BWX Technologies, Inc.
Babcock & Wilcox, a McDermott company

3005-9804220005

hio, Inc.

1 Mound Road
P.O. Box 3030
Miamisburg, Ohio 45343-3030
(937) 865-4020

ESC-080/98
March 26, 1998

Mr. Tim Fischer
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Mr. Brian Nickel
Ohio Environmental Protection Agency
Southwest District Office
401 E. Fifth Street
Dayton, Ohio 45402-2911

SUBJECT: Contract No. DE-AC24-97OH20044
FINAL RELEASE BUILDING DATA PACKAGES: BUILDINGS C, 33, 43, 35/59

REFERENCE: Statement of Work Requirement C 5.3.2 -- Stakeholder Participation in Mound

Dear Mr. Fischer and Mr. Nickel:

During the Public Review of the Building Data Packages for Buildings C, 33, 43 and 35/59, DOE/MEMP received comments from MMCIC. The Core Team has responded to these comments. The attached change pages for the buildings C, 33, 43 and 35/59 Building Data Packages incorporate the comments, responses and necessary changes in the Building Data Packages.

In addition, for the Building 33 Building Data Package, please add the attached radiological survey information to Appendix 6.6.1 and replace the information in Appendix 6.9 with the attached revised Work Plan.

This information has been authorized for release to US EPA, OEPA and ODH by Sam Cheng of MEMP.

If you require further information, please contact Dave Rakel at extension 4203.

Sincerely,

Linda R. Bauer, Ph.D.
Department Manager, Environmental Safeguards & Compliance

LRB/nmg

Enclosures as stated

cc: Kathy Lee Fox, OEPA, (1) w/attachments
Ray Beaumier, OEPA, (1) w/attachments
Jim Webb, ODH, (1) w/attachments
Dann Bird, MMCIC, (1) w/attachments
Administrative Record, (1) w/attachments
Public Reading Room, (5) w/attachments
DCC

BDP 35

REV	DESCRIPTION	DATE
PULIC RELEASE **0**	Available for comments.	**Jan. 13, 1998**
FINAL RELEASE **1**	Comment period expired. MMCIC comments noted.	**Mar. 25, 1998**

MOUND

Environmental Restoration Program

MOUND PLANT BUILDING DATA PACKAGE

Notice of Public Review Period

The following Building Data Packages will be available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio beginning January 15, 1998. Public comment will be accepted on these packages from January 15, 1998, through February 15, 1998.

BDP 43: Devices Development
BDP: 35/59: Nondestructive Testing Facility

Written comments may be sent to U.S. Department of Energy, c/o Jane Greenwalt, P.O. Box 66, Miamisburg, Ohio 45343-0066 or by E-Mail to: *jane.greenwalt@em.doe.gov*
Questions can be referred to DOE Office of Public Affairs at (937) 865-3116.

MOUND PLANT RECOMMENDATION

BUILDINGS 35, 59

Background:

Buildings 35 and Building 59 are physically connected, and since 1977 comprised the Californium Multiplier (CFX) facility. Building 35 is a single story concrete building constructed in 1967. It is 2,500 square feet in size. Building 35 has a steel deck and a flat roof covered with small gravel, supported by roof joints spanning the interior masonry walls and an interior column line. It housed the control room for CFX, offices, and the neutron radiography and eddy current nondestructive testing laboratory that supported the CFX mission.

Building 35 ceased operations in 1990 except it has been used for prejobs and a break area to support Building 59 shutdown activities. Building 35 has two remaining X-ray units that most likely contain lead shielding. These units will be disposed of per applicable state and federal regulations.

Building 59 was built as a neutron radiography and neutron activation facility in 1977. It is a two story, concrete block structure, 18-foot square and approximately 36 feet high (648 square feet). It has 12 inch-thick first floor walls, 8 inch-thick second floor walls, and a poured concrete roof. The floor separating the two stories is cast-in-place, reinforced concrete 16 inches thick that supported the Californium Multiplier (CFX) and biological shielding. Part of this shielding is a concrete "donut" which is 4'-8" high with an 11'-4" outside diameter and an inside diameter of 3'-4" and is one piece with the floor. The first floor of Building 59 housed the positioning mechanisms for radiographing components containing energetic materials. Neutron backscatter from the floor was minimized by placing a hole in the center of the floor directly beneath the film plane. This hole was covered by a grating and a thin aluminum sheet.

Building 59 is empty and has been unused since 1990. At that time, the Californium source was stored 10 feet below Building 59 in a U-tube. In 1995 the Californium source was removed from the U-tube and shipped off-site. In 1996, uranium plates, cadmium blades, and the CFX unit were removed from Building 59 as part of Safe Shutdown.

Recommendation:

Radiological characterization has shown a beta fixed activity at 130,000 disintegrations per minute per 100 sq. Centimeters (dpm/100 cm^2). This value exceeds the radiological guideline of 5,000 dpm/100 cm^2.

It has been determined that these conditions are not protective of human health and the environment. Therefore, a RESPONSE ACTION is recommended.

Concurrence:

DOE/MEMP: Sam Cheng 11/19/97
Sam Cheng, D&D Team Leader (date)

USEPA: Timothy J. Fischer 11/19/97
Timothy J. Fischer, Remediation Project Manager (date)

OEPA: Brian K. Nickel 11/19/97
Brian K. Nickel, Project Manager (date)

The Mound Core Team
P.O. Box 66
Miamisburg, Ohio 45343-0066

March 18, 1998

Mr. Dann Bird
Planning Manager
MMCIC
P.O. Box 232
Miamisburg, OH
45342-0232

Dear Mr. Bird:

Thank you for your comments on the Building Data Packages for Building C, 33, 43 and 35/59. The Core Team, consisting of the U.S. Department of Energy Miamisburg Environmental Management Project (DOE-MEMP), U.S. Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA), appreciates the input provided by the public stakeholders of the Mound facility. The public stakeholders have significantly contributed to the forward progress that has been made establishing the safety of the Mound property prior to its return to public use after remediation and residual risk evaluation.

The comments for Building C, 33, 43 and 35/59 all indicated the need for continued cooperation. We concur and were pleased to see your comments also addressed to members of the Partnership Council. This group will be particularly effective in achieving the level of cooperation your comments suggest.

Concerning your question about the timing of a radiation survey of Building 59, our plans are to perform a radiation survey before the building is demolished.

Should the responses to comments require additional detail, please contact Sam Cheng at (937) 865-4778 and we will gladly arrange a meeting or telephone conference.

Sincerely,

DOE/MEMP: _____ 3/13/98
Sam Cheng, DFR Team Leader

USEPA: _____ 3/19/98
Timothy J. Fischer, Remedial Project Manager

OHIO EPA: _____ 3/19/98
Brian K. Nickel, Project Manager

BUILDING DATA PACKAGE (BDP)

BUILDING 35

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

TABLE OF CONTENTS

1.0 Summary

1.1 General

This document has been prepared in response to an agreement between the Department of Energy (DOE), the U.S. Environmental Protection Agency, and the Ohio Environmental Protection Agency. It is a Building Data Package of Building 35 located at the DOE Mound Plant in Miamisburg, Ohio. This investigation was performed in accordance with the procedures laid out in ASTM Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-94).

An investigation of Building 35 was performed in October 1997. This investigation included a review of the historical aerial photographs and maps, a review of federal and state regulatory agency records, and a review of Mound records. In addition, a radiological survey and an asbestos survey were conducted. An analysis and inspection survey was performed of the building and of the area around the building. (See paragraph 3.2 and 5.1).

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The entire Mound Plant facility is situated on 305 acres of land and contains more than 132 buildings. The subject property consists of Mound Plant Building 35 footprint, an arbitrary 15-foot wide perimeter around the building, and a parking area located south of the building. Building 35 contains 2,500 square feet. It housed the control room for CFX, offices, and the neutron radiography and eddy current nondestructive testing laboratory that supported the CFX mission. Building 35 ceased operations in 1990.

1.2 Statement of Environmental Concerns

- Friable asbestos is present in pipe covering.
- Lead is in some paint.
- Refrigerant is contained in the HVAC system.
- Fluorescent lights (PCBs and hazardous heavy metals).

- Lead shielding in two x-ray units.
- Three unidentified pipe stick-ups.
- Film development fluid.

2.0 Introduction

2.1 Purpose

The purpose of this Building Data Package is to identify, through due diligence, any recognized environmental conditions (defined below) that may affect the subject property.

2.2 Special Terms and Conditions

Key Site Manager – The Key Site Manager is the person identified by the owner of a property as having good knowledge of the uses and physical characteristics of the property. This individual is frequently, but not necessarily always, the Building Manager. Mr. Robert Ward, Building Manager, has been designated as the Key Site Manager for Building 35.

Recognized Environmental Condition – The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum into structures or into the ground, ground water, or surface water near the building. The term is not intended to include *deminimis* conditions that generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of an enforcement action brought to the attention of the appropriate governmental agencies.

2.3 Limitations and Exceptions of Assessment

The Building 35 site area, as stated above, is covered by the building footprint, the surrounding grounds at a distance of 15 feet around the perimeter of the building and a parking lot on the south side of the building. Soil conditions beneath the building and the paved areas could not be observed. The Site Survey Project (1988) indicated no contamination concerns. Figure 1, Appendix 7.5 displays current Geographic Information System (GIS) data. Surface detections are indicated in this figure and accompanying data. No CERCLA PRSs exist in the 15-foot perimeter. Based on the process history of Building 35 and records of soil investigations in the area near Building 35, it was determined that no soil samples were required.

2.4 Limiting Conditions and Methodology Used

2.4.1 On-Site Methodology

Mound Plant Personnel examined the site during the week of October 6, 1997. This examination consisted of a detailed inspection of the site and border survey of the neighboring properties.

2.4.2 Use of Previous Assessments

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

- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Plan, November 1994.
- OU-9 Hydrological Investigation Bedrock Report, January 1994
- OU-9 Hydrological Investigation, Buried Valley Aquifer Report, March 1994
- Phase I Environmental Site Assessment of DOE Mound Building 35, March 1996

2.4.3 Historical Information

A complete title search of the Mound Plant was completed on 6/3/95 for the site to determine the previous owners of the site.

2.4.4 Records Review

Environmental Data Resources (EDR), Inc., of Southport, Connecticut, a regulatory database search company, was contracted in 1995 to provide environmental regulatory information concerning the site and surrounding properties, consistent with the requirements of ASTM Standard E1527-94. This information was reviewed by Environmental Restoration personnel for indications of recognized environmental conditions.

3.0 Site Description

3.1 Location and Legal Description

Building 35 is located at the U.S. Department of Energy Facility known as Mound Plant. Mound is situated in the city of Miamisburg, Miami Township, Montgomery County, state of Ohio, and is being a track of land containing 305.116 acres, more or less, situated in part of Section 30 and fractional Sections 35 and 36, Town 2, Range MRS and being all of city lots numbered 2259, 2290, 4777, 4778, and 4779 and part of out lot #6 lying within the city of Miamisburg, Ohio; and being the same premises convened in Warranty Deeds recorded in Volume 1214, pages 10, 12, 15, and 17, Volume 1215, page 347, Volume 1214, page 248, Volume 1246, page 45, Volume 1258, page 74, Volume 1258, Volume 1256, page 179, and microfiche no. 81-376A01 and microfiche #81-323. Deed records, maps, and site plans are in the "Phase I Environmental Site Assessment of DOE Mound, Building 35" document.

3.2 Site and Vicinity Characteristics

The subject property consists of Building 35 footprint, an arbitrary 15-foot wide perimeter around the building.

The Mound facility is situated on 305 acres of land and contains approximately 130 buildings with a total of approximately 1.4 million square feet of floor space (the number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished). The original 182-acre site, purchased by the Manhattan Engineering District in 1946, consists of two hills and an intervening valley that runs approximately east and west. Building 35 is located in this valley. The 124-acre tract, acquired in 1981, is an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working on-site.

To the west lies a Conrail Railroad line and the north south trending Miami-Erie Canal. The northern boundaries of the site abuts the historic residential area of Miamisburg, Ohio. Mound Road marks the northern half of the eastern perimeter of the facility then veers east, away from the southern half of the eastern boundary. A public golf course (belonging to the City of Miamisburg), the Miamisburg Mound Memorial Park, old agricultural fields, residential lots, and vacant wooded lots border against the facility along Mound Road. Benner Road forms the southern property line of the Mound Plant, with agricultural fields and farms occupying the

lands beyond.

3.3 Description of Structures, Roads, Other Improvements on the Site

Building 35 is a single story concrete building which was constructed in 1967 and acted as a nondestructive testing facility and starting in 1978, supported CFX operations in Building 59. There were no other structures, roads, or improvements that would impact the environmental conditions of the building.

Building 35 has its own HVAC system that uses steam from Mound's powerhouse, a condensate return system, and a chilled glycol supply and return which was never used. For water supply, Building 35 has both potable and fire protection water. The Mound Plant operates a potable water treatment plant (Building 24) that provides drinking water to the facility using groundwater produced from three on-site production wells. Building 35 has both storm sewer and sanitary sewer discharge piping. The Mound Plant operates an on-site sanitary sewer treatment plant (Building 57) to manage the plant's sanitary wastewater pursuant to a National Pollution Discharge Elimination System (NPDES) permit issued by OEPA.

Note: There are a total of three unidentified pipe stick-ups referred to in Section 5.1.1 of the HOK/K Phase I Environmental Site Assessment of Building 35, Appendix 7.2. Photograph 7 referenced in the same section shows these three pipe stick-ups. The larger two identical pipes are for the aforementioned chilled glycol supply and return. The remaining smaller pipe stick-up was conduit for a leak detection device that has been removed.

- Room 1 - X-Ray Testing: The room contains an inoperative x-ray unit and generator.

- Room 2 - Film Developing: An automatic film developing machine was located in this room. A small silver recovery unit was attached to the drainage line of the developer. The silver recovery unit processed film development discharge water and then released it to the sanitary sewer system. The silver recovered was reclaimed. One utility sink is located here. The room's storage cabinets are basically empty.

After Building 35 slab is removed, the soil in the vicinity of the film developing floor drain and connecting sanitary sewer line will be visually examined, sampled, and characterized by Mound's Waste Management.

- Room 3 - Neutron Radiograph Control Room
- Room 4 - Equipment Room: The HVAC and electrical equipment is housed in this room.
- Room 5 - Janitor's Closet: The room has one utility floor sink.
- Room 6 - Restroom
- Rooms 7, 8 - Offices
- Room 9 - Hallway
- Room 10 - Work Area

3.4 Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience

The title search completed on June 3, 1995 indicated one lien against the property. That resulted from an unpaid Montgomery County incinerator fee. After this was discovered, the fee was paid and the lien was removed from the title.

3.5 Current Uses of Building 35

Building 35 is currently inactive. Except for use as a break and briefing room, the building has been vacant and unused since 1990.

3.6 Past Uses of Building 35

Building 35 has only been used for nondestructive testing and supporting CFX operations in Building 59.

3.7 Current and Past Uses of Adjacent Buildings and Features

Building	Square Footage	Current Use	Past Use	Direction from Building
N/A	N/A	Steam bed & Parking Lot	Steam bed & Parking Lot	North
63	16,461	Quality/Production Tester/Design/Development	Quality/Production Tester/Design/Development	East
59	668	Vacant	Neutron Radiography	East
3	12,391	Test Fire	Test Fire	South
87	38,882	Vacant	Destructive Testing	Southwest
N/A	N/A	Roadway & Stream bed	Roadway & Stream bed	West
43	1,516	Vacant	Development	Northwest

These facilities have had no environmental impact on Building 35.

4.0 Records Review

4.1 Standard Environmental Record Sources, Federal and State

Environmental Data Resources (EDR), Inc., of Southport, Connecticut provided information regarding sites in the vicinity of the subject site, which appear in regulatory agency summaries and databases. Sites under the jurisdiction of various regulatory offices or programs were included in the EDR search report.

There are fourteen sites within the appropriate radii for an ASTM Phase I Environmental Site Assessment search. The properties are designated in the EDR report.

All of the identified sites listed are located north or west of the Mound Plant. These other sites are as much as 170 feet lower in elevation than the Mound Plant main hill; thus they are down gradient or down slope in terms of surface water, and probably ground water flow. These other sites are very unlikely to adversely effect the soil or ground water conditions at the subject site.

The Mound Plant site was identified as a contaminated site on the National Priority List under CERCLA (Superfund) in 1989. The Mound Plant site was originally listed as a consequence of historic disposal practices including use of a commercial/industrial landfill, various spills, and the use of underground storage tanks, resulting in the contamination of soils and drinking water. The original contaminants of concern were calcium cyanide, copper cyanide, plutonium and its isotopes, and compounds, specifically plutonium-238, and uranium, its isotopes and compounds. The clean-up of the Mound Site was originally to be accomplished under the CERCLA mandated procedures for regulating Superfund Sites using the operable unit (OU) system to define and characterize clean-up areas. As the clean-up effort went forward, it became apparent that the Mound Site did not fit the profile for a clean-up strategy based on operable units. The Department of Energy (DOE), the United States Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA) designed a new decision making process for the clean-up of Mound. The new process is known formally as a "removal site evaluation process" and informally as the "Mound 2000 process". The Mound 2000 process system divided Mound into 19 Release Blocks containing over 400 Potential Release Sites (PRSs) with approximately 200 concerned with potentially contaminated soils, and the balance with potential contamination in buildings.

In compliance with permit requirements under RCRA, the Clean Water

Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), the Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. The Mound Plant has submitted both RCRA Part A and Part B permit applications and operates as a RCRA hazardous waste treatment and storage facility under and interim status. Mound Plant also maintains an NPDES surface water discharge permit with Facility I.D. Number OH 009857. Permits for the open burning of wastes involving explosives and other fuels have been issued by the Regional Air Pollution Control Agency (RAPCA). Other operations that produce particulate or vaporous emissions are registered with RAPCA and OEPA. The Mound also submits annual Emergency and Hazardous Chemical Inventory forms to the OEPA, pursuant to SARA, Title III, the Emergency Planning and Community Right-to-Know Act. The 1995 version of this report indicated that no chemicals are stored in Building 35 in quantities above the regulatory threshold.

4.2 Physical Setting Source(s)

See the Phase I Environmental Site Assessment document (Appendix 7.2).

4.3 Historical Use Information

A history of the site was developed to identify past uses that may have an environmental impact. A title search was performed on June 3, 1995 to establish a history of ownership. The history of operations comes from other documents. In the summer of 1942, the United States Army organized the Manhattan Engineering District for the purpose of developing an atomic bomb. This undertaking became known as the "Manhattan Project." In 1943, the director of Monsanto Chemical Company (MCC, now Monsanto Corporation) Central Research department in Dayton, Ohio, accepted the responsibility for chemistry and the metallurgy of radioactive polonium-210, and the Dayton Project was launched. MCC operated five (5) units of the Dayton Project at various locations around the Dayton area. For Dayton Unit V (more formally known as the Dayton Engineer Works under the Dayton Engineer District), a 128-acre site on the outskirts of the town of Miamisburg, Montgomery County, Ohio, was selected in 1946 as the location for a permanent research facility in support of the Manhattan Project. In July 1946, the Monsanto Research Corporation (MRC), a subsidiary of MCC, engaged the firm of Giffels and Vallet of Detroit, Michigan, to design the plant. Construction of the new facility, consisting of fourteen (14) original buildings began in February 1947 by Maxon Construction Co., Dayton, Ohio. The plant was the first permanent facility of the Atomic Energy

Commission, which succeeded the wartime Manhattan Engineering District. The Mound Plant was occupied by MRC personnel in May 1948 and operations involving radionuclides began in January 1949.

Mound Plant is a Government Owned/Contractor Operated (GOCO) facility, originally administered under the Oak Ridge Operations office of the AEC. The plant was assigned new production and development functions in 1955 when the administrative control was assumed by the AEC's Santa Fe operations office. The Santa Fe Operations Office was changed to the Albuquerque Operations office in April 1956. In January 1975, upon the dissolution of the AEC, the plant formally came under the Energy Research and Development Administration. In October 1977, the plant was incorporated into the DOE complex and the facility designation was changed from Mound Laboratory to Mound Plant. MRC was the sole operating contractor until October 1988 when EG&G Mound Applied Technologies took over. In October of 1997, Babcock and Wilcox of Ohio took over as the operating contractor for the Mound Plant.

Building 35 was constructed in 1967 as a nondestructive testing facility utilizing X-ray, helium-leak, and some eddy current testing methods. Building 59, CFX facility, was constructed in 1978, and thus Room 3 of Building 35 began to be used as the CFX control room at that time.

4.4 Additional Record Sources

4.4.1 History of Past Spills and Releases

None.

4.4.1.1 Associated PRS Overview

As a result of the investigations and documentation conducted to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and EG&G Mound Applied Technologies 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 listing of site activities. A total of 413 PRSs have been identified. Of these 413 PRSs, none was attributed to operations in Building 35.

No PRSs affect this building.

4.4.1.2 Occurrence Reports

No record of occurrence reports associated with Building 35 were located.

4.4.2 Past Sampling Data

4.4.2.1 Radiation Surveys

The Building 35 safe shutdown survey indicated no direct or removable contamination on the building's floors, drains, vents, or corridors. Alpha and beta removable and fixed, tritium removable, fiddler, and a micro R meter readings were utilized during this survey. (See Appendix 7.5.)

4.4.2.2 Chemical History

The only chemicals remaining in Building 35 are cleaning supplies in the janitor's closed. Appendix 7.8 is a 1996 Chemical Inventory for Building 35 during safe shutdown.

4.4.2.3 Lead Paint

The door and partitions in Building 35's restroom (Room 6) that are painted orange contain lead in the paint per the lead based paint sampling performed by Industrial Hygiene, September 23, 1996. The orange paint is in excellent condition and is not peeling. Any items in Building 35 which have the same paint are to be considered as containing lead. (See Appendix 7.6.)

4.4.2.4 Asbestos

Building 35 has pipe insulation, roofing material, transite paneling, and floor tile containing asbestos. Only the pipe insulation contains friable asbestos. As long as asbestos bearing materials are not disturbed, the asbestos will not present a hazard. When Building 35 is torn down, all asbestos bearing materials will be properly removed and disposed of per applicable state and federal regulations. (See Appendix 7.7.)

4.4.2.5 Radon

The results of radon testing of 35 buildings in the same zip code as this site (45342) are on file with the Regional Air Pollution Control Agency in Dayton, Ohio. The average reading for the basement area of tested buildings was 5.963 picocuries/liter as compared to the EPA recommended standard of 4.0 picocuries/liter.

4.4.3 Chemicals Removed After Mission End

Safe shutdown activities during 1996 removed all chemicals from Building 35 except for cleaning products located in the janitor's closet. Appendix 7.8 is an inventory list of that activity.

4.4.4 Reviews of Building Prints

Various building prints regarding underground piping and structures were reviewed. These prints assisted in identifying items which are detailed in Section 5.0.

4.4.5 Aerial Photographs

Aerial photographs from 1994, 1983, 1973, 1968, 1965, 1959, 1949 and 1938 were reviewed and copies are found in Exhibit F of the Phase I, Environmental Site Assessment (Appendix 7.2).

The 1938 photograph shows that the Mound Plant site was agricultural fields and undeveloped wooded lots. The historic Miamisburg Indian Mound is visible for a location reference.

The 1949 photograph shows the completed initial phase of construction on the Mound Plant Main Hill. Approximately fourteen (14) buildings are visible. Roadways on both the Main Hill and the eastern hill are present.

The overall Mound Plant facilities, as depicted in the 1968, 1973, 1983, and 1994 photographs continue to show change and expansion.

Building 35 is visible in the photograph dated 1968.

5.0 Site Reconnaissance

5.1 Hazardous Substances in Connection with Identified Uses

5.1.1 Space

The building housed offices, a equipment room, restroom, photographic development room, x-ray room, work area and the CFX control room.

5.1.2 Heating/Cooling

Steam for heating is provided to Building 35 via an above ground system of distribution piping running from the power house. Ventilation/cooling is provided to Building 35 through its own HVAC system. The refrigerant will be captured and recycled.

5.1.3 Stains or Corrosion

No stains or corrosion were observed in the subject building except for rust stains on the floor where equipment was located.

5.1.4 Drains and Sumps

A utility floor sink with a drain is located in the janitor's closet, and eight other floor drains exit throughout Building 35.

Six of these eight floor drains tie into the storm drainage sewer system. Four are located in Room 4 (Equipment Room), and one each are located in Room 6 (Restroom) and Room 1 (X-ray Testing).

The two remaining floor drains and the utility floor sink, Room 5 (Janitor's closet), tie into the sanitary sewer system. One of these floor drains is in Room 3 (CFX Control room) and the other is in Room 2 (Film Developing). See Section 3.3 for additional information about the floor drain in Room 2.

5.1.5 Wastewater

Management of process water from the film development machine in Room 2 is described in Section 3.3.

Storm water is presumably directed northwestward in the immediate vicinity of Building 35, toward the drainage swale that flows westward past the northern edge and northwestern corner of the subject property.

5.1.6 Septic Systems

There was no evidence of septic systems (such as leaching field or septic tank vent pipes) in the vicinity of Building 35.

5.1.7 Suspected Asbestos Containing Material

See appendix 7.7 for the asbestos survey, dated 10/13/97 for Building 35. This survey lists the following asbestos locations: pipe insulation in Room 4, transite paneling in Room 1, floor tile, and the roofing system.

5.1.8 Paint

Some paint contains lead. See Section 4.4.2.3.

5.1.9 Fluorescent Lamps

Fluorescent lamps are used for lighting in Building 35.

5.2 Hazardous Substance Containers and Unidentified Substance Containers

No chemicals or containers were found in or near the building except for one empty stainless steel container labeled "alcohol," and for cleaning supplies in the janitor's closet.

5.3 Storage Tanks

No storage tanks are associated with the building.

5.4 Indications of PCBs

Under the Toxic Substances Control Act (TSCA), the EPA regulates the manufacture, distribution, and use of PCBs. PCBs are a know carcinogen and are persistent in the environment. PCBs are also present in the ballasts of fluorescent lamps.

5.5 Indications of Solid Waste Disposal

No solid waste was observed in the building. No evidence of hazardous waste was noted in the immediate vicinity of the building. No containers related to any PRS sites are located near Building 35.

5.6 Physical Setting Analysis, If Migrating Hazardous Substances Are An Issue

Migrating hazardous substances are not an issue.

5.7 Other Conditions of Concern

Building 35 has two remaining X-ray units that most likely contain lead shielding. These units will either be reused or they will be dismantled with Waste Management disposing of the lead per applicable state and federal regulations.

The sealed sources stored in a lead "pig" that are mentioned in Appendix 7.3, Section 9.58.5, have been removed. Also the lead "pig" has been removed.

5.8 Recent Interviews

Ms. Gayle Jewett of Babcock & Wilcox of Ohio was interviewed about past practices and operations at Building 35.

6.0 Findings and Observations

This Building Data Package for Building 35 was performed by Mound Plant personnel. The exceptions to, or deletions from, the standard Mound Plant procedure are described in Section 2.3 of this report.

There are no radiological or chemical concerns.

Findings and observations are noted in the preceding sections of this document.

6.1 Environmental Concerns Evaluation (Matrix)

See following page.

BUILDING # 35: ENVIRONMENTAL CONCERN EVALUATION

DESCRIPTION	PROBLEM?	COMMENT	PROPOSED RESOLUTION	REFERENCE
Lead	No	Painted surfaces	Removal	Para. 4.4.2.3
Lead	No	X-ray cabinet shielding	Reuse or recycle	Para. 5.7
HVAC	No	Refrigerant	Salvage, recycle	Para. 5.1.2
Asbestos	No	Pipe wrap, floor tile	Remove ACM	Para. 5.1.7
Fluorescent Bulbs	No	PCB in ballasts	Removal	Para. 5.4
Unidentified Piping	No	Outside building, along south wall	Identify and remove	Para. 3.3
Photo Chemicals	Yes	Potential for metals contamination in soil surrounding development room drains	Sampling will be performed after the response action.	Para. 3.3

7.0 Appendices

7.1 Acronyms

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	Action Level
ASTM	American Society for Testing and Materials
BUSTR	Bureau of Underground Storage Tank Regulations
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DPM	Disintegrations Per Minute
EMF	Electromagnetic Field
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration (Program)
ERDA	Energy Research and Development Administration
ERNS	Emergency Response Notification System
FFA	Federal Facility Agreement
FINDS	Facility Index System
FS	Feasibility Study
GSA	General Services Administration

HEPA High Efficiency Particulate Air

LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
M&O	Maintenance and Operations
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Company
MEMP	Mound Environmental Management Project
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation

NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
ORPS	Occurrence Reporting and Processing System
PADS	PCB Activity Database
PCB	Polychlorinated Biphenyls
PRS	Potential Release Site
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RI	Remedial Investigation
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SQG	Small Quantity Generator
SWMU	Solid Waste Management Unit
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, & Disposal Facility
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Appendix 7.2 Phase I Environmental Site Assessment of Building 35

Appendix 7.3 Environmental Appraisal Report of the Mound Plant for Building 35 (Extract)

Appendix 7.4 Observations from Project Manager Building Walkthrough

See Section 5.0, "Information from site reconnaissance and interviews," in "Phase 1 environmental site assessment of Building 35," Appendix 7.2 of this Building Data Package.

Appendix 7.5 Radiological Survey Report

Appendix 7.6 Lead Paint Survey

Prior to the 1970s, lead-based paints were nearly exclusively used in U.S. industry. Because of Congressional action, paints used since 1979 are not supposed to contain lead. Therefore, it is said that surfaces painted prior to 1979 "probably contain lead" and those painted after 1979 "may contain lead."

If a building is to be demolished, the paint film is a minuscule portion of the weight of the debris and all may be discarded in a land fill. If a building is to be refurbished, the costly lead survey may be requested to be completed to the degree required by the end use.

Appendix 7.7 Asbestos Survey

ACM in buildings can be found in five (5) forms: sprayed or troweled on ceilings and walls (surfacing materials); insulation around pipes, ducts, boilers and tanks (pipe and boiler insulation); transite (in ground piping); in roofing materials (shingles and roofing felts); and in other products such as ceiling and floor tiles and wall boards (miscellaneous materials). Asbestos is of greatest concern when it is friable. Friable material can be crumbled, pulverized or reduced to power by hand pressure.

Appendix 7.8 1996 Chemical Inventory for Building 35