

4634

**FINAL REPORT FOR THE EXPANSION OF  
CHEMICAL STORAGE BUILDINGS PROJECT**

**03/23/93**

**USEPA/DOE-FN**

**1**

**LETTER**

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**FINAL REPORT**  
**FOR THE**  
**EXPANSION OF CHEMICAL STORAGE BUILDINGS PROJECT**

**Fernald Environmental Management Project**  
**U. S. Department of Energy**

**March 23, 1993**  
**CERCLA/RCRA UNIT #3**

### Introduction

The Chemical Storage Building was constructed in support of the Laboratory (Building 15) Upgrade Project to provide storage for hazardous chemicals used in a variety of processes performed in the FEMP Analytical Laboratory. Currently, these hazardous chemicals are stored in the FEMP Laboratory itself (Building 15). This 650 square foot building, located directly adjacent the west side of the Analytical Laboratory, contains a curbed pad surfaced with a solvent-resistant finish. In addition, a 572 square foot curbed pad was constructed directly north of this new storage building. This 572 square foot pad will also be covered by an extension of the storage building roof. (See Attachment No. 1)

A Removal Site Evaluation (RSE) was submitted by WEMCO on August 26, 1992. A Removal Action Memorandum for the Expansion of Chemical Buildings was issued by the DOE on October 6, 1992. The Action Memorandum stated that this project did not constitute a Removal Action and directed that the construction rubble and debris generated by this project shall be managed according to the control measures noted within the RSE and per FEMP Radiological Department contamination control guidelines specified in Removal Action 17 and FEMP site policies and procedures.

Construction of this building began on October 21, 1992 and was completed on March 5, 1993.

### Changed Site Conditions

The RSE indicated that approximately 1000 cubic feet (37 cubic yards) of NON-RCRA (RCRA non-hazardous) and non-radiological excess soil would be generated from building foundation and pad excavations during construction. This excess soil was not considered waste soil but simply the displaced volume of soil from these excavations that would not be needed for backfill.

Upon construction completion, however, excavation for this project involved the removal of approximately 75 total cubic yards of waste and excess soil. Sixty-five (65) cubic yards of this excavated soil was determined radiologically contaminated (based on field survey results using hand-held friskers which detected levels of radioactivity greater than 1000 DPM/100 square cm.) and placed in a total of 34 white metal boxes (WMB). (NOTE: FEMP Radiological Department contamination control guidelines state that radioactivity levels of >1000 DPM/100 square cm. obtained from field surveys with hand-held friskers indicate activity concentrations in soils and concrete will be greater than 100 pCi/g). These 34 WMB were placed on the Plant 1 Pad for interim storage. The soil contents of the 34 WMB will be emptied and placed in the new Central Storage Facility (CSF) once it has been constructed. This procedure is consistent with Phase I procedures outlined in the Removal Action 17 work plan.

The remaining 12 cubic yards of soil became excess "clean" soil since it was not radiologically contaminated and was not utilized for backfill. This 12 cubic yards of soil was placed on the interim soil stockpile designated for all soils determined to be <100 pCi/g. This interim stockpile for such soils is located northeast of the Boiler Plant (Bldg #10).

#### Verification Results

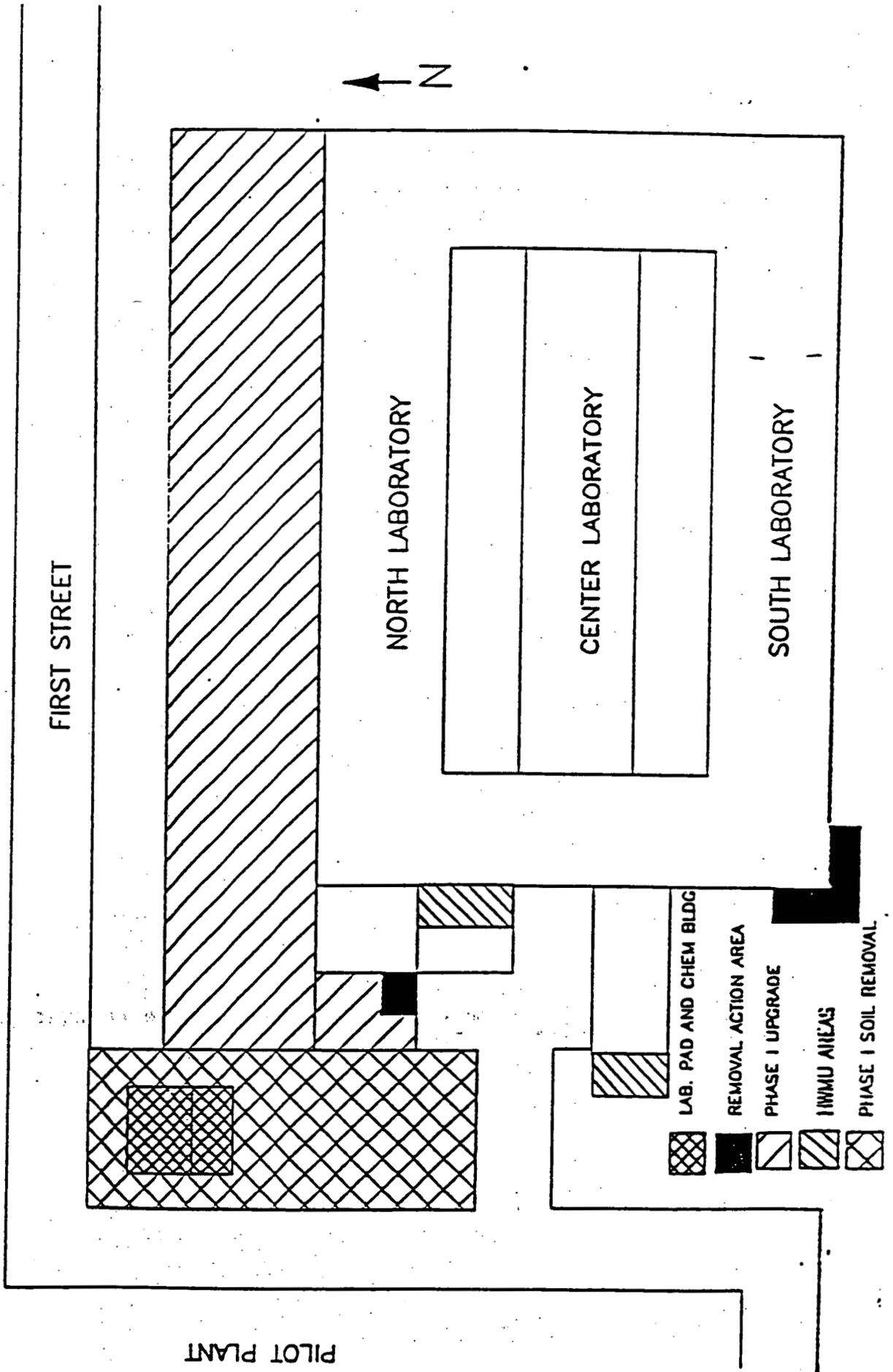
No verification samples were taken from either the excess soils generated after completion of the project nor from the locations where the soil was excavated. As described in the RSE, sufficient process knowledge was used prior to construction as the basis to verify the non-RCRA status of any excavated soil from the project area and radiological surveys conducted prior to construction were used to indicate no detectible levels of radioactivity was expected in the project area.

Upon discovery of elevated levels of radioactivity (see Radiological Survey Report 11-18-92), verification was accomplished through the results of field surveys conducted with hand-held friskers utilized during the excavations. These field surveys were conducted throughout excavations in order to determine when all radiological levels in the remaining foundation soil were below the FEMP Radiological Department contamination control guidelines of below 1000 DPM/100 square cm.

#### Conclusion

Pre-construction radiological surveys indicated no detectable levels of radioactivity in the insitu grassy soils of the project building site. Radiological field surveys conducted during excavations with hand-held friskers were used to determine that elevated levels of radioactivity were present. Verification results of the soil deposited in the WMB and the remaining foundation soil were obtained through these field surveys. Based on the results of these field radiological surveys and associated necessary actions taken to properly disposition the material, the administrative controls incorporated throughout this excavation task were adequate.

ATTACHMENT NUMBER 1





NEW  
LAB

STREET

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨
- ⑩

ROAD





Restoration Management Corporation

P.O. Box 398704 Cincinnati, Ohio 45239-8704 (513) 738-6200

DW: 93:0010E  
Closure

- 4634

March 23, 1993

U. S. Department of Energy  
Fernald Environmental Management Project  
Letter No. C:OP:93-398

Mr. Thomas J. Rowland, Acting Manager  
DOE Field Office, Fernald  
P. O. Box 398705  
Cincinnati, Ohio 45239-8705

Dear Mr. Rowland:

**CONTRACT DE-AC05-92OR21972, FINAL REPORT FOR THE EXPANSION OF CHEMICAL STORAGE BUILDINGS PROJECT**

Reference: DOE-2820-92, W. D. Adams to H. F. Daugherty, "Removal Action Memorandum - Expansion of Chemical Storage Buildings," dated October 6, 1992

The Final Report for the subject project is enclosed for your review. This document provides a general description of the project and the resultant changed site conditions, notes the volume of waste generated including the number and type of containers used, and the locations of the dispositioned material and containers. Verification sampling was determined to be unnecessary based on sufficient process knowledge. This Final Report is being provided in response to the referenced letter. If you should have any questions, our point of contact is T. E. Weese at Extension 9007.

Very truly yours,

N. C. Kaufman  
President

NCK/TEW:tew  
Attachment



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Mr. Thomas J. Rowland  
Letter No. C:OP:93-398  
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c: J. A. Apple  
P. F. Clay  
J. R. Craig, DOE-FN  
D. Dubois  
R. C. Farr, DOE-FN  
K. C. Gessendorf  
C. L. Griffin  
R. J. Janke, DOE-FN  
F. T. Jebens  
J. E. King  
J. L. Oxendine w/o attachment  
D. L. Painter  
T. E. Weese  
CRU3 Project Files  
DW:93:0010B

008



Restoration Management Corporation P.O. Box 398704 Cincinnati, Ohio 45239-8704 (513) 738-6200

June 29, 1993

U. S. Department of Energy  
Fernald Environmental Management Project  
Letter No. C:OP:93:0891

Mr. Ray Hansen, Acting Manager  
DOE Field Office, Fernald  
P. O. Box 398705  
Cincinnati, Ohio 45239-8705

Dear Mr. Hansen:

**CONTRACT DE-AC05-92OR21972, COMMITMENT DW:93:0010B**

The referenced letter with its attachment closed commitment DW:93:0010B.  
The letter and attachment are being forwarded to the Administrative Record  
by a copy of this letter in order to close commitment DW:93:0010C.

Very truly yours,

N. C. Kaufman  
President

NCK:NEH:sdg  
Attachment

- c: Robert Mendelsohn, DOE Contract Specialist
- K. C. Gessendorf
- N. E. Hopson
- D. J. Carr
- P. F. Clay
- AR Coordinator
- CRO Files
- File Record Storage Copy 102.1