operations on the project began on May 1, 1995 and continued six days per week for the balance of the month, weather permitting. As of May 31, 1995, 1,069 containers of mixed liquid waste were transferred into the temporary tanks being utilized on the project. This 1,069 represents the first two batches of five total batches of waste to be bulked on this project. Sampling personnel from Martin Marietta out of the Oak Ridge facility sampled batch one of the liquid mixed waste pursuant to the K-1435 Incinerator waste acceptance criteria on May 26, 1995.

On May 29, 1995 the mixed waste stabilization subcontract for the Stabilization Project was awarded to Perma-Fix Environmental Services, Inc. A CERCLA Work Plan for this project will be provided to the agencies after Perma-Fix completes engineering drawings and operational procedures for the project and the documents are approved by DOE-FN.

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Removal Actions

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

Planned Activities:

- During June 1995, re-initiate shipment of legacy and newly-generated construction waste materials to NTS.
- Continue disposition of Plant 4 and "Spring Clean" process area scrap and trash packages and shipment to NTS.
- Implement revised waste shipment operational policies and procedures which reflect significant programmatic changes and include a "graded-approach" for total quality and continuous process improvement.
- Continue liquid mixed waste bulking operations through the June.
- Sample batch two of the Liquid Mixed Waste Project will occur in June.

RA No. 12, Safe Shutdown

Current Month:

Plant 1 cleanout of two dust collectors was initiated and completed. Samples were collected to determine the isotopic content.

Relocation of the rabbit hutch material in Plant 1 was initiated. The cage area is completed and the RDA installation is nearing completion. Relocation of the rabbit hutch material is tentatively rescheduled to start in mid June.

Work on the west side of the Plant 1 facility has begun. Cleanout of the screw conveyor under G2-76 dust collector, the drum dumping system Titan Mill, east sump, Hammer Mill and Zenith Mill was completed.

The areas in Plant 1 dedicated for a dressout room and a breakroom are under review by Rad Safety. Currently, awaiting approval.

Pilot Plant utility disconnections were continued. The relocation of stored enriched restricted material from the Pilot Plant began and will continue through late June 1995.

A schedule of events leading up to conducting work in Plant 9 was prepared. Key events include the de-energization of the MAWS equipment and relocation of the Wise Construction shop. Plant 9 feeds power to outlying facilities and trailers, power redistribution is currently scoped but unfunded.

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RA No. 12, Safe Shutdown (continued)

Began preparing an Implementation Plan for Plant 9. Utility disconnects will be initiated in 30 days and holdup removal will begin August 1, 1995.

A change proposal to purchase a temporary support structure for storage of the enriched material requiring relocation from Plant 5 was submitted.

Planned Activities:

- Relocate the rabbit hutch material.
- Continue the relocation of stored enriched restricted material from the Pilot Plant.
- Initiate the Plant 9 utility disconnects.

RA No. 13, Plant 1 Ore Silos

Current Month:

The Final Report was submitted internally on May 12, 1995 for transmittal to U.S. EPA/Ohio EPA by December 19, 1995.

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.

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.

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RA No. 15, Scrap Metal Piles (continued)

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:

May activities included the completion of all of the initial seeding of the soil and rubble pile North of Third Street. The new gate and re-installed chainlink fence is now completely installed. The placement of rip-rap material for protection of new and existing catch basins within the jobsite area was completed. The field work for this soil and rubble pile are essentially complete.

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:

- Re-seed specific areas atop the pile and outlying areas where the seed may have not taken to ensure consistent grass growth.
- Watering of the seeded areas intermittently throughout the month depending on rainfall received.
- Removal of filled containers (12 small and 3 large white metal boxes) from the jobsite to the appropriate area of the FEMP. The 15 boxes contain debris removed from the pile during regrading, construction debris, and PPE generated during construction activities.
- Restart and continue containerization and removal of the remaining debris/residue at the Scrap Metal Pad area scheduled for the end of June.

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RA No. 19, Plant 7 Dismantling

Current Month:

Shipments of the Plant 7 steel to the decontamination facility were completed on May 2, 1995. Processing of the Plant 7 steel started on May 22, 1995. The final report for D&D work was transmitted to EPA by May 16, 1995.

Planned Activities:

- Continue processing of Plant 7 steel at ALARON.
- Readiness Assessment of SEG, for processing Plant 7 lead the week of June 19, 1995.

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 May. These calls keep all parties aware of project events.

The "insitu" magnesium oxide neutralization process started on March 24, 1995 continues. By agreement with the Ohio EPA this action constitutes start-up for the UNH project and halts further potential fines and penalties which started when the January 17, 1995 date was missed. Tanks F1-2, F1-302, F1-303, and F1-308 have been completed. Neutralization of tank F1-1 will not be performed in-situ as originally planned as it has precipitated crystals in the bottom of the tank. It has been determined that the crystals would not allow proper in-situ neutralization to proceed. A chemistry evaluation of the processing required is being prepared, however, processing will not occur until after start-up of the transfer system.

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

The following major scheduled activities were completed during May:

- System Operability Testing (SOT) was completed and the test report was issued.
- Ten major processing operating procedures (i.e., UNH Tank Transfer (first four tanks to be emptied), Neutralization in F1-25, Neutralization in F1-26, MDU Slurry Transfer from F1-25, MDU Slurry Transfer from F1-26, East EIMCO Filter Operation, and West EIMCO Filter Operation) have been revised to reflect review comments and have been issued. The UNH Tank Transfer procedures have been written to be tank specific. Operations will begin using the first four procedures written and others will be completed and issued prior to need.

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

- With the issuance of the Safety Analysis Report (SAR), the changes which are being made to accelerate processing (bottom discharge additions, addition of subsystem isolation valves, deletion of recycle piping, etc.), and other changes deemed necessary are being reviewed against the project safety basis to ensure conformance.
- Simulation of operations is continuing, including the practicing of emergency drills.
- Work continues on reconfiguring each of the tanks for bottom discharge. Only modification of the OK Liquor tank remains.
- An addendum to the Removal Action Work Plan was prepared to reflect the changes made to accelerate processing and other changes which have been deemed necessary. The addendum is being issued to U.S. and Ohio EPA.
- The FERMCO ORR began on May 17 and was completed successfully on May 26, 1995. A total of fifteen pre-start items were identified. Only seven of the fifteen pre-start items remained opened at the end of May. These seven pre-start items will not preclude the DOE ORR from beginning.
- The current plans are to start the DOE ORR on June 5, 1995; 21 working days ahead of schedule. This could therefore result in acceleration of the start of transfer operations prior to the July 20 schedule date.

Progress on obtaining a sole source vendor for treating the site's Thorium Nitrate RCRA waste and, optionally, treating some UNH by neutralization/solidification in the event that the September 25 completion of UNH processing date is in jeopardy, continued throughout May. The following major scheduled activities were completed in May:

- The letter subcontract, modified to make UNH an option, was issued on May 25.
- The hazard analysis is being prepared for thorium nitrate.
- The current understanding is that, in addition to the approval of all the documents required by the letter subcontract, a readiness assessment of FERMCO support activities and CNSI will be performed before start-up of thorium nitrate and UNH.
- The original treated samples for thorium nitrate passed the TCLP tests.
- Additional thorium nitrate treatability testing is continuing with additional samples sent to CNSI for processing. The last batch tested did not reveal the information of a temporary "gel" around a pH of 6.

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

Planned Activities:

- Continue pursuing the parallel neutralization/solidification effort.
- Start UNH Neutralization project operation by July 20, 1995.
- Start DOE ORR on June 5, 1995.

RA No. 26, Asbestos Removals (Asbestos Program)

Current Month:

Continue to release for removal radiologically clean asbestos waste to a sanitary disposal site.

Planned Activities:

- Provide final Asbestos Program update internally by the end of June.
- Continue to estimate quantities of outside pipe line insulation.
- Continue compilation of work packages.

RA No. 28, Contamination at the Fire Training Facility

Current Month:

May activities included completion of field work at the Fire Training Facility (FTF).

Planned Activities:

- Size reduction of the open top tank.
- Continue work on the final report.
- Validation of the final three analytical data sets.
- Transfer remaining containerized wastes to site storage areas.

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

Formal EPA approval of the Work Plan was received from the U.S. EPA on May 11, 1995. May activities included continuation of the materials procurement process, clearing and grubbing activities adjacent of the Inactive Flyash Pile, excavation for access to the west pump station, installation of an 18" storm water bypass pipe, and procurement of electrical poles.

Planned Activities:

- Continue materials procurement process.
- Install electric poles.
- Continue constructing access to the west pump station
- Install concrete foundations for pipe supports

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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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.

OPERABLE UNIT 1 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 1 study area. Estimates the volume of contaminated media and materials. Provides a baseline risk assessment and establishes remedial action objectives.	10/4/93 A	12/20/93 A	02/04/94 A

C = Consent Agreement Date

A = Actual

* = Request for extension

1.3 Feasibility Study/Proposed Plan

Status:

Complete.

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1.3 Feasibility Study/Proposed Plan (continued)

OPERABLE UNIT 1 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 is 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.	03/04/94 A	06/01/94 A	07/01/94 A

C = Consent Agreement Date
A = Actual

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 design of the dewatering wells. Design is scheduled to be completed June 9, 1995. After review and concurrence of the design, B&B Drilling will begin mobilization and subsequent installation of the dewatering wells.

Issues/Corrective Actions:

None to report.

1.5 Record of Decision

Status:

Complete.

Issues/Corrective Actions:

None to report.

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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. Awaiting U.S. EPA response.

Issues/Corrective Actions:

None to report.

1.7 Planned Activities for June 1995

- Concurrence and completion of the dewatering well design with well installation to follow in early June.
- Begin mobilization of B&B Drilling.
- Comments due from U.S. EPA on the draft RD Work Plan.

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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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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.

2.5 RD/RA Work Plan

Status:

Work is being rescheduled to begin in 1995 consistent with plans for the sitewide disposal facility.

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2.6 Record of Decision

Status:

Comments were received on the February submittal of the Record of Decision from U.S.EPA on March 9, 1995 (and from Ohio EPA on March 27, 1995). Response to comments and the revised ROD document including the Responsiveness Summary were submitted to U.S.EPA on April 7, 1995, ahead of schedule. The ROD was to the EPA on May 12, 1995. Signature approval from the U.S. EPA is anticipated in early June.

2.7 Pre-Design Field Investigation

Status:

A draft Pre-Design Investigation Report has been prepared for internal review.

2.8 Geotechnical Field Investigation

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.

2.9 Planned Activities for June 1995

- Issue the Final ROD.
- Internal/external distribution of the ROD document.

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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 RI/FS Work Plan

Status:

Nothing to report.

Issues/Corrective Actions:

None to report.

3.2 Remedial Investigation/Feasibility Study Report

Status:

A streamlined and combined Draft RI/FS Report was submitted internally for review on May 11, 1995. Internal comments on this draft document are expected by June 9, 1995. A meeting was held on May 23 with Ohio and U.S. EPA to discuss OU 3 characterization, waste acceptance criteria, the CRARE, and leachability study approach.

Issues/Corrective Actions:

Based on the meeting with the U.S. and Ohio EPAs on May 23, an issue with the current approach to the Leachability Study was raised that requires resolution. The issue is whether the current approach conservatively bounds the impacts from the leaching of uranium and technetium-99 from concrete. The EPAs feel that leaching from concrete chips would generate higher leachate concentrations than solid concrete cores. However, the intent of the leaching studies was to estimate the leachability of uranium and technetium-99 from concrete as it would be placed in the on-property disposal facility. DOE feels that the small concrete cores are a conservative representation of the large concrete blocks that would ultimately be placed in the disposal facility. A meeting with the agencies has been scheduled on June 28, 1995, in Chicago, to resolve this issue.

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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

3.3 Treatability Studies

Status:

The laboratory analysis from the transite sample for the EET Decontamination of Transite Study has been submitted to CRU3. Shipments of structural steel shipped to ALARON as part of the Recycling of Structural Steel from Plant 7 Metals Project have been completed. Chem Nuclear completed test work on the Thorium Nitrate Study. Analytical sample results from the EET Decontamination of Transite Study have been submitted to CRU3. The Statement of Work (SOW) has been issued to potential vendors for the Treatability Study on the Copper Metal Pile. The final draft of the External Complex Implementation Plan has been completed and sent out for review. Work is continuing on the Surface Decontamination/Removal of Metal Treatability Study. A letter of subcontract has been awarded to Chem Nuclear for processing the thorium nitrate solution in Tank T-2 (Pilot Plant).

Issues/Corrective Actions:

None to report.

3.4 Interim Action - Record of Decision

Status:

Complete.

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3.5 Interim Action RD/RA Work Plan

Status:

On May 10, 1995 conditional approval was given by U.S. EPA on the OU 3 Remedial Design Prioritization and Sequencing Report (PSR), a supplemental document to the approved OU 3 Remedial Design/Remedial Action Work Plan for Interim Remedial Action.

Issues/Corrective Actions:

None to report.

3.6 Planned Activities for June 1995

- Submit the final Operable Unit 3 Remedial Design Prioritization and Sequencing Report (PSR) to Ohio/U.S. EPAs by June 9, 1995.
- Complete analysis for all CRU3 data and continue validation. Continue data quality control checks.
- Based on an EPA request made during the meeting on May 23, a letter will be drafted to EPA providing justification for the use of concrete cores within the leachability study in comparison to concrete chips.
- Complete field work on the leachability study currently underway. Laboratory work should be finalized early in June with preliminary data being evaluated to support development of initial Waste Acceptance Criteria (WAC).
- Initiate an evaluation of techniques to implement the WAC for concrete and paint once established. This effort is including the evaluation of options for the insitu screening for total uranium and technetium-99.
- Respond to comments on the first OU 3 draft RI/FS Report. Comments are due on June 9, 1995 and a three day comment response meeting will be held with internally during the week of June 19, 1995.
- Continue lab work on samples collected to determine the leachability of uranium and Tc-99 on concrete and paint.
- Continue writing final treatability reports for the following Treatability Studies: Chemical Leaching of Concrete and the Kelly Decontamination of Concrete.

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3.6 Planned Activities for June 1995 (continued)

- The analysis has been completed on the light gauge metal samples. The data collected will support the FEMP in reevaluating the criteria for making RCRA determinations on light gauge metal with lead based paint.
- 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 Treatability Study.
- Interior dismantlement and removal of asbestos containing material (ACM) continues in Plant 4.
- Construction of the new electrical distribution substation continues at Plant 1.
- Chem Nuclear to arrive on site to start the Thorium Nitrate Treatability Study in the month of June.

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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.

OPERABLE UNIT 4 FEASIBILITY STUDY/PP REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Describes and analyzes potential remedial alternatives. A comparative analysis is 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.	09/10/93 C 09/09/93 A	11/10/93 C 11/12/93 A	12/28/93 C 12/21/93 A

C = Consent Agreement Date
A = Actual Date

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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 June 1995.

Issues/Corrective Actions:

None to report.

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. Currently, awaiting final approval from the U.S. EPA and Ohio EPA on the final document.

4.7 Planned Activities for June 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 U.S. EPA and 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 is complete. A final review of references is underway to ensure that the Administrative Record for the document is complete.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 5 REMEDIAL INVESTIGATION REPORT

PRIMARY MILESTONES

Table with 4 columns: SCOPE, SUBMIT TO EPA, RECEIVE FROM EPA, SUBMIT TO EPA FINAL. Row 1: 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 a few comments on the conditionally approved FS Report were sent to the U.S. EPA and Ohio EPA on May 19, 1995. Upon receipt of acceptance of the responses, new covers, spines and title pages saying "Final" will be sent to all holders of the draft final Operable Unit 5 Feasibility Study Report, along with change pages and instructions for inserting the new pages.

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

Notices of Availability appeared in three area newspapers on May 1 to announce the opening of the public comment period (May 1-31) on the Operable Unit 5 Proposed Plan and the date of the public meeting (May 23). Approximately 1000 copies of the Proposed Plan were distributed. At the meeting, a member of the Ross Merchants Association requested a 30-day extension to the comment period; agreement was granted on the spot by EPA and DOE officials in attendance. Public notice of the extension of the public comment period until June 30, 1995, (notices in the same three newspapers and postcards sent to key stakeholders) took place at the end of the month. A letter formalizing the extended comment period and the change to the ROD submittal schedule was sent to U.S. EPA and Ohio EPA.

Issues/Corrective Actions:

Waiting for EPA's concurrence on final comment responses in order to proceed with finalizing the Operable Unit 5 Feasibility Study 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

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5.3 RCRA Monitoring

Status:

Ohio EPA gave conditional approval of the "Summary of Monitoring Well Integrity Investigation (Grout Contamination)" on March 9, 1995. Their comments will be addressed through a revision of the FEMP Sitewide CERCLA Quality Assurance Project Plan (SCQ). Revision 0.3 of the SCQ is currently being reviewed by the U.S. and Ohio EPAs. After comments are received, the SCQ will be updated to address grout contamination.

Issues/Corrective Actions:

None to report.

5.4 Treatability Studies

Complete.

5.5 Record of Decision (ROD)

Status:

A draft of the ROD document is in preparation for submittal to EPA following the close of the extended public comment period (August 2, 1995). As comments are received from the public, preliminary sorting, coding and preparing responses is underway.

Issues/Corrective Actions:

None to report.

5.6 Planned Activities for June 1995

-
- Issue change pages and new covers, spines and title pages saying "Final" to all holders of the Feasibility Study Report; prepare pristine copies of Volume 1 for placement in the administrative record.
 - Continue efforts to publicize the extended public comment period on the Proposed Plan and encourage the submission of comments.

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5.6 Planned Activities for June 1995 (continued)

- Continue preparation of the draft Record of Decision and begin preliminary work on the Responsiveness Summary.
- Continue inputs to the Administrative Record for Operable Unit 5 documents.
- Submit K₁ Report to EPA on June 1, 1995.

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6.0 Community Relations

Status:

At the request of DOE Headquarters, Fernald management drafted the *Fernald Environmental Remediation Progress Status Report* targeting the U.S. Congress. The document communicates the fact that Fernald is poised to begin cleanup because the study phase of the project is essentially complete. It also states the cost of the cleanup could escalate by billions if Fernald funding is curtailed. DOE representatives delivered the document to DOE Headquarters during the week of May 15, 1995. Letters endorsing the document were received from Ohio EPA, U.S. EPA and the Fernald Citizens Task Force. DOE Fernald Area Office personnel also presented the seven-year, 10-year, and target case budget scenarios to DOE Headquarters as part of DOE's overall budget planning process for fiscal year 1997. Final decisions are still pending; however, DOE Headquarters personnel indicated significant support for accelerating cleanup at Fernald. Final funding recommendations will be submitted by Assistant Secretary Tom Grumbly to Secretary of Energy Hazel O'Leary by mid June. Grumbly's recommendations will also reflect stakeholder comments received during the June 8 national videoconference on the fiscal year 1997 budget.

The Centers for Disease Control (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) are conducting public health activities at DOE facilities. To effectively plan and conduct work around Fernald, it is essential to coordinate activities with and involve interested stakeholders in all aspects of their work. Therefore, CDC and ATSDR are forming a Fernald Health Effects Subcommittee. The subcommittee will be a formal advisory body chartered under the Federal Advisory Committee Act. To nominate an individual, a resume, biographical sketch, and a description why the individual would be well-suited to serve on the subcommittee must be submitted. The nominee's address, phone number, and a signed acknowledgement of the nomination by the individual must be included. Nominations will be sent to: Steve Adams, CDC; M.S. F-35; 4770 Buford Highway, NE; Atlanta, GA 30341-3724 by June 30, 1995.

On May 2, U.S. EPA approved the OU 2 ROD. Ohio EPA had approved it on April 21, 1995 and it is expected that U.S. EPA will sign by the first week in June.

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6.0 Community Relations (continued)

On May 3, 1995 the monthly meeting for the Fernald Envoy Program was conducted. About 40 envoys attended and were updated on:

- **Briefing from Managers of Operable Units 1, 2, and 5:** Envoys were given brief updates on three of the five operable units. Operable Unit 1 has a signed Record of Decision (ROD) and submitted their Remedial Design Work Plan (RDWP) to U.S. EPA on April 25. Operable Unit 2 is awaiting written approval of their ROD and will submit their RDWP 60 days after the ROD is signed. Operable Unit 5 is currently in a public comment period on their Proposed Plan and will be holding a public meeting on May 23. All three managers asked envoys to solicit feedback from stakeholders and said they were glad to find out what people are saying.
- **Envoy Reporting Protocol:** Envoys were briefed on the new reporting protocol that was developed as a way to strengthen the program. Envoys have done their job -- bringing feedback from stakeholders and that information will be reported to the appropriate management.

On May 6, 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 FRESH, ATSDR, FERMCO, DOE, U.S. EPA and Ohio EPA. At this meeting:

- The task force unanimously approved the "Recommendations Regarding Future Use of Fernald Property" document.
- The chairman discussed the schedule for the final report that will be issued in July 1995.
- The formation of a local merchants and residents economic development group, in which DOE-FN will play a key facilitation role was mentioned.
- An artist's rendering of the Fernald disposal facility was presented.

On May 15, Ohio EPA met with local stakeholders to answer questions about Operable Unit 5's Proposed Plan. There were no representatives from DOE or FERMCO at this meeting. Ohio EPA has conducted similar meetings for OUs 4, 1, and 2 and found them very effective. About 10 residents attended representing FRESH, the task force and the local merchants association.

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6.0 Community Relations (continued)

On May 17, Ohio EPA conducted a public meeting to discuss Fernald's recently submitted Proposed Site Treatment Plan (PSTP). About 33 people, including 14 residents, attended the meeting. The PSTP is a requirement of the Federal Facility Compliance Act of 1992 that requires all DOE sites that either generate or store mixed waste to develop treatment plans. In accordance with the FFCAct, Ohio EPA initiated a 90-day public comment period on the PSTP which began April 6, and will continue through July 6, 1995. Fernald has identified in their PSTP sending waste to Envirocare in Utah and TSCA Incinerator in Tennessee for treatment.

Currently, only Battelle Laboratories in Columbus has identified Fernald to treat .042 cubic meters (about 169 pounds) of mixed waste. After treatment, the residues will be sent back to Battelle or to a commercial disposal facility.

On May 18, Congressional staffers visited Fernald to gain a better understanding of Fernald and its particular issues and problems. Accompanied by Jack Craig and Don Ofte, staffers toured the former process area, met with DOE and FERMCO management to discuss the budget and funding, and met with stakeholders and regulators.

On May 23, DOE held a public meeting at the Plantation in Harrison, Ohio to discuss the preferred remedial alternative for Operable Unit 5 (OU 5): "Full excavation of contaminated soil, with placement in an on-property engineered disposal facility; extraction and treatment of contaminated groundwater within the Great Miami Aquifer." Also the public had a chance to give formal comments on the OU 5 Proposed Plan. About 65 people were in attendance including local residents, members of FRESH and the Fernald Citizens Task Force, and representatives from EPA, DOE and FERMCO. A brief presentation was given focusing on the extent of OU 5 contamination, OU 5 cleanup goals, and the path forward for OU 5. Representatives from U.S. EPA and Ohio EPA offered comments reflecting the views of their respective agencies. During the formal comment session, five written comments were read into the record and five members of the public verbally stated their comments for the record. A member of the public requested a 30 day extension of the comment period. Jim Saric of U.S. EPA, in agreement with DOE, granted the extension. The comment period will remain active until June 30, 1995.

The regular monthly meeting of the Fernald Residents for Environmental Safety and Health (FRESH) was held on May 25 1995 with about 35 in attendance. At the meeting, the DOE-FN Public Affairs representative's presentation included the following:

- Fernald Budget: Upcoming televideo-conference; accelerated budget scenarios; Remediation Progress Status Report targeting U.S. Congress

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6.0 Community Relations (continued)

- UNH Project Update
- A study being developed to determine Fernald's economic impact on communities surrounding the site.

Effective May 30, Charles C. Little has been assigned the position of Deputy President of FERMCO, replacing Dr. James Thiesing, who was appointed Vice President of Operations - Cincinnati Office of the Jacobs Engineering Group, Inc. Little managed the formation of the FERMCO team, managed the transition from Westinghouse to FERMCO and worked for the Office of the President for the first 12 months of the contract.

Issues/Corrective Action:

None.

6.1 Planned Activities for June 1995

On **June 8**, via satellite, Tom Grumbly will give an overview of the FY97 budget process and will discuss major issues and tentative decisions made at previous Internal Review Budget meetings. For the 22 site participating in this first-of-a-kind initiative, questions/comments will be phoned or faxed and responses will be given immediately, as time allows. Through the Envoy Program, local residents have been invited to come to the site and view the presentation.

The next Fernald Citizens Task Force meeting will be held **June 10**, beginning at 8:30 a.m, in the Joint Information Center, 6025 Dixie Highway, Fairfield.

On **June 13**, DOE will hold a public workshop to discuss the Operable Unit 4 (Silos 1-4) remedial design and the Vitrification Pilot Plant. The meeting is scheduled from 7 p.m. to 9 p.m., in the Oak Room, at the Plantation, in Harrison.

The regular monthly meeting of FRESH will be held on **June 22** at the Venice Presbyterian Church in Ross, Ohio, beginning at 7:30 p.m.

On **June 29**, DOE will hold a sitewide transportation workshop, which will feature discussions on plans for transporting waste from Operable Unit 1, Fernald's waste pits, and Operable Unit 4's K-65 Silos and Silo 3. The meeting will be held from 7 p.m. to 9 p.m. at the Plantation, in Harrison.

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Remedial Investigations/Feasibility Studies

6.1 Planned Activities for June 1995 (continued)

Due by **June 30**, nominations for members of the CDC and the ATSDR Health Effects Subcommittee should be sent to Steve Adams, CDC; M.S. F-35; 4770 Buford Highway, NE; Atlanta, GA 30341-3724.

The public comment period for the Operable Unit 5 Proposed Plan has been extended until **June 30**, 1995. Notices of the extension were published the *Journal-News* and the *Harrison Press* newspapers.

The public comment period on Fernald's Site Treatment Plan ends **July 6**. Comments on the Proposed Site Treatment Plan should be sent to Thomas Crepeau, Ohio EPA; Division of Hazardous Waste Management; P.O. Box 1049; Columbus, OH 43216-1049.

Community Meeting: DOE plans to hold the next Community Meeting in July.

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ENCLOSURE A

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

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
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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 May 1995.

Summary - May 1995

The total quantity of uranium discharged from the FEMP to the Great Miami River via Manhole 175 (Outfall 11o00004001) was 4.40 kilograms. The average uranium concentration for the previous 12 months was 0.24 mg/L. This is 27.0% 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 25.74 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 two discharges from the Storm Water Retention Basin Spillway (Outfall 11o00004002) to Paddy's Run via the Storm Sewer Outfall Ditch in May 1995. The overflows occurred on May 18 and 19 and resulted in a discharge of approximately 1.96 kg of uranium.

Based on 10.19 inches of rainfall in May 1995, the total quantity of uranium discharged to Paddy's Run from uncontrolled areas of the FEMP is estimated to be 28.95 kilograms.

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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: 11O00004001
001 Total Discharge
Manhole 175 (Effluent to Great Miami River)

DATE: MAY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.119	**	**	230	0.10	78
2	0.162	**	**	210	0.13	71
3	0.126	**	**	190	0.09	64
4	0.127	**	**	130	0.06	44
5	0.099	**	**	110	0.04	37
6	0.070	**	**	80	0.02	27
7	0.078	**	**	110	0.03	37
8	0.136	**	**	240	0.12	81
9	0.165	**	**	150	0.09	51
10	0.157	**	**	71	0.04	24
11	0.127	**	**	45	0.02	15
12	0.115	**	**	42	0.02	14
13	0.100	**	**	46	0.02	16
14	0.179	**	**	150	0.10	51
15	0.156	**	**	220	0.13	74
16	0.129	**	**	160	0.08	54
17	0.200	**	**	110	0.08	37
18	0.597	**	**	170	0.38	57
19	0.316	**	**	99	0.12	33
20	0.260	**	**	280	0.28	95
21	0.237	**	**	390	0.35	132
22	0.321	**	**	200	0.24	68
23	0.184	**	**	200	0.14	68
24	0.344	**	**	85	0.11	29
25	0.393	**	**	46	0.07	16
26	0.243	**	**	100	0.09	34
27	0.265	**	**	670	0.67	226
28	0.206	**	**	210	0.16	71
29	0.223	**	**	220	0.19	74
30	0.210	**	**	330	0.26	111
31	0.199	**	**	190	0.14	64
Total	6.243	**	**		4.40	

** Analytical results not yet available.

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EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: 001 Total Discharge

DATE: MAY 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.	0.201	**	**	186	0.14	63
Max.	0.597	**	**	670	0.67	226
Min.	0.070	**	**	42	0.02	14

The average uranium concentration for the previous twelve months was 0.24 mg/l. This is 27.0 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.

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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: MAY 1995

The Stormwater Retention Basin overflowed on May 18 & 19.
The estimated discharge of 2,085,000 gallons contained
approximately 1.96 kg of uranium.

Based on 10.19 inches of rainfall for the month, the uranium
discharge to Paddy's Run from uncontrolled areas of the FEMP
is estimated to be 28.95 kgs.

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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
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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
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Period Ending May 31, 1995

INTRODUCTION

Enclosure B describes actions undertaken at the FEMP during the period May 1, through May 31, 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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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.

TABLE 1

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

May 31, 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

May 31, 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 10, 1994 (DOE-1907-94).				
D.1	Provide U.S. EPA with yearly stack-testing schedule.	yearly	<p>No stacks related to production were operating in 1994.</p> <p>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.</p>				
D.2	Provide U.S. EPA with stack-test results for stacks tested that year.	45 days	<p>No stacks related to production were operated or tested in 1994.</p> <p>The following test were conducted in May 1995:</p> <table border="0" data-bbox="950 1207 1453 1365"> <tr> <td data-bbox="950 1207 1039 1239">May 9</td> <td data-bbox="1144 1207 1453 1270">Test contractor tests Laundry stack (6 hour test)</td> </tr> <tr> <td data-bbox="950 1302 1039 1333">May 10</td> <td data-bbox="1144 1302 1453 1365">Test contractor test EIMCO stack (3 hour test)</td> </tr> </table> <p>The results of the stack test will be provided to U.S. EPA when received from the testing firm.</p>	May 9	Test contractor tests Laundry stack (6 hour test)	May 10	Test contractor test EIMCO stack (3 hour test)
May 9	Test contractor tests Laundry stack (6 hour test)						
May 10	Test contractor test EIMCO stack (3 hour test)						
E.1	Maintain records of monthly particulate matter emissions.	-----	Ongoing.				

TABLE 1

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

May 31, 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
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CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
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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
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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 May 1, through May 31, 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).

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<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 May 1995.

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<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, 26	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, 27	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.
Part V, 28	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.

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<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.

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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

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398704
Cincinnati, Ohio 45239 Hamilton

K-65 SILO REPORT

LOCATION: Silo # 1

DATE: May 1995

Day	Ambient		Temperature	Inter. Hum. %	Diff. Press In. HG	Head Space	
	Temp °F	Press In. Hg.	Head Space °F			Radon (pCi/l)	
1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3	61	29.51	48	*	0	1,190,000	
4	52	29.48	49	*	0	677,000	
** 5	53	29.53	49	*	-0.01	513,000	
6	55	29.60	49	*	0	926,000	
7	61	29.58	50	*	0	1,070,000	
8	62	29.47	51	*	0	733,000	
** 9	65	29.24	51	*	-0.03	1,580,000	
** 10	66	29.11	52	*	0.01	997,000	
11	56	29.23	52	*	0.03	376,000	
12	47	29.27	52	*	0	811,000	
13	n/a	n/a	n/a	n/a	n/a	n/a	n/a
14	n/a	n/a	n/a	n/a	n/a	n/a	n/a
15	n/a	n/a	n/a	n/a	n/a	n/a	n/a
16	n/a	n/a	n/a	n/a	n/a	n/a	n/a
17	n/a	n/a	n/a	n/a	n/a	n/a	n/a
18	n/a	n/a	n/a	n/a	n/a	n/a	n/a
19	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20	n/a	n/a	n/a	n/a	n/a	n/a	n/a
21	n/a	n/a	n/a	n/a	n/a	n/a	n/a
22	n/a	n/a	n/a	n/a	n/a	n/a	n/a
23	n/a	n/a	n/a	n/a	n/a	n/a	n/a
24	n/a	n/a	n/a	n/a	n/a	n/a	n/a
25	n/a	n/a	n/a	n/a	n/a	n/a	n/a
26	n/a	n/a	n/a	n/a	n/a	n/a	n/a
27	n/a	n/a	n/a	n/a	n/a	n/a	n/a
28	n/a	n/a	n/a	n/a	n/a	n/a	n/a
29	n/a	n/a	n/a	n/a	n/a	n/a	n/a
30	n/a	n/a	n/a	n/a	n/a	n/a	n/a
31	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ARITHMETIC MEAN	57.8	29.40	50.3	*	0.000	887,300	
MAXIMUM	66.0	29.60	52.0	*	0.030	1,580,000	
MINIMUM	47.0	29.11	48.0	*	-0.030	376,000	
MEDIAN	58.5	29.48	50.5	*	0.000	868,500	

Note: * - Silo #1 Relative Humidity was inoperable.

** - Some Delta Pressure values were outside of range restrictions.

"n/a" indicates partial or complete data loss of the DLS system due to disk or CPU failure.

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

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398704
Cincinnati, Ohio 45239 Hamilton

K-65 SILO REPORT

LOCATION: Silo # 2

DATE: May 1985

Day	Ambient		Temperature	Inter.	Dif.	Head Space
	Temp	Press	Head Space			
	* F	In. Hg.	* F	%	In. HG	Radon (pCi/l)
1	n/a	n/a	n/a	n/a	n/a	n/a
2	n/a	n/a	n/a	n/a	n/a	n/a
3	61	29.51	48	85	-0.01	3,510,000
4	52	29.48	49	85	-0.01	3,580,000
5	53	29.53	49	85	-0.01	3,590,000
6	55	29.60	49	85	-0.01	3,570,000
7	61	29.58	50	85	-0.01	3,610,000
8	62	29.47	50	85	-0.01	3,610,000
9	65	29.24	51	85	-0.07	3,740,000
10	66	29.11	51	84	0	3,580,000
** 11	56	29.23	51	85	0.04	3,690,000
12	48	29.27	51	85	-0.01	3,810,000
13	n/a	n/a	n/a	n/a	n/a	n/a
14	n/a	n/a	n/a	n/a	n/a	n/a
15	n/a	n/a	n/a	n/a	n/a	n/a
16	n/a	n/a	n/a	n/a	n/a	n/a
17	n/a	n/a	n/a	n/a	n/a	n/a
18	n/a	n/a	n/a	n/a	n/a	n/a
19	n/a	n/a	n/a	n/a	n/a	n/a
20	n/a	n/a	n/a	n/a	n/a	n/a
21	n/a	n/a	n/a	n/a	n/a	n/a
22	n/a	n/a	n/a	n/a	n/a	n/a
23	n/a	n/a	n/a	n/a	n/a	n/a
24	n/a	n/a	n/a	n/a	n/a	n/a
25	n/a	n/a	n/a	n/a	n/a	n/a
26	n/a	n/a	n/a	n/a	n/a	n/a
27	n/a	n/a	n/a	n/a	n/a	n/a
28	n/a	n/a	n/a	n/a	n/a	n/a
29	n/a	n/a	n/a	n/a	n/a	n/a
30	n/a	n/a	n/a	n/a	n/a	n/a
31	n/a	n/a	n/a	n/a	n/a	n/a
ARITHMETIC MEAN						
	57.9	29.40	49.9	84.9	-0.010	3,627,000
MAXIMUM						
	66.0	29.60	51.0	85.0	0.040	3,810,000
MINIMUM						
	48.0	29.11	48.0	84.0	-0.070	3,510,000
MEDIAN						
	58.5	29.48	50.0	85.0	-0.010	3,600,000

Note: ** - Some Delta Pressure values were outside of range restrictions
"n/a" indicates partial or complete data loss of the DLS system due to disk or CPU failure.

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

MONTH: MAY
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.
05/01/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/02/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/03/95	1,190,000	1,820,000	466,000	448,000	3,510,000	3,670,000	3,320,000	68,300
05/04/95	677,000	1,640,000	48,200	409,000	3,580,000	3,700,000	3,250,000	69,700
05/05/95	513,000	1,640,000	47,500	467,000	3,590,000	3,720,000	3,360,000	69,900
05/06/95	926,000	1,830,000	48,200	538,000	3,570,000	3,760,000	3,140,000	93,000
05/07/95	1,070,000	1,830,000	42,500	515,000	3,610,000	3,920,000	3,300,000	100,000
05/08/95	733,000	1,650,000	42,500	403,000	3,610,000	3,980,000	3,270,000	112,000
05/09/95	1,580,000	2,070,000	470,000	396,000	3,740,000	4,160,000	2,940,000	87,900
05/10/95	997,000	2,100,000	44,600	674,000	3,560,000	3,880,000	2,030,000	365,000
05/11/95	376,000	1,730,000	33,200	433,000	3,690,000	3,960,000	3,500,000	61,800
05/12/95	811,000	1,930,000	49,600	623,000	3,810,000	3,940,000	3,650,000	70,800
05/13/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/14/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/15/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/16/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/17/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05/18/95	1,090,000	2,150,000	306,000	556,000	3,950,000	4,090,000	3,600,000	102,000
05/19/95	378,000	2,010,000	8,500	430,000	3,940,000	4,140,000	3,610,000	140,000
05/20/95	813,000	1,980,000	69,600	459,000	3,820,000	4,050,000	3,270,000	194,000
05/21/95	661,000	2,070,000	223,000	475,000	3,900,000	4,050,000	3,630,000	87,300
05/22/95	312,000	1,310,000	31,400	254,000	4,000,000	4,110,000	3,840,000	54,000
05/23/95	1,390,000	2,300,000	148,000	559,000	3,970,000	4,240,000	2,810,000	209,000
05/24/95	908,000	2,200,000	155,000	555,000	3,720,000	4,140,000	2,870,000	339,000
05/25/95	1,090,000	2,150,000	79,900	665,000	4,090,000	4,180,000	3,860,000	60,500
05/26/95	532,000	1,880,000	25,700	520,000	4,040,000	4,190,000	3,790,000	80,200
05/27/95	1,070,000	2,180,000	130,000	665,000	4,130,000	4,280,000	3,890,000	84,100
05/28/95	1,260,000	2,370,000	384,000	555,000	4,070,000	4,340,000	3,330,000	213,000
05/29/95	517,000	2,000,000	48,600	484,000	4,120,000	4,390,000	2,480,000	204,000
05/30/95	1,050,000	2,110,000	124,000	628,000	4,220,000	4,430,000	3,930,000	121,000
05/31/95	1,320,000	2,300,000	170,000	652,000	4,320,000	4,510,000	4,090,000	100,000

Grab Samples of Headspace

Date:	SILO 1 Concentration	SILO 2 Concentration
05/04/95	201,000	2,885,000
05/08/95	680,000	308,000 *
05/11/95	223,000	2,804,000
05/16/95	656,000	385,000 *
05/18/95	87,000	1,178,000
05/22/95	683,000	472,000 *
05/25/95	254,000	1,850,000
05/30/95	756,000	530,000 *

- 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 partial or complete data loss, 05/01/95 (00:00) to 05/03/95 (09:45), due to disk failure in DLS.
 4. "b" indicates partial or complete data loss, 05/12/95 (09:05) to 05/18/95 (13:45), due to CPU failure in DLS.
 5. "c" indicates that these radon concentration measurements are lower than the true concentrations. (Sampling equipment being evaluated).

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

MONTH: MAY
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 (pCi/L)	K65-SW (pCi/L)	K65-NE (pCi/L)	K65-SE (pCi/L)
05/01/95	0.9	3.4	1.3	1.1
05/02/95	0.4	0.7	0.7	0.8
05/03/95	1.1	1.9	1.6	1.3
05/04/95	0.8	2.2	0.9	1.0
05/05/95	0.5	0.8	1.9	1.8
05/06/95	1.6	2.5	3.9	2.6
05/07/95	1.8	2.9	3.9	2.8
05/08/95	1.4	4.0	1.2	0.9
05/09/95	2.4	1.5	0.9	0.7
05/10/95	0.6	1.0	2.5	1.0
05/11/95	0.4	0.7	1.5	0.9
05/12/95	1.3	1.7	4.4	2.1
05/13/95	2.7	2.2	6.3	2.8
05/14/95	0.8	0.7	1.3	1.2
05/15/95	0.7	1.0	3.8	2.2
05/16/95	1.7	1.9	7.1	4.7
05/17/95	2.6	1.3	2.0	1.0
05/18/95	3.4	3.9	1.2	0.9
05/19/95	0.6	1.0	0.8	0.7
05/20/95	1.0	1.2	3.0	1.6
05/21/95	0.9	1.3	2.9	1.7
05/22/95	1.4	1.8	4.1	1.8
05/23/95	1.4	2.0	7.3	4.6
05/24/95	0.6	0.8	1.0	0.8
05/25/95	1.1	1.0	0.9	0.6
05/26/95	0.5	1.4	0.5	0.4
05/27/95	1.4	2.2	0.5	0.4
05/28/95	1.3	0.9	0.6	0.5
05/29/95	0.5	0.7	2.1	1.0
05/30/95	0.8	1.4	2.0	1.1
05/31/95	1.7	1.8	3.9	2.9

Monthly Statistics of Daily Averages:	K65-NW (pCi/L)	K65-SW (pCi/L)	K65-NE (pCi/L)	K65-SE (pCi/L)
AVERAGE:	1.2	1.7	2.4	1.5
MAXIMUM:	3.4	4.0	7.3	4.7
MINIMUM:	0.4	0.7	0.5	0.4
MEDIAN:	1.1	1.4	1.9	1.1
STD. DEV	0.7	0.9	1.9	1.1

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

MONTH: MAY
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 (pCi/L)	BKGD-1 (pCi/L)	BKGD-2 (pCi/L)
05/01/95	0.8	0.5	1.0	0.5	0.7
05/02/95	0.6	0.4	0.9	0.4	0.6
05/03/95	0.9	0.5	1.0	0.5	0.7
05/04/95	0.8	0.5	0.9	0.4	0.6
05/05/95	0.7	0.4	0.9	0.4	0.6
05/06/95	0.9	0.6	1.1	0.5	0.7
05/07/95	1.1	0.8	1.2	0.7	0.7
05/08/95	0.9	0.7	0.9	0.4	0.7
05/09/95	0.8	0.5	0.9	0.5	0.6
05/10/95	0.7	0.4	0.8	0.4	0.6
05/11/95	0.7	0.4	0.9	0.4	0.6
05/12/95	0.8	0.5	1.0	0.4	0.7
05/13/95	1.0	0.7	1.1	0.6	0.8
05/14/95	0.7	0.4	0.9	0.4	0.7 (a)
05/15/95	0.8	0.4	0.9	0.5	0.5 (a)
05/16/95	1.0	0.7	1.2	0.7	0.7
05/17/95	0.8	0.4	0.9	0.5	0.6
05/18/95	0.7	0.5	0.8	0.5	0.6
05/19/95	0.6	0.4	0.8	0.5	0.6
05/20/95	0.8	0.5	0.9	0.6	0.6
05/21/95	0.9	0.6	1.0	0.6	0.7
05/22/95	1.1	0.7	1.1	0.7	0.7
05/23/95	1.2	0.8	1.2	0.7	0.7
05/24/95	0.8	0.5	0.8	0.6	0.6
05/25/95	0.7	0.5	0.8	0.5	0.6
05/26/95	0.7	0.4	0.8	0.5	0.5
05/27/95	0.7	0.4	0.8	0.5	0.6
05/28/95	0.8	0.4	0.8	0.5	0.6
05/29/95	0.6	0.3	0.8	0.5	0.5
05/30/95	0.7	0.4	0.9	0.6	0.6
05/31/95	1.0	0.6	0.9	0.7	0.7

Monthly Statistics of Daily Averages:	AMS #5 (pCi/L)	AMS #6 (pCi/L)	PILOT PLANT (pCi/L)	BKGD-1 (pCi/L)	BKGD-2 (pCi/L)
AVERAGE:	0.8	0.5	0.9	0.5	0.6
MAXIMUM:	1.2	0.8	1.2	0.7	0.8
MINIMUM:	0.6	0.3	0.8	0.4	0.5
MEDIAN:	0.8	0.5	0.9	0.5	0.6
STD. DEV:	0.1	0.1	0.1	0.1	0.1

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

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

PERIOD ENDING MAY 31, 1995

ENCLOSURE D

EFFLUENT RADIATION DISCHARGES TO THE GREAT MIAMI RIVER

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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 May 31, 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 May 31, 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: APRIL 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	0.169	2.3	9.3	3.7	0.0024	4.0	9.0	9.0
2	0.159	1.9	7.3	4.2	0.0025	6.0	9.5	9.5
3	0.162	1.8	6.7	3.5	0.0021	5.8	8.5	9.0
4	0.089	1.8	6.5	3.4	0.0011	9.2	9.0	9.0
5	0.066	7.2	8.6	14.4	0.0036	6.0	8.5	9.0
6	0.000							
7	0.000							
8	0.000							
9	0.100	4.4	7.1	7.9	0.0030	4.0	8.2	8.9
10	0.167	0.7	4.9 <	1.0	0.0006	4.0	8.4	8.5
11	0.109	1.5	5.8	1.3	0.0005	3.8	8.3	8.4
12	0.161	1.2	5.6	2.7	0.0016	2.8	8.1	8.7
13	0.086	1.8	6.8	2.6	0.0008	2.2	7.9	8.0
14	0.000							
15	0.000							
16	0.000							
17	0.000							
18	0.000							
19	0.000							
20	0.000							
21	0.130	1.7	5.7	2.0	0.0010	7.0	7.8	8.7
22	0.187	1.4	6.1	1.8	0.0013	3.6	7.9	7.9
23	0.180	1.2	5.8	1.6	0.0011	3.4	7.8	7.8
24	0.169	1.1	4.8 <	1.0	0.0006	1.4	7.7	7.8
25	0.168	***	***	1.5	0.0010	1.8	7.8	8.0
26	0.166	***	***	1.9	0.0012	6.4	8.0	8.2
27	0.160	***	***	2.0	0.0012	6.0	8.0	8.5
28	0.177	***	***	2.1	0.0014	7.2	8.5	9.0
29	0.194	***	***	2.5	0.0018	5.4	8.5	9.0
30	0.184	***	***	1.0	0.0007	1.4	8.0	8.6
Total	2.983				0.0297			

*** Analytical results not yet available.

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

Period Ending May 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP1] IAWWT - T108

DATE: APRIL 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.099	1.2	4.1	2.6	0.0015
Max.	0.194	7.2	9.3	14.4	0.0036
Min.	0.000	0.7	4.8	1.0	0.0005

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 May 31, 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: APRIL 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	0.163	1.8	6.8	2.9	0.0018	5.6	9.0	9.0
2	0.142	1.4	6.6	3.8	0.0020	10.6	9.5	9.5
3	0.152	1.2	6.6	3.1	0.0018	8.4	8.5	9.0
4	0.096	.	.	2.3	0.0008	12.0	9.0	9.0
5	0.006	8.5	9.0
6	0.000							
7	0.000							
8	0.000							
9	0.112	2.0	6.6	11.8	0.0050	17.6	8.2	8.9
10	0.207	2.0	5.6	1.0	0.0008	10.2	8.4	8.5
11	0.120	1.5	5.0	1.4	0.0006	5.0	8.3	8.4
12	0.180	1.4	5.9	2.7	0.0018	4.4	8.1	8.7
13	0.099	1.7	6.6	2.5	0.0009	3.4	7.9	8.0
14	0.000							
15	0.000							
16	0.000							
17	0.000							
18	0.000							
19	0.000							
20	0.000							
21	0.139	1.3	5.3	2.0	0.0011	9.4	7.8	8.7
22	0.194	1.2	6.4	2.1	0.0015	5.2	7.9	7.9
23	0.189	1.1	5.7	1.9	0.0014	4.8	7.8	7.8
24	0.180	1.3	5.2	1.1	0.0007	3.2	7.7	7.8
25	0.177	***	***	1.5	0.0010	2.4	7.8	8.0
26	0.173	***	***	1.8	0.0012	6.6	8.0	8.2
27	0.167	***	***	1.9	0.0012	3.4	8.0	8.5
28	0.186	***	***	2.1	0.0015	4.6	8.5	9.0
29	0.210	***	***	2.3	0.0018	3.2	8.5	9.0
30	0.209	***	***	1.1	0.0009	3.2	8.0	8.6

Total 3.101 0.0279

* No sample collected.

*** Analytical results not yet available.

000068

D4

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

Period Ending May 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP1] IAWWT - T109

DATE: APRIL 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.103	0.9	3.6	2.4	0.0014
Max.	0.210	2.0	6.8	11.8	0.0050
Min.	0.000	1.1	5.0 <	1.0	0.0006

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.

000069

15

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

Period Ending May 31, 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: APRIL 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)
1	0.712	280	61	430	1.16
2	0.593	360	97	430	0.97
3	0.728	240	81	380	1.05
4	0.317	270	140	370	0.44
5	0.072	35 <	50 *	343	0.09
6	0.000				
7	0.000				
8	0.000				
9	0.371	210	100	280	0.39
10	0.609	220	70	300	0.69
11	0.558	210	130	310	0.65
12	0.502	310	180	410	0.78
13	0.626	260	170	420	1.00
14	0.695	220	150	380	1.00
15	0.636	230	150	370	0.89
16	0.640	280	150	380	0.92
17	0.000				
18	0.000				
19	0.000				
20	0.000				
21	0.849	210	110	300	0.96
22	1.120	190	140 *	343	1.45
23	1.112	170	120	340	1.43
24	1.898	280	120	340	2.44
25	1.115	210	130	390	1.65
26	0.787	190	130	360	1.07
27	0.727	200	100	360	0.99
28	0.877	220	130	370	1.23
29	0.929	260	140	380	1.34
30	0.925	270	120	430	1.51
				-----	-----
				17.398	24.10

* Monthly average value used for calculations.

000070

06

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

Period Ending May 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project
LOCATION: (606) SWRB
DATE: APRIL 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.580	237	123	366	1.05
Max.	1.898	360	180	430	2.44
Min.	0.000	35	50	280	0.09

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.

000071

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

Period Ending May 31, 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: APRIL 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)
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	0.181	410	1500	1.10	0.75
12	0.208	600	1500	1.30	1.02
13	0.202	690	1340	2.00	1.53
14	0.202	500	1600	1.50	1.15
15	0.204	620	1400	1.60	1.24
16	0.202	510	1300	1.60	1.22
17	0.216	580	1400	1.40	1.14
18	0.190	580	1400	1.50	1.08
19	0.203	520	1500	1.50	1.15
20	0.201	480	1400	1.40	1.07
21	0.206	450	1300	1.20	0.94
22	0.206	450	1100	1.30	1.01
23	0.201	480	1300	1.20	0.91
24	0.203	530	1200	1.50	1.15
25	0.208	470	1100	1.60	1.26
26	0.202	550	1200	1.50	1.15
27	0.182	510	1100	1.60	1.10
28	0.178	540	1200	1.50	1.01
29	0.086	500	1000	1.60	0.52
30	0.200	520	1000	1.50	1.14

Total 3.881

21.54

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08

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

Period Ending May 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: (605) BDN/ETS

DATE: APRIL 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (mg/l)(2)	Total U (kgs)
Avg.	0.129	526	1301	1.47	1.08
Max.	0.216	690	1600	2.00	1.53
Min.	0.000	410	1000	1.10	0.52

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 May 31, 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: APRIL 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								
3								
4								
5								
6								
7								
8								
9								
10								
11	6.33	9	0.13	13.8	6.0	14.0	17.0	6.0
12								
13								
14								
15								
16								
17		2	0.00	15.4	6.0	14.0	17.0	6.0
18	0.36							
19								
20								
21								
22								
23		4	0.00	11.1	6.0	14.0	17.0	6.0
24								
25	2.45							
26								
27								
28								
29								
30								

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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 May 31, 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: APRIL 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	0.000
19	0.000
20	0.208
21	0.000
22	0.000
23	0.000
24	1.025
25	0.000
26	0.000
27	0.000
28	0.000
29	0.000
30	0.000

Total 1.233

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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 May 31, 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: APRIL 1995

Day	Flow (MGD)	Total U (ug/l)	Total U (kgs)
1	2.069	3.5	0.03
2	2.008	17.4	0.13
3	1.971	5.4	0.04
4	2.003	18.2	0.14
5	1.688	4.3	0.03
6	1.488	21.6	0.12
7	1.491	23.4	0.13
8	1.549	24.6	0.14
9	1.356	12.9	0.07
10	1.422	22.9	0.12
11	1.409	19.5	0.10
12	1.900	19.7	0.14
13	2.049	16.5	0.13
14	2.013	16.9	0.13
15	2.046	16.4	0.13
16	2.138	16.2	0.13
17	1.920	18.9	0.14
18	1.997	17.7	0.13
19	2.006	17.5	0.13
20	2.052	17.0	0.13
21	2.056	9.6	0.07
22	1.942	19.5	0.14
23	2.057	35.1	0.27
24	1.359	15.3	0.08
25	1.951	16.3	0.12
26	2.014	18.6	0.14
27	2.123	11.7	0.09
28	1.965	16.2	0.12
29	2.130	17.0	0.14
30	1.987	17.3	0.13
Total	56.159		3.56

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

Period Ending May 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: South Plume

DATE: APRIL 1995

	Flow (MGD)	Total U (ug/l)(2)	Total U (kgs)
Avg.	1.872	16.8	0.12
Max.	2.138	35.1	0.27
Min.	1.356	3.5	0.03

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.

000077

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

Period Ending May 31, 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: APRIL 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	2.781	21 <	61	37	0.39		6.5
2	2.601	22 <	61	40	0.39		6.7
3	2.699 <	14 <	61	35	0.36		6.9
4	2.320 <	14 <	61	26	0.23		6.8
5	1.760	20 <	63	22	0.15		6.9
6	1.488 <	14 <	63	19	0.11		7.0
7	1.491 <	14 <	63	17	0.10	4.8	7.2
8	1.549	11 <	50	16	0.09		7.1
9	1.727 <	10 <	50	20	0.13		7.0
10	2.031	14 <	50	25	0.19		7.0
11	2.148 <	10 <	50	29	0.24		6.9
12	2.610	10 <	50	22	0.22		6.6
13	2.877	12 <	50	17	0.19		6.9
14	2.910	13 <	50	18	0.20		5.8
15	2.886	13 <	50	18	0.20		6.1
16	2.980	12 <	50	22	0.25		6.5
17	2.136	11 <	50	31	0.25	1.2	6.4
18	2.187	16 <	50	33	0.27		6.8
19	2.209	19 <	50	25	0.21		6.7
20	2.253	14 <	50	21	0.18		6.8
21	3.111	21 <	50	24	0.28 <	2.0	6.9
22	3.268 <	10 <	50	27	0.33		7.0
23	3.370	20 <	50	26	0.33		7.0
24	3.460	36	50	68	0.89		7.2
25	3.274	27 <	50	41	0.51		7.1
26	3.003	17 <	50	41	0.47		6.8
27	3.032	16 <	50	32	0.37		6.7
28	3.020	12 <	50	33	0.38	1.8	7.2
29	3.145	19 <	50	35	0.42		6.8
30	3.112	24 <	50	38	0.45		6.7

Total 77.438

8.75

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

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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 May 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP3] Valve House

DATE: APRIL 1995

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	2.581	16.8	52.3	30	0.29
Max.	3.460	36.0	63.0	68	0.89
Min.	1.488	10.0	50.0	16	0.09

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 May 31, 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: APRIL 1995

Day	DO (mg/l)	IRON (mg/l)	MANGANESE (mg/l)
1			
2			
3			
4			
5			
6			
7	7.7	0.17	0.1
8			
9			
10			
11			
12			
13			
14			
15			
16			
17	***	0.35	0.1
18			
19			
20			
21	8.0	0.04	< 0.1
22			
23			
24			
25			
26			
27			
28	8.4	0.34	< 0.1
29			
30			

*** No reading taken; instrumentation inoperative.

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016