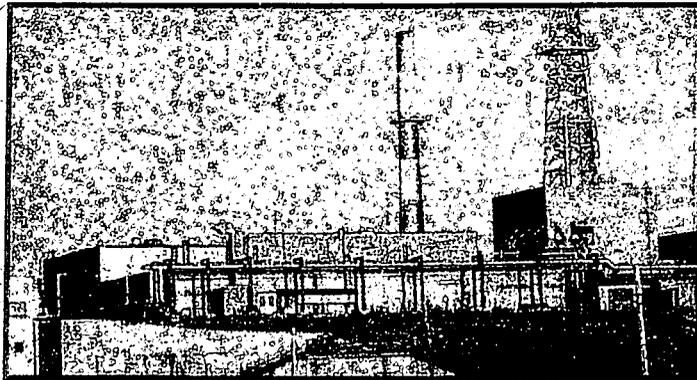


**Main Hill Non-Rad Project**

# **CLOSE OUT REPORT**

**Transition of DS Building**

**Lease, Commercial/Industrial Use**

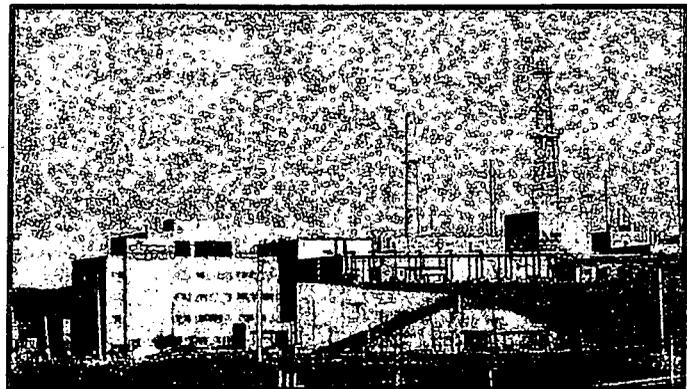


**MOUND PLANT**

**Miamisburg, Ohio**

**Final**

**October 1998**



**Babcock & Wilcox of Ohio, Inc.**



**Department of Energy**

CLOSE OUT REPORT FOR DS BUILDING  
OF  
DOE MOUND PLANT  
MIAMISBURG, OHIO 45343-3020

Prepared for:

United States Department of Energy  
Miamisburg Environmental Management Project  
P.O. Box 3020  
Miamisburg, Ohio 45343-3020

Prepared by:

Babcock & Wilcox of Ohio

October 1998

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## PREFACE/PURPOSE

The purpose of this Close Out Report is to document the environmental and operational status of DS Building and the research and transition activities accomplished by Babcock and Wilcox of Ohio, Inc. (BWO) to achieve this status. The Close Out Report is the contract deliverable that acknowledges and declares BWO completion of specified and appropriate contract requirements applicable to achieving this transition status, and acceptance by the United States Department of Energy (USDOE) of this status as successfully meeting the intent of the requirements.

The environmental and operational status achieved is that DS Building is protective of human health and the environment for the purpose of leasing for commercial/industrial use. Remaining BWO contractual functions associated with DS Building, therefore, are limited strictly to funded Surveillance and Maintenance (S&M) activities to continue until contract termination or adjustment, or until the defined final and unrestricted transfer of the building by USDOE to the Miamisburg Mound Community Improvement Corporation (MMCIC), whichever occurs first.

## EXECUTIVE SUMMARY

In preparation for Mound Plant site property transfer from the USDOE to the Miamisburg Mound Community Improvement Corporation (MMCIC), the DOE Mound Plant DS Building has been thoroughly investigated, characterized, and as appropriate, decontaminated by BWO employing the concepts and requirements of the Mound 2000 Potential Release Site (PRS)/Building Data Package (BDP) process per the *Federal Facilities Agreement (FFA)* and *Work Plan For Environmental Restoration Of The DOE Mound Site, The Mound 2000 Approach*. The BWO investigation included an on-site inspection of land and building, personal interviews, an examination of historical aerial photographs and maps, a review of federal and state regulatory agency records, a review of USDOE environmental reports and building prints, and a detailed study of Mound Plant documentation to especially include the BDP and applicable PRS information. Property inspections and site visits took place from October 1, 1997 through April 16, 1998. Investigation procedures are described in the text of the DS Building Data Package.

A core team consisting of representatives from the USDOE/Mound Environmental Management Project (MEMP), the United States Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA) reviewed the DS Building Data Package and applicable PRS information. The core team has declared that DS Building is "protective of human health and the environment for the purpose of leasing for commercial/industrial use."

Details of the BWO investigation may be found in the DS Building Data Package and referenced sources. Core team findings and recommendations are found in Appendix A of this report. Appendix B is a synopsis/summary of the investigation.

In light of the effective accomplishment of required transition activities and the noted core team recommendation, BWO has successfully achieved transition status for DS Building. BWO's remaining contractual obligations are now limited to defined and funded S&M activities.

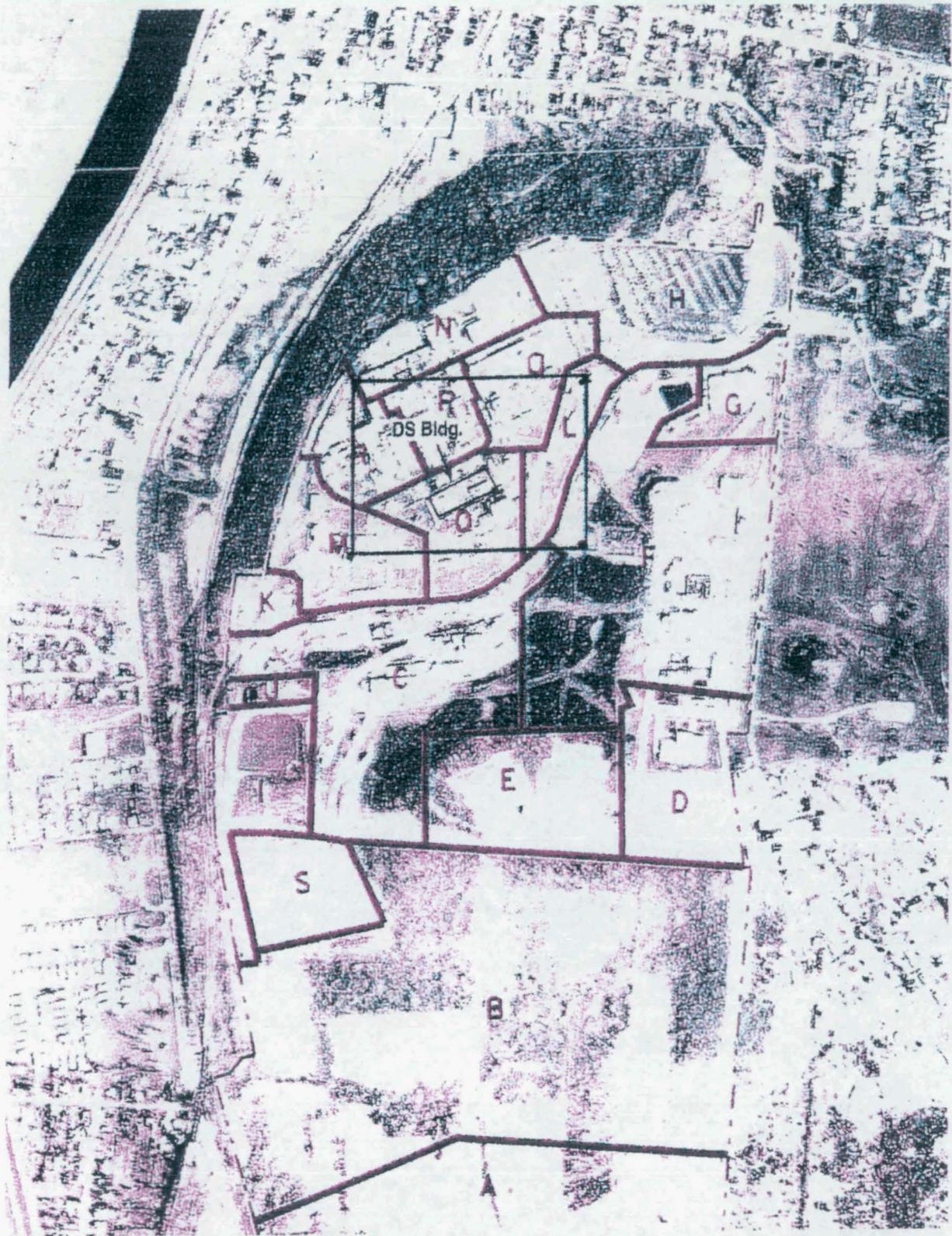


Figure 1. Mound Plant Site Location

# Mound Plant

DS Building  
Standards & Labs  
EM Labs, Offices, & Standards

On map below:

- Building number & location shown in black.
- PRS locations & numbers shown in blue.
- Surrounding buildings shown in green.
- Fencing shown in red.
- Elevation contours shown in brown.

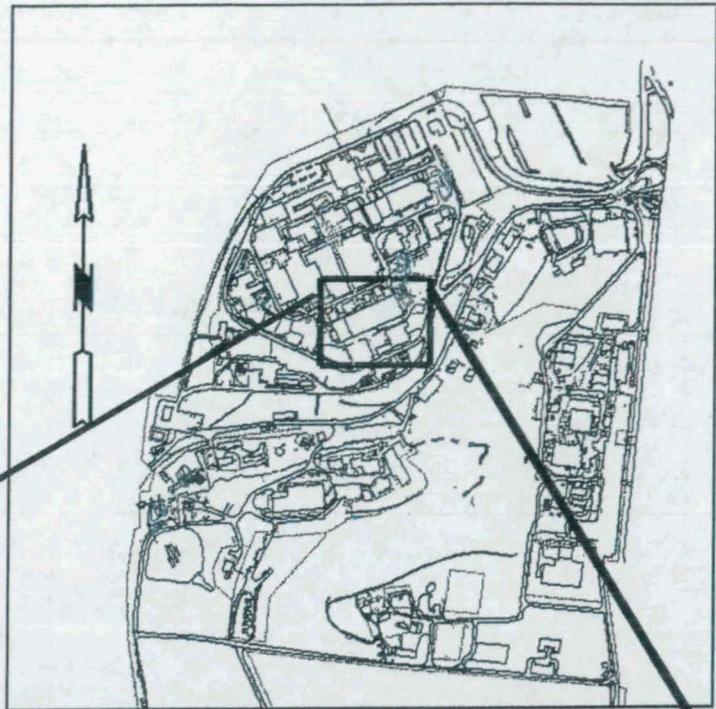


Figure 2. DS Building Location at the Mound Plant

## 1.0 SUMMARY OF EVENTS

### 1.1 Transition Defined

Transition encompasses specified and appropriate contractual functions as defined in the Work Breakdown Structure (WBS), Number 1.2.3.24: Decontamination and Transition Template. Transition functions are intended to establish an environmental and operational status allowing designated buildings to be legally transferred by the USDOE, at a time determined by the USDOE, from their possession to the possession of the MMCIC. Transition functions can also serve to define and designate the environmental and operational status of a building for interim use prior to ultimate transfer disposition, as specified and directed by the USDOE. A successful transition is marked by a core team declaration that a building is "protective of human health and the environment," thus allowing the building to be transferred or placed into interim use. A successful transition is further marked by the limiting of future BWO contractual obligations to those of defined and funded Surveillance and Maintenance activities.

### 1.2 Objectives of the Transition: DS Building

Decontamination and transition of DS Building was accomplished in support of the Mound Plant Exit Project. The immediate objective successfully accomplished was the establishment of an environmental and operational status protective of human health and the environment such as to allow interim leasing of the building for commercial/industrial use. Additional objectives accomplished include both the extrapolation of requirements as noted in the DS Building Data Package core team recommendation, the accomplishment of which will support USDOE final transfer of DS Building to the MMCIC, and the adjustment of BWO contractual obligations such as to now address only defined and funded Surveillance and Maintenance activities.

### 1.3 Personnel Organization For The Transition

See Table 1, Personnel Organization for the Transition.

Table 1. Personnel Organization for the Transition

Agencies or Parties Involved	Contact	Description of Participation
US EPA HSRM-6J 77 W. Jackson Chicago, IL 60604	Tim Fischer 312-886-5787	Federal agency responsible for Mound Plant oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402	Brian Nickel 937-285-6468	State agency responsible for Mound Plant oversight.
DOE/MEMP 1 Mound Road P.O. Box 66 Miamisburg, OH 45343	Frank Schmaltz 937-865-3620	DOE/MEMP Project Manager responsible for project oversight and success.
B&W of Ohio Main Hill Non-Rad 1 Mound Road P.O. Box 3030 Miamisburg, OH 45343	Budd Thompson 937-865-4071	Provided the DOE/MEMP project manager with technical assistance, administrative support, sampling, photo and site documentation, site safety, and report preparation.
B&W of Ohio General Superintendent and Equipment Manager 1 Mound Road P.O. Box 3030 Miamisburg, OH 45343	Rich Higgins 937-865-4400	Provided personnel and equipment necessary for the transition.

1.4 Listing of Key Transition Activities With Dates

- Perform/insure building surveillance - 10/01/97 to 10/01/98.
- Perform building characterization - 10/01/97 to 03/01/98.
- Accomplish decontamination/clean-up operations - 11/01/97 to 03/03/98.
- Develop Work Plan - 11/01/97 to 04/14/98.
- Accomplish safe shutdown 11/01/97 to 05/30/98.
- Prepare and deliver Building Data Package to core team for review - 3/24/98.
- Accomplish core team building disposition meeting (binning) and write recommendation - 4/16/98.

- Enter Building Data Package into public review - 6/24/98.
- Prepare and deliver draft DS Building Close Out Report to DOE - 10/01/98.

### 1.5 Listing of Resources Committed

Table 2 highlights the total cost summary of the transition activities.

Table 2. Transition Total Cost Summary

Activity	Cost (\$)
Characterize	96,776
Salvage Equipment	257,485
Flush Equipment	320
Preparation Effort	154,923
Safe Shutdown	1,764
Develop Draft Work Plan/Building Data Package	37,721
Review/Approve Draft Work Plan/Building Data Package	5,255
Write Final Building Data Package	1,156
TOTAL	555,400

## 2.0 EFFECTIVENESS OF THE TRANSITION

The objectives of the transition were successfully accomplished. The DOE Mound Plant DS Building was thoroughly investigated, characterized, and as appropriate, decontaminated by BWO employing the concepts and requirements of the Mound 2000 Potential Release Site (PRS)/Building Data Package (BDP) process per the *Federal Facilities Agreement (FFA)* and the *Work Plan For Environmental Restoration Of The DOE Mound Site, The Mound 2000 Approach*. Additionally, the core team consisting of representatives from the USDOE/Mound Environmental Management Project (MEMP), the United States Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA) reviewed the DS Building Data Package and applicable PRS information. The core team has declared that DS Building is "protective of human health and the environment for the purpose of leasing for commercial/industrial use."

### 3.0 RECOMMENDATION

It is recommended to the Department of Energy that the scope of work relating to DS Building transition be considered complete. Remaining BWO contractual functions associated with DS Building are limited strictly to funded Surveillance and Maintenance activities. These S&M activities will continue until contract termination or adjustment, or until the defined final and unrestricted transfer of DS Building by the USDOE to the Miamisburg Mound Community Improvement Corporation, whichever occurs first.

### 4.0 ADDITIONAL INFORMATION

Contact Mark Becker, Babcock and Wilcox of Ohio, Public Relations Department, at 937-865-4450 to request additional information or for access to documents concerning the DS Building transition.

Appendix A

Core Team Findings And Recommendation

## MOUND PLANT RECOMMENDATION

## DS BUILDING

**Background:**

DS Building is a 47,810 square foot single story concrete building with a built up membrane roof and three penthouses. It was constructed in 1965 and served as the Metrology Lab and Explosive Testing Facility. PRS 128, the DS Building Solvent Storage Shed, is also considered as part of this facility.

**Recommendation:**

After thorough review of the environmental data and the Building Data Package, the Core Team agrees that no environmental concerns are associated with DS Building. Because of the presence of PRS 122 (radioactive waste lines) located underneath DS Building, the Core Team has determined that it is not appropriate to transfer DS Building at this time. After PRS 122 is evaluated as NFA or clean up has been completed, title transfer for DS Building can occur. However, the Core Team feels that DS Building is protective of human health and the environment for the purpose of leasing for commercial/industrial use.

**Concurrence:**

DOE/MEMP:

Sam Cheng  
Sam Cheng, D&D Team Leader

4/16/98

(date)

USEPA:

Timothy J. Fischer  
Timothy J. Fischer, Remediation Project Manager

4/23/98

(date)

OEPA:

Brian K. Nickel  
Brian K. Nickel, Project Manager

4/16/98

(date)

4/16/98  
4:18 pm

R

Appendix B

Synopsis/Summary of BWO Investigations

## General Overview

### Scope

The scope of the investigation included the building, the soils beneath the building, and a 15-foot wide perimeter border around the building. This perimeter includes roadways, sidewalks, pavement, and grass covered areas. The investigation of DS Building included the following:

- building and perimeter inspection
- examination of historical aerial photographs and maps
- review of federal and state regulatory agency records
- personnel interviews
- review of Mound Plant records
  - ◆ history of spills and releases
  - ◆ past sampling data
    - radiological survey
    - chemical history
    - lead paint
    - asbestos
    - radon.

Building investigations were conducted by BWO personnel from October 1, 1997 through April 16, 1998.

### Use of Previous/Other Assessments

This report used a variety of previous assessments completed by BWO Mound and/or its subcontractors. The reports used were as follows:

- Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, August 1990
- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical characterization, December 1992
- Active Underground Storage Tank Plan, November 1994
- OU-9 Hydrological Investigation Bedrock Report, January 1994
- OU-9 Hydrological Investigation, Buried Valley Aquifer Report, March 1994
- Environmental Appraisal of the Mound Plant, March 1996
- Phase 1 Environmental Site Assessment of DS Building, November 1996

- Results of Radiological and Video Surveys of Drain Lines at the USDOE Mound Facility with the Pipe Explorer™ System, January 1997
- Title Search
- Lease information
- EDR report
- Building prints

### Building Specific Overview

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The Mound Plant facility is situated on 305 acres of land and contains more than 132 buildings. The subject property consists of Mound Plant DS Building footprint and an arbitrary 15-foot wide perimeter around the building. DS Building contains 47,810 square feet. It was constructed in 1965. No waste was stored in DS Building.

### Current Uses Of DS Building

The building houses metrology, receiving inspection, and "User Centers" leased to the MMCIC. User Center activities include photographic processes for flexible circuits (Star City), laser resistance welding (Precision Joining Technologies) and calibration activities (Mound Metrology, Inc.). Most activities are restricted to the east part of the building.

### Past Uses of DS Building

The building was used for metrology and explosives production and development.

### Associated PRS Overview

As a result of the investigations conducted and documentation to comply with the CERCLA clean-up process via the FFA/DOE ER (Environmental Restoration) program, DOE and BWO have tabulated all the Potential Release Sites (PRSs) identified under the various regulatory programs in effect at the site. Many additional contaminants of concern and types of operations were identified beyond the original NPL (National Priorities List) listing of site activities. A total of 417 PRSs have been identified. One of these 417 PRSs, PRS 128, has been attributed to DS Building. PRS 122, attributable to T-Building, is related by geographic proximity.

PRS 128 - DS Building Solvent Shed: This storage shed is located at the southeast corner of DS Building. During the on-site inspection, this building was empty. However, the *OU-9 Site Scoping Report: Volume 12 - Site Summary Report, December 1994*, has the shed listed as in-service. According to the report, chemicals stored in the shed included organic solvents (including 1,1,1-trichloroethane, trichlorofluoromethane, ethanol, and trichloroethane). The report also recorded suspected release from this storage area, although no additional information could be found. Sampling in the vicinity noted no contamination of concern above action levels. The shed is intended for further use. (PRS 128 was "binned" NFA - No Further Assessment - by the core team, as part of the DS Building evaluation process.)

PRS 122 - Radioactive Waste Lines From T-Building running Under DS Building: a survey indicated the presence of Cobalt-60 in the lines. This PRS will be treated as a soils project.

#### Summary of Environmental Concerns and Findings

See Table B-1. All concerns were evaluated and satisfactorily resolved such as to allow the recommendation that "...DS Building is protective of human health and the environment for the purpose of leasing for commercial/industrial use."

Table B-1. Summary of Environmental Concerns and Findings

DESCRIPTION	COMMENT	RESOLUTION
Lead Paint	Due to the age of the building it is assumed lead paint is present.	Any cracking or peeling paint has been removed.
Chemicals	The DS Building solvent storage shed has been identified as PRS 128.	A search of OU9, Volume 11, Spills and Response Actions, and discussions with historical experts validates a determination that there were no historical spills.
Radiological	The Radiological Contaminated Areas have been decontaminated with the exception of two items.	These two items have been disposed of and the building is no longer posted. These items were removed on 4/1/98 by rad ops.
Stains & Corrosion	Rust stains on floor of Room 125A were of a size and location indicating that they resulted from corrosion of metal spacers supporting the solvent tank. No evidence of overflow of solvents from the storage tank itself based on the interview with the building manager.	Have been cleaned up.
Underground Lines	T-Building related Cobalt 60 contamination.	Will be treated as PRS 122 under the soils project
Beryllium	Equipment in 131A was potentially contaminated.	The potentially contaminated equipment was removed in the 1980's.
Pu-238 & Thorium in Soil	Pu-238 sample was 268 pCi/g. The thorium was 11.6 pCi/g. ID SCR 307 is approximately 45 feet south from the footprint of DS Building.	Will be evaluated as PRS 415.
Interior Solvent Drain Lines	Pipeline integrity is subject of concern.	HOKK ASTM Report, page 35 describes that the lines were emptied and confirmed empty in October 1996.

~~For BWO internal use only.~~

Hierarchy For: Close Out Report for DS Building.

Document that directed this document be produced: USEPA Region 5 and State of Ohio; Federal Facility Agreement Under CERCLA 120; In the Matter of the USDOE's Mound Plant; Miamisburg, OH; July 15, 1993.

LEVEL 1  
LAWS/REGULATIONS  
(Imposed by Outside Authority)

LEVEL 2  
AGREEMENTS

LEVEL 3  
MOUND SITE-WIDE DOCUMENTS  
(POLICY & GUIDANCE FROM BWO)

LEVEL 4  
ORGANIZATIONAL/OPERATIONS  
DOCUMENTS

LEVEL 5  
PROCEDURAL/INSTRUCTIONAL  
DOCUMENTS

LEVEL 6  
REPORTS AND PERFORMANCE  
INDICATORS

Close Out Report

