



FILE: RCRA
GROUNDWATER

INTEROFFICE MEMORANDUM

To: Distribution Date: November 5, 1993

Location: Various Reference:

From: Ken Alkema, *Ken* FERMCO #: M:RP:93-0421
Vice President, RP

Location: Fernald, MS 65-2 Client: DOE DE-AC05-92OR21972

Extension: 9228 Subject: OHIO EPA DIRECTOR'S FINAL
FINDINGS AND ORDERS:
GROUNDWATER MONITORING

c: File Record Storage Copy 106.4.11
Kathy Little, MS 65-2
Tom Walsh, MS 65-2
Keith Wilkerson, MS 65-2

Attached for your information are Ohio EPA Director's Final Findings and Orders (DFOs) signed September 10, 1993, for the FEMP groundwater monitoring system. The DFOs integrate RCRA groundwater monitoring requirements with the CERCLA process.

The groundwater monitoring program is the responsibility of CRU5 (Mark Cherry). The groundwater sampling and monitoring well maintenance is conducted by Environmental Safety and Health (Allan Lydic). Note that Order 6 in the DFOs states that any necessary changes due to site activities must have the approval of the Ohio EPA. If you feel that activities conducted under your program may necessitate changes in routine sampling locations, parameters, and frequency, please coordinate your recommendations with Mark Cherry, Allan Lydic, and Kathy Little, Regulatory Programs.

Please forward a copy of the DFOs to appropriate personnel in your division or program. If you have any questions regarding the DFOs, please contact Kathy Little at 738-6645 or by email at rtpks1.

KLA:KSL:ksb
Attachment



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Bill Hertel, MS 61
Jim King, MS 52-3
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Issue Date:

SEP 10 1993

Effective Date:

SEP 10 1993

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

U.S. Department of Energy
Fernald Environmental
Management Project
P.O. Box 389705
Cincinnati, Ohio 45239

: Director's Final
: Findings and Orders
:

PREAMBLE

It is hereby agreed by and among the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to the U.S. Department of Energy ("Respondent") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") in Ohio Revised Code ("ORC") sections 3734.02(G) and 3745.01.

II. PARTIES

These Orders shall apply to and be binding upon the Respondent, its agents, assigns, successors in interest, and its co-operator, Fernald Environmental Restoration Management Corporation ("FERMCO"). No change in ownership or operation of the Facility will in any way alter the Respondent's responsibilities under these Orders.

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 9-10-93

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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. The following terms are defined as:

- a. "Alternate Program" shall consist of the portions of the Remedial Investigation ("RI") Work Plans and Addenda that pertain to groundwater characterization and the "Routine System", as specified in Orders number 1, 2 and 3 of these Orders.
- b. "Site" shall mean the Fernald Environmental Management Project ("FEMP"), including all areas within the property boundary of the FEMP and any other areas that received or potentially received or released hazardous waste or hazardous waste constituents.
- c. "Routine System" shall consist of the monitoring wells that will be located along the downgradient property boundary of the Facility. As of the effective date of these Orders, the Routine System consists of thirty-three (33) monitoring wells.

IV. FINDINGS OF FACT

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

1. Respondent owns and operates a former industrial facility located approximately twenty (20) miles northwest of Cincinnati, Ohio in Hamilton and Butler Counties ("Facility"). The Site is presently listed on 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. Respondent is investigating and remediating environmental contamination at the site.

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By: Mary Cavin Date 9-10-93

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2. The Respondent is a "person" as defined in ORC Sections 1.59 and 3734.01 and Ohio Administrative Code ("OAC") rule 3745-51-03.
3. The Respondent generates "hazardous waste" as that term is defined by ORC Section 3734.01 and OAC rule 3745-51-03.
4. The Respondent notified U.S. EPA on August 8, 1980 of its hazardous waste activity at the Facility and was issued U.S. EPA Identification Number OH6890008976.
5. The Respondent submitted "Part A" and "Part B" of its permit application pursuant to OAC rule 3745-50-41. The most recent revision of Respondent's "Part B" permit application was submitted on March 26, 1993.
6. There are land-based units at the Facility for which Respondent is required to implement a groundwater monitoring program described in OAC rules 3745-65-90 through 3745-65-94. The Respondent implemented a Resource Conservation and Recovery Act ("RCRA") groundwater monitoring program in 1985 pursuant to OAC rule 3745-65-90.
7. The Respondent is also conducting a groundwater monitoring investigation as part of its Remedial Investigation and Feasibility Study ("RI/FS") under CERCLA. The RI/FS schedules contained in the Amended Consent Agreement ("ACA") are based upon discussions between Respondent and U.S. EPA in consultation with the State of Ohio.
8. An objective of the CERCLA process is to characterize the nature, rate and extent of groundwater contaminant migration to the extent necessary to select and implement response action(s). This process will ensure characterization and remediation of groundwater for the entire Site, including the areas potentially affected by the land-based units identified in Finding number 6., above.

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By: Mary Carvin Date 9-10-93

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9. During a May 7, 1993 meeting and in a May 12, 1993 letter, the Respondent asked the Ohio EPA to approve an alternate RCRA groundwater monitoring program ("Alternate Program") for the Facility to replace the existing groundwater monitoring program at the Facility.
10. Ohio EPA and the Respondent desire to avoid duplication and to integrate the groundwater monitoring activities required by OAC rules 3745-65-90 through 3745-65-94 with the site-wide RI/FS groundwater characterization required by the ACA and described in the Respondent's RI/FS Work Plans and Addenda. In order to facilitate integration and avoid duplication, the Ohio EPA will review and approve portions of CERCLA documents for purposes of demonstrating compliance with OAC rules 3745-65-90 through 3745-65-94 and these Orders.
11. The Routine System is an assessment groundwater monitoring system with documented groundwater contamination in the following four stratigraphic levels: the surficial glacial till, the water table, the upper section of the sand and gravel aquifer, and the deep sand and gravel unit.
12. The Respondent, through a federal assistance award administered under 10 CFR Part 600, has agreed to provide Ohio EPA equipment and other support to electronically access environmental data for the Site through the use of the Intergraph System.
13. Pursuant to ORC Section 3734.02(G), the Director may by order exempt any person generating, storing, treating, or disposing of hazardous wastes in such quantities or under such circumstances that, in the determination of the Director, are unlikely to adversely affect the public health or safety or the environment from any requirement to obtain a permit or license, comply with the manifest system or with the requirements of ORC Chapter 3734.
14. If the Respondent conducts its Alternate Program in accordance with the Orders herein, it is unlikely that the public health or safety or the environment will be adversely affected.

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By: Mary Gavin Date 9-10-93

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V. ORDERS

1. The Respondent shall comply with the groundwater monitoring requirements in OAC rules 3745-65-90(A) through 90(E), 3745-65-91(B)(2) through 92(A), 3745-65-92(E) through 93(D)(2) and 3745-65-93(D)(7) through 94(B)(1) as applicable to an assessment monitoring program.
2. The Respondent is exempt from complying with the groundwater monitoring requirements in OAC rules 3745-65-91(A)(1) through 91(B)(1), 3745-65-92(B) through 92(D), 3745-65-93(D)(3) through 93(D)(6), and 3745-65-94(B)(2) provided that Respondent complies with these Orders and within ninety (90) days from the date of issuance of these Orders, modifies its groundwater monitoring program as described below to Ohio EPA's satisfaction:
 - a. The Respondent shall establish and maintain a groundwater monitoring system capable of yielding groundwater samples for analysis consisting of a total of thirty-three (33) existing and/or any potentially necessary monitoring wells installed hydraulically downgradient at the property boundary of the FEMP within the upper, middle and lower zones of the Great Miami Aquifer (2000, 3000 and 4000-series wells).
 - b. The Respondent shall conduct sampling and analysis of the target parameters including analyte metals, radionuclides, water quality parameters and volatile organic compounds on a quarterly basis. The quarterly sampling period for the wells shall normally extend no longer than one week, but shall not exceed two weeks.
 - c. The Respondent shall determine the elevation of the groundwater surface at each monitoring well each time a sample is obtained. The groundwater elevations shall be evaluated annually to determine if the downgradient requirements of Order number 2a., above, continue to be met. If the evaluation shows that the requirements of Order number 2a., above, are no longer met, the Respondent shall modify the number, location or depth of the monitoring wells to meet the

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By: Mary Cavin Date 9-10-93

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downgradient requirements of Order number 2a, above.

- d. In the event that initial sample results from the Routine System indicate a potential immediate risk to human health or the environment, the Respondent shall verbally notify Ohio EPA's FEMP Site Coordinator within 48 hours of receipt of laboratory data. In the event that confirmatory sample results from the Route System indicate a potential risk to human health or the environment, the Respondent shall, within 48 hours of receipt of laboratory data, verbally notify Ohio EPA's FEMP Site Coordinator and initiate a Removal Site Evaluation ("RSE") to determine if a Removal Action is warranted. The Respondent shall notify the Director in writing within five (5) days of the RSE initiation. Ohio EPA may request an RSE based upon its technical review of routine monitoring data. The necessity of additional work will be determined in consultation with U.S. EPA, Ohio EPA and the Respondent.
- e. The Respondent shall conduct other site-wide groundwater monitoring and characterization activities throughout the CERCLA process as necessary to implement appropriate response action(s), including determining background groundwater quality.
- f. When the Respondent submits the OU 5 RI Report, it shall be analogous to the groundwater quality first determination assessment report described in OAC rule 3745-65-93(D)(5).
- g. The Respondent shall submit by March 1 of each year an annual report of groundwater monitoring activities which includes: groundwater surface level elevations; analytical data from the Routine System; an update of groundwater-related activities for each operable unit from the previous calendar year; graphical representation delineating any changes in target parameter contaminant levels for each boundary well that shows changes in groundwater quality, as specified in the Alternate Program plan required in Order number 3 of these Orders; and changes in plume boundary configurations or concentrations related to the Routine System wells as determined by OU 5 data from

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the previous calendar year.

- h. The Respondent shall provide Ohio EPA electronic access to the environmental databases for the site.
3. Within forty-five (45) days from the effective date of these Orders, the Respondent shall submit a plan to Ohio EPA for its Alternate Program. The plan shall incorporate both the Routine Property Boundary Groundwater Monitoring Program and appropriate portions of the OU 5 RI/FS Work Plan. The assessment monitoring portion of the plan shall be analogous to the plan required by OAC rule 3745-65-93(D)(3) and shall contain an identification of the wells included in the Routine System; a well construction diagram for each well; a sampling and analyses plan meeting the requirements of OAC rule 3745-65-92(A); a sampling schedule and parameter list including target analyte metals, radionuclides, water quality parameters and volatile organic compounds; a description of the RSE/Removal Action process for addressing potential immediate risks to human health and the environment that may be identified through reviewing and evaluating groundwater monitoring data; a list of items that will be contained in the annual groundwater monitoring report; and a description of how compliance with the OAC rules required in Order number 1. and the conditions of Order number 2., above will be achieved.
4. If the Ohio EPA provides the Respondent with a written statement of deficiencies in the Alternate Program plan, the Respondent shall modify the plan or submit a new plan for approval that addresses the deficiencies within thirty (30) days of receiving such a written statement.
5. The Respondent shall determine to Ohio EPA's satisfaction the full nature, rate and extent of contaminant migration prior to implementation of any remedial design.

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By: Mary. Carvin Date: 9-10-93

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6. Future site activities may necessitate changes to the approved Alternate Program plan including but not limited to activities such as the duration of monitoring, sampling frequency, and sampling parameters and locations. No such changes or modifications shall be made by the Respondent without written notification to and written approval of Ohio EPA. Any notification of proposed changes to the Alternate Program under this section shall set forth the nature and basis for the proposed changes or modifications to the approved Alternate Program plan
7. The Respondent, by its acceptance of this exemption, agrees to comply with all conditions of the exemption and acknowledges that the Respondent's failure to so comply may result in immediate revocation of this exemption and further legal action by Ohio EPA. The Respondent also acknowledges this exemption may be revoked upon finding that such revocation is necessary to protect the public health or safety or the environment.

VI. MODIFICATIONS

These Orders may be modified by the Director upon written notification to the Respondent. The notification shall set forth the nature and basis for any modifications.

VII. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other authorized administrative, legal or equitable action as deemed appropriate and necessary against the Respondent for noncompliance with these Orders. Nothing herein shall be construed as an admission by Respondent or its co-operator or otherwise restrict the right of the Respondent or its co-operator 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 the Respondent. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

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In addition, no provision in this Order shall be interpreted to require obligation or payment of funds in violation of the of the Anti-Deficiency Act, 31 U.S.C. 1341.

VIII. TERMINATION AND SATISFACTION

These Orders shall terminate: (1) when the Respondent demonstrates in writing and certifies to the satisfaction of Ohio EPA that all obligations under these Orders have been performed and the Ohio EPA Division of Hazardous Waste Management acknowledges, in writing, the Ohio EPA's acceptance of this demonstration and certification; or (2) upon notification that the Respondent is no longer required to maintain the groundwater monitoring systems at the FEMP.

The certification required under this Section shall be signed by a responsible official of the Respondent. The certification shall make the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

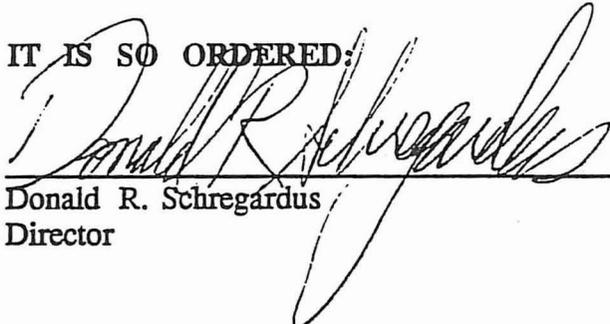
IX. EXPIRATION

These Orders shall expire upon the effective date of any state-issued post-closure permit for the Facility .

IX. SIGNATORIES

Each signatory to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such signatory to this document.

IT IS SO ORDERED:



Donald R. Schregardus
Director

SEP 10 1993

Date

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By: Mary Gavin Date 9-10-93

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X. WAIVER

The Respondent agrees that these Orders are lawful and reasonable and that the schedules provided herein are reasonable. The Respondent agrees to comply with these Orders. Compliance with these Orders shall be in full accord and satisfaction for the Respondent's and FERMCO's potential liability for any alleged violations of those specific OAC rules outlined in Order number 2 which may have occurred since December 20, 1991 or which occur at the Facility until the date that these Orders terminate or expire.

Except as provided in Section VII, above, the Respondent hereby waives the right to appeal the issuance, terms and service of these Orders and it hereby waives all rights it might have to seek judicial or administrative review of said Orders either in law or equity. The Respondent expressly waives any and all rights it has to request an adjudication hearing of any proposed revocation of these Orders or to appeal any final action of the Director revoking these Orders.

Notwithstanding the preceding, the Ohio EPA and the Respondent agree that in the event that these Orders are appealed by any other party to the Environmental Board of Review, or any court, the Respondent retains the right to intervene and participate in such appeal. In such event, the Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated, or modified.

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By: Mary Gavin Date 9-10-93

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IT IS SO AGREED:

U.S. Department of Energy

By Raymond J. Hansen

Date September 10, 1993

Title Acting Manager

Fernald Environmental Restoration Management Corporation

By MC [Signature]

Date 9/10/93

Title President FERMCO

Ohio Environmental Protection Agency

By Donald R. Schregardus

Date SEP 10 1993

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By: Mary Gavin Date 9-10-93

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