



State of Ohio Environmental Protection Agency

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DEC 28 2 46 PM '94
George V. Voinovich
Governor

December 27, 1994

Re: Director's Final Findings & Orders
U.S. Department of Energy
Fernald Environmental Restoration
Management Corporation
U.S. EPA ID No.: OH6890008976

U.S. Department of Energy
Fernald Environmental Management Project
Attn: Jack Craig, Acting Site Manager
P.O. Box 389705
Cincinnati, Ohio 45239

Fernald Environmental Restoration
Management Corporation
Attn: Don Ofte, President
P.O. Box 538704
Cincinnati, Ohio 45253-8704

CERTIFIED MAIL

Dear Sirs:

Transmitted herewith are Final Findings & Orders of the Director concerning the matter indicated.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 E. Town St., Room 300, Columbus, Ohio 43215.

Sincerely yours,

Thomas E. Crepeau, Manager
Data Management Section
Division of Hazardous Waste Management

TEC/dhs

cc: Edmond Tormey, Legal
Michael Savage, Asst. Chief, DHWM
Pamela Allen, Manager, RCRA CM&ES, DHWM
Don Marshall, Unit Supervisor, SWDO
Tom Snyder, OFFO, SWDO

ISSUANCE01/hwfandocvr1tr(17)



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EPA 1613 (rev. 5/94)

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Issue Date: December 27, 1994

Effective Date: December 27, 1994

**BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY**

In the Matter of:

U.S. Department of Energy	:	<u>Director's Final</u>
Fernald Environmental	:	<u>Findings and Orders</u>
Management Project	:	
P.O. Box 389705	:	
Cincinnati, Ohio 45239	:	

and

**Fernald Environmental Restoration
Management Corporation**
P.O. Box 538704
Cincinnati, Ohio 45253-8704

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to the United States Department of Energy ("U.S.DOE") and Fernald Environmental Restoration Management Corporation ("FERMCO") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under section 3734.13 of the Ohio Revised Code ("ORC").

II. PARTIES

These Orders shall apply to and be binding upon U.S. DOE and its co-operator, FERMCO, and their assigns and successors in interest. No change in ownership relating to the Facility will in any way alter U.S. DOE's and FERMCO's responsibilities under these Orders. U.S. DOE's and FERMCO's obligations under these Orders may only be altered by the written approval of the Director of Ohio EPA.

OHIO E.P.A.

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ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carvin Date 12-21

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as in ORC Chapter 3734. and the regulations promulgated thereunder.

IV. FINDINGS OF FACT

The Director of the Ohio EPA has determined the following findings of fact:

1. U.S. DOE owns and operates, and FERMCO co-operates, a former uranium metal production facility located approximately twenty (20) miles northwest of Cincinnati, Ohio in Hamilton and Butler Counties ("Facility"). FERMCO is a California corporation licensed to do business in the State of Ohio on April 13, 1992.

The Facility is presently listed on the U.S. Environmental Protection Agency's ("U.S. EPA") National Priorities List ("NPL") under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, ("CERCLA"), 42 U.S.C. Sections 9601 *et seq.* U.S. DOE and FERMCO are investigating and remediating environmental contamination at the site.

2. U.S. DOE and FERMCO are "persons" as defined in ORC Sections 1.59 and 3734.01(G) and Ohio Administrative Code ("OAC") rule 3745-50-10(A)(83).
3. At the Facility, U.S. DOE and FERMCO generate "hazardous waste" as that term is defined by ORC Section 3734.01(J) and OAC rules 3745-50-10(A)(42) and 3745-51-03, including uranyl nitrate hexahydrate ("UNH"), hazardous waste code D002, D005, and D007.
4. On March 1, 1993, U.S. DOE notified U.S. EPA of its hazardous waste activity at the Facility and was issued U.S. EPA Identification Number OH6890008976.

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OPENED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 12-27-94

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5. On July 6, 1984, U.S. DOE submitted a state Part A hazardous waste facility installation and operation permit application to Ohio EPA. U.S. DOE is seeking a state hazardous waste facility installation and operation permit for the Facility. The most recent revision of U.S. DOE's Part B permit application was submitted to Ohio EPA on September 15, 1994.
6. On July 18, 1986, U.S. EPA entered into a Federal Facility Compliance Agreement with U.S. DOE, requiring U.S. DOE to conduct a Remediation Investigation and Feasibility Study pursuant to CERCLA.
7. On December 2, 1988, U.S. DOE entered into a Consent Decree (State of Ohio v. United States Department of Energy, et al., U.S. District Court, Southern District of Ohio, Western Division, Civil Action No. C-1-86-0217) with the State of Ohio. This Consent Decree required, *inter alia*, that U.S. DOE conduct current and future treatment, storage, and disposal of all hazardous and mixed waste at the Facility in accordance with federal and Ohio hazardous waste laws and hazardous waste regulations, and that U.S. DOE implement the provisions of the Facility contingency plan upon approval by Ohio EPA.
8. On June 20, 1990, U.S. EPA and U.S. DOE entered into a CERCLA Consent Agreement, which was amended September 20, 1991. This amendment addressed changes in scope and schedule for the Facility-wide environmental remediation. The need for the modification arose from U.S. DOE's inability to meet milestone deadlines in the June 20, 1990 Consent Agreement, and involved revision of Operable Unit ("OU") definitions and schedules for their investigation and remediation. In addition, a Facility-wide OU was created to ensure the individual OUs' response actions result in an overall remediation that is protective of human health and the environment. Finally, the amendment resulted in the addition of several removal actions and schedules for their implementation.

By letter dated September 18, 1991, U.S. DOE notified Ohio EPA that leaks had been discovered in the 19-tank system used to store approximately 200,000 gallons of UNH at the Facility ("UNH System"). To address these

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RECEIVED DIRECTOR'S OFFICE

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 12-27-94

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releases, U.S. DOE agreed to conduct "Emergency Removal Action #20", authorized pursuant to the September 20, 1991 CERCLA Amended Consent Agreement referenced in this Finding.

- 9. By letter dated September 30, 1991, U.S. DOE submitted to Ohio EPA a description of the neutralization/removal process to be used on the wastes stored in the UNH System.
- 10. By letter dated November 18, 1991, U.S. DOE submitted to Ohio EPA a detailed compliance schedule for the UNH System. By letter dated December 31, 1991, Ohio EPA notified U.S. DOE that this schedule was acceptable to the Agency.
- 11. By letters to U.S. DOE and/or FERMCO dated April 3, 1992, November 15, 1993, and March 14, 1994, Ohio EPA requested the current status of the UNH neutralization/removal action at the Facility.
- 12. By letter dated April 8, 1992, U.S. DOE submitted to Ohio EPA an information package on the UNH neutralization/removal action. In this letter, U.S. DOE stated that it could commence the neutralization/removal action as early as April 16, 1992.
- 13. On January 22, 1993, U.S. DOE entered into a Stipulated Amendment to the Consent Decree Entered December 2, 1988, and Settlement Charges in Contempt (State of Ohio v. United States Department of Energy, et al., U.S. District Court, Southern District of Ohio, Western Division, Civil No. C-1-86-0217) with the State of Ohio. This Stipulated Amendment to the Consent Decree required U.S. DOE to evaluate all wastes and all solid waste management units and properly manage hazardous waste at the Facility
- 14. By letter dated April 29, 1993, U.S. DOE notified Ohio EPA that approximately 30 gallons of UNH had been spilled to a concrete pad and surrounding gravel during a recovery operation associated with the UNH System.

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UNCLERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carvin Date 12-27-94

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15. On December 9, 1993, Ohio EPA conducted an inspection of the UNH System. By letter dated December 17, 1993, Ohio EPA notified U.S. DOE of the Agency's concerns regarding the continued storage of large quantities of UNH hazardous waste at the Facility in tanks of questionable integrity, and of three violations discovered during the inspection:
- a. failure to remove leaked waste and accumulated precipitation from the UNH System's secondary containment areas within 24 hours of accumulation, in violation of OAC rules 3745-66-93(B)(2) and (C)(4);
 - b. failure to operate the UNH System's leak-detection system in a manner capable of detecting the release of hazardous waste within 24 hours, in violation of OAC rule 3745-66-93(C)(3); and
 - c. failure to respond to leaks in the UNH System, in violation of OAC rules 3745-66-94(C) and 3745-66-96(A),(B) and (E).
16. By letter dated January 28, 1994, U.S. DOE and FERMCO jointly submitted documentation addressing those violations referenced in Ohio EPA's December 17, 1993 letter. By letter dated August 10, 1994, Ohio EPA notified U.S. DOE and FERMCO that they had abated those violations listed in Finding Nos. 15a and 15b of these Orders. In addition, Ohio EPA notified U.S. DOE and FERMCO that, based on the January 28, 1994 documentation, Ohio EPA determined that U.S. DOE and FERMCO had:
- a. failed to ensure that UNH System's secondary containment structures were designed and operated to contain within their boundaries 100 percent of the capacity of the largest tank in the UNH System, in violation of OAC rule 3745-66-93(E)(1)(a);
 - b. failed to design and install the UNH System's secondary containment structures that completely surround all tanks within the system, in violation of OAC rule 3745-66-93(E)(1)(d);
 - c. failed to demonstrate that the UNH System's secondary containment systems have foundations or bases capable of providing adequate support, in violation of OAC rule 3745-66-93(C)(2);

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- d. failed to obtain an independent assessment attesting to the integrity of all tanks in the UNH System, in violation of OAC rule 3745-66-91(A) and (B); and
 - e. failed to conduct an annual leak test or integrity examination of those tanks in the UNH System which lack adequate secondary containment, in violation of OAC rule 3745-66-93(I)(2).
17. By letter dated June 3, 1994, U.S. DOE detailed for Ohio EPA a time table for sealing 10 leaks in the UNH System. By letter dated July 15, 1994, U.S. DOE notified Ohio EPA that a line in the UNH System had been repaired so often that further repairs were not possible. U.S. DOE stated that the waste from additional leak(s) in the line would be collected and returned to the system.
 18. On June 20, 1994, U.S. DOE submitted to Ohio EPA the Removal Action Workplan for UNH Neutralization, Removal Action Number 20. This plan provided the detailed information for the neutralization of the UNH.
 19. By letter dated July 26, 1994, Ohio EPA provided U.S. DOE with comments to the Removal Action Workplan for UNH Neutralization, Removal Action Number 20.
 20. By letters dated September 14 and October 17, 1994, U.S. DOE submitted documentation to Ohio EPA addressing, inter-alia, violations referenced in Ohio EPA's August 10, 1994 letter. These letters are currently under review by Ohio EPA.
 21. By letter dated October 10, 1994, FERMCO notified Ohio EPA that on October 5 and 6, 1994, several leaks had been discovered in the UNH System.
 22. During an October 13, 1994 teleconference with Ohio EPA, U.S. DOE and FERMCO stated that it was unlikely that their proposed January 16, 1995 target date for commencing neutralization/removal of the hazardous wastes from the UNH System would be met.

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RECORDED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 12-27-94

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- 23. By letter dated October 17, 1994, Ohio EPA notified U.S. DOE and FERMCO of the Agency's continued serious concerns with outstanding violations regarding the UNH System, including continued use of the UNH System to store hazardous waste. Also in this letter, Ohio EPA notified U.S. DOE that the Agency was considering an escalated enforcement action for hazardous waste violations at the Facility.
- 24. By letter dated October 21, 1994, U.S. DOE responded to Ohio EPA's October 17, 1994. This letter is currently under review by Ohio EPA.
- 25. On October 25, 1994, Ohio EPA and U.S. DOE met to discuss the schedule for the UNH neutralization/removal project and the status of leaks in the UNH System.
- 26. On November 7, 1994, U.S. DOE submitted to Ohio EPA a detailed schedule for the start-up and operation of the UNH Neutralization System ("UNH Processing Schedule"), including a start date of January 16, 1995.
- 27. During a November 14, 1994 teleconference with Ohio EPA, U.S. DOE and FERMCO verbally agreed to begin neutralization/removal of the UNH in the UNH System by January 16, 1995.
- 28. During a December 19, 1994 teleconference with Ohio EPA, U.S. DOE reported that 19 additional leaks had occurred in the UNH System. The Agency stated its continued serious concerns with the tank integrity and inadequate secondary containment capacity of the UNH System, and that Ohio EPA expected neutralization/removal of the UNH hazardous waste to follow the approved schedule, beginning on January 17, 1995.
- 29. The Director of Ohio EPA has determined that this action is required to protect the public health and safety and the environment, and has determined that this protection objective will be met if the hazardous waste is removed and managed in accordance with the approved plans referenced in these Orders.

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FILED DIRECTOR'S OFFICE

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 12-27-94

V. ORDERS

1. U.S. DOE and/or FERMCO shall begin neutralization/removal of the hazardous waste in the UNH System no later than January 17, 1995. The tanks shall be processed in accordance with the UNH Processing Schedule submitted to Ohio EPA on November 7, 1994. The UNH Processing Schedule may be revised with the written approval of Ohio EPA.
2. U.S. DOE and/or FERMCO shall complete neutralization/removal of the hazardous waste from the UNH System, as identified in the UNH Processing Schedule, no later than September 25, 1995.
3. U.S. DOE and/or FERMCO shall continue to inspect the UNH System in accordance with OAC rules 3745-65-15 and 3745-66-95 until all hazardous waste has been removed from the UNH System. U.S. DOE and/or FERMCO shall repair any deterioration or malfunction of UNH System equipment or structures pursuant to OAC rule 3745-65-15(C).
4. No later than January 17, 1995, U.S. DOE and/or FERMCO shall submit to Ohio EPA's Southwest District Office a contingency plan specific to the UNH System which, at a minimum, addresses responses to catastrophic failures of the tanks and/or ancillary equipment.
5. U.S. DOE and/or FERMCO shall decontaminate the UNH System's tanks and ancillary equipment in accordance with OAC rules 3745-66-11, 3745-66-14, 3745-66-97. By no later than October 25, 1995, U.S. DOE and/or FERMCO shall submit to Ohio EPA for review and approval a report demonstrating that the tanks have been properly decontaminated.

If Ohio EPA does not approve the report submitted pursuant to this Order, U.S. DOE and/or FERMCO shall, within 30 days after receiving written notice by Ohio EPA that the report is deficient, take further actions to correct the noted deficiencies and submit a revised report to Ohio EPA.

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SECRETED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 12-27-94

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VI. TERMINATION AND SATISFACTION

U.S. DOE's and FERMCO's obligations under these Orders shall terminate when U.S. DOE and/or FERMCO demonstrate in writing and certify to the satisfaction of the Ohio EPA that all obligations under these Orders have been performed and Ohio EPA's Division of Hazardous Waste Management acknowledges, in writing, Ohio EPA's acceptance of this demonstration and certification.

This certification shall be submitted by U.S. DOE and/or FERMCO, and shall be signed by a responsible official of U.S. DOE and/or FERMCO. This certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete".

For purposes of these Orders, a responsible official is an officer who is in charge of a principle business function of U.S. DOE and/or FERMCO.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state, or federal laws and regulations. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to U.S. DOE's and/or FERMCO's operation of the Facility. Ohio EPA reserves all rights and privileges except as specified herein.

IX. NOTICE

All documents demonstrating compliance with these Orders and other documents required under these Orders to be submitted to the Ohio EPA shall be addressed to:

Ohio Environmental Protection Agency
 Southwest District Office
 401 East 5th Street
 Dayton, Ohio 45402
 Attn: RCRA Group Leader

OHIO E.P.A.

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GENERAL DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 12-27-94

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and

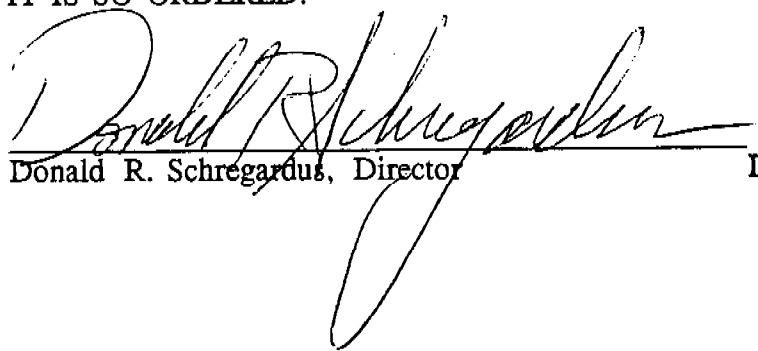
Ohio Environmental Protection Agency
Division of Hazardous Waste Management
P.O. Box 163669
1800 WaterMark Drive
Columbus, Ohio 43216-3669
Attn: Manager, Compliance Monitoring and Enforcement Section

or to such persons and addresses as may hereafter be otherwise specified in writing.

X. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent the Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other administrative, legal or equitable action as deemed appropriate and necessary, including penalties against U.S. DOE and/or FERMCO for noncompliance with these Orders. Nothing contained herein shall be construed to prevent the Ohio EPA from exercising its lawful authority to require U.S. DOE and/or FERMCO to perform additional activities pursuant to Chapter 3734. of the ORC or any other applicable law in the future. Nothing herein shall restrict the right of U.S. DOE and/or FERMCO to raise any administrative, legal, or equitable claim or defense with respect to such further actions which the Ohio EPA may seek to require of U.S. DOE and/or FERMCO. Nothing in these Orders shall be construed to limit the authority of the Ohio EPA to seek relief for violations not addressed in these Orders.

IT IS SO ORDERED:



Donald R. Schregardus, Director

December 27, 1994
Date

OHIO E.P.A.

DEC 27 94

REGISTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Gavin Date 12-27-94