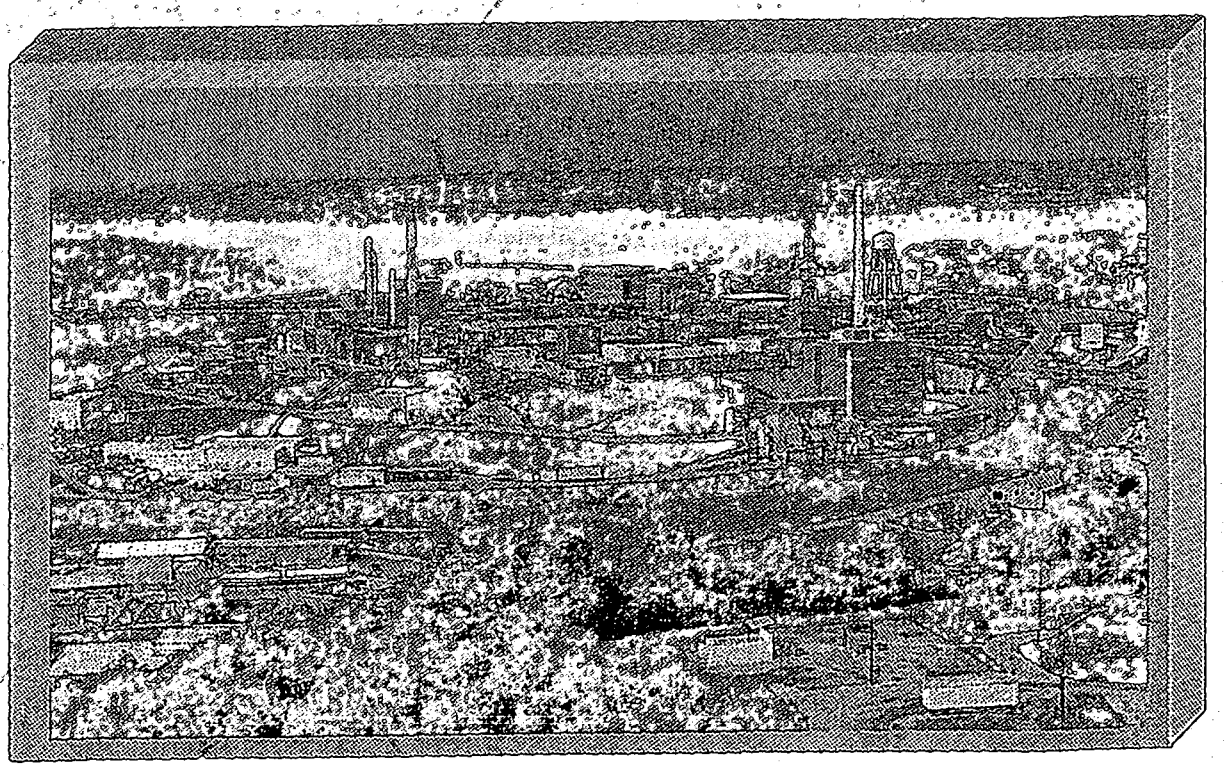
MOUND

Environmental Restoration Program

OhioEPA

MOUND PLANT
Building Data Package
Building 100
Located within Release Block D



BDP 100

REV	DESCRIPTION	DATE
PUBLIC RELEASE **0**	Available for comments.	**Sept. 4, 1997**
FINAL **1**	Comment period expired. No comments. Press release inserted.	**Nov. 4, 1997**

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 September 18, 1997. Public comment will be accepted on these packages from September 18, 1997, through October 20, 1997.

BDP GIS Bldg.:	Guard Island
BDP GP-5 Bldg:	Guard Post
BDP Bldg. 100:	Training and Offices
BDP Bldg. 105:	Parts Machining

Written comments may be sent to Mound Community Relations, P.O. Box 3000, Miamisburg, Ohio 45343-3000 or by E-Mail to nowksl@doe-md.gov.
Questions can be referred to Mound's Community Relations at (937) 865-4140.

Mound Plant Recommendation
Building 100

BACKGROUND:

Building 100 is a 6,200 square foot single story concrete building, located at the southeastern corner of the Mound property (on SM/PP Hill), which was constructed in 1989 to serve as a security precinct. A unique aspect of Building 100 is that three outside walls are below ground level; only the south side wall is above grade. The building was constructed to accommodate a second floor on top of the existing roof. Thus, the roof is a built-up flat roof covered with gravel.

Building 100 has had only one use in its history, serving as a security precinct. Building 100 has been vacant and unused since 1994.

RECOMMENDATION:

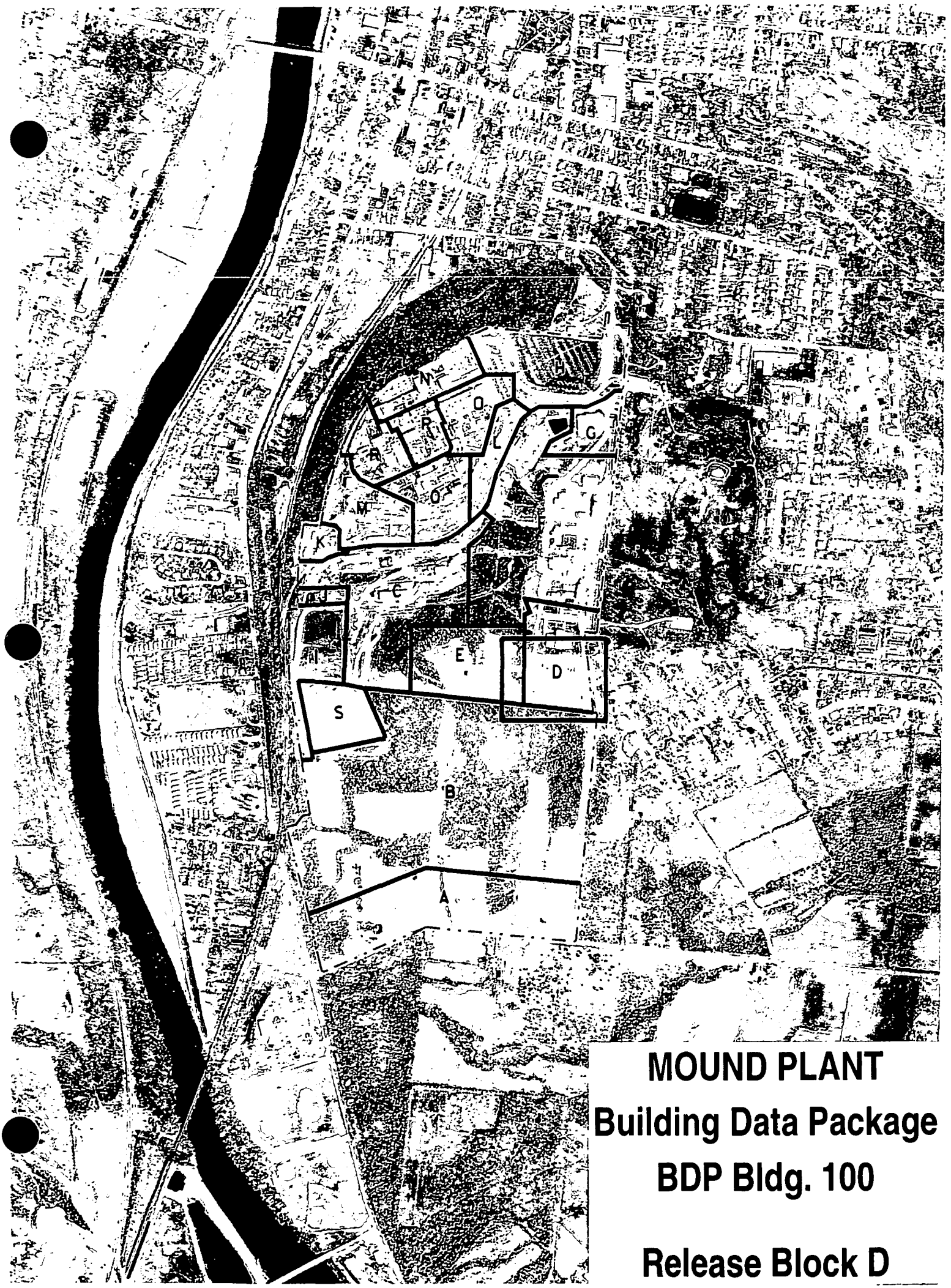
After thorough review of the environmental data and the building data package, the Core Team agrees that no environmental concerns are associated with Building 100; therefore, lease or sale of Building 100 for commercial/industrial use is protective of human health and the environment. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA requesting final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

CONCURRENCE:

DOE/MEMP: Sam Cheng 8/5/97
Sam Cheng, D&D Team Leader (date)

USEPA: Timothy J. Fischer 8/5/97
Timothy J. Fischer, Rem. Proj. Mgr. (date)

OEPA: Brian K. Nickel 8/5/97
Brian K. Nickel, Project Manager (date)

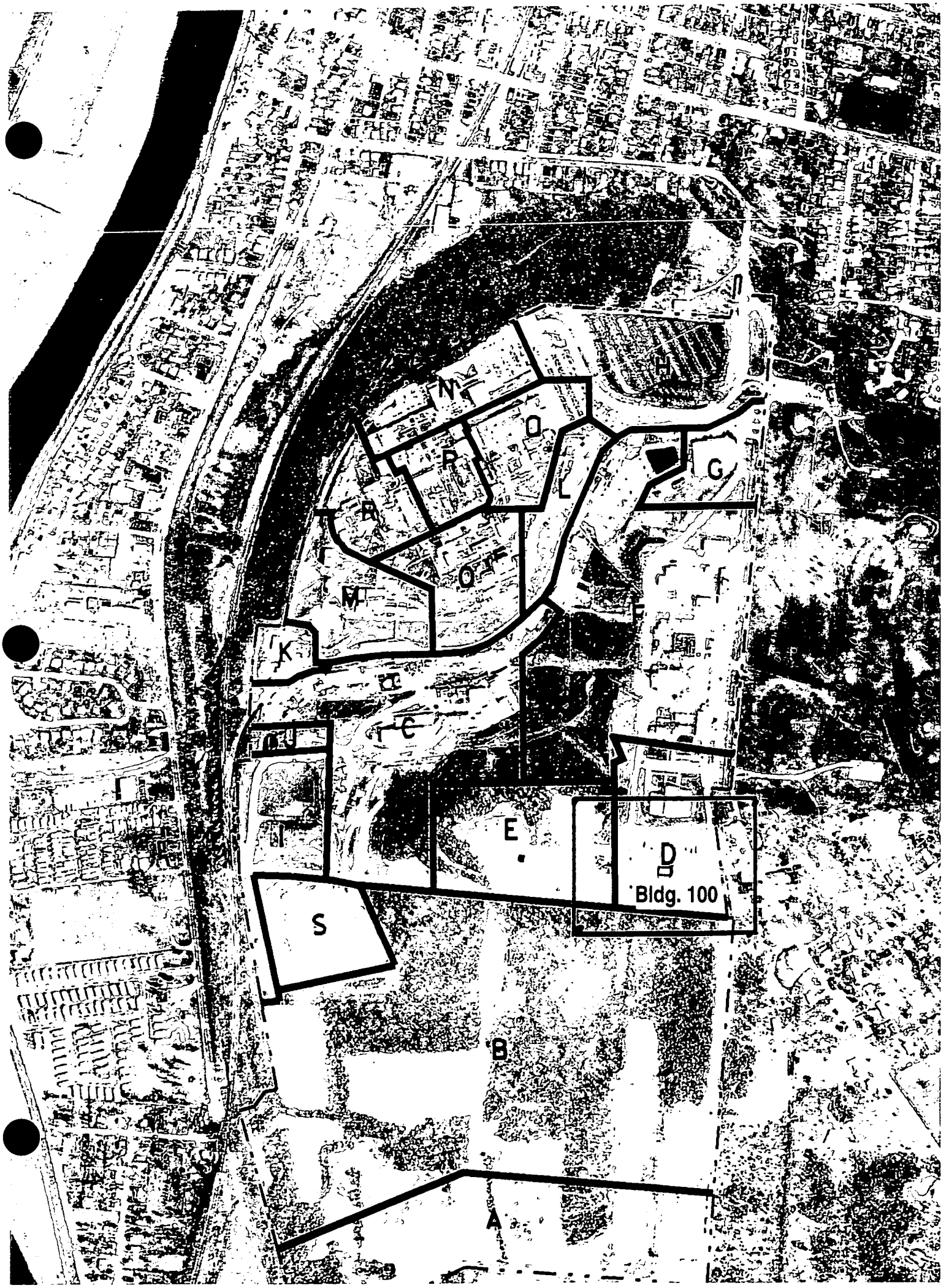


MOUND PLANT

Building Data Package

BDP Bldg. 100

Release Block D

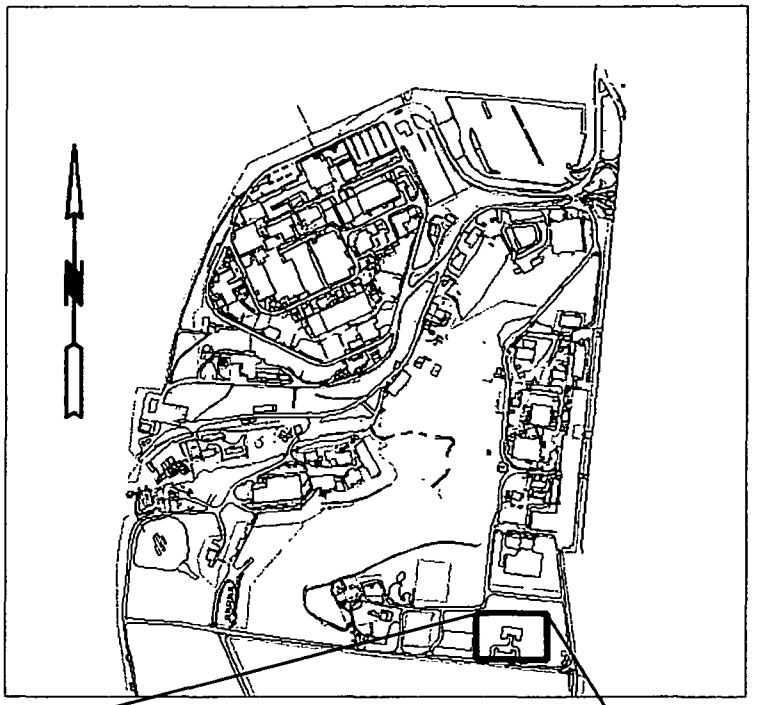

N
O
P
R
L
G
H
Q
M
K
C
E
D
Bldg. 100
S
B
A

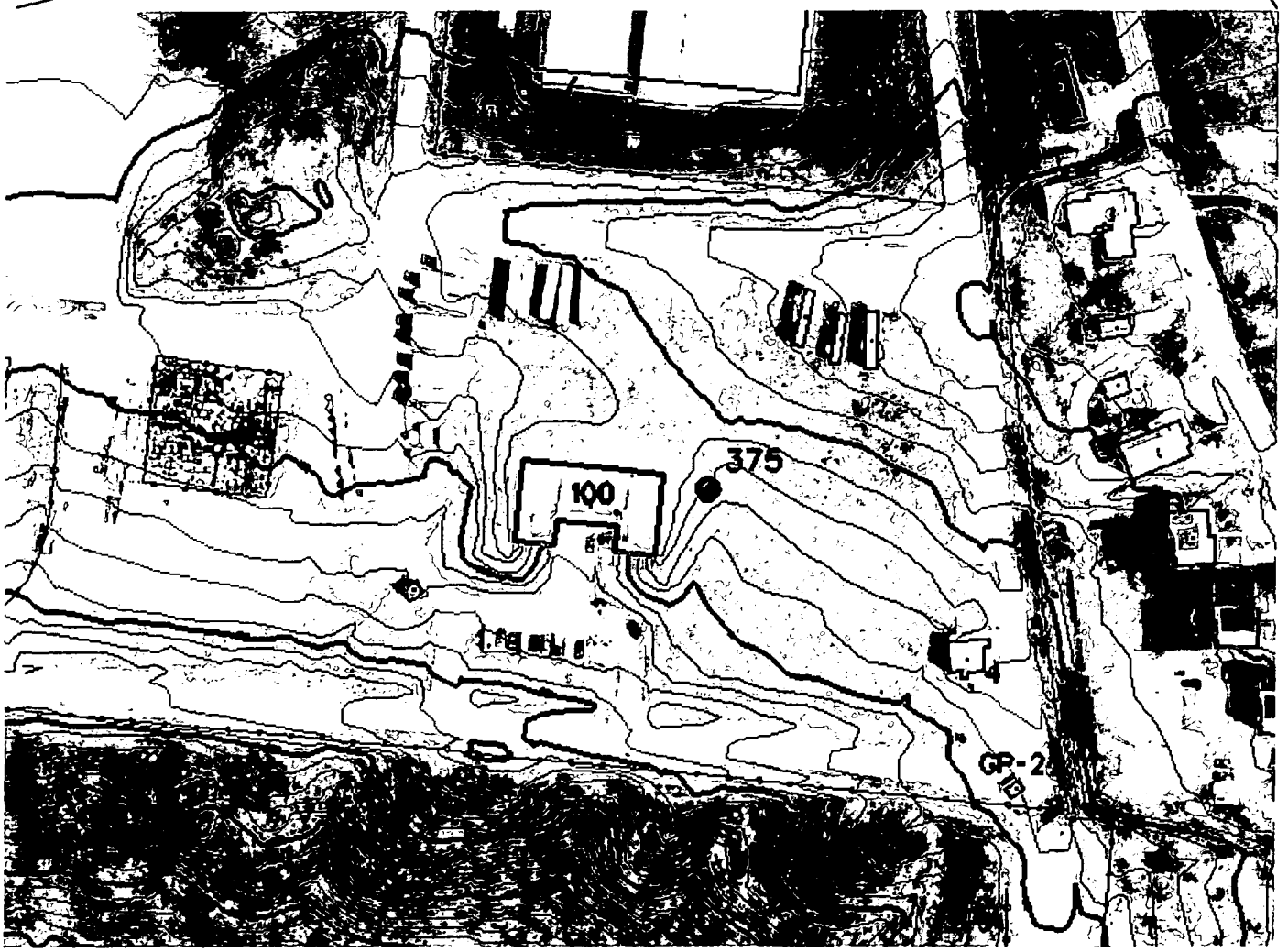
Mound Plant
Building 100

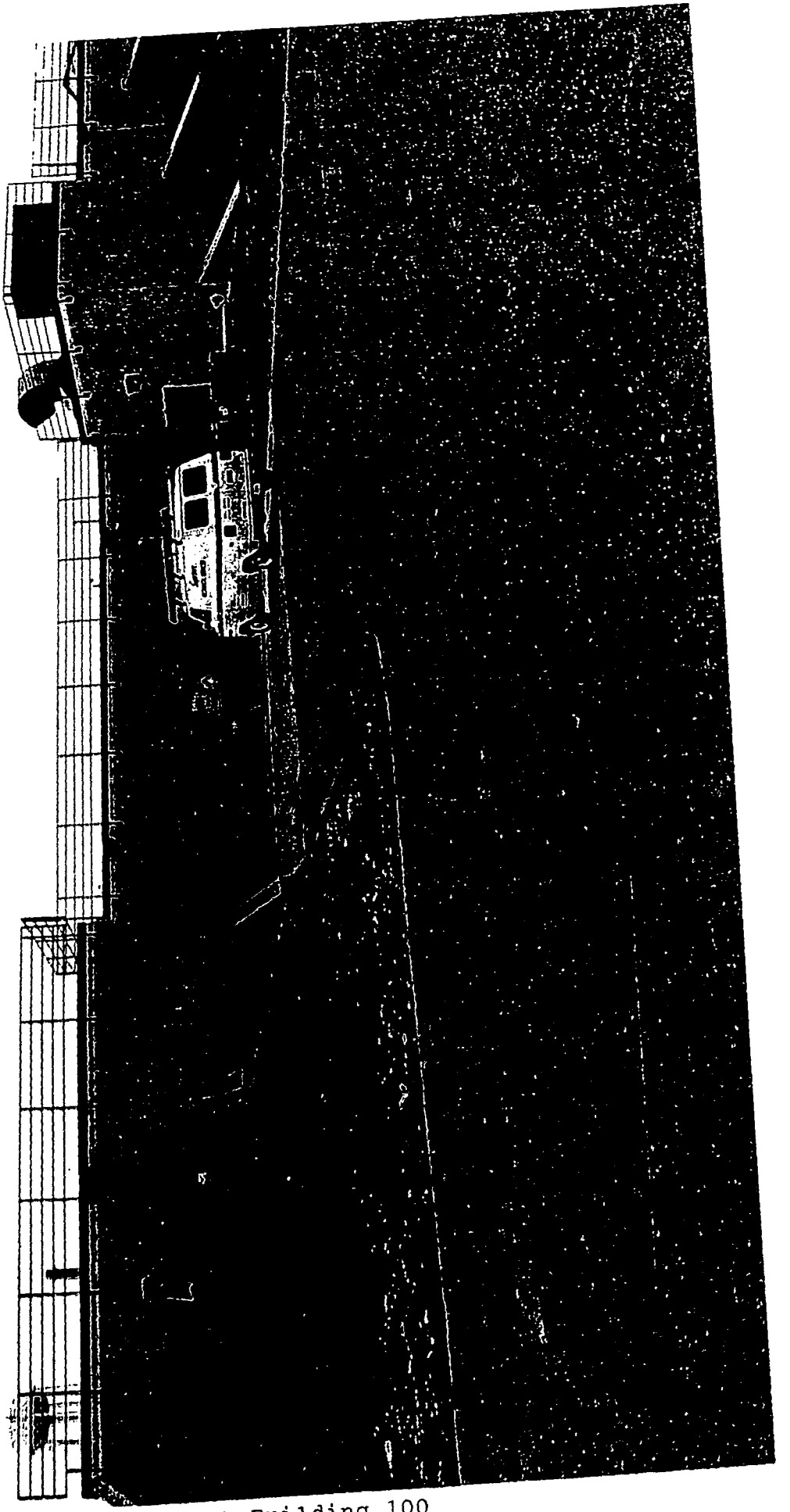
Training and Offices

Release Block D

On the map below:
- Building number and location shown in black
- PRS locations and numbers shown in blue
- Surrounding buildings shown in green
- Fencing shown in red
- Elevation contours shown in brown







Mound Plant Building 100

BUILDING DATA PACKAGE (BDP)

100 BUILDING

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

TABLE OF CONTENTS

1.0 Summary 1
- 1.1 General 1
- 1.2 Statement of Environmental Concerns 1

2.0 Introduction 2
- 2.1 Purpose 2
- 2.2 Special Terms and Conditions 2
- 2.3 Limitations and Exceptions of Assessment 2
- 2.4 Limiting Conditions and Methodology Used 2
  - 2.4.1 On-Site Methodology 2
  - 2.4.2 Use of Previous Assessments 3
  - 2.4.3 Historical Information 3
  - 2.4.4 Records Review 3

3.0 Site Description 4
- 3.1 Location and Legal Description 4
- 3.2 Site and Vicinity Characteristics 4
- 3.3 Description of Structures, Roads, Other Improvements on the Site 5
- 3.4 Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience 5
- 3.5 Current Uses of Building 100 6
- 3.6 Past Uses of Building 100 6
- 3.7 Current and Past Uses of Adjacent Buildings 6

4.0 Records Review 7
- 4.1 Standard Environmental Record Sources, Federal and State 7
- 4.2 Physical Setting Source(s) 8
- 4.3 Historical Use Information 10
- 4.4 Additional Record Sources 11
  - 4.4.1 History of Past Spills and Releases 11
    - 4.4.1.1 Associated PRS Overview 11
    - 4.4.1.2 Occurrence Reports 11
  - 4.4.2 Past Sampling Data 11
    - 4.4.2.1 Radiation Surveys 11
    - 4.4.2.2 Chemical History 11
    - 4.4.2.3 Lead Paint 12
    - 4.4.2.4 Asbestos 12
    - 4.4.2.5 Radon 12
  - 4.4.3 Chemicals Removed After Mission End 12
  - 4.4.4 Reviews of Building Prints 12
  - 4.4.5 Aerial Photographs 13

5.0 Site Reconnaissance 14
5.1 Hazardous Substances in Connection with Identified Uses 14
5.1.1 Space 14
5.1.2 Heating/Cooling 14
5.1.3 Stains or Corrosion 14
5.1.4 Drains and Sumps 14
5.1.5 Wastewater 14
5.1.6 Septic Systems 14
5.1.7 Suspected Asbestos Containing Material 15
5.1.8 Paint 15
5.1.9 Fluorescent Lamps 15
5.2 Hazardous Substance Containers and Unidentified Substance Containers 15
5.3 Storage Tanks 15
5.4 Indications of PCBs 15
5.5 Indications of Solid Waste Disposal 16
5.6 Physical Setting Analysis, If Migrating Hazardous Substances Are An Issue 16
5.7 Other Conditions of Concern 16
5.8 Recent Interviews 16

6.0 Findings and Observations 17
6.1 Environmental Concerns Evaluation (Matrix) 17

7.0 Appendices 19
7.1 Acronyms 20
7.2 Phase I Environmental Site Assessment of Security Precinct, Building 100 23
7.3 Lease Agreement for Building (Extract) 24
7.4 Environmental Appraisal Report of the Mound Plant for Building 100 (Extract) 25
7.5 Observations from Project Manager Building Walkthrough 26
7.6 PRS 312 Core Team Recommendation 27
7.7 PRS 375 Core Team Recommendation 28
7.8 Radiological Survey Report 29
7.9 Radon Survey 30

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 100 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 100 was performed in May 1996 and again in June 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 was conducted. An analysis and inspection survey was performed of the building and of the area around the building including a parking lot located on the south side of Building 100. (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 100 footprint, an arbitrary 15-foot wide perimeter around the building, and a parking area located south of the building. Building 100 contains 6,222 square feet. It served as a Security Precinct at the Mound Plant, which manufactured components for the United States nuclear stockpile.

1.2 Statement of Environmental Concerns

There are no environmental concerns related to the Building 100. A residual risk evaluation has been completed for Release Block D, which includes Building 100, and the risk is within the acceptable range of $10E^{-4}$ to $10E^{-6}$ based on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) criteria for the protection of human health. This range expresses the risk from carcinogens. For example, $1.0E^{-4}$ equals one cancer in 10,000 people and $1.0E^{-6}$ equals one cancer in 1,000,000 people.

2.0 Introduction

2.1 Purpose

The purpose of this Building Data Package is to identify, if possible, 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. Ms. Kathy Koehler, Building Manager, has been designated as the Key Site Manager for 100 Building

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 100 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. Based on the process history of Building 100 and records of soil investigations in the area near Building 100, 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 on June 12, 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 Security Precinct, Building 100, May 1996
- Residual Risk Evaluation - Release Block D, December 1996

2.4.3 Historical Information

A complete title search of the Mound Plant was completed on June 3, 1995 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 100 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 Security Precinct, Building 100" document.

3.2 Site and Vicinity Characteristics

The subject property consists of Building 100 footprint, an arbitrary 15-foot wide perimeter around the building, and a parking area located south of 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 100 is located on the SM/PP Hill. 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 100 is single story concrete building which was constructed in 1988. A unique aspect of this building is that three outside walls are below ground level, leaving only one outside window (on the south side). The building was constructed to accommodate a second floor on top of the existing roof. Thus, the roof is a built-up flat roof covered with small gravel.

Unlike most of the other buildings at Mound, Building 100 has a self-contained 10 ton air to air heat pump and air handler system. As this building served as one of the security precincts, it was determined that uninterrupted HVAC and power was a priority. Room #117 was formerly known as the "Generator Room" and contained a diesel generator which was used in the event of commercial power interruption to the site. This generator was not on-site during the site inspection performed on April 9. 1996. No signs of fluid leakage were noted on the floor of room #117.

Potable water and sanitary services at Building 100 are provided by the facility. 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. The Mound facility also 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. Due to the location of Building 100, the sanitary waste must be lifted to the Mound sanitary sewer system. The "ejector" lift station is located approximately 50 feet to the west of Building 100.

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 100

Building 100 is currently leased to the MMCIC. The building has been vacant and unused since 1994.

3.6 Past Uses of Building 100

Building 100 has had only one use in its history and has served as a Security Precinct.

3.7 Current and Past Uses of Adjacent Buildings

The nearest structure to this building is the security fence located approximately 100 feet to the south. Other structures close to Building 100 are the Post 2 guard shack and the Building 4 modular. These were used as the contractor entrance until it was closed. The only building in the vicinity of Building 100 is Building 105. Building 105 was built in 1986 as a machine shop and has been used as such since its construction. There is no indication that any of the operations ever occurring in Building 105 have had any environmental or health impact on Building 100.

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 100 in quantities above the regulatory threshold.

4.2 Physical Setting Source(s)

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

Table 1. Properties of ASTM Phase 1 Environmental Sites Assessment

Address and Property Name	Proximity	Status
U.S. DOE Mound Plant	Mound Road Miamisburg, OH (target property)	NPL, PADS, CERLIS, LUST, & TRIS
D.J. Ceramics	611 S. Main Street Miamisburg, OH (WNW)	LUST
CG&R	901 S. Main Street Miamisburg, OH (W)	LUST
GMC Delco Products Division	329 E. First Street Miamisburg, OH (NNW)	RCRIS-SQG, FINDS
Dayton Public Schools	348 W. First Street Miamisburg, OH (NNW)	RCRIS-SQG, FINDS
City of Miamisburg Pump Station	1021 S. Main Street Miamisburg, OH (WSW)	UST
Richard Church, Sr. Estate	1009 S. Main Street Miamisburg, OH	LUST
Presto Adhesive Paper Co., Inc.	222 Mound Avenue Miamisburg, OH (N)	RCRIS-LQG, FINDS
Plocher Andrew Sons	4128 E. First Street Miamisburg, OH (N)	RCRIS-SQG, FINDS
Shell Oil Co.	1224 S. Main Street Miamisburg, OH	LUST
Point Store	155 S. Main Street Miamisburg, OH (N)	LUST
Miamisburg Water Treatment Plant	302 S. Riverview Miamisburg, OH (NW)	LUST
Miamisburg Well Field/Unknown Source	302 S. Riverview Miamisburg, OH (NW)	LUST
Technicote, Inc.	222 Mound Avenue Miamisburg, OH (N)	RCRIS-SQG, UST, LUST

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 Energy 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.

Building 100 was constructed in 1988 as a Security Precinct. No waste was generated or stored in this building.

4.4 Additional Record Sources

4.4.1 History of Past Spills and Releases

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 100.

Building 100 is located in the vicinity of PRS 312 and PRS 375. Both of these PRS's have been binned as No Further Action by the Core team in the Mound 2000 process.

4.4.1.2 Occurrence Reports

There are no occurrence reports associated with Building 100.

4.4.2 Past Sampling Data

4.4.2.1 Radiation Surveys

The Building 100 safe shutdown survey indicated no direct or removable contamination on the building's floors, corridors or stairways. Fiddler readings, alpha and beta wipes and meter readings were utilized during this survey. (See Appendix 7.8.)

4.4.2.2 Chemical History

No chemicals have ever been stored or handled in Building 100.

4.4.2.3 Lead Paint

Congress established maximum lead concentrations in residential paint in 1978. This building was constructed in 1988. No survey for lead paint will be performed.

4.4.2.4 Asbestos

Asbestos in buildings can be found in three forms: sprayed or troweled on ceilings and walls(surface materials); insulation around pipes, ducts, boilers, and tanks (pipe and boiler insulation); 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 powder by hand pressure.

No asbestos surveys were performed for Building 100 since it was constructed after 1983 when EPA's friable asbestos containing building materials ban went into effect.

4.4.2.5 Radon

The results of a 1989-90 Mound Indoor Radon Study indicated an average radon concentration of 1.0 picocuries/liter in Building 100. The EPA recommended standard for radon is 4.0 picocuries/liter. (See Appendix 7.9.)

4.4.3 Chemicals Removed After Mission End

Safe shutdown activities did not remove any chemicals from Building 100. There were no chemicals involved in the daily operations of this facility.

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 100 is visible in the photograph dated 1994.

5.0 Site Reconnaissance

5.1 Hazardous Substances in Connection with Identified Uses

5.1.1 Space

The building housed offices for security personnel, space for weapons storage, locker rooms, and a workout area.

5.1.2 Heating/Cooling

Building 100 is not on the steam and cooling system used by many of the other Mound buildings. Since this was formerly a security building, it includes a totally self-contained air to air heat pump system (10 ton, 4500 CFM).

5.1.3 Stains or Corrosion

No stains or leaks were observed in the subject building. The former emergency generator Room #117 reportedly had an aboveground diesel tank, but there were no indications of residual staining.

5.1.4 Drains and Sumps

A sump pump is located at the northwest corner of Room #116. Floor drains were also located in the locker rooms (#105 and #107). This sump and drains are routed to the Mound sanitary treatment plant.

5.1.5 Wastewater

No production activities have been reported in this building. Therefore, the only wastewater was the previously mentioned floor drains and sump as well as from the lavatories and sinks.

5.1.6 Septic Systems

There is no evidence of septic systems (such as leaching field or septic tank vent pipes) in the vicinity of Building 100. Building blueprints show a sewer ejector station to the west of the of the building. This station is necessary as the elevation of this area is below the Mound sanitary sewer line

5.1.7 Suspected Asbestos Containing Material

Asbestos in buildings can be found in three forms: sprayed or troweled on ceilings and walls(surface materials); insulation around pipes, ducts, boilers, and tanks (pipe and boiler insulation); 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 powder by hand pressure.

No asbestos surveys were performed for Building 100 since it was constructed after 1983 when EPA's friable asbestos containing building materials ban went into effect.

5.1.8 Paint

Congress established maximum lead concentrations in residential paint in 1978. This building was constructed in 1988. No survey for lead paint will be performed.

5.1.9 Fluorescent Lamps

Fluorescent lamps are used for lighting in Building 100.

5.2 Hazardous Substance Containers and Unidentified Substance Containers

No chemicals or containers were found in or near the building.

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 100.

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

There are no other considerations of concern relating to Building 100.

5.8 Recent Interviews

Mr. Mike Merker of DOE Miamisburg Office was interviewed regarding site environmental liens. Mr. Merker indicated that there was no environmental liens or deed restrictions encumbering the property.

Mr. Dan Gorman of EG&G Mound Applied Technologies was interviewed during the site visit regarding the site history for the Phase I Environmental Site Assessment.

Mr. Stan Aberhamson of the MMCIC was interviewed during the 1997 Project Manager walkthrough regarding activities in the building during the interim lease

6.0 Findings and Observations

This Phase I Environmental Site Assessment of Building 100 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.

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

6.1 Environmental Concerns Evaluation (Matrix)

See following page.

BUILDING # 100: ENVIRONMENTAL CONCERN EVALUATION

DESCRIPTION	POTENTIAL PROBLEM?	COMMENT	PROPOSED RESOLUTION	REFERENCE
		No environmental concerns.		

7.1 Acronyms

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	US Department of Energy, Albuquerque Operations Office
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 Security Precinct, Building 100

HOK/K

PHASE I

ENVIRONMENTAL SITE ASSESSMENT

OF

SECURITY PRECINCT, BUILDING 100

DOE MOUND

MIAMISBURG, OHIO 45343-3020

HOK/K
Industrial

May 8, 1996

Mr. Sam Cheng
United States Department of Energy
Miamisburg Area Office
P.O. Box 3020
Miamisburg, Ohio 45343-3020

Re: Phase I Environmental Site Assessment
DOE Mound
Security Precinct - Building 100
Mound Road
Miamisburg, Ohio 45343-3020
Job #: H95234I

Dear Mr. Cheng:

HOK/K Industrial, Inc. has completed a Phase I Environmental Site Assessment of the Security Precinct Building (known as Building 100) located at the Department of Energy Mound in Miamisburg, Ohio. Our investigation included an on-site inspection; a review of United States Department of Energy environmental reports and building prints; examination of historical aerial photographs and maps; a review of federal and state regulatory agency records; and personal interviews. A detailed report of the investigation is enclosed.

We understand that the DOE Miamisburg Area Office is relying upon the contents of this report to identify Recognized Environmental Conditions that relate to this property. Disclosure of the contents of this report is at your discretion, and HOK/K will not release additional copies without your written authorization. HOK/K Industrial, Inc. performed its investigation according to the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation E 1527-94). The statements contained in this report are true and accurate to the best of our knowledge.

Sincerely,

HOK/K INDUSTRIAL, INC.

Jennifer C. Vicarel

Jennifer C. Vicarel
Environmental Scientist

Reviewed by:

John W. Ey

John W. Ey, P.E., REPA
Manager, Environmental Assessments

2490 Technical Drive • P.O. Box 3004 Miamisburg, Ohio 45343 3004
Telephone: 513 866 4211 and 800 356 9039 • Fax: 513 866 7893 and 513 866 7473

PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
SECURITY PRECINCT, BUILDING 100
DOE MOUND
MIAMISBURG, OHIO 45343-3020

Prepared for:

Mr. Sam Cheng
United States Department of Energy
Miamisburg Area Office
P.O. Box 3020
Miamisburg, Ohio 45343-3020

Prepared by:

HOK/K INDUSTRIAL, INC.
2490 Technical Drive
P.O. Box 3004
Miamisburg, Ohio 45343-3004

May 8, 1996

H95234I

TABLE OF CONTENTS

LIST OF ACRONYMS

SECTION		PAGE
1.0	EXECUTIVE SUMMARY	1
2.0	INTRODUCTION	2
3.0	SITE DESCRIPTION	8
4.0	RECORDS REVIEW	13
5.0	SITE RECONNAISSANCE	20
6.0	NON-SCOPE CONCERNS	25
7.0	FINDINGS AND CONCLUSIONS	26
8.0	SIGNATURES OF ENVIRONMENTAL PROFESSIONALS	27
9.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	28

EXHIBITS

EXHIBIT A	DESCRIPTION OF TWELVE VOLUME SITE SCOPING REPORT
EXHIBIT B	PHOTOGRAPHS
EXHIBIT C	EDR REGULATORY DATABASE SEARCH
EXHIBIT D	COMPREHENSIVE TABULATION OF POTENTIAL RELEASE SITES
EXHIBIT E	BUILDING 100 TECHNICAL REVIEW
EXHIBIT F	AERIAL PHOTOGRAPHS
EXHIBIT G	SANBORN MAP REQUEST RESPONSE
EXHIBIT H	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

ACRONYMS

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos-Containing Materials
AL	U.S. Department of Energy Albuquerque Operations Office
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, and Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
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 Corporation
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
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
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SHWS	State Hazardous Waste Site
SQG	Small Quantity Generator
SWMU	Solid Waste Management Unit
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, and Disposal Facility
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WHP	Well Head Protection (program)

1.0 EXECUTIVE SUMMARY

1.1 At the request of Mr. Sam Cheng of DOE Miamisburg Area Office, HOK/K Industrial, Inc. (HOK/K) has performed a Phase I Environmental Site Assessment of the Department of Energy Mound, Building 100 located at DOE Mound in Miamisburg, Ohio. This work was performed in accordance with proposal H95-284R1, approved on December 11, 1995. HOK/K performed its investigation according to the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation E 1527-94).

Our investigation included an on-site inspection; examination of historical aerial photographs and maps; a review of federal and state regulatory agency records; and personal interviews. The property inspection (site visit) took place on April 9, 1996, and was conducted by Ms. Jennifer Vicarel and Mr. John W. Ey of HOK/K. They were accompanied by Mr. Dan Gorman EG&G Mound Applied Technologies, and by Mr. Dennis Adams of Larry Stein Realty, the current manager of this property. There were no significant exceptions to, or deletions from, our normal procedures, as are described in Sections 2.3 and 2.4 of this report.

- The subject building is located at the Mound Plant, adjacent to the southern perimeter of Miamisburg, Ohio. The entire Mound facility is situated on 305 acres of land and comprises more than 132 buildings. Building 100 is located at the extreme southeast corner of the Mound Property and was formerly the location of the South Security Precinct.

- The subject property consists of the Mound Building 100 footprint (approximately 6,000 square feet) and the parking area to the south of the building. There are nine parking spaces in this lot. This is a concrete building built into the ground, resulting in only the south building wall having exposure above the ground level. There are no other buildings within 200 feet of Building 100. The nearest structure to this building is the security fence located approximately 100 feet to the south.

This assessment has revealed no evidence of Recognized Environmental Conditions:

Detailed findings and recommendations are included in Section 7.0.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I Environmental Site Assessment is to identify, when possible, any recognized environmental conditions (defined below) that may affect the subject property.

2.2 Special Terms and Conditions

2.2.1 Environmental Professional - A person having sufficient training and experience necessary to conduct site reconnaissance, interviews and other activities regarding a subject site according to standard practices. The environmental professional develops conclusions pertaining to recognized environmental conditions.

2.2.2 Environmental Site Assessment (ESA) - The process by which a person or entity seeks to determine if a particular parcel of real property (including improvements) is subject to recognized environmental conditions. An environmental site assessment is both different from, and less rigorous than, an environmental audit.

2.2.3 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. Mr. Dan Gorman of EG&G Mound Applied Technologies and Mr. Dennis Adams of Larry Stein Realty were designated as the key site managers for this project.

2.2.4 Recognized Environmental Condition (REC) - The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicates an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimis 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 if brought to the attention of appropriate governmental agencies.

2.2.5 User - For the purposes of this report the user is designated as United States Department of Energy, Miamisburg Area Office.

2.2.6 List of Acronyms - A list of acronyms utilized in this report is presented immediately following the Table of Contents.

2.2.7 Special Conditions

The site area for this Phase I assessment consists of the DOE Mound Building 100 footprint and the parking area to the south of the building.

At the request of the client, the Table of Contents for the Building 100 Phase I report follows the Recommended Table of Contents from the ASTM Standard. Text discussions for certain ASTM sections have been merged to reduce redundancy, and the appropriate sections are referenced.

2.3 Limitations and Exceptions of Assessment

The Building 100 site area, as stated above, is completely covered by the building footprint and the asphalt parking area to the south. Therefore, soil conditions beneath these areas could not be observed. In addition, this building is built into a hill, resulting in the only exposure above ground being the south elevation.

2.4 Limiting Conditions and Methodology Used

2.4.1 On-Site Methodology

Environmental Professionals examined this site. This examination consisted of detailed inspection of the site and a border survey of neighboring properties.

2.4.2 Use of Previous Assessments

2.4.2.1 Building 100 is one of more than 132 buildings constructed on the original 182-acre tract of the Department of Energy Mound facility adjacent to Miamisburg, Ohio. Construction at the facility began in 1947. An additional 124-acre tract was acquired in 1981 and is still undeveloped. Numerous and overlapping maintenance programs and environmental programs (including investigation, identification, and remediation of chemical releases) have operated at the Mound Plant over the ensuing half century. Extensive documentation of these programs has created a large library of public information concerning the Mound facility, including Building 100. HOK/K accessed these documents through the Mound Plant's CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, or Superfund) Public Reading Room, the DOE Miamisburg Area Office CERCLA staff's document room, and from Mr. Mike Merker of DOE. A complete bibliography of the

CERCLA Public Reading Room documents is available from DOE, Miamisburg Area Office.

Most of the historical Mound program data collected and reported prior to 1992 was conveniently summarized by EG&G Mound Applied Technologies, M&O contractor, in a twelve-volume Operable Unit 9 (OU 9) Site Scoping Report. To provide the reader with a regulatory framework for the reasons for producing that report, we have included the following excerpt from the Introduction of Volume 12 of the Site Scoping Report:

"The U.S. Department of Energy (DOE) Mound Plant, Miamisburg, Ohio ..., was placed on the ... CERCLA National Priorities List (NPL) on November 21, 1989 (54 Federal Register 48184). The placement of the Mound Plant on the NPL occurred as a consequence of historic disposal practices and releases of contaminants to the environment. The Mound Plant received an overall Hazard Ranking System (HRS) score of 34.61, which exceeded the threshold (28.51) for NPL listing (40 CFR 300, Appendix A). Pursuant to its NPL status, the DOE signed a CERCLA Section 120 Federal Facility Agreement (FFA) with the U.S. Environmental Protection Agency (EPA) that became effective October 11, 1990 (Administrative Docket #VW-'90-C-075). The Ohio EPA (OEPA) became a signatory to the agreement in July 1993. The terms of the FFA require that the DOE develop and implement remedial investigations (RIs) and feasibility studies (FSs) and conduct interim remedial actions in order to ensure that environmental impacts associated with past and present activities at the site are thoroughly investigated and appropriate action is taken to protect the public health, welfare, and the environment.

"The DOE Albuquerque Operations Office (AL) established the Environmental Restoration (ER) Program in 1984 to collect and assess environmental data in order to develop a conceptual site model, to assess both the nature and extent of contamination, and to identify potential exposure pathways and potential human and environmental receptors [at DOE facilities]. In order to provide the EPA with sufficient information and data gathered during these previous investigations, a multi volume scoping report, providing background information, [was] prepared. The [OU 9] Site Scoping Report provides descriptions and summaries of the current conditions and characteristics of Mound Plant and consists of the following volumes:

1. Groundwater Data: February 1987 - July 1990 with Addendum
2. Geologic Log and Well Information Report
2. Addendum - Stratigraphic and Lithologic Logs
3. Radiological Site Survey
4. Engineering Map Series
5. Topographic Map Series
6. Photo History
7. Waste Management
8. Environmental Monitoring Data
8. Addendum - Vegetation and Foodstuff
9. Annotated Bibliography
10. Permits and Enforcement Actions
11. Spills and Response Actions
12. Site Summary Report"

2.4.2.2 Operable Unit 9 (OU9) is a designation of the Mound FFA/Environmental Restoration (ER) program for site-wide studies that provide the framework for compliance with the CERCLA RI/FS process. Investigations that are best conducted for the entire Mound Plant and its regional setting are included in OU9.

2.4.2.3 Final versions of the foregoing twelve volumes date between February 1992 and December 1994. A brief synopsis of these twelve volumes is excerpted from Volume 12, Site Summary Report, and is included herein as Exhibit A. Each volume references its own extensive bibliography.

HOK/K relied primarily on Operable Unit 9 Site Scoping Report: Volume 7 - Waste Management (February 1993), to provide a history of operations at Building 100. This information is discussed in Section 4.3.

HOK/K reviewed Operable Unit 9 Site Scoping Report: Volume 12 - Site Summary Report (September 1994), for a description of all Potential Release Sites (PRSs) at the Mound Plant, including Building 100. PRSs are informally defined potential areas of concern in which knowledge of historic or current use indicates that the site may be considered a solid waste management unit (SWMU, as defined by the Resource Conservation and Recovery Act, RCRA) or has been identified as an area with potential releases of concern. The Site Summary Report not only provides a detailed tabulation of the PRSs at the Mound, but also presents a thorough synopsis of the chronology, authority, and application of the numerous interrelated federal and state regulatory programs in effect at the facility.

A discussion of these regulatory records pertaining to the Building 100 Phase I assessment is presented in Section 4.0.

2.4.2.4 Building and construction information regarding the whole Mound facility and Building 100 in particular was culled from Mound Facility Physical Characterization (December, 1993), prepared by EG&G Mound Applied Technologies. Information from this document is incorporated into Sections 3.2 and 3.3 (Site and Vicinity Characteristics and Descriptions of Structures, Roads, and Other Improvements).

2.4.2.5 Tank information for the entire Mound facility, and Building 100 specifically, was collected from the Active Underground Storage Tank Plan, EG&G Mound (November, 1994) by Dames & Moore. These data are presented in both the Records Review, Section 4.0, and in Section 5.5.2, Underground Storage Tanks.

2.4.2.6 Section 5.7.2, Geology, of this report summarizes information from two phases of technical memoranda describing methods and results of the OU9 hydrogeologic investigations conducted by EG&G Mound Applied Technologies:

- OU9, Hydrogeologic Investigation: Bedrock Report (January 1994), and
- OU9, Hydrogeologic Investigation: Buried Valley Aquifer Report (March, 1994).

2.4.2.7 Although asbestos-containing materials (ACM) are not an ASTM-scope issue, at the client's request, HOK/K has included a discussion of ACM. Data were provided to HOK/K by Mr. Timothy Eilers of EG&G Mound Applied Technologies. The ACM data pertaining to Building 100 are described in Section 6.1.

2.4.2.8 As described, the whole Mound facility has been identified as an NPL site under investigation by the EPA and OEPA for radioactive and chemical contamination. Radioactive materials are not an ASTM-scope issue; however, HOK/K has reviewed the Volume 12 - Site Summary Report, which catalogues the potential release sites (including radioactive releases) that have been identified at Mound by DOE/EG&G. Any potential radioactive release sites pertaining to the site area and detailed in the aforementioned document will be discussed in Section 4.1 of this assessment (Standard Environmental Record Sources, Federal and State).

2.4.3 Historical Information

Title and tax records were reviewed for this assessment to determine previous owners of the property. In addition, the large body of previous assessments, described in the foregoing subsection, provided the historical information as required by the ASTM Standard.

2.4.4 Records Review

Environmental Data Resources, Inc. of Southport, Connecticut, a regulatory database search company, was contracted to provide environmental regulatory information concerning the site and surrounding properties, consistent with the requirements of ASTM Standard E 1527-94. This information was reviewed by an Environmental Professional for indications of recognized environmental conditions.

Because the entire vicinity surrounding the Building 100 subject area is a Superfund NPL site, most of the detailed environmental regulatory information for Building 100 and adjacent properties (the Mound Plant) was obtained from public documents maintained in the EG&G Mound CERCLA Public Reading Room, as described in Section 2.4.2 above.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The Building 100 site of the U.S. DOE Mound Plant is located at the extreme southeast corner of the Mound Property. Building 100 is located on the southern hill of the Mound facility, which itself is situated adjacent to the south side of Miamisburg, Ohio in Sections 30 and 36 (Building 100 is in Section 30), Township 2 and Range 5 (from the Between the Miamis survey). Figure 1 shows the general location of the site. Figure 2 shows details of the site.

3.2 Site and Vicinity Characteristics

The subject site consists of the Mound Building 100 footprint and the asphalt parking area to the south of the building. Building 100 comprises 6,222 square feet of space.

The Mound facility is situated on 305 acres of land and comprises more than 132 buildings having a total of nearly 1.4 million square feet of floor space. The original 182-acre site, purchased by the Manhattan Engineering District in 1946, is formed by two topographically high areas (hills) and a lower intermediate valley area. Building 100 is located at the extreme southeast corner of the original portion of this property. The more recently-acquired 124-acre tract (1981) is generally undulating toward the southwest and is not currently developed.

The Mound Plant is bordered on the west by a Conrail Railroad line and the north-south trending Miami-Erie Canal. The northwest quadrant of the property slopes steeply (approximately 170 feet of relief) down to the Great Miami River flood plain. The northern boundary of the plant abuts an historic residential neighborhood 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 golf course, the Miamisburg Mound State Memorial park, old agricultural fields, woodlots, and scattered residential properties border the Mound facility on the east. Benner Road forms the southern property line of the Mound Plant, with agricultural fields and farms occupying the lands beyond.

In the immediate vicinity of Building 100, the following adjacent buildings of the Mound facility are located:

Building Number	Square Footage	Current Use	Direction from Building 100
105	38,027	Production Machining	500 feet North
21	4,069	D&D Program	1000 feet West
63	239	Magazine	1000 feet Northwest

3.3 Descriptions of Structures, Roads, and Other Improvements on the Site

Building 100 is a single story concrete building which was constructed in 1988 (photo 1 - Exhibit B). A unique aspect of this building is that three of the outside walls are below ground level, leaving only one outside window (on the south side). The building was constructed to accommodate a second floor on top of the existing roof. Thus, the roof is a built-up flat roof covered with small gravel (photo 2).

Unlike most of the other buildings at Mound, Building 100 has a self-contained 10 ton air to air heat pump and air handler system (photo 3). As this building served as one of the security precincts, it was determined that uninterrupted HVAC and power was a priority. Room #117 was formerly known as the "Generator Room" and contained a diesel generator which was to be used in the event of commercial power interruption to the site. This generator was not on-site during the site inspection performed on April 9, 1996. No signs of fluid leakage were noted on the floor of Room #117.

Potable water and sanitary services at Building 100 are provided by the facility. The Mound Plant operates a potable water treatment plant (Building 24) that provides drinking water for the facility using groundwater produced from three on-site production wells (with a fourth well planned FY 1995-1996). The Mound facility also operates an on-site sanitary sewer treatment plant (Building 57) to manage the plant's sanitary wastewater pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued by OEPA. Due to the location of Building 100, the sanitary waste must be lifted into the Mound sanitary sewer system. The "ejector" station is located approximately 50 feet to the west of Building 100 (photo 4).

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

Mr. Mike Merker of DOE Miamisburg Area office was interviewed regarding site environmental liens. Mr. Merker indicated that there were no environmental liens or deed restrictions encumbering the property. Mr. Dan Gorman of EG&G Mound Applied Technologies was interviewed during the site visit regarding the site history, current activities and waste disposal practices. His knowledge, and that of Mr. Merker, of recognized environmental conditions related to the current or previous use of this property is referenced and documented in the appropriate sections of this report.

3.5 Current Uses of the Property

See Section 3.2.

3.6 Past Uses of the Property

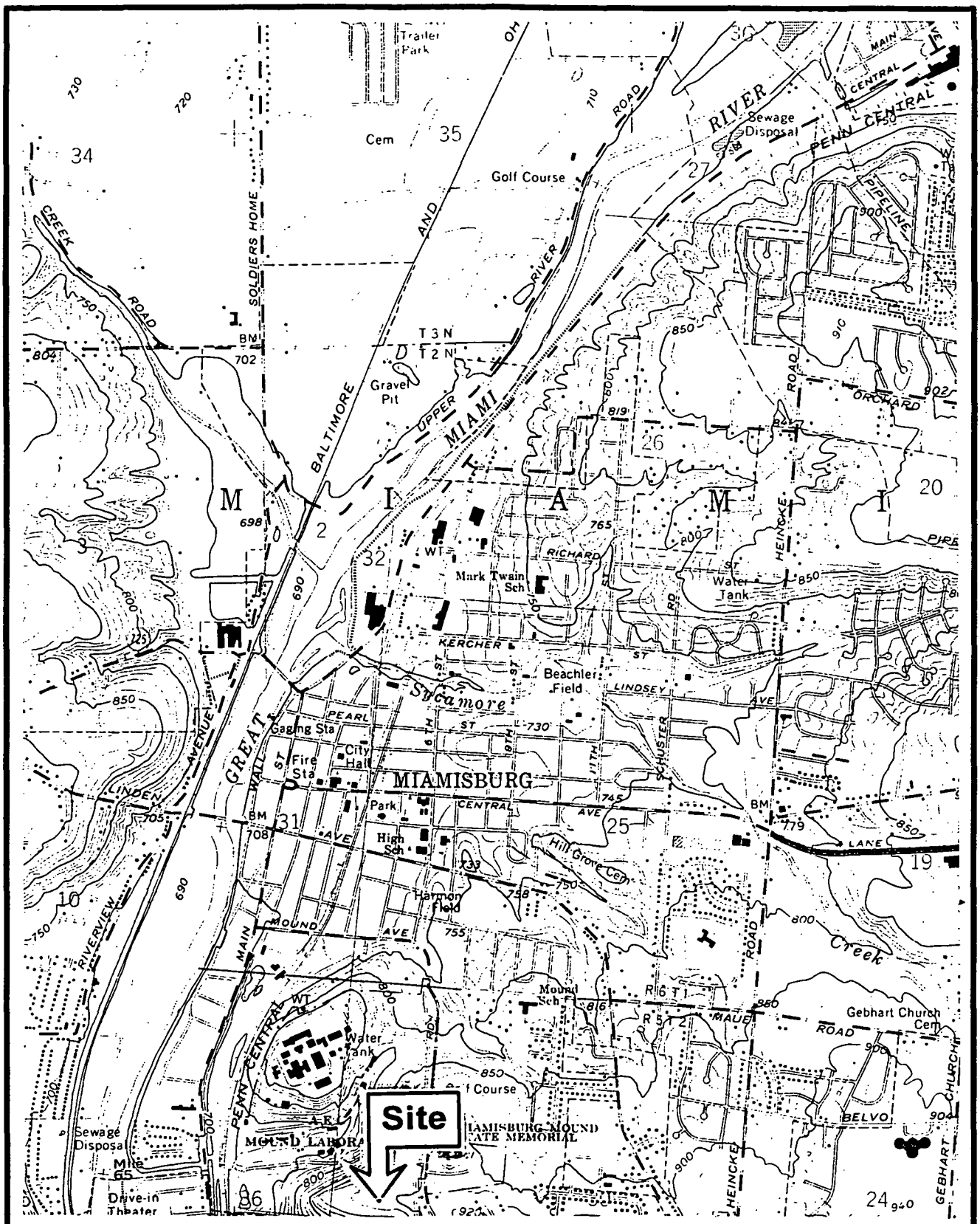
See Section 3.2 and Section 4.3.

3.7 Current and Past Uses of Adjoining Properties

See Section 3.2.

3.8 Site Rendering, Map, or Site Plan

See Figure 2.



OHIO

N

Contour Interval 10 feet

Approximate Scale

0 2000 FEET 4000 FEET 6000 FEET

Reference: Miamisburg Quadrangle
USGS 7.5 Minute Series (Topographic)
1965, Photorevised 1987

Figure 1
Building #100
U.S. Department of Energy

HOK/K Industrial

Project: H952341
Drawn By: SRP
Date: 4/15/96

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources, Federal and State

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

- Contaminated sites on the National Priorities List (NPL) which have been designated by the United States Environmental Protection Agency (EPA) as eligible for Superfund cleanup assistance;
- Sites which have been investigated or are scheduled for investigation, under authority of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA);
- Sites under investigation by the Ohio Environmental Protection Agency (OEPA) for possible hazardous waste are included in the OEPA Master Sites List. In the EDR report this list is referred to as State Hazardous Waste Sites (SHWS) records;
- Hazardous waste generator notifiers (LQG, SQG, and CEG) regulated under the Resource Conservation and Recovery Act (RCRA);
- RCRA hazardous waste treatment, storage, and disposal facilities (TSD);
- State licensed landfills;
- Leaking underground storage tanks (LUST) recorded with the Ohio Division of State Fire Marshal's Bureau of Underground Storage Tank Regulation (BUSTR);
- Underground storage tanks (UST) registered with BUSTR;
- Generators, transporters, commercial storers and/or brokers and disposers of polychlorinated biphenyls (PCBs) registered with EPA and recorded in the PCB Activity Database (PADS);
- Facilities that release toxic chemicals to the air, water, and land in reportable quantities under the Superfund Amendments and Reauthorization Act (SARA) Title III, Section 313, and which are identified in the Toxic Chemical Release Inventory System (TRIS);

- the United States Environmental Protection Agency Emergency Response Notification System's (ERNS) database of accidental releases of oil and hazardous substances.

- and "FINDS", a listing by the EPA of any site that has been reported to the agency as part of any regulatory requirement (e.g., permitting, hazardous waste generation) and does not necessarily indicate an environmental release.

There are fourteen sites within the appropriate radii (ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Sites Assessment Process Designation E1527-94), designated below as well as in the EDR Report which appears in Exhibit C.

PROPERTY NAME	ADDRESS AND PROXIMITY	STATUS
U.S. DOE Mound Plant	Mound Road Miamisburg, OH (target property)	NPL, PADS, CERCLIS, LUST, TRIS
D.J. Ceramics	611 S. Main St. Miamisburg, OH (W NW)	LUST
CG&R	901 S. Main St. Miamisburg, OH (W)	LUST
GMC Delco Products Div.	329 E. First St. Dayton (Miamisburg), OH (N NW)	RCRIS-SQG, FINDS
Dayton Public Schools	348 W. First St. Dayton (Miamisburg), OH (N NW)	RCRIS-SQG, FINDS
City of Miamisburg Pump Station	1021 S. Main St. Miamisburg, OH (W SW)	UST
Richard Church, Sr. Estate	1009 S. Main St. Miamisburg, OH	LUST

Presto Adhesive Paper Co., Inc.	222 Mound Ave. Miamisburg, OH (N)	RCRIS-LQG, FINDS
Technicote, Inc.	222 Mound Ave. Miamisburg, OH (N)	RCRIS-SQG, UST, LUST
Plocher Andrew Sons	418 E. First St. Dayton (Miamisburg), OH (N NW)	RCRIS-SQG, FINDS
Shell Oil Co.	1224 S. Main St. Dayton (Miamisburg), OH (SW)	UST
Point Store	155 S. Main St. Miamisburg, OH (N)	LUST
Miamisburg Water Treatment Plant	302 S. Riverview Miamisburg, OH (NW)	LUST
Miamisburg Well Field/ Unknown Source	302 S. Riverview Ave. Miamisburg, OH (NW)	SHWS (organics contamination of groundwater)

4.1.1 Except for the Mound Plant itself, on which rests the subject property, all of the remaining identified sites listed above are located north or west of the site. These directions place these other sites as much as 170 feet lower in elevation than the Mound Main Hill, thus they are downgradient (or downslope in terms of surface water, and probably groundwater, flow). In this position these other sites are very unlikely to adversely effect the soil or groundwater conditions at the subject site.

4.1.2 The Mound site, however, has been identified as a contaminated site on the National Priority List under CERCLA (Superfund) since 1989, as described above in the Previous Assessments section (2.4.2). The Mound 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 compounds, specifically

plutonium-238, and uranium and its compounds. Following its listing as an NPL site, DOE signed a CERCLA Section 120 Federal Facilities Agreement (FFA) with EPA, effective October 11, 1990. OEPA entered into the agreement in July 1993. The FAA, and its implementation through the DOE Environmental Restoration Program, requires DOE to perform RI/FSs and conduct interim remedial actions to ameliorate the environmental impact associated with past and present activities in order to protect the public health, welfare, and the environment.

As a result of the investigations and documentation conducted to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and its M&O contractor (EG&G Mound Applied Technologies) tabulated all the potential release sites 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 345 PRSs have been identified and are described in the OU9 Site Scoping Report: Volume 12 - Site Summary Report, Appendix A. This table has been reproduced in Exhibit D of this report. Of these 345 PRSs, none were attributed to operations at Building 100.

4.1.3 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 has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. The Mound has submitted both a RCRA Part A and Part B Permit application and operates as a RCRA hazardous waste treatment and storage facility under interim status. Mound also maintains a NPDES surface water discharge permit with facility I.D. Number OH009857. 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 at Building 100 in quantities above the regulatory thresholds.

4.1.4 DOE has legal authority derived from the Atomic Energy Act of 1954 (AEA) to conduct routine operations at Mound involving, among other things, underground tanks, equipment and other facilities. "Routine operations" include both the operation of currently active sites and the Decontamination & Decommissioning (D&D) of surplus sites. DOE has authority under the AEA to respond to any environmental contamination

known or discovered for both active and inactive tanks. Because DOE has signed an FFA, it also has authority and responsibility derived from CERCLA and the FFA. The authorities of the AEA and CERCLA overlap, but CERCLA explicitly recognizes the integration of the overlapping authorities. At Mound, a D&D/ER Program agreement was established April 26, 1991, to define the soil activity responsibilities between the two programs.

4.2 Physical Setting Source(s)

See Figure 1 and Section 5.8.

4.3 Historical Use Information

A history of the site was developed to identify past uses that may have an environmental impact. HOK/K performed a review of title records at the Montgomery County Recorder's Office in Dayton, Ohio, to obtain a history of ownership. HOK/K also relied on previously published Mound documents, principally the OU 9 Site Scoping Report: Volume 7 - Waste Management (February 1993) to provide this history of ownership and operations.

A history of ownership for Building 100 must obviously reflect the ownership history of the Mound Plant. Title records indicate that the government of the United States of America acquired the three parcels representing the original 182-acre tract from individual owners between April and September, 1947. The United States government purchased the four lots representing the 124-acre tract between July and August, 1981. These properties had been owned by one individual and one investment company.

History of ownership and operation for the Mound facility is further detailed in the following information excerpted from Volume 7 - Waste Management:

> "In the summer of 1942, the United States Army organized the Manhattan Engineer 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's (MCC's, now Monsanto Corporation's) Central Research Department in Dayton, Ohio accepted responsibility for the chemistry and metallurgy of radioactive polonium-210, and the Dayton Project was launched." MCC operated five units of the Dayton Project at various locations around the Dayton area. For Dayton Unit V (more formally the Dayton Engineer Works under the Dayton Engineer District), a 182-acre site on the outskirts of the town of Miamisburg in Montgomery County, Ohio, was selected in 1946 as the location of the permanent research facility in support of the Manhattan Project. "In July of 1946, 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 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] AEC, which had succeeded the wartime Manhattan Engineer District. The Mound Laboratory was occupied by MRC personnel in May 1948, and operations involving radionuclides began in January 1949.

"Mound is a government-owned and contractor-operated 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, the plant formally came under the Energy Research and Development Administration (ERDA) upon dissolution of the AEC. In October 1977, the plant was incorporated into the DOE complex and the facility designation changed from Mound Laboratory to Mound Plant. MRC was the sole operating contractor until October 1988, when EG&G-Mound Applied Technologies took over."

As described previously, Building 100 was constructed in 1988 as a Security Precinct Building.

4.4 Additional Record Sources

4.4.1 Interviews

Interviews with Mr. Dan Gorman and Mr. Vince Hanson are documented in this report.

4.4.2 Aerial Photographs

Aerial photographs from 1938, 1949, 1962, 1968, 1975, 1980, 1987, and 1995 were reviewed and copies are found in Exhibit F.

The 1938 photograph shows the Mound acreage as agricultural fields and undeveloped wood lots. The historic Miamisburg Indian Mound is visible for location reference.

The 1949 aerial shows the completed initial phase of construction on the Mound Main Hill. Approximately fourteen buildings are visible. Roadways on both the Main Hill and the southern hill are present. The 1962 and 1968 photographs show expanding activities at the Mound.

The overall Mound facility, as depicted in the 1975, 1980, 1987, and 1995 photographs, shows continuing change and expansion. Since this report focuses on Building 100, we will not include a detailed description of these changes on the Mound, but will concentrate our discussion in the next sentences on Building 100 alone.

All aerial photographs prior to 1987 show the current site of Building 100 as undeveloped. In 1968 and 1975, Building #21 is evident to the west of this site.

In 1987, Building 100 is under construction. In 1995, the building and parking area are complete.

4.4.3 Historic Sanborn Fire Insurance Maps

Sanborn Map coverage was not available for the Mound facility. A copy of the Sanborn Map Request Response is included in Exhibit G.

4.4.4 Building Prints

A series of building prints were made available to HOK/K by Mr. Tom Bruggeman of EG&G Mound Applied Technologies. These building prints are entitled "Monsanto Research Corporation - SM-PP Precinct - Building 100". Seven soil borings were performed in the vicinity of this building for geotechnical purposes. See Section 5.8.2.

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

5.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

5.1 Interior Observations

5.1.1 Heating/Cooling

Building 100 is not on the steam and cooling water system used by many of the other Mound Buildings. Since this was formerly a security building, it includes a totally self-contained air to air heat pump system (10 ton, 4500 CFM). The equipment is located in Room #119 (photo #3).

5.1.2 Stains or Corrosion

There was no evidence of stains or corrosion noted in Building 100. The former emergency generator Room #117 reportedly had an aboveground diesel tank, but there were no indications of residual staining.

5.1.3 Drains and Sumps

A sump pump is located at the northwest corner of Room #116 (photo 5). Floor drains were also located in the locker rooms (#105 and #107). This sump and drain are routed to the Mound sanitary treatment plant.

5.1.4 Electrical Conduits

Rooms #116 and #119 have four inch conduits through the wall (#116 - photo 10) and floor (#119 - photo 11) which were installed for future expansion of the computer control system at the Mound facility. These conduits have not been used.

5.2 Exterior Observations

5.2.1 Pits, Ponds, or Lagoons

No pits, ponds or lagoons were noted on-site.

5.2.2 Stained Soil or Pavement, Stressed Vegetation

No stained soil or pavement or stressed vegetation was evident on the exterior of Building 100 during the site visit.

5.2.3 Wells

There was no evidence of wells (such as a roadbox or pipe stick-up) at Building 100. One 4" PVC pipe was noted at the southeast corner of the building. See Section 5.5.2.

5.2.4 Odors

No unusual odors were noted within Building 100.

5.2.5 Hazardous Waste

There is no evidence of hazardous waste storage in or generation from this property.

5.2.6 Waste Water

No production activities have been recorded at this site. Therefore, the only waste water was from the previously mentioned floor drains and sump and from the lavatories and sinks.

5.2.7 Septic Systems

There was no evidence of septic systems (such as leaching field or septic tank vent pipes) in the vicinity of Building 100. Building prints show a sewage ejector station to the west of the building (photo 4). This station is necessary as the elevation of this area is below the Mound sanitary sewer line.

5.3 Hazardous Substances in Connection with Identified Uses

No production activities have been recorded at this site. There were no hazardous substances remaining in this building.

5.4 Hazardous Substance Containers and Unidentified Substance Containers

There were no unidentified substance containers noticed during the Building 100 site walkovers.

5.5 Storage Tanks

5.5.1 Above-Ground Storage Tanks

There was no current evidence of any above-ground storage tanks at the Building 100 site. According to Mr. Vince Hanson of Mound Security, Room #117 (former emergency generator room) had a small diesel tank (approximately 100 gallons) for the stand-by generator. The generator and tank were removed in 1995.

There are approximately twenty 2,000 gallon water tanks located to the west of this site (photo 4). These tanks contain purge water and well water from Mound Operations. The Building 100 Technical Review, indicates that:

> Water samples are ... sent off-site for testing. When the test results are returned to Mound and shows there is no contamination in the water it is then drained into the sanitary sewer in back of Building 100. If the test results are positive, the water is disposed of in accordance with Mound approved procedures.

5.5.2 Underground Storage Tanks (USTs)

There was no evidence of underground storage tanks at this site. One four inch PVC pipe stub was noted at the southeast corner of the building (photo 8). Based on a review of building prints, this is a cleanout for a storm sewer line.

A vent line penetrates the roof just above Room #117 (photo 9). This line was formerly related to the emergency generator which was removed in 1995.

5.6 Indications of Polychlorinated Biphenyls (PCB's)

One dry-type transformer is located in Room #119 (photo #7). This unit does not contain dielectric fluid and is not suspected of containing PCBs. Under the Toxic Substances Control Act (TSCA), the EPA regulates the manufacture, distribution and use of PCBs. PCBs are a known carcinogen and are persistent in the environment. They were formerly widely used in the dielectric fluid of electrical transformers and capacitors, and in the oil of hydraulic systems. PCBs are also present in the ballasts of fluorescent lamps.

Fluorescent lighting is used throughout Building 100. Fluorescent lamp ballasts contain a small capacitor that may contain high concentrations of PCBs (greater than 900,000 ppm). All lamp ballasts showing a manufacture date through 1979 should be regarded as containing PCBs. As this building was constructed in 1988, PCB fluid is not anticipated to be present.

5.7 Indications of Solid Waste Disposal

Solid waste was not observed in the site building.

5.8 Physical Setting Analysis

5.8.1 Surface Topography

A map of the area is included in Figure 1. This map is based on the U.S.G.S. 1965 (photorevised 1974) 7.5 Minute Topographic Map of the Miamisburg, Ohio Quadrangle. The site elevation ranges between 720 and 900 feet msl. Building 100 is at 890 feet. Based on an evaluation of the surface topography, surface water flows to the southwest.

5.8.2 Geology

An extensive site-wide (OU 9) hydrogeologic investigation has been completed by EG&G for the Mound Plant. The five technical memoranda written as part of the hydrogeologic investigation were cited in Section 2.5.2. Only a brief summary of geologic highlights for the Mound vicinity are described below.

The bedrock at the Mound Plant is comprised of marine shales and limestones of the Ordovician System within the Cincinnatian Series.

The nature and distribution of natural fractures studied during the referenced investigation indicate that a fracture carapace (zone at the surface) is superimposed on the bedrock beneath Mound Plant. This fracture carapace is believed to consist of a network of interconnected vertical and bedding plane fractures that are water-saturated in the lower parts and unsaturated in the upper parts.

The aquifer system at the Mound Plant consists of two different hydrogeologic environments: groundwater flow through the bedrock beneath the hills and groundwater flow within the unconsolidated glacial deposits and alluvium associated with the Buried Valley Aquifer in the Great Miami River valley. The bedrock flow system is dominated by fracture flow; the Buried Valley Aquifer is dominated by porous flow with

interbedded gravel deposits providing the major pathway for water movement. The Buried Valley Aquifer occupies the southwestern quadrant of the Mound site.

Based on the available data, the fracture carapace and underlying, relatively unfractured bedrock have different hydraulic characteristics. The fracture carapace has permeability values ranging from 0.09 to 0.9 ft/dy and the underlying bedrock has permeabilities that range from 1.3×10^{-3} to 2.9×10^{-2} ft/dy. The permeability of the fracture carapace and bedrock that underlie the Mound Plant is at least three orders of magnitude less than the Buried Valley Aquifer, which has an average permeability of 500 to 1,500 ft/dy. Because of this quality, the Buried Valley Aquifer has been designated a sole source aquifer consistent with the Safe Drinking Water Act.

The Mound Plant maintains three drinking water production wells completed in the Buried Valley Aquifer, along the western edge of the facility. Miamisburg Water District production wells are located approximately one-half mile northwest of the Mound facility on the other side of the Great Miami River.

Based on seven boring logs, Building 100 is underlain by four to ten feet of low-permeability, silty, glacial till over lower permeability Ordivician-aged interbedded shale and limestone bedrock. No water was detected during the borings. The depth to the ground-water table is not known, but based on the available information, there is no aquifer present beneath the building.

5.9 Other Conditions of Concern

See Section 7.0, Summary of Findings.

5.10 Site Plan

See Figure 2.

6.0 NON-SCOPE CONCERNS

Certain areas are considered beyond the ASTM standard scope of the Phase I Environmental Site Assessment. These areas are provided for informational purposes below.

6.1 Suspected Asbestos-Containing Material

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

No asbestos surveys were performed for Building 100 since it was constructed after 1983 when the EPA's friable asbestos containing building materials ban went into effect. The only suspect ACM in this building is non-friable flooring system or the roofing materials.

6.2 Lead Paint

Lead based paint was used almost exclusively in the U.S. prior to the 1970's. Congress established maximum lead concentrations in residential paint in 1978. Due to the age of the building (constructed in 1988) it is unlikely that lead based paint has been used within the buildings.

Small amounts of ammunition were reported to be stored in Building 100. There is no evidence of contamination from this storage.

6.3 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, and were provided in the EDR report in Exhibit C. 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.

Radon levels are very site specific, depending heavily on location and the building ages and construction. Radon does not normally pose a threat in commercial or industrial buildings for several reasons. The fresh air which enters the structure and the venting provided can reduce the buildup of the radon gas. In addition, human exposure in these facilities is usually limited to eight hours per day. EPA's recommended standard of 4.0 picocuries/liter is based on the assumption of sixteen hours exposure per day.

A simple screening test can be performed to determine actual on-site radon levels.

7.0 FINDINGS AND CONCLUSIONS

7.1 HOK/K Industrial, Inc. has performed a Phase I Environmental Site Assessment of the DOE Mound, Building 100 located at DOE Mound in Miamisburg, Ohio. Any exceptions to, or deletions from, our standard procedures are described in Section 2.3 of this report.

This assessment has revealed no evidence of Recognized Environmental Conditions at this site.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

8.1 The following individuals wrote and/or reviewed this document:

Prepared by:

Jennifer C. Vicarel

Jennifer C. Vicarel
Environmental Scientist

Reviewed by:

John W. Ey

John W. Ey, P.E., REPA
Manager, Environmental Assessments

9.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS PARTICIPATING IN PHASE I ENVIRONMENTAL SITE ASSESSMENT

Resumes for the following employees are attached as Exhibit H:

- John W. Ey, P.E., REPA
  Manager, Environmental Assessments

- Jennifer C. Vicarel
  Environmental Scientist

EXHIBIT A

DESCRIPTION OF TWELVE VOLUME SITE SCOPING REPORT

(CAA). Mound Plant, however, conducts its routine operations under the Atomic Energy Act of 1954 (AEA). One of the goals of this report is to ensure that all PRSs are properly evaluated for their inclusion or omission from the ER Program.

1.2. OVERVIEW OF MOUND PLANT SCOPING PROCESS

Prior to signing the FFA, the DOE collected and interpreted data to develop a Site conceptual model to assess both the nature and extent of contamination and to identify potential exposure pathways and potential human and environmental receptors. The multivolume scoping report, compiled under the guidance of the FFA Statement of Work, provides descriptions and summaries of current conditions and characteristics of the Mound Plant Site. The volumes are arranged to provide a systematic data set as follows:

- Volume 1 Groundwater Data: February 1987 - July 1990 (Final February 1992). Provides a tabulation of laboratory reports of groundwater sample analyses from ER Program monitoring wells, plant supply wells and groundwater seeps collected from February 1987 to July 1990, before the FFA became effective.

- Volume 2 Geologic Log and Well Information Report (Final May 1992). Provides a location map, and construction and borehole lithology details for monitoring and production wells on and adjacent to Mound Plant that have been used to collect environmental samples. Selected residential and municipal wells are also included where appropriate.

- Volume 2 Addendum Stratigraphic and Lithologic Logs (Final June 1992). Provides stratigraphic and lithologic information including borehole logs and borehole location maps compiled from plant engineering, planning, and foundation studies and contaminant infiltration and movement investigations.

- Volume 3 Radiological Site Survey (Final June 1993). Provides a summary and tabulation of available radiological data collected at Mound Plant with emphasis on the extensive radiological characterization investigation conducted by Mound Plant during the Site Survey Project (Stought et al. 1988).

- Volume 4 Engineering Map Series (Final February 1992). Provides a series of engineering maps of the Site, including plant utilities, potable water and condensate cooling lines, process piping and tanks, municipal utilities adjacent to the plant, surrounding land uses and easements, adjacent property owners, and copies of the boundary survey conducted in 1982. All maps were reproduced at a scale of 1 inch = 200 ft and use the Ohio State Plane coordinate system.

- Volume 5 Topographic Map Series (Final February 1992). Provides a series of topographic maps of the Mound Plant and adjacent areas, including a topographic map with 2-ft contours, a map of surface water features, a digitized topographic map of the northern part of the site before the plant was constructed in 1946, and a contour map with 10-ft contours that estimates the amounts of cut and fill performed from 1946 to 1986, principally along the plant drainage ditch. All maps were reproduced at a scale of 1 inch = 200 ft and use the Ohio State Plane coordinate system.

- Volume 6 Photo History Report (Final February 1992). Provides a series of interpretive maps compiled from historical aerial photos of Mound Plant that span the years 1959 to 1981. Maps of the upper and lower valley areas were compiled for 1959, 1964, 1968, 1973, 1975, 1979, and 1981, as these areas were known to have been used for waste disposal and experienced significant changes in morphology and terrain elevation.

- Volume 7 Waste Management Report (Final February 1993). Provides a description of the history of ownership and operation of the plant with emphasis on the generation, treatment, storage, and disposal of hazardous wastes through the perspective of the major programs and projects at the plant. Also provides a summary list of the hazardous substances generated through process information. This tabulation was used to compile the list of analytical parameters for the Operable Unit 9 RI/FS (DOE 1993a).

- Volume 8 Environmental Monitoring Data: 1976-1989 (Final February 1992). Provides summaries and tabulations of environmental sampling conducted by Mound Plant as part of the ongoing environmental surveillance program, the Potable Water Standards Project (Dames and Moore 1976a,b) and the Plutonium Soil Inventory Program (MRC 1977). Analytical data included tritium, plutonium-238, uranium-233, uranium-234, and uranium-238 in surface water and silt samples collected from the Great Miami River from 1974 to 1989, tritium in groundwater from the Buried Valley aquifer from 1975 to 1990, and plutonium-238 in regional soils measured in 1977.

- Volume 8 Addendum Vegetation and Foodstuff (Draft March 1994). Provides summary of analytical data on tritium and plutonium-238 concentrations in vegetation (grass) and foodstuff (fish, vegetables and milk) for the years 1972 to 1991. Data was collected and reported as part of the Mound Plant environmental monitoring and surveillance program required by DOE.

- Volume 9 Annotated Bibliography (Final February 1993). Provides an annotated list of reports prepared for the Site prior to the signing of the FFA. The bibliography includes reports prepared by government agencies, subcontractors, scientific journal articles, and maps and drawings that may be relevant to the preparation of the RI/FS. Reports published or compiled since the effective date of the FFA are beyond the scope of Volume 9.

- Volume 10 Permits and Enforcement Actions (Final May 1992). Provides a summary of past and present permits and registrations requested and received by Mound Plant, as well as a summary of enforcement actions. As a government-owned, contractor-operated facility, Mound Plant must operate not only in compliance with Executive Orders and Orders of the DOE, but also with federal and state statutes and regulations, and corporate policies. This report includes only those activities relating to compliance with federal, state, and county environmental regulations and statutes. Conditions of discharges and other permit limitations were beyond the scope of the report. Copies of permits of interest were copied in the appendix of the report.

- Volume 11 Spills and Response Actions (Final March 1992). Provides summaries of past product and hazardous substance spills, including amounts and locations and the response actions conducted. Data were compiled from records and incident reports of the Mound Plant safety office. Limited data were also available from the health physics office. Only incidents that resulted in a spill or an environmental release are included in this report. Laboratory and tabletop accidents, releases that were entirely contained within buildings, and personal injuries and radiation or hazardous substance exposures that did not apparently result in an environmental release were beyond the scope of this report. Summaries of response actions conducted by the EPA and OEPA are also included.

EXHIBIT B

PHOTOGRAPHS

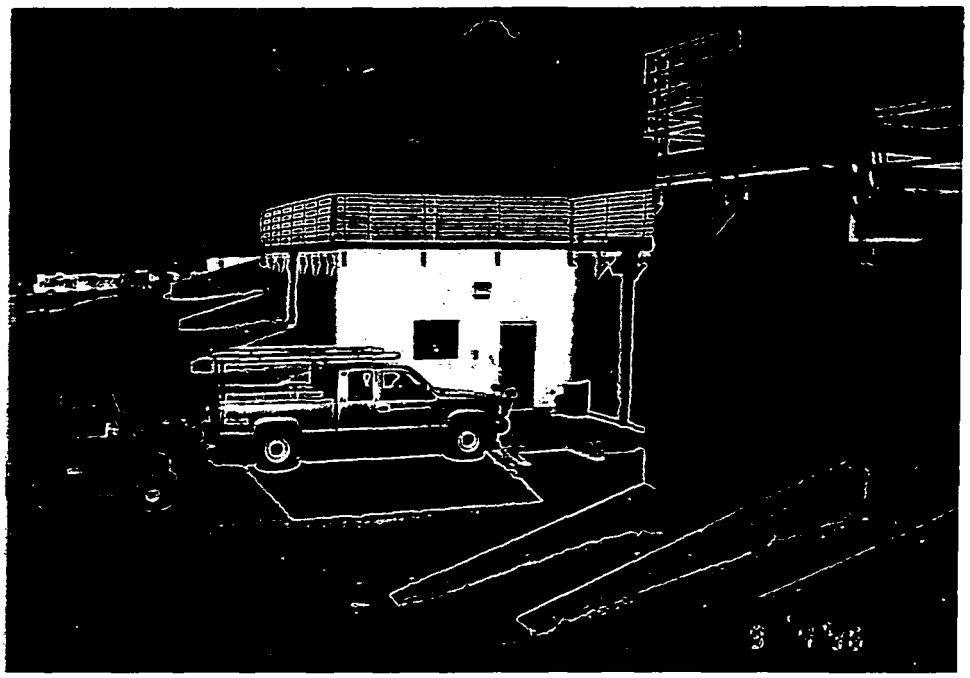


PHOTO 1:

SOUTH ELEVATION OF
BUILDING 100

PHOTO 2:

BUILDING 100
FLAT ROOF VIEW
LOOKING EAST

PHOTO 3:

AIR HANDLING EQUIPMENT
IN MECHANICAL ROOM
(#119)

PHOTO 4:

SEWAGE LIFT STATION
WEST OF BUILDING 100

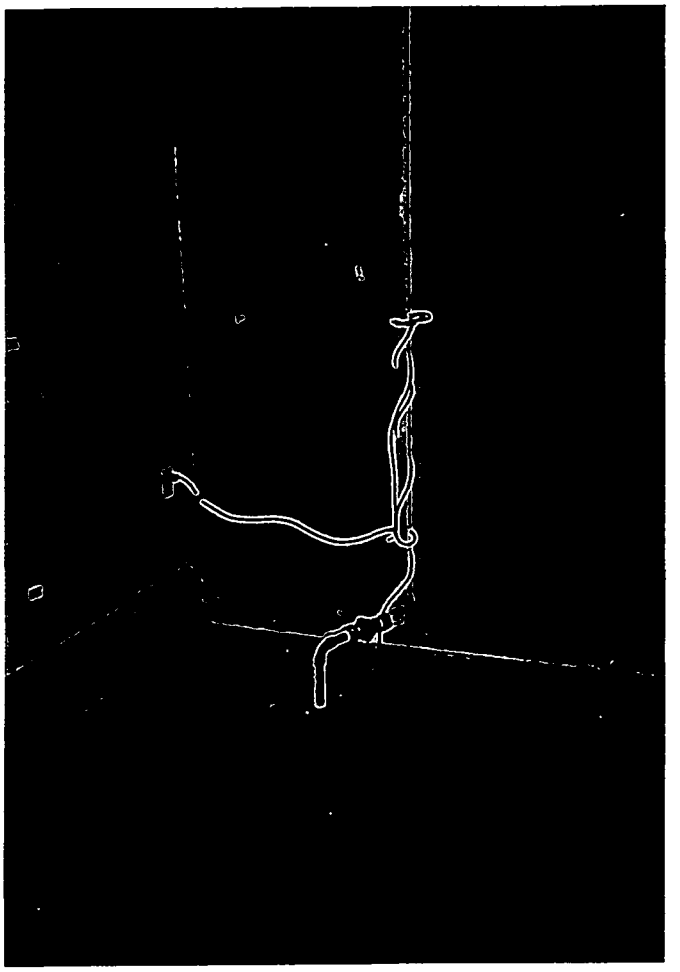


PHOTO 5:

SUMP PUMP LOCATION
IN ROOM 116

PHOTO 6:

FLOOR DRAIN AND
CONDUITS IN ROOM #108

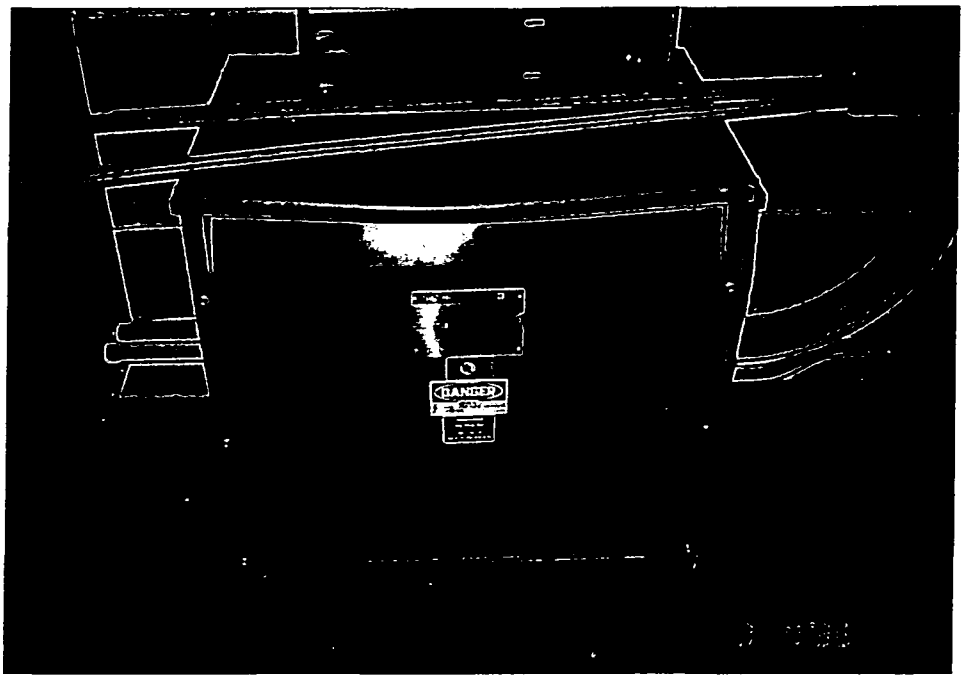


PHOTO 7:

DRY-TYPE TRANSFORMER
ROOM 119

PHOTO 8:

PVC PIPE AT SOUTHEAST CORNER
OF BUILDING 100 (CLEANOUT)

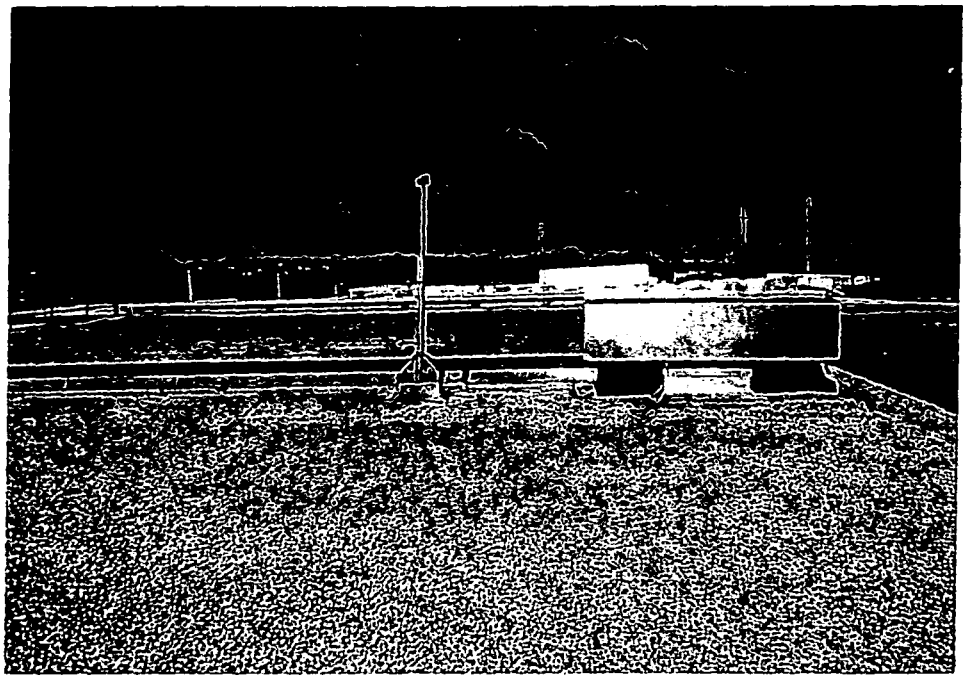


PHOTO 9:

VENT FROM FORMER
COMPRESSOR ROOM

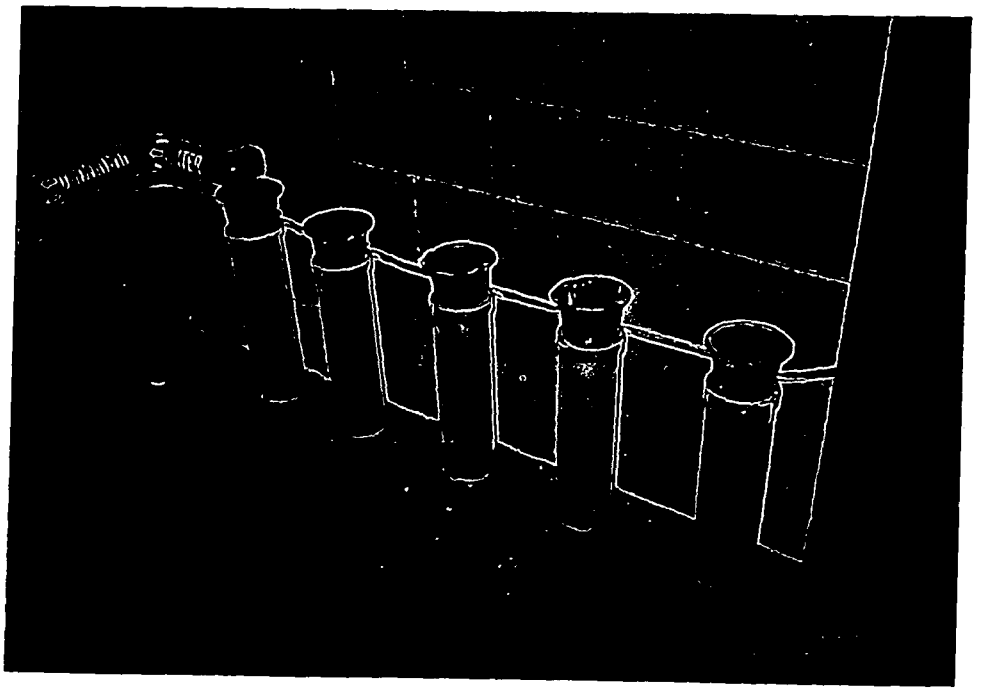


PHOTO 10:

CONDUITS IN
MECHANICAL ROOM
#119

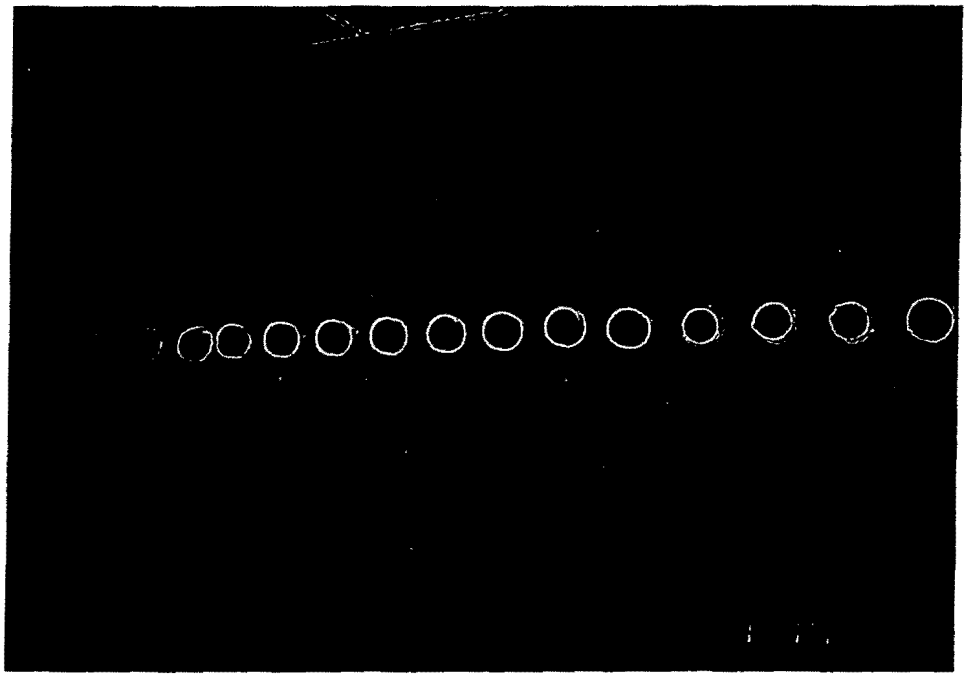


PHOTO 11:

CONDUITS IN NORTH WALL
(PLANNED FOR COMPUTER
CONTROL) ROOM #116

EXHIBIT C

EDR REGULATORY DATABASE SEARCH

The EDR-Radius Map
with GeoCheck™

US Department of Energy
Off Mound Rd.
Miamisburg, OH 45432

Inquiry Number: 100553.1s

December 13, 1995

Environmental
Data
Resources, Inc.

Creators of Toxicheck/®

The Source
For Environmental
Risk Management
Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Topographic Map	2
GeoCheck Summary	3
Overview Map	4
Detail Map	5
Map Summary - All Sites	6
Map Summary - Sites with higher or the same elevation as the Target Property	7
Map Findings	8
Orphan Summary	19

APPENDICES

GeoCheck Version 2.1	A1
EPA Waste Codes	A6
Government Records Searched / Data Currency Tracking Addendum	A9

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information or the information contained in this report. The customer shall assume full responsibility for the use of this report.
No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The search met the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-94, or custom distances requested by the user.

The address of the subject property for which the search was intended is:

OFF MOUND RD.
MIAMISBURG, OH 45432

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-94 search radius around the subject property for the following Databases:

Delisted NPL:..... NPL Deletions
RCRIS-TSD:..... Resource Conservation and Recovery Information System
CERC-NFRAP:..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:..... Corrective Action Report
State LF:..... Licensed Solid Waste Facilities
RAATS:..... RCRA Administrative Action Tracking System
HMIRS:..... Hazardous Materials Information Reporting System
ERNS:..... Emergency Response Notification System
NPL Liens:..... Federal Superfund Liens
TSCA:..... Toxic Substances Control Act
MLTS:..... Material Licensing Tracking System
RODS:..... Records Of Decision
CONSENT:..... Superfund (CERCLA) Consent Decrees
OH Spills:..... Not reported
Coal Gas:..... Former Manufactured gas (Coal Gas) Sites

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was not listed in any of the databases searched by EDR.

Surrounding Properties:

Sites with an elevation equal to or higher than the subject property are in the left hand column; those with a lower elevation are in the right hand column. Page numbers refer to the EDR Radius Map report where detailed data on individual sites may be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 09/01/1995 has revealed that there is 1 NPL site within approximately 1.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	***8***	***US DOE MOUND PLANT***	***8***

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already by listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data comes from the Ohio Environmental Protection Agency's Master Sites List.

A review of the State Haz. Waste list, as provided by EDR, and dated 04/01/1995 has revealed that there is 1 State Haz. Waste site within approximately 1.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
		MIAMISBURG WELL FIELD / UNK SOURC	18

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, persuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 08/31/1995 has revealed that there is 1 CERCLIS site within approximately 0.83 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	***8***	***US DOE MOUND PLANT***	***8***

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data comes from the Department of Commerce Division of State Fire Marshal's List of Reported Petroleum Underground Storage Tank Release Incidents.

A review of the LUST list, as provided by EDR, and dated 11/01/1995 has revealed that there are 7 LUST sites within approximately 0.83 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	***8***	***US DOE MOUND PLANT***	***8***
		DJ CERAMICS	10
		CG&R	11
		RICHARD CHURCH SR ESTATE	13
		TECHNICOTE INC	***14***
		POINT STORE	17
		MIAMISBURG WATER TREATMENT PLT	17

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data comes from the Department of Commerce Division of State Fire Marshal's Facility File.

A review of the UST list, as provided by EDR, and dated 09/01/1995 has revealed that there are 3 UST sites within approximately 0.58 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
		CITY OF MIAMISBURG PUMP STATIO	12
		TECHNICOTE INC	***14***
		SHELL OIL CO. #23420931760	16

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 05/31/1995 has revealed that there are 4 RCRIS-SQG sites within approximately 0.58 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
		GMC DELCO PRODUCTS DIV	***12***
		DAYTON PUBLIC SCHOOLS	***12***
		TECHNICOTE INC	***14***
		PLOCHER ANDREW SONS	***16***

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 05/31/1995 has revealed that there is 1 RCRIS-LQG site within approximately 0.58 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
		PRESTO ADHESIVE PAPER CO INC	*13*

PADS: The PCB Activity Database identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the United States Environmental Protection Agency of such activities. The source of this database is the U.S. EPA.

A review of the PADS list, as provided by EDR, and dated 10/14/1994 has revealed that there is 1 PADS site within approximately 0.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/27/1994 has revealed that there are 3 FINDS sites within approximately 0.33 Miles of the subject property.

Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*
		GMC DELCO PRODUCTS DIV	*12*
		DAYTON PUBLIC SCHOOLS	*12*

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

A review of the TRIS list, as provided by EDR, and dated 12/31/1992 has revealed that there is 1 TRIS site within approximately 0.33 Miles of the subject property.

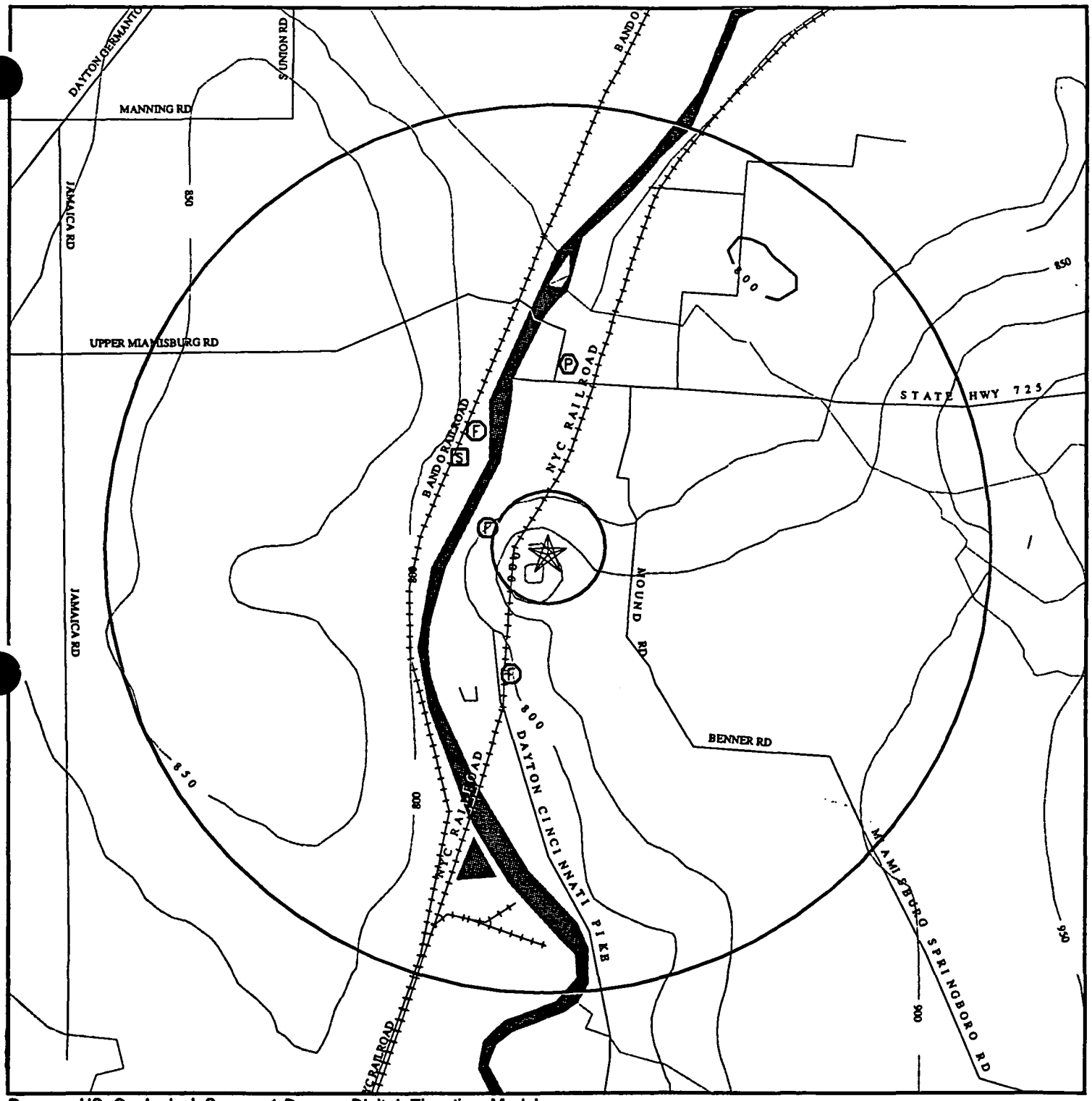
Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PHILLIPS SAND & GRAVEL	FINDS,CERC-NFRAP,State Haz. Waste
US DOE MOUND FACILITY*	State Haz. Waste
DYES PENNZOIL	LUST
TOMS QUICK LUBE	LUST
KNOLLWOOD GARDEN CENTER	LUST
BOONE WATER SYSTEMS, INC.	UST,LUST
UNKNOWN	LUST
CATES SALES & SERVICE	UST
KNOLLWOOD MARATHON	UST
DYE'S KNOLLWOOD PENNZOIL	UST
TOM'S SUTO QUICK LUBE SERVIE I	UST
KNOLLWOOD FLORIST, INC.	UST
PENNZOIL	UST
GARY L. JESTICE	UST
WYLIE F. FAULKNER	UST
C G & R	UST
THE POINTE	UST
FRALEY FENCE	UST
CITY OF MIAMISBURG	UST
MONARCH MARKING SYS INC	UST
UES INC	RCRIS-SQG

TOPOGRAPHIC MAP - 100553.1s - HOK/K Industrial



Source: US Geological Survey 1-Degree Digital Elevation Model
Compiled 09/15/92

0 1/4 1/2 1 2
Miles

N - Major Roads

N - Contour lines (25 foot interval unless otherwise shown)

- Waterways

◎ - Earthquake epicenter, Richter 5 or greater.

(F)[S] - Closest well according to (F)ederal or (S)tate database in quadrant.

(P) - Closest public water supply well.

TARGET PROPERTY:	US Department of Energy	CUSTOMER:	HOK/K Industrial
ADDRESS:	Off Mound Rd.	CONTACT:	Shelby R. Politte
CITY/STATE/ZIP:	Miamisburg OH 45432	INQUIRY #:	100553.1s
LAT/LONG:	39.6312 / 84.2884	DATE:	December 13, 1995

GEOCHECK VERSION 2.1
SUMMARY

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	O3
Era:	Paleozoic
System:	Ordovician
Series:	Upper Ordovician (Cincinnatian)

ROCK STRATIGRAPHIC UNIT†

Category:	Stratified Sequence

GROUNDWATER FLOW INFORMATION

General Topographic Gradient:	General North
General Hydrogeologic Gradient:	The hydrogeologic data for this report indicates that groundwater flow generally is to the South. However, because of the number and/or location of wells, the various depths of aquifers or other insufficient data, the direction of groundwater flow is uncertain.

Note: In a general way, the water table typically conforms to surface topography.‡

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property:	2439084-F3 MIAMISBURG, OH

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
North	1/2 - 1 Mile	Sand and silt	12 ft.
South	1/2 - 1 Mile	Outwash	Not Reported
West	1/4 - 1/2 Mile	Not Reported	24 ft.

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP
Northern	1/2 - 1 Mile
Southern	>2 Miles

PUBLIC WATER SUPPLY SYSTEM INFORMATION (EPA-FRDS)

Searched by Nearest Well.

Location Relative to TP:	1/2 - 1 Mile North
PWS Name:	MOUND PLANT MANAGER, MAINTENANCE EG&G PO BOX 3000 MIAMISBURG, OH 45343

Well currently has or has had major violation(s): No

AREA RADON INFORMATION

MONTGOMERY COUNTY, OH

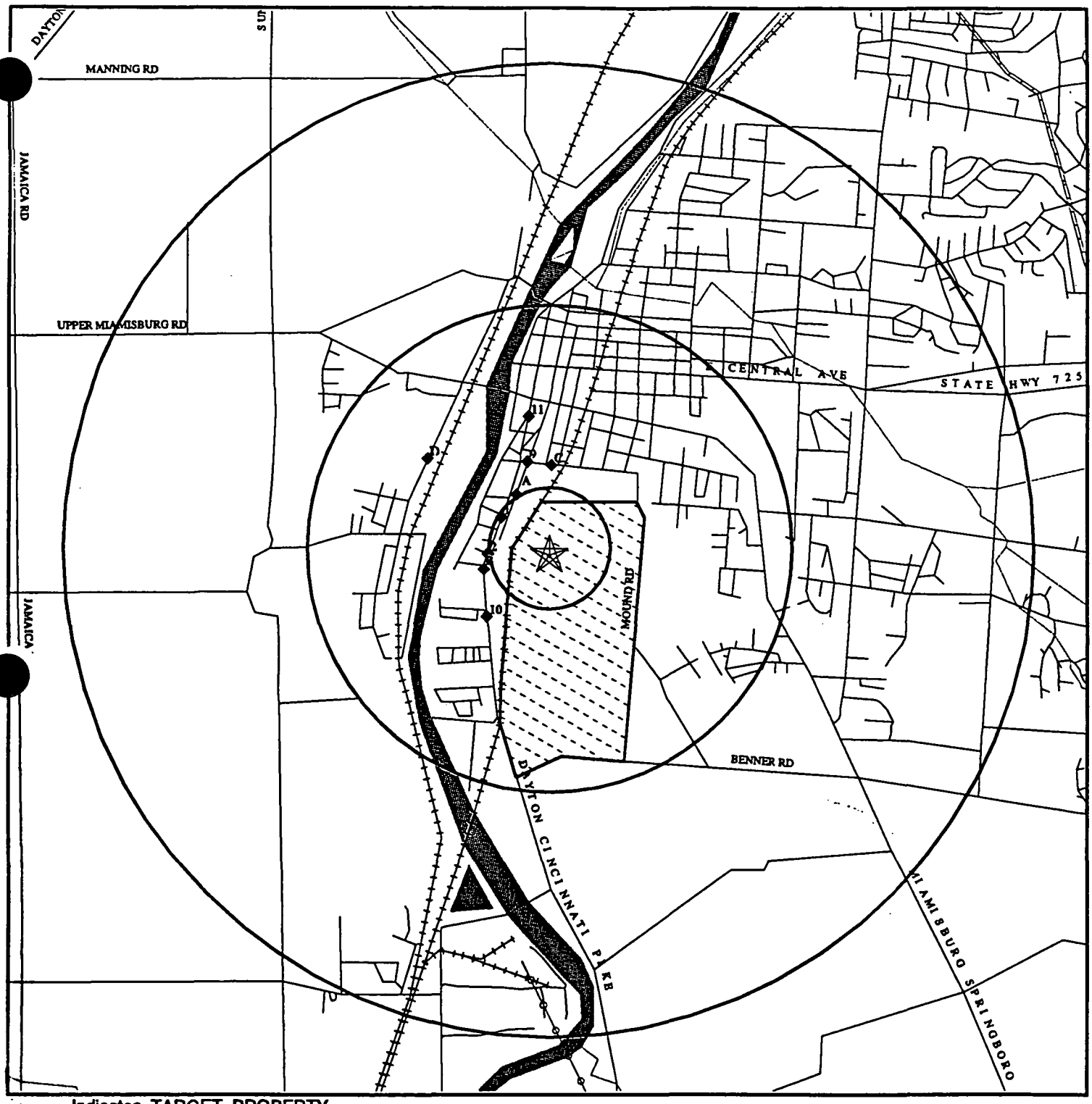
Number of sites tested: 35

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.966 pCi/L	77%	23%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	5.963 pCi/L	67%	27%	7%

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a,Chapter 4, page 78, September 1990.

OVERVIEW MAP - 100553.1s - HOK/K Industrial



★ - Indicates TARGET PROPERTY.

▲ - Indicates sites at elevations higher than or equal to the target property.

◆ - Indicates sites at elevations lower than the target property.

- Coal Gasification Sites (if requested)

- National Priority List Sites

0 1/4 1/2 1 2

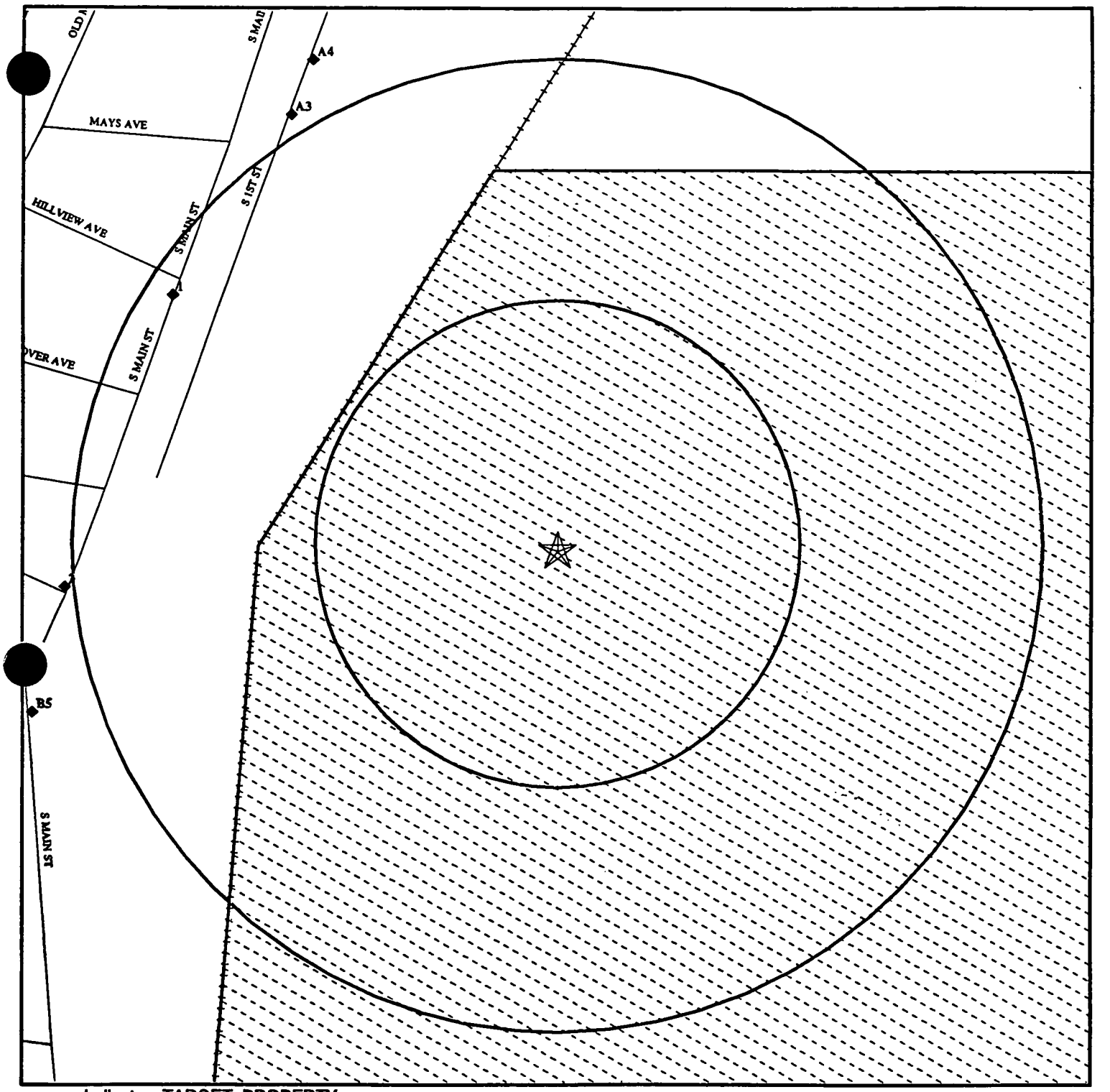
Miles

- Power transmission lines (USGS DLG, 1993)

- Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	US Department of Energy	CUSTOMER:	HOK/K Industrial
ADDRESS:	Off Mound Rd.	CONTACT:	Shelby R. Politte
CITY/STATE/ZIP:	Miamisburg OH 45432	INQUIRY #:	100553.1s
LAT/LONG:	39.6312 / 84.2884	DATE:	December 13, 1995

DETAIL MAP - 100553.1s - HOK/K Industrial



★ - Indicates TARGET PROPERTY.

▲ - Indicates sites at elevations higher than or equal to the target property.

● - Indicates sites at elevations lower than the target property.

- Coal Gasification Sites (if requested)

- Sensitive Receptors

- National Priority List Sites

0 1/8 1/4

Miles

- Power transmission lines (USGS DLG, 1993)

- Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	US Department of Energy	CUSTOMER:	HOK/K Industrial
ADDRESS:	Off Mound Rd.	CONTACT:	Shelby R. Politte
CITY/STATE/ZIP:	Miamisburg OH 45432	INQUIRY #:	100553.1s
LAT/LONG:	39.6312 / 84.2884	DATE:	December 13, 1995

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.330	1	0	0	0	0	1
Delisted NPL		0.330	0	0	0	NR	NR	0
RCRIS-TSD		1.330	0	0	0	0	0	0
State Haz. Waste		1.330	0	0	0	1	0	1
CERCLIS		0.830	1	0	0	0	NR	1
CERC-NFRAP		0.330	0	0	0	NR	NR	0
CORRACTS		1.330	0	0	0	0	0	0
State Landfill		0.830	0	0	0	0	NR	0
LUST		0.830	1	1	3	2	NR	7
UST		0.580	0	0	3	0	NR	3
RAATS		0.330	0	0	0	NR	NR	0
RCRIS Sm. Quan. Gen.		0.580	0	0	4	0	NR	4
RCRIS Lg. Quan. Gen.		0.580	0	0	1	0	NR	1
HMIRS		0.330	0	0	0	NR	NR	0
PADS		0.330	1	0	0	NR	NR	1
ERNS		0.330	0	0	0	NR	NR	0
FINDS		0.330	1	0	4	NR	NR	5
TRIS		0.330	1	0	0	NR	NR	1
NPL Liens		0.330	0	0	0	NR	NR	0
TSCA		0.330	0	0	0	NR	NR	0
MLTS		1.330	0	0	0	0	0	0
ROD		1.330	0	0	0	0	0	0
CONSENT		1.330	0	0	0	0	0	0
OH Spills		0.330	0	0	0	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS SUMMARY SHOWING ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.330	0	0	0	0	0	0
Delisted NPL		0.330	0	0	0	NR	NR	0
RCRIS-TSD		1.330	0	0	0	0	0	0
State Haz. Waste		1.330	0	0	0	0	0	0
CERCLIS		0.830	0	0	0	0	NR	0
CERC-NFRAP		0.330	0	0	0	NR	NR	0
CORRACTS		1.330	0	0	0	0	0	0
State Landfill		0.830	0	0	0	0	NR	0
LUST		0.830	0	0	0	0	NR	0
UST		0.580	0	0	0	0	NR	0
RAATS		0.330	0	0	0	NR	NR	0
RCRIS Sm. Quan. Gen.		0.580	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.580	0	0	0	0	NR	0
HMIRS		0.330	0	0	0	NR	NR	0
PADS		0.330	0	0	0	NR	NR	0
ERNS		0.330	0	0	0	NR	NR	0
FINDS		0.330	0	0	0	NR	NR	0
TRIS		0.330	0	0	0	NR	NR	0
NPL Liens		0.330	0	0	0	NR	NR	0
TSCA		0.330	0	0	0	NR	NR	0
MLTS		1.330	0	0	0	0	0	0
ROD		1.330	0	0	0	0	0	0
CONSENT		1.330	0	0	0	0	0	0
OH Spills		0.330	0	0	0	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

NPL
Region

US DOE MOUND PLANT
MOUND RD
MIAMISBURG, OH 45342

PADS 1000190772
CERCLIS OH6890008984
FINDS
NPL
TRIS
LUST

CERCLIS Classification Data:

Site Incident Category:	Not reported	Federal Facility:	YES
Ownership Status:	FEDERALLY OWNED	NPL Status:	CURRENTLY ON THE FINAL NPL
EPA Notes:	Not reported		

CERCLIS Assessment History:

Assessment:	DISCOVERY	Completed:	11/01/1980
Assessment:	PRELIMINARY ASSESSMENT	Completed:	03/25/1986
Assessment:	SCREENING SITE INSPECTION	Completed:	07/14/1989
Assessment:	HAZARD RANKING DETERMINED	Completed:	07/14/1989
Assessment:	PROPOSAL TO NPL	Completed:	07/14/1989
Assessment:	FINAL LISTING ON NPL	Completed:	11/24/1989
Assessment:	TECHNICAL ASSISTANCE	Completed:	Not reported
Assessment:	TECHNICAL ASSISTANCE	Completed:	Not reported
Assessment:	REMOVAL ACTION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	06/12/1995
Assessment:	REMEDIAL ACTION	Completed:	Not reported
Assessment:	REMEDIAL DESIGN	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	06/12/1995
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported

CERCLIS Site Status:

This site is currently under investigation by the government to assess the extent of further action

CERCLIS Alias Name(s):

US DOE MOUND FACIL
MOUND PLANT (USDOE)

US DOE MOUND PLANT (Continued) 1000190772

NPL:

ID:	05OH073
Date Listed:	11/21/89 (FINAL)
EPA/ID:	Not reported
Haz. Rank Score:	34.61
Status:	LISTED ON NPL
Rank:	Not reported
Group:	15
Ownership:	Federal
Ownership:	Govt. Owned, Contract. Oper.
Permit:	NPDES
Permit:	Air
Permit:	RCRA Interim Status
Permit:	Radioactive
Site Activities:	Landfill, Comm./Indus.
Site Activities:	Spill
Site Activities:	Tank, below ground
Site Condition:	Contam. Drinking Water
Waste Type:	Metals
Waste Type:	Radioactive Substances

Contaminant:	Media Affected:
CALCIUM CYANIDE	Not reported
COPPER CYANIDE	Not reported
PLUTONIUM AND COMPOUNDS, NOS (PU	Not reported
URANIUM AND COMPOUNDS, NOS (U)	Not reported
PLUTONIUM 238	Surface Water

Distance to nearest Population:	Not reported
Population within a 1 Mile Radius:	Not reported
Population within a 2 Mile Radius:	Not reported
Population within a 4 Mile Radius:	Not reported
Vertical Distance to Aquifer:	21 Feet to 75 Feet
Ground Water Use:	Used as Drinking Water, Alternative Source not Available
Distance to nearest Surface Water:	Not reported

Other Pertinent Environmental Activity Identified at Site:
facility has active water discharge permits
facility has an emission permit under the Clean Air Act
civil judicial and administrative enforcement cases against facility
facility is a PCB generator, storer, transporter or permitted disposer

US DOE MOUND PLANT (Continued) 1000190772

LUST:

Facility ID:	570630	Incident ID:	579108400
Report No:	5791084	Facility Track:	0
Facility Tel:	513-865-4020	Responsibility:	-0-
Owner:	US DEPT OF ENERGY -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	07/16/91
Fiscal Track:	F900	Coordinator:	Central Office Corrective Actions
Facility Status:	Initial Corrective Action Program Report		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Incident eligible for LTF oversight and/or spending - a suspected or confirmed release of petroleum from a regulated UST.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	HODNETT	Authorize Date:	07/12/91
Remarks:	0		
Summary:	-0-		
Added Date:	12/18/89	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

---

1 WNW 1/8-1/4 Lower | DJ CERAMICS
611 S MAIN ST
MIAMISBURG, OH 45342 | LUST | S101424591
N/A

DJ CERAMICS (Continued) S101424591

LUST:

Facility ID:	-0-	Incident ID:	575048600
Report No:	5750486	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0- -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY95	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	04/20/95
Remarks:	-0-		
Summary:	-0-		
Added Date:	04/20/95	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

---

2 West 1/4-1/2 Lower | CG&R
901 S MAIN ST
MIAMISBURG, OH 45342 | LUST | S101565590
N/A

LUST:

Facility ID:	572444	Incident ID:	574126900
Report No:	5741269	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0- -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY94	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	07/26/94
Remarks:	-0-		
Summary:	CLOS RPT RECD		
Added Date:	07/26/94	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A3 NNW 1/4-1/2 Lower	GMC DELCO PRODUCTS DIV 329 EAST FIRST STREET DAYTON, OH 45402	RCRIS-SQG FINDS	1000110283 OHD000817593

RCRIS:
Owner: NAME NOT REPORTED
(312) 555-1212

Contact: KARENANN BERNER
(513) 258-7621

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D000	.00000 (N)	Notification	D001	.00000 (N)	Notification
D002	.00000 (N)	Notification	D003	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification	F005	.00000 (N)	Notification
F006	.00000 (N)	Notification	F007	.00000 (N)	Notification
F008	.00000 (N)	Notification	F009	.00000 (N)	Notification
F010	.00000 (N)	Notification	F011	.00000 (N)	Notification
F012	.00000 (N)	Notification	P029	.00000 (N)	Notification
P030	.00000 (N)	Notification	P074	.00000 (N)	Notification
P098	.00000 (N)	Notification	P104	.00000 (N)	Notification
P106	.00000 (N)	Notification	P121	.00000 (N)	Notification
U159	.00000 (N)	Notification	U160	.00000 (N)	Notification
U188	.00000 (N)	Notification	U210	.00000 (N)	Notification
U220	.00000 (N)	Notification	U226	.00000 (N)	Notification
U239	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

A4 NNW 1/4-1/2 Lower	DAYTON PUBLIC SCHOOLS 348 W FIRST ST DAYTON, OH 45402	RCRIS-SQG FINDS	1000558707 OHD100060912

RCRIS:
Owner: DAYTON PUBLIC SCHOOLS
(513) 461-3000

Contact: PETER WEIMER
(513) 439-0863

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D000	.00000 (N)	Notification	D001	.00000 (N)	Notification
D002	.00000 (N)	Notification	D003	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification	F004	.00000 (N)	Notification
F005	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

Other Pertinent Environmental Activity Identified at Site:
facility is involved with pesticide/toxic substances production

B5 WSW 1/4-1/2 Lower	CITY OF MIAMISBURG PUMP STATIO 1021 S MAIN ST MIAMISBURG, OH 45342	UST	U000694613 N/A

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

CITY OF MIAMISBURG PUMP STATIO (Continued) — U000694613

UST:

Facility ID:	0-576024	Tank ID:	1
Capacity:	1,000	Tank Status:	Curr
Tank Age:	7	Owner Name:	CITY OF MIAMISBURG
Product:	Diesel	Owner Address:	PO BOX 570
Material:	Fiberglass	City, State, Zip:	MIAMISBURG, OH 45343
Piping Material:	Copper	Facility Contact:	JESSE MULLINS
Piping Type:	Suction -- No Valve	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

B6 WSW 1/4-1/2 Lower — RICHARD CHURCH SR ESTATE, 1009 S MAIN ST, MIAMISBURG, OH 45342 — LUST — S101565323 N/A

LUST:

Facility ID:	571192	Incident ID:	570118000
Report No:	5701180	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	Not reported -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	04/21/92
Fiscal Track:	F900	Coordinator:	Central Office Closure
Facility Status:	No Further Action		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	1, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	04/17/92
Remarks:	0		
Summary:	CLOS RPT RECD		
Added Date:	05/24/90	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

C7 North 1/4-1/2 Lower — PRESTO ADHESIVE PAPER CO INC, 222 MOUND AVE, MIAMISBURG, OH 45342 — FINDS, RCRIS-LQG — 1000389064, OHD004243614

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	PRESTO ADHESIVE PAPER CO INC (Continued)		1000389064

RCRIS:
Owner: PITNEY BOWES
(312) 555-1212

Contact: ALAN GORSKI
(513) 865-2600

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D003	.00000 (N)	Notification
F005	.00000 (N)	Notification	U002	.00000 (N)	Notification
U112	.00000 (N)	Notification	U140	.00000 (N)	Notification
U159	.00000 (N)	Notification	U220	.00000 (N)	Notification
U239	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

Other Pertinent Environmental Activity Identified at Site:
facility has an emission permit under the Clean Air Act

C8 North 1/4-1/2 Lower	TECHNICOTE INC 222 MOUND AVE MIAMISBURG, OH 45342	RCRIS-SQG UST LUST	1000243045 OHD980896468

RCRIS:
Owner: TECHNICOTE
(312) 555-1212

Contact: TOM BLOSSER
(513) 859-4448

Waste	Quantity	Info Source
D001	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

There are 1 compliance/violation record(s) reported at this site:

Evaluation	Date	Violations
COMPLIANCE EVALUATION INSPECTION (CEI)	14-JAN-88	YES

TECHNICOTE INC (Continued) 1000243045

LUST:

Facility ID:	570319	Incident ID:	573000600
Report No:	5730006	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0- -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY93	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	01/11/93
Remarks:	-0-		
Summary:	-0-		
Added Date:	01/11/93	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

UST:

Facility ID:	0-570319	Tank ID:	1
Capacity:	8,000	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	HAZ-69742-89-8	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570319	Tank ID:	2
Capacity:	8,000	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	Not reported	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

TECHNICOTE INC (Continued) — 1000243045

Facility ID:	0-570319	Tank ID:	3
Capacity:	500	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	Not reported	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Map ID	Site	Database(s)	EDR ID Number / EPA ID Number
9 NNW 1/4-1/2 Lower	PLOCHER ANDREW SONS 418 E FIRST ST DAYTON, OH 45402	RCRIS-SQG FINDS	1000170454 OHD004243937

RCRIS:
Owner: PLOCHER ANDREW SONS
(312) 555-1212

Contact: CHUCK KRAFT
(513) 228-6128

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	F003	.00000 (N)	Notification
F005	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

---

Map ID	Site	Database(s)	EDR ID Number / EPA ID Number
10 SW 1/4-1/2 Lower	SHELL OIL CO. #23420931760 1224 S MAIN ST DAYTON, OH 45409	UST	U000894456 N/A

UST:

Facility ID:	0-570157	Tank ID:	1
Capacity:	8,000	Tank Status:	Curr
Tank Age:	25	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570157	Tank ID:	2
Capacity:	10,000	Tank Status:	Curr
Tank Age:	25	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

SHELL OIL CO. #23420931760 (Continued) U000894456

Facility ID:	0-570157	Tank ID:	3
Capacity:	10,000	Tank Status:	Curr
Tank Age:	24	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570157	Tank ID:	4
Capacity:	1,000	Tank Status:	Curr
Tank Age:	22	Owner Name:	SHELL OIL CO.
Product:	Used Oil	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Bare Steel	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Bare Steel	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

---

11 North 1/2-1 Lower — POINT STORE, 155 S MAIN ST, MIAMISBURG, OH 45342 — LUST — S100648047 N/A

LUST:

Facility ID:	570738	Incident ID:	573182400
Report No:	5731824	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0- -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY93	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	09/07/93
Remarks:	-0-		
Summary:	-0-		
Added Date:	09/23/93	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

D12 NW 1/2-1 Lower — MIAMISBURG WATER TREATMENT PLT, 302 S RIVERVIEW, MIAMISBURG, OH 45342 — LUST — S101565457 N/A

MIAMISBURG WATER TREATMENT PLT (Continued) S101565457

LUST:

Facility ID:	570747	Incident ID:	572089900
Report No:	5720899	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0- -0- -0-, OH -0- -0-		
Operator:	-0- -0- -0-, OH -0- -0-		
Inspector:	-0-	Revised Date:	05/14/92
Fiscal Track:	FY92	Coordinator:	Central Office Closure
Facility Status:	No Further Action		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Respnse:	2	Response By:	-0-
Vacant:	1, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	05/13/92
Remarks:	-0-		
Summary:	CLOS RPT RECD		
Added Date:	04/23/92	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

D13 NW 1/2-1 Lower — MIAMISBURG WELL FIELD / UNK SOURCE, 302 S RIVERVIEW AVE, MIAMISBURG, OH 45342 — SHWS — S100037719, N/A

SHWS:

Facility ID:	557-1359	EPA ID:	NOT ASSIGNED	Prelim. Assessment Date:	Not reported

Priority: HIGH - There is evidence or it is suspected that hazardous waste has been managed and there is evidence of a release of hazardous waste which which may present a substantial threat to public health or safety.

Problem: GW ORGANICS

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
BEAVERCREEK	U001964051	CATES SALES & SERVICE	3310 DAYTON XENIA RD	45432	UST	0-292261
BEAVERCREEK	S101562515	DYES PENNZOIL	3851 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	S101562533	TOMS QUICK LUBE	3815 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	S101562553	KNOLLWOOD GARDEN CENTER	3766 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	U000892037	KNOLLWOOD MARATHON	3844 DAYTON-XENIA RD	45432	UST	0-290099
BEAVERCREEK	U000696152	DYE'S KNOLLWOOD PENNZOIL	3851 DAYTON-XENIA RD	45432	UST	0-294274
DAYTON	U001431511	BOONE WATER SYSTEMS, INC.	1519 S CENTRAL DR	45432	UST, LUST	290587
DAYTON	U000892071	TOM'S SUTO QUICK LUBE SERVIE I	3815 DAYTON XENIA RD	45432	UST	0-293719
DAYTON	U000894584	KNOLLWOOD FLORIST, INC.	3766 DAYTON XENIA RD	45432	UST	0-570895
DAYTON	1000990750	UES INC	4401 DAYTON-XENIA RD	45432	RCRIS-SQG	
DAYTON	1000289261	PHILLIPS SAND & GRAVEL	NORTH FAIRFIELD RD	45432	FINDS, CERC-NFRAP, SHWS	
MIAMISBURG	S100031602	UNKNOWN	ADJ 150 RIVERVIEW AVE	45342	LUST	-0-
MIAMISBURG	U002223400	PENNZOIL	8681 DAYTON CINCINNATI PIKE	45342	UST	0-572210
MIAMISBURG	U000894692	GARY L. JESTICE	72 N MAIN ST	45342	UST	0-577617
MIAMISBURG	U000894676	WYLIE F. FAULKNER	110 N MAIN ST	45342	UST	0-576514
MIAMISBURG	U001964188	C G & R	901 S MAIN ST	45342	UST	0-572444
MIAMISBURG	U001431648	THE POINTE	155 S MAIN ST	45342	UST	0-570738
MIAMISBURG	U001431608	FRALEY FENCE	311 N MAIN ST	45342	UST	0-570049
MIAMISBURG	U000894675	CITY OF MIAMISBURG	600 N MAIN ST	45342	UST	0-576023
MIAMISBURG	S100779275	US DOE MOUND FACILITY*	MOUND RD	45342	SHWS	
MIAMISBURG	U001431691	MONARCH MARKING SYS INC	ST RT 725 AND BYERS RD	45432	UST	0-574851

GEOCHECK VERSION 2.1 ADDENDUM
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (North Quadrant)

BASIC WELL DATA

Site ID:	393819084173900	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1990	County:	Montgomery
Altitude:	692.17 ft.	State:	Ohio
Well Depth:	44.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	11.50 ft.	Prim. Use of Site:	Observation
Date Measured:	11271990	Prim. Use of Water:	Unused

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Sand and silt
Further Description:	SILT/SAND BROWN

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (South Quadrant)

BASIC WELL DATA

Site ID:	393724084172900	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1964	County:	Montgomery
Altitude:	698.00 ft.	State:	Ohio
Well Depth:	226.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	Not Reported	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Industrial

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Outwash
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (West Quadrant)

BASIC WELL DATA

Site ID:	393757084173600	Distance from TP:	1/4 - 1/2 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1955	County:	Montgomery
Altitude:	691.00 ft.	State:	Ohio
Well Depth:	95.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	24.13 ft.	Prim. Use of Site:	Withdrawal of water
Date Measured:	12311975	Prim. Use of Water:	Public supply

LITHOLOGIC DATA

Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Well Information:

Well Within 1/2 - 1 Mile of Target Property (Northern Quadrant)

PWS ID:	5701212	Population Served:	18,500
Latitude:	0393813	Longitude:	0841744
Owner:	MIAMISBURG,CITY OF		
Source:	Ground		

Well Within >2 Miles of Target Property (Southern Quadrant)

PWS ID:	8301412	Population Served:	7,800
Latitude:	0393505	Longitude:	0841733
Owner:	SPRINGBORO,VLG.OF-CHAUTAUQUA		
Source:	Ground		

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest Well.

PWS SUMMARY:

PWS ID:	OH5744912	PWS Status:	Active	Distance from TP:	1/2 - 1 Mile
Date Initiated:	Not Reported	Date Deactivated:	Not Reported	Dir relative to TP:	North
PWS Name:	MOUND PLANT MANAGER, MAINTENANCE EG&G PO BOX 3000 MIAMISBURG, OH 45343				

Addressee / Facility Type:	Not Reported		
Facility Name:	Not Reported		
Facility Latitude:	39 38 34	Facility Longitude:	084 17 12
City Served:	Not Reported:		
Treatment Class:	Treated	Population Served:	1,001 - 2,500 Persons

Well currently has or has had major violation(s): No

EPA Waste Codes Addendum

Code	Description
D000	NOT DEFINED
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D003	A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
F001	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F004	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND

Code	Description
	NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
F008	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F009	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F010	QUENCHING BATH RESIDUES FROM OIL BATHS FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F011	SPENT CYANIDE SOLUTIONS FROM SALT BATH POT CLEANING FROM METAL HEAT TREATING OPERATIONS.
F012	QUENCHING WASTE WATER TREATMENT SLUDGES FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
P029	COPPER CYANIDE
P029	COPPER CYANIDE CU(CN)
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P074	NICKEL CYANIDE
P074	NICKEL CYNAIDE NI(CN)2
P098	POTASSIUM CYANIDE
P098	POTASSIUM CYANIDE K(CN)
P104	SILVER CYANIDE
P104	SILVER CYANIDE AG(CN)

EPA Waste Codes Addendum

Code	Description
P106	SODIUM CYANIDE
P106	SODIUM CYANIDE NA(CN)
P121	ZINC CYANIDE
P121	ZINC CYANIDE ZN(CN)2
U002	ACETONE (I)
U002	2-PROPANONE (I)
U112	ACETIC ACID ETHYL ESTER (I)
U112	ETHYL ACETATE (I)
U140	ISOBUTYL ALCOHOL (I,T)
U140	1-PROPANOL, 2-METHYL- (I,T)
U159	2-BUTANONE (I,T)
U159	METHYL ETHYL KETONE (MEK) (I,T)
U160	2-BUTANONE, PEROXIDE (R,T)
U160	METHYL ETHYL KETONE PEROXIDE (R,T)
U188	PHENOL
U210	ETHENE, TETRACHLORO-
U210	TETRACHLOROETHYLENE
U220	BENZENE, METHYL-
U220	TOLUENE
U226	ETHANE, 1,1,1-TRICHLORO-
U226	METHYL CHLOROFORM
U239	BENZENE, DIMETHYL- (I,T)
U239	XYLENE (I)

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702
CERCLIS: CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 08/31/95 — Date of Data Arrival at EDR: 11/02/95
Date Made Active at EDR: 12/04/95 — Elapsed ASTM days: 32

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342
ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/94 — Date of Data Arrival at EDR: 04/11/95
Date Made Active at EDR: 05/25/95 — Elapsed ASTM days: 44

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852
NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 09/01/95 — Date of Data Arrival at EDR: 10/17/95
Date Made Active at EDR: 10/25/95 — Elapsed ASTM days: 8

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 703-308-7907
RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/95 — Date of Data Arrival at EDR: 06/28/95
Date Made Active at EDR: 08/22/95 — Elapsed ASTM days: 55

FEDERAL NON-ASTM RECORDS:

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies — Date of Next Scheduled Update: 09/01/95

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 703-308-7907
CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/95 — Date of Next Scheduled Update: 12/18/95

FINDS: Facility Index System
Source: EPA/NTIS
Telephone: 800-908-2493
FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/94 — Date of Next Scheduled Update: 01/08/96

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/94 — Date of Next Scheduled Update: 04/30/96

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/01/95 — Date of Next Scheduled Update: 01/15/96

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969
NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91 — Date of Next Scheduled Update: 02/26/96

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3992
PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/94 — Date of Next Scheduled Update: 02/19/96

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/95 Date of Next Scheduled Update: 12/18/95

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0703
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95 Date of Next Scheduled Update: 03/04/96

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-2320
TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/92 Date of Next Scheduled Update: 04/12/96

TSCA: Toxic Substances Control Act
Source: EPA/NTIS
Telephone: 202-260-1444
TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 01/31/95 Date of Next Scheduled Update: 03/18/96

STATE OF OHIO ASTM RECORDS:

LUST: List of Reported Petroleum Underground Storage Tank Release Incidents
Source: Department of Commerce
Telephone: 614-752-7926
LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/01/95 — Date of Data Arrival at EDR: 11/06/95
Date Made Active at EDR: 12/05/95 — Elapsed ASTM days: 29

SHWS: Master Sites List
Source: Ohio Environmental Protection Agency
Telephone: 614-644-3143
SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/01/95 — Date of Data Arrival at EDR: 04/24/95
Date Made Active at EDR: 05/16/95 — Elapsed ASTM days: 22

SWF/LS: Licensed Solid Waste Facilities
Source: Ohio Environmental Protection Agency
Telephone: 614-644-2621
SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/22/95 — Date of Data Arrival at EDR: 06/26/95
Date Made Active at EDR: 07/27/95 — Elapsed ASTM days: 31

UST: Facility File
Source: Department of Commerce
Telephone: 614-752-7926
UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/01/95 — Date of Data Arrival at EDR: 09/18/95
Date Made Active at EDR: 10/10/95 — Elapsed ASTM days: 22

STATE OF OHIO NON-ASTM RECORDS:

SPILLS: Inclused Reported Incidents, Spills or Releases to The Environment
Source: Ohio EPA
Telephone: 614-644-2084
SPILLS: All reported incidents, spills or releases to the environment.

Date of Government Version: 12/31/93 — Date of Next Scheduled Update: 12/18/95

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: Delisted NPL Sites
Source: EPA
Telephone: 703-603-8769
DELISTED NPL: The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

NFRAP: No Further Remedial Action Planned
Source: EPA/NTIS
Telephone: 703-416-0702
NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

FRDS: Federal Reporting Data System
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
FRDS provides information regarding public water supplies and their compliance with monitoring requirements, maximum contaminant levels (MCL's), and other requirements of the Safe Drinking Water Act of 1986.

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals who, due to their fragile immune systems, are deemed to be especially sensitive to environmental discharges. These typically include the elderly, the sick, and children. While the exact location of these sensitive receptors cannot be determined, EDR indicates those facilities, such as schools, hospitals, day care centers, and nursing homes, where sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1994 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams
Source: Federal Emergency Management Agency
Telephone: 202-646-2801
WATER DAMS: National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

Ohio Public Water Systems
Source: Ohio EPA, Division of Drinking & Groundwater

EXHIBIT D

COMPREHENSIVE TABULATION OF POTENTIAL RELEASE SITES

Table A.1. Comprehensive Tabulation of Potential Release Sites

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
1	Miami-Erie canal (north pond)	C-5	Historical	Plutonium-238, tritium	1, 8, 5	Plutonium-238 Tritium	S, SW	10 19	13	Table B.9	18, 19
2	Miami-Erie canal (south pond)	C-5	Waters of the U.S.						3, 13	Tables B.6, B.7, B.8, B.9, and B.11	15 19
3	Miami-Erie canal (north canal)	D-4 E-4 F-4 G-4	Waters of the U.S.						2, 3, 4, 5, 6, 13, 16	Tables B.6, B.7, B.8, B.9, and B.10	16
4	Miami-Erie canal (runoff hollow)	G-4	Tributary Drainage						13	Table B.9	18, 19
5	Miami-Erie canal (south canal)	I-4 J-4 K-4 L-4	Waters of the U.S.						2, 3, 4, 5, 6, 13, 16	Tables B.9 and B.10	16
6	Miami-Erie canal (overflow creek)	M-4 N-4	Waters of the U.S.						13	Table B.9	16
7	Plant Sanitary Pipeline	H-5 I-3 I-4	In service	Plutonium-238		Suspected	S	4	16	see item 88	20
8	Site Sanitary Landfill	I-5	Historical	Contaminants listed under Historic Landfill	4, 5, 18	None Suspected			No Data		
9	Area 18, Site Sanitary Landfill Cover	I-5	In service	Plutonium-238 Thorium	1, 18				2, 3, 4, 5, 6, 10, 11, 14, 16	Table B.1 (Table IV.7 in Ref. 6) Tables B.6, B.7, B.8 and B.9	6, 24
10	Historic Landfill	I-4 I-5	Historical	Administrative and laboratory trash	1, 4, 5, 18	Suspected VOCs	GW, S	4, 18	14	Table B.9 (Table IV.7 in Ref. 6)	6
				Beryllium, Mercury, Nickel carbonyl, Trichloroethene, carbon tetrachloride, Lithium hydride, Benzene, Alcohol, Acetone, Polychlorinated biphenyl oils, Waste antifreeze, Waste oil, Paints, Solvents, Photo-processing solutions, Plating solutions					2, 3, 4, 5, 6	Tables B.6, B.7, B.8 and B.9	24
				Sediment from plant drainage ditch					3		
				Bioassay samples							
				Scintillation "cocktails"							

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
11	Area 2, Thorium and Polonium-Contaminated Wastes (AKA Crusted Drums)	I-4 I-5	Historical	Polonium-210, thorium-contaminated drums, Polonium-210 contaminated sand and debris Thorium sludge constituents, Plutonium-238	1, 4, 5, 18	Thorium and daughters	S	1, 4	14 2, 3, 4, 5, 6 10, 11, 14, 16	Table B.1 (Table III.1 in Ref. 6) Tables B.6, B.7, B.8 and B.9	6 24
12	Area B Drum Storage Area	I-5	Historical	Chemical wastes	4	None Suspected			2, 3, 4, 5, 6 10, 11, 14, 16	Tables B.6, B.7, B.8 and B.9	24
13	Trash Incinerator	J-5	Historical	Solid Waste	4	None Suspected			No Data		
14	Area C, Waste Storage Area (AKA Drum Staging Area and Chemical Waste Storage Area)	H-6	Historical	VOCs	4, 5, 7	Suspected, not confirmed	S	7	3, 4, 5, 6 14	Tables B.6, B.7, B.8, and B.9 RSS[c] Location S0518 (Appendix E in Ref. 6)	7 6
15	Area C, Lithium Burn Area (AKA Lithium Carbonate Disposal)	H-5	Historical	Lithium Hydride	4	Possible lithium residues, not confirmed	S	4, 7	2, 3, 4, 5, 6, 7, 8, 9, 10 14	Tables B.6, B.7, B.8, and B.9 RSS[c] Locations S0552 and S0553 (Appendix E in Ref. 6)	7 6
16	Area C, Past Hazardous Waste Storage Area (AKA old Building 72) see related site 345	H-6	Historical	Potential contaminants listed under Hazardous Waste Storage Area	4, 5, 18	Minor, historically remediated	S	18	4	Table B.6	18
17	Oil Burn Structure	H-5	Inactive	Aviation fuel, benzene, toluene, ethyl benzene, xylenes	5, 7, 18	Confirmed EPH, dioxin/furans		7, 18	2, 3, 4, 5, 6, 7, 8, 9, 10	Tables B.6, B.7, B.8, and B.9	7
18	Building 34, Fire Fighting Training Facility Pits	H-5	Inactive	Diesel Fuel	5, 7, 18	Confirmed EPH		7, 18	3, 4, 5, 6, 7, 8, 9, 10 14	Tables B.6, B.7, B.8, and B.9 RSS Location S0556 (Appendix E in Ref. 6)	7 6
19	Building 34, Historical Firefighting Training Pit	H-5	Histrorical	Diesel Fuel		Suspected Confirmed dioxin/furan	S, SW S	10 7	2, 3, 4, 5, 6, 7, 8, 9	Tables B.6, B.7, B.8, and B.9	7

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
20	Building 34 Aviation Fuel Storage Tank (Tank 219)	H-5	Historical	Aviation fuel	3, 5, 18	Tank removed, VOC residuals		7, 18, 22	3, 4, 5, 6, 8	Tables B.6, B.7, and B.8	7, 22
21	Building 1 Leach Pit (Area I)	G-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	1, 4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6 14	Tables B.6, B.7, B.8, and B.9 RSS[c] Location S0504 (Appendix E in Ref. 6)	7 6
22	Building 1 Explosives Wastewater Settling Basin (Tank 200)	G-6	Surplus	Wastewater from explosives processes Organic solvents	3, 4, 5, 18	Suspected		7, 18	No Data		4
23	Building 43 Explosives Wastewater Settling Basin (Tank 201)	G-6	Surplus	Explosives production process wastes	3, 11	Suspected		7, 18	No Data		
24	Building 43 Solvent Storage Tank (Tank 221)	G-6	Never used Removed	None suspected (never used)	3	Suspected		7, 18	No Data		
25	Building 27 Leach Pit (Area I)	H-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	1, 4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7,and B.8	4, 7
26	Building 27 Concrete Flume (Tank 217)	G-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	3, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	4, 7
27	Building 27 Settling Sump (Tank 218)	G-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	3, 4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	4, 7
28	Building 27 Solvent/Drum Storage Area	G-6	Surplus	Wastewater from explosives processes Organic solvents (acetone and ethanol)	4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	7
29	Building 27 Filtration System	G-6	Inactive	Wastewater from explosives processes Organic solvents		Not Suspected		7, 18	No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
30	Building 27 Diesel Fuel Storage Tank (Tank 123) (AKA Building 27 Propane Tank)	G-6	Inactive	Tank is actually above ground	3				Not Applicable		
31	Underground Sanitary Sewer Line G5	H-5	In service	Organic solvents	5, 18			7, 18	3, 4, 5, 6, 10, 11, 12, 14, 16	Tables B.6, B.7, and B.8	7
32	Underground Sanitary Sewer Line G12	F-8 G-8		Plating solutions, Laboratory chemicals							
33	Underground Sanitary Sewer Line G14 EAST	H-5 H-6				Suspected, not confirmed	S	2, 7	3, 4, 5, 6, 10, 11, 12, 14, 16	Tables B.6, B.7, B.8, and B.9	7
34	Underground Sanitary Sewer Line G14 WEST	H-5 H-6		Nitric acid, Hydrochloric acid							
35	Underground Sanitary Sewer Lines G19 & G14	G-5		Methylene chloride							
36	Underground Sanitary Sewer Line G15	E-9		Strong acids and bases							
37	Building 51 Waste Solvent Storage Tank (Tank 220)	F-8	Historical	Organic solvents, Paints, Waste oils	3, 4, 5, 18	Tank Removed 1991, VOC residuals	S	4, 23	3, 4, 5, 6, 8	Tables B.6, B.7 and B.8	7, 23
38	Building 51 Waste Incinerator	F-8	Historical	Contaminants listed under Bldg. 51 Waste Solvent Storage Tank (Tank 220)	4, 5		A	4	No Data		
39	Building 51 Waste Incinerator Scrubber	F-8	Historical	Combustion products from Bldg. 51 Waste Incinerator	4, 5	Water released to plant drainage ditch	SW	4	No Data		
40	Building 66 Lot	F-8	Grounds	Plutonium-238 from unknown source	6	Plutonium-238	S	6	13	Table B.1 RSS[c] Location S0323 (Appendix E in Ref. 6)	6

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
41	Area 3, Thorium Drum Storage and Redrumming Area	G-5 H-5	Grounds	Thorium-232 and daughters	1, 4, 5, 6, 18	Thorium dust	S	4, 6	14, 16 1	Table B.1 (Table V.2 in Ref. 6) SGS[b], Table B.5 Locations 5221 and 5222	6 12
42	Area A, Construction Soils from T Building	H-5	Grounds	Construction soil from T Bldg.	1	None Suspected			No Data		
43	Wastewater Treatment plant Building 57 Grit Chamber (Tank 101)			Sanitary wastewaters	3, 4, 5						
44	Building 57 Grit Conveyor	H-5	In service			None Suspected	S	4	No Data on soils		
45	Building 57 Comminuter (Tank 102)			Water softener backwashes discharged to storm sewer							
46	Building 57 Equalization Basin (Tank 103)			Plutonium-238 and other radionuclides		Treated effluent	SW	4	Water analyses submitted		
47	Building 57 Equalization Basin (Tank 104)					released to Great			monthly to OEPA in		
48	Building 57 Equalization Basin (Tank 105)					Miami River via			accordance with permit		
49	Building 57 Equalization Basin (Tank 106)					closed pipeline					
50	Building 57 Aeration Basin (Tank 107)					NPDES permitted					
51	Building 57 Aeration Basin (Tank 108)					outfall 001					
52	Building 57 Clarifier (Tank 109)										
53	Building 57 Clarifier (Tank 110)										

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
54	Building 57 Sand Filters (2 units)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)		
55	Building 57 Chlorine contact chamber (Tank 111)										
56	Building 57 Chlorine contact chamber (Tank 112)										
57	Sludge Drying Beds	H-5	Historical	Plutonium-238	4, 5, 18	Suspected	S	4	14	Table B.9	6
58	Dredge Spoil Drying Beds	H-5	Surplus	Contaminants listed under Asphalt-Lined Pond	4, 5, 18	Suspected	S	4	No Data		
59	Contaminated Soil Box Storage Area	G-6	Historical	Plutonium-238	4, 5, 18	Suspected			14	Table B.9	6
60	Hazardous Waste Storage Area (Building 72)	G-5	In service	Combustible and flammable liquids, Waste oils, Solvent-containing wastes, Ignitable wastes, Plating wastes, Photo-processing wastes, Polymeric wastes, Toxic wastes	4, 5, 18	None Suspected			1 14	SGS[b] Table B.5 Locations 5221 and 5222 Table B.9 RSS[c] Location C0103 (Appendix E in Ref. 6)	12 6
61	Building 72 Outdoor Hazardous Waste Storage Area		Inactive	Waste oils	4, 5, 18				1 14	SGS[b] Table B.5 Locations 5221 and 5222 Table B.9 RSS[c] Location S0541 (Appendix E in Ref. 6)	12 6
62	Building 72 Empty Drum Storage Area		In service	None suspected	4, 5, 18				1	SGS[b] Table B.5 Locations 5221 and 5222	12

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
63	Building 19 Soils	G-5	Grounds	Cobalt-60	10	Cobalt-60	S	10	1	SGS[b] Table B.5 Location 5221	12
									14, 16	Table B.9 RSS[c] Locations C0099, C0100, S0530, S0532, S0533, S0534, S0535, S0538 (Appendix E in Ref. 6)	6
64	Building 19 Historic Gasoline Tank (Tank 238)	G-5	Historical	Gasoline	3	No information on when tanks were removed			No Data		
65	Building 61 Area, Former Heavy Equipment Area	E-10	Historical	Waste oil	1, 5, 7, 18	Suspected	S	7, 10	3, 4, 5, 6, 8	Tables B.6, B.7, B.8, and B.9	7
									1	SGS[b], Table B.3 Locations 2216 and 2217	12
									14	RSS[c] Locations S0233, S0234, S0235, S0236, S0237, S0240 (Appendix E in Ref. 6)	6
66	Area 7, Thorium and Polonium Wastes	E-8 E-9 F-8 F-9	Historical	Plutonium-238, Thorium-232 and -238, Polonium-210, Actinium-227, Radium-226, Cesium-137	1, 4, 5, 18	Suspected	S	4, 12, 18	14, 15, 16	Table B.1 (Table III.5 in Ref. 6)	6
									1	SGS[b] Table B.3	12

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
67	Plant Drainage Ditch	F-4 F-5 F-6 F-7 F-8 G-4 G-5 G-6 G-7 G-8 H-4 H-5 H-6 H-7	In service, Waters of the U.S.	Plutonium-238, Thorium, Tritium Fuel oil, boiler blowdown water, ethylene glycol, sodium sulfite, sodium phosphate, octadecylamin, cyclohexylamine Effluent from asphalt-lined pond	4, 5, 18	Plutonium-238 Oil Zinc chromate Calcium chloride Ethylene glycol	SW	10	1 14, 15	Table B.9 RSS[c] Locations S0401, S0420, S0442, S0443, S0449, S0505, S0506, S0514, S0554 (Appendix E and Table X.4 in Ref. 6) SGS[b] Table B.3 Locations 4158 and 4159 Table B.1	6 12
68	Asphalt-Lined Pond	E-9	In service, Waters of the U.S.	Wastewater from SM/PP Hill Storm Sewers Plutonium-238 Non-contact cooling water - cooling tower blowdown, regeneration of zeolite water softeners	4, 5, 18	Effluent to Plant Drainage Ditch	SW	4	3 2	Table B.8 Table B.9	18 18
69	Overflow Pond	H-5 I-5	In service, Waters of the U.S.	Site sanitary landfill leachate, plutonium-238 Effluent from plant drainage ditch Stormwater runoff	4, 5, 18	Zinc chromate Calcium chloride Ethylene glycol	SW	10			
70	Retention Basins and Weir Basin	H-5	In service, Waters of the U.S.	Stormwater runoff Effluent from Plant Drainage Ditch Plutonium-238	4, 5, 18		SW				
71	Building 85 Waste Solvent Tank (Tank 136)	I-5	Inactive	None (never used)	3	Never Used			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
72	Area 13, Polonium-Contaminated Wood from Dayton Unit IV	H-7	Historical	Polonium-210	1, 4, 5	None Suspected	S	6	14	Tables B.1 and B.9	6
73	Evaporator Storage Area (AKA Lower storage area)	H-7	Historical	Actinium-227, Cesium-137, Radium-226	4				14, 15, 16	Table B.9 RSS[c] Locations S0692 and S0697 (Appendix E in Ref. 6)	6
74	Quonset Hut (former)	H-7	Historical	Polonium-210, cobalt-60, bismuth					14	Table B.9 RSS[c] Locations S0684, S0685, and S0689 (Appendix E in Ref. 6)	6
75	Railroad Siding	G-6 G-7	Inactive	Thorium and daughters	4	Suspected thorium	S	4	14	Table B.1	6
76	Warehouse 9	G-7	Historical	Thorium-232	4	Suspected thorium	S	4	No Data		
77	Warehouse 10	G-9	Historical	Polonium-210	4	None suspected			No Data		
78	Warehouse 13	G-9	Historical	Reactor waste including Strontium-90, Cesium-137, and Nickel-63	4	Cesium 137	S	4	No Data		
79	Warehouse 15	E-8	Historical	Radioactive waste Plutonium-238 wastes and sludge Thorium sludge constituents (c)	4	Suspected	S	4	See Area 7 (No. 66)	Table B.9	6
80	Warehouse 15A	F-8	Historical	Plutonium-238, thorium	4						
81	Drilling Mud Drum Storage Areas (3 locations)	H-5 I-4	Historical	Barium	4, 5, 18	None Suspected			No Data		
82	Building 57 Diesel Fuel Storage Tank (Tank 118)	H-5	In service	Diesel fuel	3				No Data		
83	Building 2 Propane Storage Tank (Tank 122)	H-7	Inactive	Propane	3				No Data		
84	Building 56 Diesel Fuel Storage Tank (Tank 223)	F-5	Historical	Diesel fuel	3	Tank Removed			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
85	Building 29 Solvent Storage Shed	E-8	Inactive	Acetone	4	Suspected	S	4	1 14	SGS[b] Table B.3 Location 2137 Table B.9 RSS Location S0275	12 6
86	Building 29 Septic Tank (Tank 224)	E-9	Historical	Actinium-227, Radon-222, Thorium-228, Radium-226	3, 4, 6	Suspected	S	4, 6	2	Table B.9 (See discussion for Area 7 in Ref. 6)	6
87	Building 49 Solvent Storage Shed	G-7	Inactive	Organic solvents (including trichloroethene, isopropanol, ethanol, freon-TF, hexane)	4 9	Suspected	S	4	No Data		
88	Tritium in Buried Valley Aquifer	H-4	Historical	Tritium	1 18	Tritium, historically remediated	GW	18	16	Table B.9	11 18
89	Test Fire Residual Storage Area	H-7	In service	Unexploded detonation devices	4, 5, 18	None Suspected		5	No Data		
90	Site Survey Project Potential Hot Spot Location S0425	G-8	Grounds	Thorium	6	Unknown			14	Table B.9 (Appendix E in Ref. 6)	6
91	Main Hill Seep 0601	F-5	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
92	Main Hill Seep 0602	G-7	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
93	Main Hill Seep 0603	D-8	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	No Data		
94	Main Hill Seep 0604	D-6	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	No Data		
95	Main Hill Seep 0605	D-6	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
96	Main Hill Seep 0606	C-7	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	No Data		
97	Main Hill Seep 0607	C-7	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
98	Main Hill Seep 0608	D-6	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
99	Area 6, WD Building Filter-Cleaning Waste	D-8	Historical	Polonium-210, Cobalt-60, Radium-226	1, 4, 5, 6, 18	Suspected	S	4	2, 14	Table B.1 (Table III.4 in Ref. 6)	6
100	Area F, Chromium Trench	D-8	Historical	Chromium plating bath solution treated with sodium bisulfide, cadmium, nickel, silver	1, 4, 5, 18	Suspected	S	4	1	SGS[b] Table B.4 Locations 1109, 1110	12
101	Cooling Tower Basins	E-7 E-8	In service	Sulfuric acid Chromates NALCO 2575 (phosphonate base, tolytriazole, polyacrylate, sodium chromate) NALCO 2532 (bistributyltin) oxide, n-alkylidimethylbenzyl ammonium chloride, potassium hydroxide) NALCO 2590 (calcium hypochlorite) ANCO CSA (phosphonate base, tolytriazole, polyacrylate) MICROBICIDE 77 (5-chloro-2 methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one) ANCO ALGAECIDE No. 1 (2-benzyl-4-chlorophenol, sodium hydroxide) SILTEX (sodium polyacrylate) ANCOCIDE 4020 (glutaraldehyde) ANCOSPERSE 3830 (polyalkylene glycol, n-alkyldimethylbenzylammonium chloride) ANCOOL 3310 (phosphonate, triazole, sodium molybdate, sodium hydroxide)	4, 5, 18	Blowdown water is released to storm sewer and drainage ditch.		4	No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
102	Cooling Tower Drum Storage Area	E-7 E-8	In service	Contaminants listed under Cooling Tower Basins Ethylene glycol	4, 5				No Data		
103	E Building Soils	E-6 E-7 F-7	Grounds			Indicated by Soil Gas Survey	S	12	1 14	SGS[b] Table B.4 Locations 1046, 1047, 1048, 1066, 1067 Table B.9 RSS[c] Locations S0152, S0153, S0164 (Appendix E in Ref. 6)	12 6
104	Scintillation Vial Storage Area	E-6	In service	Tritium, Trimethylbenzene	4, 5, 18	None suspected (within E Building)			No Data		
105	E Building Solvent Storage Shed	F-6	Historical	Trichloroethene, Ethanol, Methanol	4, 5, 18	Closed before construction of E Building Annex, soil removed	S	4	1	SGS[b] Table B.4 Location 1066	12
106	G Building Soils (AKA Garage Area)	E-7	Grounds	Waste oil, Waste antifreeze, Automotive batteries Asbestos	1, 4, 18	Suspected petroleum products			1 14	SGS[b] Table B.4 Locations 1019 Table B.9 RSS[c] Locations S0137 and S0141 (Appendix E in Ref. 6)	12 6
107	G Building Gasoline Tank (Tank 202)	E-7	Historical	Gasoline	3, 18	Tanks removed 1986, petroleum contaminated soils removed		3, 18	No Data		
108	G Building Gasoline Tank (Tank 203)	E-7	Historical								

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
109	G Building Gasoline Tank (Tank 204)	E-7	Historical	(Cont.)	(Cont.)	(Cont.)		(Cont.)	(Cont.)		
110	I Building Soils	E-6 F-6	Grounds	Toluene, acetone, Freon	4	Indicated by Soil Gas Survey	S	12	1 14, 16	SGS[b] Table B.4 Locations 1075, 1227, 1228 Table B.9 RSS Locations S0171, S0178, S0181, S0183, S0186, S0187, S0190, S0193, S0195, S0255 (Appendix E in Ref. 6)	12 6
111	Monitor Well 0034	F-7	Surplus	Waste oil	5, 18	Suspected	GW	5	No Data		
112	Paint Shop Area	E-7	In service	Paints, Thinners, Solvents (including toluene and methylene chloride) Lead, Chromates	1, 4, 5, 18	Suspected, confirmed lead	S	5	3, 4, 5, 6, 16	Tables B.6, B.7, B.8, and B.9	7
113	Powerhouse Soils	E-7	Grounds	Calcium chloride, magnesium chloride, zinc chromate, PCBs	4	Indicated by Soil Gas Survey	S	12	1 14, 16	SGS[b] Table B.4 Location 1052 Table B.9 RSS[c] Locations S0155, S0156, S0158, S0253 (Appendix E in Ref. 6)	12 6
114	Powerhouse Fuel Oil Storage Tank (Tank 113)	E-7	In service	Fuel oil	1, 3, 5, 7, 18	Fuel Oil, confirmed EPH	S	10, 7	3, 4, 5, 6, 8	Tables B.6, B.7, and B.8	7
115	Powerhouse Fuel Oil Storage Tank (Tank 114)										
116	Powerhouse Fuel Oil Storage Tank (Tank 115)										
117	Powerhouse Fuel Oil Storage Tank (Tank 116)										

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
118	M Building Soils	E-7	Grounds	Copper cyanide, Silver cyanide Machine oils, Solvents	4	Oils, Copper cyanide, Silver cyanide	S	10	1 14	SGS[b] Table B.4 Locations 1050, 1051, 1062 Table B.9 RSS[c] Locations S0162, S0163, S0252 (Appendix E in Ref. 6)	12 6
119	Room M-38 Metal Plating Rinse Water Sump (Tank 225)	E-7	Surplus	Rinse waters from metal plating operations. Possible contaminants include nickel, cadmium, silver, gold, manganese, cyanide, and aluminum. Sodium hydroxide solution Potassium permanganate	3, 4	None Suspected			No Data		
120	Room M-108 Metal Plating Rinse Water Tank (Tank 119)	E-7	In service	Rinse waters from metal plating operations. copper, gold, silver, nickel, aluminum, and uranium	3, 4	Silver cyanide	SW	10	No Data		
121	Vapor Degreasers	E-7	In service	Perclene D (perchloroethylene)	4, 5, 18	None Suspected			No Data		
122	Underground Radioactive Waste Lines (Main Hill)	E-6 F-6	Inactive	Alpha wastes from SW Bldg., R Bldg., and H Bldg. Wastewater from B Building Plutonium-238, Cobalt-60	4, 18	Suspected	S	4, 10	No Data		
123	Area 5, Radioactive Waste Line Break	F-6 F-7	Grounds	Cobalt-60, Cesium-137, Plutonium-238	1, 5, 18	Cobalt-60	S	1, 18	2, 14, 16	Table B.1 (Table III.3 in Ref. 6)	6
124	Building 48 Hillside	F-6	Inactive	Plutonium-238		Plutonium-238	S	6	14	Table B.1	6
125	Underground Sanitary Sewer Line G24	F-6	In service	Organic solvents, Plating Solutions, Laboratory chemicals, Nitric acid, Hydrochloric acid, Methylene chloride, Strong acids and bases		Suspected	S	5, 18	3, 4, 5, 6, 14, 16	Tables B.6, B.7, and B.8	7
126	Building 28 Solvent Storage Area	E-8	Grounds	Organic solvents (including alcohol, methylene chloride, and acetone)	4, 5, 9, 18	Suspected	S	4	1	SGS[b] Table B.4 Location 1054	12

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
127	Building 28 Solvent Storage Shed	E-8	In Service	Organic solvents (including alcohol, methylene chloride, and acetone)	4, 5, 18	Suspected	S	4	1	SGS[b] Table B.4 Locations 1190 and 1231	12
128	DS Building Solvent Storage Shed	F-7	In service	Organic solvents (including 1,1,1-trichloroethane, trichlorofluoromethane, ethanol, and trichloroethane)	4, 5, 18	Suspected	S	4	1 14	SGS[b] Table B.4 Location 1194 No Hits Table B.9 RSS[c] Location S0128 (Appendix E in Ref. 6)	12 6
129	B Building Solvent Storage Shed	E-6	Inactive	Organic solvents (including trichloroethene, trichlorofluoromentane, ethanol, methonal, isopropanol, acetone, methylene chloride, toluelene) Oils	4, 5, 18	Suspected	S	4	1 14	SGS[b] Table B.4 Locations 1202, 1203 Table B.9 RSS[c] Location S0146 (Appendix E in Ref. 6)	12 6
130	B Building Temporary Drum Storage Area	E-6	Inactive	Waste solvents, waste oil, and trash from E and B Bldgs.	4						
131	SW Building Soils	E-6 F-6	Grounds	Tritium, Radium-226, Actinium-227, Thorium-232	4, 6, 18	Tritium beneath the building	S	1, 18	14, 16	Table B.1 RSS[c] Locations S0154 and S0180 (Appendix E in Ref. 6)	6
132	Area 15, Entombed SW Cave (Room SW 1-B)	F-6	Historical	Radon-222, Radium-226, Actinium-227, Thorium-228	1, 4, 6, 18	Radon-222	A	1, 6	No Data		
133	SW Building Room 1-A	F-6	Historical	High-activity wastewater from radium and actinium processing, reactor waste including Radium-226, Actinium-227, Cesium-137, Plutonium-238, and Uranium-238.	4	Cesium-137 (sealed in concrete in building floor)		4	No Data		
134	SW Building Drum Storage Area	E-6	In service	Hazardous wastes Asbestos, Waste oils, Antifreeze	4, 5, 18				14	Table B.9 RSS[c] Location S0180 (Appendix E in Ref. 6)	6
135	Room SW-8 Beta Wastewater Tank (Tank 20)	F-6	In service	Tritium	3, 4				No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
136	Room SW-125 Beta Wastewater Tank (Tank 21)	F-6	In service	Tritium	3, 4	Suspected historical leaks			No Data		
137	Room SW-143 Beta Wastewater Tank (Tank 22)	F-6	In service	Tritium	3, 4	Tanks lined			No Data		
138	Room SW-137 Alpha Wastewater Sump (Tank 23)	E-6 F-6	Inactive	Alpha wastewater from drains, sinks, and processes in SW Bldg - Uranium-238.	3, 4	Suspected uranium-233			No Data		
139	Room SW-10 Beta Wastewater Sump (Tank 226)	F-6	Inactive	tritium	3, 4	Suspected historical leaks, tank lined			No Data		
140	Beta Waste Solidification Facility - SW Building	E-6 F-6	In service	tritium Waste oils including vacuum pump, gear box, and diffusion pump oils.	4				No Data		
141	Tritium Effluent Removal System	E-6	In service	Vacuum pump oils Organic solvents Tritium wastewater		Tritium	A	4, 10	No Data		
142	SW/R Building Solid Radioactive Waste Compactor	E-6 F-6	In service	Tritium	4				No Data		
143	R/SW/T Building Stack Diesel Fuel Storage Tank (Tank 117)	F-6	In service	Diesel fuel	3				1	SGS[b] Table B.5 Location 1021	12
144	R Building Sanitary Waste Collection Tank (Tank 120)	F-6	In service	Sanitary wastes	3, 4				No Data		
145	Room R-128 Alpha Wastewater Tank (Tank 19)	E-6	In service	Alpha wastewater generated in R Bldg. Possible contaminants include Pu-238,-239, Ra-226, and Ac-227	3, 4				No Data		
146	R Building Rooms 121, 144, 146, and 148 entombed drains	F-6	Historical	Radium-226, Actinium-227	4	Sealed in concrete in building floor drains		4	No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
147	HH Building Soils	F-7	Grounds	Polonium-210, cobalt-60, tritium	4, 18	Indicated by Soil Gas Survey	S	12	1	SGS[b] Table B.4 Locations 1114, 1119, 1206, 1207, 1230	12
148	HH Building Solidification Unit	F-7	Historical	Cobalt-60, Polonium-210	4	Unknown			No Data		
149	HH Building Pilot Incinerator	F-7	Historical	Polonium-210	4	Probable air releases in 1951	A		No Data		
150	Room HH-15 Beta Wastewater Sump (Tank 236)	F-7	Inactive	Beta wastewater from restrooms and process area floor drains - tritium	3	Unknown			No Data		
151	Room HH-6 Alpha Wastewater Sump (Tank 237)	F-7	Historical	Alpha wastewater from process area floor drains. Possible contaminants include polonium-210, cobalt-60, and bismuth.	3, 4	Unknown - filled with concrete			No Data		
152	HH Building Beta Wastewater Sump (Tank 24)	F-7	In service	Beta wastewater from process area sinks and floor drains	3, 4	Unknown			No Data		
153	Area 20, Radioactive Waste Line Break	G-7	Grounds	Sodium nitrate, Plutonium-238, Cesium-137, Thorium, Cobalt-60	4, 5, 18	Cobalt-60	S	6, 18	1 2, 14, 16	SGS[b] Table B.4 Locations 1119 and 1120 Table B.1 (Table III.8 in Ref. 6)	12 6
154	Area 23, Thorium Contaminated Soil	F-6 G-6	Grounds	Thorium-230	18	Thorium-230	S	6	1 2	SGS[b] Table B.4 Location 1122 Table B.1 RSS[c] Location S1092 (Appendix E in Ref. 6)	12 6
155	Old Sanitary Disposal (SD) Plant (AKA Old Sanitary Wastewater Treatment Plant)	F-6	Surplus	Chromic acid, Calcium cyanide, Nickel sulfate, Nickel chloride, Black oxide, Copper cyanide	4, 5, 18	Unknown			No Data		
156	Old SD plant Tank (Tank 205)	F-6	Surplus	Polonium-210, Cobalt-60	3, 5						

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
157	Old SD plant Tank (Tank 206)	F-6	Surplus	Photo-processing solutions							
158	Old SD plant Tank (Tank 207)	F-6	Surplus	Metal Finishing Rinse Water	3, 5	Unknown			No Data		
159	Area 4A, Sewage Sludge Drying Pits	F-5 F-6 G-5 G-6	Surplus	Sanitary wastewaters		SD Plant effluent was released to pit	S	4, 6	1	SGS[b] Table B.4 Locations 1124 and 1127 Table B.5 Location 5225	12
				Sludge from old sanitary wastewater treatment plant							
				Plutonium-238, Thorium, Cesium-137, Cobalt-60					4, 5, 6	Tables B.6 and B.7	8
				Calcium cyanide, Nickel Sulfate, Nickel chloride, Black oxide, Copper Cyanide					14, 16	Table B.1 (Table III.2 in Ref. 6)	6
				Radioactive wastes, Process effluent, Metal finishing rinse water					3	Table B.8	8
160	Mixed Waste Storage Area (Building 23)	G-6	In service	Tritium, Thorium compounds, Uranium compounds, Plutonium-238	4, 5, 18	None Suspected			No Data		
				Trimethylbenzene, Octane, Oils, cleaning materials, Polychlorinated biphenyls, Lead							
				Various chemicals (including mercury, acids, solvents)							
161	Glass Melter Furnace	F-6	Inactive	Ion exchange resins	4, 5, 18	Test burns only	A	4, 7	No Data		
				Plutonium-238, Cobalt, Strontium, Cesium							
				SD Building sludge							
				Scintillation fluid constituents							
				Acetonitriles							
				Nitrate salt wastes							
162	Glass Melter Feed Drum			Liquid solvent wastes							
163	Off-Gas Treatment System Deluge Tank										

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
164	Off-Gas Treatment System Venturi Scrubber	F-6	Inactive	Contaminants listed under Glass Melter Furnace and Cyclone Incinerator	4, 5, 18	Test burns only	A	4, 7	No Data		
165	Off-Gas Treatment System Cyclone Demister										
166	Off-Gas Treatment System HEPA Filter										
167	Off-Gas Treatment System WD Building Filter Bank										
168	Off-Gas Treatment System Recycle Tank										
169	Off-Gas Treatment System Strainer										
170	Off-Gas Treatment System Leaf Solution Filter	F-6	Historical			Filter removed and replaced			No Data		
171	Off-Gas Treatment System Iodine Absorption Filter	F-6	Historical	None suspected (never used)	4, 5, 18				No Data		
172	WDA Building Basement Wash Sump (Tank 11) (AKA Glass Melter Room Sump)	F-6	In service	Alpha wastewater from floor and sink drains in WD Annex Bldg. Possible contaminants include acrylonitrile, phenol, acetonitrile, kerosene, chlorobenzene, carbon tetrachloride, xylene, acetone, ethanol, and methylene chloride.	3, 4, 5, 18	None Suspected beyond routine operation			3, 4, 5, 6, 8, 16	Tables B.6, B.7, B.8, and B.9	3, 7
173	Cyclone Incinerator	F-6 G-6	Historical	Plutonium-238 Tributyl phosphate Kerosene Vacuum pump oils	4, 5, 18	None Suspected			No Data		
174	WD Building Drum Staging Area	F-6	In service	Solidified plutonium sludge from the Alpha Wastewater Treatment System Low specific activity decontamination and decommissioning wastes	4, 5, 18	Suspected, not confirmed	S	4	3, 4, 5, 6, 13, 16	Tables B.6, B.7, B.8, and B.9	7

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
175	Area 4, WD Building Influent Tank Overflow	F-6	Surplus	Plutonium-238	1, 4, 5, 18	Low risk waste overflowed influent tank	S	10	1	SGS[b] Table B.4 Locations 1124 and 1127 Table B.5 Location 5225	12
									4, 5, 6	Tables B.6, B.7, and B.8	8
									14, 16	Table B.1 (Table III.2 in Ref. 6)	6
176	Area 14, Radioactive Waste Line Break	G-5 G-6	Historical	Plutonium-238, nitric acid	1, 4, 5, 18	Plutonium-238	S, SW	6, 10	1	SGS[b] Table B.4 Locations 1125 and 1126 No Hits	12
									4, 5, 6	Tables B.6, B.7, and B.8	8
									14, 15	Table B.1 (Table IV.4 in Ref. 6)	6
177	Building 41 Alpha Wastewater Tank (Tank 208)	G-6	Historical	Alpha wastewater from SM Bldg. and Bldg. 38 Plutonium-238, nitric acid	3, 4	Suspected Plutonium-238, removed 1985	S	10	See data for Area 19		
178	Building 41 Alpha Wastewater Tank (Tank 209)										
179	WD Building Alpha Wastewater Influent Tank (Tank 3)	F-6	In service	Influent alpha wastewater from H Bldg., SW/R Complex, SM Bldg. and Bldg. 38 . Possible contaminants include polonium-210, bismuth, plutonium-238, -239, radium-226, thorium-230,-232,-234, uranium-238, -234, -235, tritium, and actinium-227. Supernatant liquids from polonium processes in the HH Bldg. Possible contaminants include Protactinium-231, Cobalt-60, Radium-226 and aluminum chloride and bismuth chloride. Detergents, Organic solvents, waste chemicals, Lubricating oil	1, 3, 4, 5	Overflow of tanks recorded, see Area 4A			See Area 4A		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
(Cont.)	(Cont.)	(Cont.)	(Cont.)	Citric acid, Chelating agents, Sodium nitrate, Sodium Nitrite, Sodium hydroxide, Formic acid, Sodium tartrate, Formaldehyde, Potassium carbonate, Potassium Sulfate, Copper Sulfate, Calcium carbonate, Oxalic acid, Lithium chloride, Zirconium oxide, Sodium carbonate, Potassium bromide, Nickel sulfate, Asbestos fiber, Methylene blue, Mercury, Lead, Beryllium, Cyanides,	(Cont.)	(Cont.)			(Cont.)		
180	WD Building Alpha Wastewater Influent Tank (Tank 4)	F-6	In service								
181	WD Building Alpha Wastewater Influent Tank (Tank 5)										
182	WD Building Alpha Wastewater Influent Tank (Tank 6)										
183	Room WD-1 Basement Sump (Tank 12)	F-6	In service	Alpha wastewater from floor and sink drains in the WD Bldg. Possible contaminants include Plutonium-238,-239, Thorium-230,-232,-234, Radium-226, tritium and Cobalt-60.	3	None Suspected			No Data		
184	Room WD-1 Alpha Wastewater Sump (Tank 17)	F-6	In service		3	None Suspected			No Data		
185	Room WD-1 Sanitary Waste Sump (Tank 134)	G-6	In service	Sanitary wastes	3						
186	Room WD-8 Alpha Wastewater Sump (Tank 18)	F-6	In service	Alpha wastewater from floor drains	3						
187	WD Building Alpha Wastewater Clariflocculators (2 units)	F-6 G-6	In service	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	4, 5, 18						
188	WD Building Alpha Wastewater Mixing Box										

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
189	WD Building Alpha Wastewater Sand Filters (2 units)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)			(Cont.)		
190	WD Building Alpha Wastewater Bone Char Columns (2 units)										
191	WD Building Alpha Wastewater Effluent Tank (Tank 7)	G-6	In service	Treated alpha wastewater prior to discharge	3, 4, 5, 18	Released through closed pipeline to Great Miami river NPDES Outfall 001 effluent less than DOE Effluent release criteria	SW	4	No Data		
192	WD Building Alpha Wastewater Effluent Tank (Tank 8)										
193	WD Building Alpha Wastewater Effluent Tank (Tank 9)										
194	WD Building Alpha Wastewater Effluent Tank (Tank 10)	G-6	In service	Treated alpha wastewater prior to discharge	3, 4, 5, 18	Ibid	SW	4	No Data		
195	WD Building Alpha Wastewater Sludge Pits (2 units)	F-6 G-6	In service	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	4, 5, 18	None Suspected			No Data		
196	WD Building Alpha Wastewater Sludge Solidification/Drumming Unit	F-6 G-6	In service	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	4, 5, 18	None Suspected			No Data		
197	WD Building Solid Radioactive Waste Compactor	F-6 G-6	In service	Solid alpha wastes	4	None Suspected			No Data		
198	WDA Building Basement Sanitary Waste Tank (Tank 135)	F-6	In service	Sanitary wastewater from WD Bldg. Annex Penthouse	3	None Suspected			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
199	WDA Building Beta Wastewater Influent Tank (Tank 13)	F-6	In service	Beta wastewater from T Bldg. equipment decontamination, floor mopping, and sprinkler system including tritium and solvents	3, 4, 5, 18	Historic effluent released to plant drainage ditch, effluent less than AEC release criteria	SW	4	No Data		
200	WDA Building Beta Wastewater Influent Tank (Tank 14)	F-6	In service	Contaminants listed under WD Bldg. Beta Wastewater Influent Tank (Tank 13)	3, 4, 5, 18	None Suspected			No Data		
201	WDA Building Beta Wastewater Metering Station	F-6	In service	Contaminants listed under WD Bldg. Beta Wastewater Influent Tank (Tank 13)	4, 5, 18						
202	WDA Building Beta Wastewater Mixing/Solidification Unit	F-6	In service	Contaminants listed under WD Bldg. Beta Wastewater Influent Tank (Tank 13)	4, 5, 18						
203	WDA Building Alpha Wastewater Influent Tank (Tank 15)	F-6	In service	Influent alpha wastewater. Possible contaminants include Polonium-210, Cobalt-60, Plutonium-238, Radium-226, Actinium-227, Cesium-137, thorium, Uranium-238.	3, 4						
204	WDA Building Alpha Wastewater Influent Tank (Tank 16)	F-6	In service	Ibid	3,4	None Suspected			No Data		
205	WDA Building Alpha Effluent Tank (Tank 214)	F-6	Inactive	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	3, 4	Effluent released to plant drainage ditch, effluent less than AEA Release criteria	S, SW	4	No Data		
206	WDA Building Alpha Effluent Tank (Tank 215)										
207	WDA Building Alpha Effluent Tank (Tank 216)										
208	WDA Building Solidification Unit	F-6	Historical	Plutonium-238	4	None Suspected			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
209	Building 62 Stack Deluge Tank (Tank 1)	E-6	In service	None suspected (never used)	3	None Suspected			No Data		
210	Room H-131 Laundry Water Tank (Tank 2)	E-6	In service	Alpha wastewater from laundry operations. Possible contaminants include Pu-238, Th-230,-232,-234, tritium, Ra-226,-228, and Ac-227. Ethylene glycol monbutyl ether, Sodium hydroxide, Ammonium bicarbonate, Sodium hexametaphosphate	3, 4	None Suspected			No Data		
211	A Building Decontamination Shower Water Tank (Tank 28)	E-6	In service	Wastewater from medical decontamination shower. Plutonium-238 and -239, Thorium-228, -230, and -232, Radium-226 and -228, and tritium	3	None Suspected			No Data		
212	A Building Decontamination Shower Water Tank (Tank 29)	E-6	In service	Wastewater from medical decontamination shower. Plutonium-238 and -239, Thorium-228, -230, and -232, Radium-226 and -228, and tritium	3	None Suspected			No Data		
213	T Building Solidification Unit	F-7	Historical	Cobalt-60, Polonium-210	4	None Suspected			No Data		
214	T Building Solid Radioactive Waste Compactor	F-7	In service	Low specific activity beta wastes - tritium	4						
215	Room T-1 Cooling Water Sump (Tank 124)	F-7	In service	Single pass non-contact cooling water	3, 4						
216	T Building, Corridor 2 Sanitary Wastewater Sump (Tank 125)	F-7	In service	Sanitary wastewaters from restrooms	3						
217	Room T-11F Sanitary Wastewater Sump (Tank 126)	F-7	In service	Sanitary wastewaters	3						
218	Room T-15 Sanitary Wastewater Sump (Tank 127)	F-7	In service	Sanitary wastewaters from restrooms and non-work area sinks	3						
219	T Building, Stair 3 Cooling Water Sump (Tank 128)	F-7	In service	Single pass cooling water from floor drains in air handling area	3, 4						
220	Room T-78 Steam Condensate Sump (Tank 129)	F-7	In service	Steam condensate from heating system in air handling area	3						

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
221	T Building, Corridor 8 Sanitary Wastewater Sump (Tank 130)	F-7	In service	Sanitary wastewater from restrooms and non-work area sinks - tritium	3	(cont.)			(cont.)		
222	Room T-78A Sanitary Wastewater Sump (Tank 131)	F-7	In service	Sanitary wastewater from restrooms - tritium	3						
223	Room T-90 Cooling System Condensate Sump (Tank 132)	F-7	In service	Condensation from cooling units in air handling area - tritium	3, 4						
224	Room T-99 Sanitary Wastewater Sump (Tank 133)	F-7	In service	Sanitary wastewater from restrooms - tritium	3						
225	Room T-23 Beta Wastewater Sump (Tank 227)	F-7	Historical	Beta wastewaters	3, 4	None suspected, Sump underwent removed 1975			No Data		
226	Room T-3 Floor Drain Sump (Tank 228)	F-7	Historical Filled with concrete 1985	Wastewater from nonradiological work area floor drains	3, 4	None Suspected			No Data		
227	Room T-40 Alpha Wastewater Sump (Tank 229)	F-7	Historical Filled with concrete	Alpha wastewater from process area floor drains	3, 4	None Suspected			No Data		
228	Room T-41 Alpha Wastewater Sump (Tank 230)	F-7	Historical Filled with concrete	Alpha wastewater from process area floor drains	3, 4						
229	Room T-50 Alpha Wastewater Sump (Tank 231)	F-7	Historical Filled with concrete 1975	Process alpha wastewater	3, 4						
230	Room T-50 Alpha Wastewater Sump (Tank 232)	F-7	Historical Filled with concrete 1975	Process alpha wastewater	3, 4						

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
231	T Building, Corridor 8 Alpha Wastewater Sump (Tank 233)	F-7	Historical Filled with concrete 1982	Alpha wastewater from process area floor drains	3, 4	Unknown - filled with concrete			No Data		
232	T Building, Corridor 7 Alpha Wastewater Sump (Tank 234)	F-7	Historical Filled with concrete 1982	Alpha wastewater from process area floor drains	3, 4	Unknown - filled with concrete			No Data		
233	Room T-63 Alpha Wastewater Sump (Tank 235)	F-7	Historical Filled with concrete 1982	Alpha wastewater from process area floor drains	3, 4	Unknown - filled with concrete			No Data		
234	Building 58 Diesel Fuel Storage Tank (Tank 222)	E-6	Historical	Diesel fuel	3	Tank Removed			No Data		
235	Area of Possible Elevated Thorium Activity	E-8	Grounds	Thorium	6	Possible fugitive dust	S	4, 6	1 14, 15	SGS[b] Table B.3 Locations 2021, 2148, and 2149 Table B.1	12 6
236	Site Survey Project Potential Hot Spot Location S0166	F-6	Grounds	Plutonium-238	6	Isolated activity from unknown sources			13	Table B.9 (Appendix E in Ref. 6)	6
237	Site Survey Project Potential Hot Spot Location S0175	E-5 E-6	Grounds	Cobalt-60, Cesium-137	6				14, 15	Table B.9 (Appendix E in Ref. 6)	6
238	Site Survey Project Potential Hot Spot Location S1092	G-7	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6
239	Site Survey Project Potential Hot Spot Location S0208	F-5	Grounds	Plutonium-238	6				13	Table B.9 (Appendix E in Ref. 6)	6
240	Site Survey Project Potential Hot Spot Location S0472	G-6	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
241	Northwest Parking Lots	D-7	Grounds	Toluene, Freon-113, Trichloroethene	12	Indicated by Soil Gas Survey	S	12	1	SGS[b] Table B.4 Locations 1002, 1007, 1008, 1009, 1010, 1014, 1101, 1102, 1106, 1109, 1110	12
242	VOC Potential Hot Spot Location 1016	D-7	Grounds	Toluene, Trichloroethene	12				1	SGS[b] Table B.4	12
243	VOC Potential Hot Spot Location 1064	E-7	Grounds	Toluene	12						
244	VOC Potential Hot Spot Locations 1076, 1077, 1079, and 1080	E-6	Grounds	Toluene, Freon-113, 1,1,1-Trichloroethane	12						
245	VOC Potential Hot Spot Location 1085	F-6	Grounds	Freon-113, Trichloroethene, 1,1,1-Trichloroethane	12						
246	VOC Potential Hot Spot Locations 1117 and 1118	G-7	Grounds	Tetrachloroethene	12						
247	VOC Potential Hot Spot Location 1129	F-8	Grounds	Freon-113, Trichloroethene, 1,1,1-Trichloroethane, Tetrachloroethene	12	Indicated by soil gas survey	S	12	1	SGS[b] Table B.4	12
248	HH Building Stack	F-7	In service	Polonium-210, Tritium	4, 18	None suspected beyond routine emissions	A	4, 18	Emissions reported in Annual Environmental Monitoring Reports		18
249	SW Building Stack (NCPDF)	E-6	In service	Tritium	4, 18						
250	SW Building Stack (SW1C)	E-6	In service	Uranium-238	4, 18						
251	SW Building Stack (HEFS)	E-6	In service	Tritium	4, 18						
252	B Building Stack	E-6	Inactive	Polonium-210, Tritium	4, 18						
253	T Building WEST Stack	F-6	In service	Tritium, Plutonium-238 -239, Uranium-238	4, 18						
254	T Building EAST Stack	E-7	In service	Tritium, Plutonium-238, Uranium-238	4, 18						
255	WD Building Stack (ALR)	F-6	In service	Plutonium-238	4, 18						

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
256	WD Building Stack (AHR)	F-6	In service	Plutonium-238	4, 18	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)
257	WD Building Stack (SS)	F-6	In service	Plutonium-238	4, 18						
258	Area H Open Burn Unit (AKA Pyrotechnic Waste Disposal Area)	I-7	In service	Wastewater from explosives processes Organic solvents (primarily acetone)	1, 4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 10, 11, 12 14	Tables B.6, B.7, and B.8 Table B.9 RSS[c] Location S0783 (Appendix E in Ref. 6)	7 6
259	Pyrotechnic Waste Shed	I-7	In service	Pyrotechnic powders Pyrotechnic-contaminated wastes Mineral oil	4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 12 14	Tables B.6, B.7, and B.8 Table B.9 RSS[c] Location S0780 (Appendix E in Ref. 6)	7 6
260	Thermal Treatment Unit	I-7	Inactive	Antifreeze Explosives Program waste Mild detonating cords and fuses Pyrotechnic powders Solid primary explosives	4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 12 14	Tables B.6, B.7, and B.8 Table B.9 RSS[c] Location S0783 (Appendix E in Ref. 6)	7 6
261	Trash Burner Area	I-7	Historical	Mild detonating fuses Pyrotechnic material Thermite Freon Acetone	4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 12, 13	Tables B.6, B.7, and B.8	7
262	Retort	I-7	In service	Explosives Programs constituents Metals, Asbestos Diallyl-phthalates-based plastic components	4, 5, 18	Gaseous and particulate emissions released to atmosphere	A	4	No Data		
263	Building 90 Blockhouse										

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
264	Explosive Waste Storage Bunker (Magazine 53)	I-7	In service	Classified, non-explosive wastes Explosion residuals (primarily aluminum residuals) Contaminants listed under Explosive Waste Storage Bunker (Magazine 53) Detonators, Detonating cord, Thermite, Pyrotechnic powders, Primary explosives High explosive powder, PETN, PBX, RDX, HMX, HNS, CP HNS (hexanitrostilbene)	4, 5, 18	None Suspected			No Data		
265	Biodegradation Unit	I-7	Inactive	Soapy wastewater containing explosives constituents	4, 5, 18	Suspected	S	7, 18	See Pyrotechnic Waste Shed		4
266	Area 8, Thorium-Contaminated Soils from Areas 1 and 9	F-9	Grounds	Thorium-232, Plutonium-238	1, 4, 5, 18	Thorium	S	4, 6	14, 15, 16	Table B.1 (Table V.3 in Ref. 6)	6
267	Area 9, Thorium Storage and Redrumming Area	F-9 G-9	Grounds	Plutonium-238, Thorium Thorium sludge constituents (c)	1, 4, 5, 18	Thorium	S	4, 6	14	Table B.1 (Table V.4 in Ref. 6)	6
268	Building 31, Contaminated Material Storage Building	F-9	In service	Plutonium-238 Thorium Tritium	4 3	None Suspected			See Area 9	Table B.9	6
269	Building 36 Historic Gasoline Tanks (Tanks 239 and 240)	G-10	Historical	Gasoline	3	No information on when tanks were removed			No Data		
270	Underground Sanitary Sewer Lines G6 & G7	G-10	In Service	Organic solvents, plating solutions, laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases	4	Suspected VOCs	S	4	3, 4, 5, 6, 9, 10, 11, 12, 13, 16	Tables B.6, B.7, B.8, and B.9	7
271	Building 37 Sanitary Waste Tank (Tank 100)	F-10	In service	Sanitary wastes	3, 4	None Suspected			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
272	Area 10, Concrete Debris	G-8 G-9	Grounds	Polonium-210, Cobalt-60, Plutonium-238 (from runoff)	1, 4, 5, 18	Suspected	S	4, 6	14	Table B.1 (Table III.6 in Ref. 6)	6
273	Area 12, Thorium-Contaminated Soil from Area 1	G-9	Grounds	Thorium, Plutonium-238 (from runoff)	1, 4, 5, 18	Suspected thorium	S	4, 6	14, 15	Table B.1 (Table V.5 in Ref. 6)	6
274	Area 21, Old Bunker	H-9	Grounds	Cesium-137, Strontium-90, Actinium-227, Radium-226	4, 5, 18	Suspected thorium	S	4, 6	14, 15, 16	Table B.1 (Table VII.2 in Ref. 6)	6
275	Area 21, Detonator Shack	H-8	Grounds	Cesium-137, Strontium-90, Actinium-227, Radium-226	4, 5, 18	Suspected thorium	S	4, 6	14, 15, 16	Table B.1 (Table VII.2 in Ref. 6)	6
276	Area 22, Orphan Soil from other Areas	I-8	Inactive	Polonium-210, Radium-226, Cobalt-60, Plutonium-238, Cesium-237	4, 5, 18	Suspected	S	6	14, 15, 16	Table B.1 (Table X.1 in Ref. 6)	6
277	Area J, Hillside Disposal Area (AKA Dredged Material Disposal Area 11a)	H-8 H-9	Historical	Construction/building debris, Paints, Thinners, Chemical contaminants, Asbestos, Thorium, Plutonium-238	1, 4, 18	Suspected VOCs	S	4	1 14, 15, 16	SGS[b] Table B.2 Table B.1 (Table X.2 in Ref. 6)	12 6
278	Area J, Hillside catch basin	H-8	In service	Plutonium-238 (from runoff)	1, 4, 18	Suspected	SW	18	No Data		
279	Old Firing Range Drum Storage Area	H-9	Historical	Liquid chemical wastes	5, 18	Confirmed VOCs	S	4	1 2, 3, 4, 5, 6 14, 15	SGS[b] Table B.2 Locations 3152, 3153, and 3187 Tables B.6, B.7, B.8, and B.9 RSS[c] Locations S0162, S0163, and S0647 (Appendix E in Ref. 6)	12 7 6

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
280	Waste Oil Drum Field Area	I-8	Historical	Waste oil Plating Operations waste Explosive/solvent waste Herbicides Waste chemicals Photo-processing waste Batteries Kitchen grease Epoxy resins Ethylene glycol Scintillation vials	4, 5, 18	Confirmed VOCs	S	4	3, 4, 5, 6, 8, 12	Tables B.6, B.7, and B.8 RSS[c] Locations S0263, S0164, S0265, and S0266 (Appendix E in Ref.6) Table B.9	7 6
281	Area E, Waste Oil Spill	J-8	Historical	Waste oil	1	Minor oil	S	1	No Data		
282	Spoils Disposal Area/Construction Spoils Area	J-5 K-5	In service	Plutonium-238, Thorium Gasoline contaminated soils from G Building	4, 5, 18	Plutonium-238 < 25 pci/gm Thorium < 5 pci/gm	S	6	14, 15, 16	Table B.1 (Table X.3 in Ref. 6)	6
283	Area 1, Bulk Transfer of Thorium Drums (AKA, Plutonium Recoverable Waste Storage)	I to L 6 to 8	Grounds	Thorium sludge constituents, Plutonium-238	1, 4, 5, 18	Thorium dust, Plutonium-238	S	6	3, 4 14, 15, 16	Tables B.6, B.7, and B.8 Table B.1 (Table IV.2 in Ref. 6)	8 6
284	Building 21, Thorium Sludge Storage Facility	J-7 J-8	Surplus	Thorium sludge constituents	4	Thorium dust	S	4, 6	See Area 1		
285	Area 11, Contamination from SM Building Operations	G-9	Surplus	Plutonium-238	1, 4, 5, 18	Plutonium-238	S	6	3, 4, 5, 6 14, 16	Tables B.6, B.7, and B.8 Table B.1 (Table IV.3 in Ref. 6)	8 6
286	Area 16, SM Building Sanitary Sewage Septic Tank Leach Field	F-9 G-9	Surplus	Plutonium-238, Thorium Sanitary wastes from SM Building	1, 4, 5, 18	Plutonium-238	S	6	3, 4, 6 14, 15, 16	Tables B.6, B.7, and B.8 Table B.1 (Table IV.5 in Ref. 6)	8 6

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
287	SM Building Historic Septic Tank (Tank 241)	G-9	Historical	Plutonium-238	3, 4	Plutonium-238			No Data		
288	Area 17, SM Building Soils	G-9 G-10	Surplus	Plutonium-238, Thorium	1, 5, 18	Plutonium-238	S	6	4, 6 14, 15	Table B.6, B.7, and B.8 Table B.1 (Table IV.6 in Ref. 6)	8 6
289	SM Building Alpha Wastewater Tank (Tank 210)	G-9	Historical	Alpha wastewater from plutonium processing	3, 4	Tanks removed 1986-1988			See Area 17		
290	SM Building Alpha Wastewater Tank (Tank 211)										
291	SM Building Alpha Wastewater Tank (Tank 212)										
292	SM Building Alpha Wastewater Tank (Tank 213)										
293	SM Building Solidification Unit (Room SM-1)	G-9	Historical	Plutonium-238	4	None Suspected, equipment removed 1970		4	No Data		
294	WS Building Solidification Unit	G-9	Historical	Plutonium-238	4	None Suspected D&D 1983			No Data		
295	Building 38 Solid Radioactive Waste Compactors (2 units)	G-9 H-9	Inactive	Plutonium-238	4	None Suspected D&D 1986			No Data		
296	Building 38 West Dock Sump (Tank 25)	H-9	In service	Precipitation and potentially spilled waste material from a radiological waste drum storage pad - Pu-238	3	None Suspected			No Data		
297	Building 38 Alpha Wastewater Sump (Tank 26)	G-9	In service	Wastewater from floor drains and decontamination showers	3, 4	None Suspected			No Data		
298	Building 38 Alpha Wastewater Sump (Tank 27)	G-9	In service	Wastewater from floor drains and decontamination showers	3, 4	None Suspected			No Data		
299	Building 38 Diesel Fuel Storage Tank (Tank 121)	G-9	In service	Diesel fuel	3	None Suspected			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
300	Area 19, Underground Waste Transfer Line	G-6 G-7 G-8 G-9	Historical	Plutonium-238, Nitric acid	1, 4, 5, 18	Plutonium-238	S	1, 6, 18	14	Tables B.1, B.6, B.7, and B.8	6, 8
301	Building 38 In-Line Incinerator	G-9	Historical	Plutonium-238	2, 4	None Suspected D&D 1986			No Data - pending verification		
302	Area D, Acid Leach Field	H-8 H-9 G-8 G-9	Historical	Plutonium-238, Thorium	1, 4, 5, 18	Plutonium-238	S	6	4, 6 14	Tables B.6, B.7, and B.8 Table B.1 (Table IV.10 in Ref. 6)	8 6
303	Warehouse 14 (AKA Pad 14)	G- 9	Grounds	Thorium sludge constituents Plutonium-238	4	None Suspected			14	Table B.9 RSS[c] Locations C0127 and C0128 (Appendix E in Ref. 6)	6
304	Excavated Materials Disposal Area (AKA Rader's Hill)	I-8	Grounds	Thorium	4	Thorium < 2 pci/gm	S	6	14	Table B.1	6
305	SM Stack	G-9	In service	Plutonium-238	4	None suspected beyond routine emissions	A	4, 18	No Data		
306	SM/PP Hill Seep 0609	L-9	NA	None suspected	5, 18	None suspected			No Data		
307	Site Survey Project Potential Hot Spot Location C0007	E-9	Grounds	Thorium	6	Isolated activity from unknown source			14	Table B.9 (Appendix E in Ref. 6)	6
308	Site Survey Project Potential Hot Spot Location C0028	F-10	Grounds	Thorium	6						
309	Site Survey Project Potential Hot Spot Location S0307	F-9	Grounds	Thorium	6						
310	Site Survey Project Potential Hot Spot Location S0647	H-9	Grounds	Cesium-137	6				15	Table B.9 (Appendix E in Ref. 6)	6

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
311	Site Survey Project Potential Hot Spot Location S0706	I-6	Grounds	Plutonium-238	6	(Cont.)			13	Table B.9 (Appendix E in Ref. 6)	6
312	Site Survey Project Potential Hot Spot Location S0971	J-9	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6
313	Site Survey Project Potential Hot Spot Location S0982	I-8	Grounds	Thorium	6						
314	Farm Trash Area	M-5	Historical	Waste oil	5, 18	Suspected, not confirmed			3, 4, 5, 6 14	Tables B.6, B.7, and B.8 Table B.9 RSS[c] Location S0237 (Appendix E in Ref. 6)	7 6
315	Waste Transport Vehicles	SITE-WIDE	In service	Explosives Programs wastes Mixed wastes Laboratory chemicals Low activity wastewater from SM/PP Complex to WD Building	4, 5, 18	None Suspected			No Data		
316	Trash Dumpsters	SITE-WIDE	In service	Solid wastes	4, 5, 18	None Suspected			No Data		
317	Ventilation Hoods	SITE-WIDE	In service	Paint fumes, Acidic and caustic gases Asbestos, Acetone, Trichloroethylene, Benzene, Chloroform, Toluene	4, 5, 18	None Suspected			No Data		
318	Transformers	SITE-WIDE	In service	Polychlorinated biphenyls	4	All PCB oils replaced			No Data		
319	Epoxy Resin Disposal	G-7 H-7	In service	Epoxy resins	5, 18	None Suspected			No Data	Table B.9	6
320	Dayton Unit I	Dayton	Historical	Radioisotopes (including plutonium-239) Spent acids (including hydrochloric acid)	1, 4	None Suspected			No Data		

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes*	Results	Ref
321	Dayton Unit II	Dayton	Historical	Explosives (including ammonium picrate and ammonium nitrate) Rocket propellant	1, 4	None Suspected			No Data		
322	Dayton Unit III	Dayton	Historical	Polonium-210, Tellurium, Bismuth, Cobalt, Nickel, Beryllium, Thorium	1, 4	Suspected Cobalt-60	S	4	No Data		
323	Dayton Unit IV	Dayton	Historical	Contaminants listed under Dayton Unit III	1, 4	Suspected Cobalt-60	S	4	No Data		
324	Dayton Warehouse	Dayton	Historical	Polonium-210	4	None Suspected			No Data		
325	Scioto Facility (Marion)	Scioto	Historical	Facility never used	4	None Suspected			No Data		
326	Building 38 Sanitary Sump (Tank 254)	G-9	In Service	Sanitary wastewater	25	None Suspected			No Data		
327	R-111 Calorimetry Bath (Tank 255)	E-6	Inactive	Deionized water with potential alpha contamination	25	None Suspected			No Data		
328	R-111 Calorimetry Bath (Tank 266)										
329	Building 62 Hot Waste Sump (Tank 258)	E-6	In Service	Sanitary wastewater with potential alpha contamination	25	None Suspected Tank removed			No Data		
330	Building 2 Fuel Oil Tank (Tank 260)	H-7	Historical	Fuel oil	25	Unknown			No Data		
331	Building 2 Tank (Tank 261)	H-7	Historical	Sanitary Wastes	25	Unknown Closed in place			No Data		
332	Building G Waste Oil Tank (Tank 262)	E-7	Inactive	Waste oils	25	Unknown			No Data		
333	Building 87 Explosive Surge Tank (Tank 263)	H-7	In Service	Exhaust air from explosives testing	25	None Suspected			No Data		
334	Building 87 Explosive Surge Tank (Tank 264)										
335	Building 87 Explosive Surge Tank (Tank 265)										

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
336	Building 37 Waste Tank (AKA Low Risk Waste Tank) (Tank 267)	F-10	Inactive	Wastewater	25	None Suspected Never used for low-risk wastewaters			No Data		
337	Building H Condensate Sump (Tank 268)	E-6	In Service	Condensate wastewater	25	None Suspected			No Data		
338	Building 29 Septic Tank (Tank 270)	E-9	Inactive	Sanitary wastewater	25	None Suspected (Abandoned in place?)			No Data		
339	T-44 Wastewater Sump (Tank 250)	F-7	Historical	Wastewater	25	Unknown - filled with concrete			No Data		
340	T-16b Wastewater Sump (Tank 251)	F-7	Historical	Wastewater	25	Unknown - filled with concrete			No Data		
341	T-90 Condensate Sump (Tank 269)	F-7	In Service	Condensate wastewater	25	None Suspected			No Data		
342	T-1 Hot Side Fire Water Tank (Tank 271)	F-7	In Service	Wastewater/Radioactive wastewater	25	None Suspected			No Data		
343	T-20 Fire Water Sump (Tank 272)	F-7	In Service	Wastewater/Radioactive wastewater	25	None Suspected			No Data		
344	T-37 Fire Water Sump (Tank 273)	F-7	In Service	Wastewater/Radioactive wastewater	25	None Suspected			No Data		
345	Former Equipment Storage Area see related site 16	H-6	Historical	Potential contaminants listed under Hazardous Waste Storage Area	4, 5, 18	Historically related to site 16	S	7, 18	No Analytical Data		7

[a]Analyte List Codes
[b]SGS, Soil Gas Survey
[c]RSS, Radiological Site Survey

1 - Soil Gas Survey - Freon 11, Freon 113, Trans-1,2-Dichloroethylene, Cis-1,2-Dichloroethylene, 1,1,1-Trichloroethane, Perchloroethylene, Trichloroethylene, Toluene
2 - Gamma Spectroscopy - Thorium-228, -230, Cobalt-60, Cesium-137, Radium-224, -226, -228, Americium-241, Actinium-227, Bismuth-207, Bismuth-210m, Potassium-40
3 - Target Analyte List
4 - Target Compound List (VOC)
5 - Target Compound List (SVOC)
6 - Target Compound List (Pesticides/Polychlorinated Biphenyl)
7 - Dioxins/Furans
8 - Extractable Petroleum Hydrocarbons (EPH)/Total Petroleum Hydrocarbons (TPH)
9 - Lithium
10 - Nitrate/Nitrite
11 - Chloride
12 - Explosives
13 - Plutonium-238
14 - Plutonium-238, Thorium-232
15 - Cobalt-60, Cesium-137, Radium-226, Americium-241
16 - Tritium

Reference List

1. DOE 1986
2. DOE 1992a
3. DOE 1992c
4. DOE 1993a
5. EPA 1988a
6. DOE 1993d
7. DOE 1993c
8. DOE 1992d
9. Fentiman 1990
10. DOE 1992f
11. Styron and Meyer 1981
12. DOE 1993b
13. DOE 1993d
14. DOE 1991b
15. Halford 1990
16. DOE 1993e
17. DOE 1990
18. DOE 1992a
19. Rogers 1975
20. DOE 1992h
21. Dames and Moore 1976a, b
22. DOE 1992i
23. DOE 1992j
24. DOE 1994
25. EG&G 1994

EXHIBIT E

BUILDING 100 TECHNICAL REVIEW

EG&G
MOUND APPLIED TECHNOLOGIES

Building 100 Technical Review

August 3, 1995

MOUND
is operated for the
U. S. Department of Energy
under contract No. DE-AC04-88-DP43495

Building 100 Technical Review

Table of Contents

A. Scope

B. Participants

C. Facility Description/Condition

D. Programmatic Considerations

E. Equipment

F. Maintenance, Utilities and Other Services

G. Facility Modifications

H. Safety and Hygiene

I. Environmental Assessment

J. Security

K. Logistics

L. Environmental Restoration Projects In and Around Building 100

M. Adjacent Building Concerns

N. Summary of Issues

O. Opinions

A. Scope

The Technical Review Team conducted a comprehensive review of Building 100. The purpose was to assess the feasibility of commercializing the building with emphasis placed on identifying issues which could impede commercialization if not addressed.

B. Participants

Canon Bradley (Chairman and Manager in Technology Transfer)
Larry Baygents (Facilities/Maintenance Engineering)
Dennis Lewis (Manager in HVAC Engineering)
Steven Howard (Environmental Chemist)
Barbara Kriegbaum (Business Planning Analyst)
Glenn Sweigart (Security Section Analyst)
Ken Bole (Manager in Facilities Management)
Randy Wood (Acting Industrial Hygiene Supervisor)
Fred Mintz (Engineering Specialist)
Rich Bauer (Program Manager in CERCLA/D&D)
Don Luthy (Safe Shutdown Manager)
Mike Merker (DOE)
Teresa Fort (DOE)
Terry Geesner (Building 100 Manager)

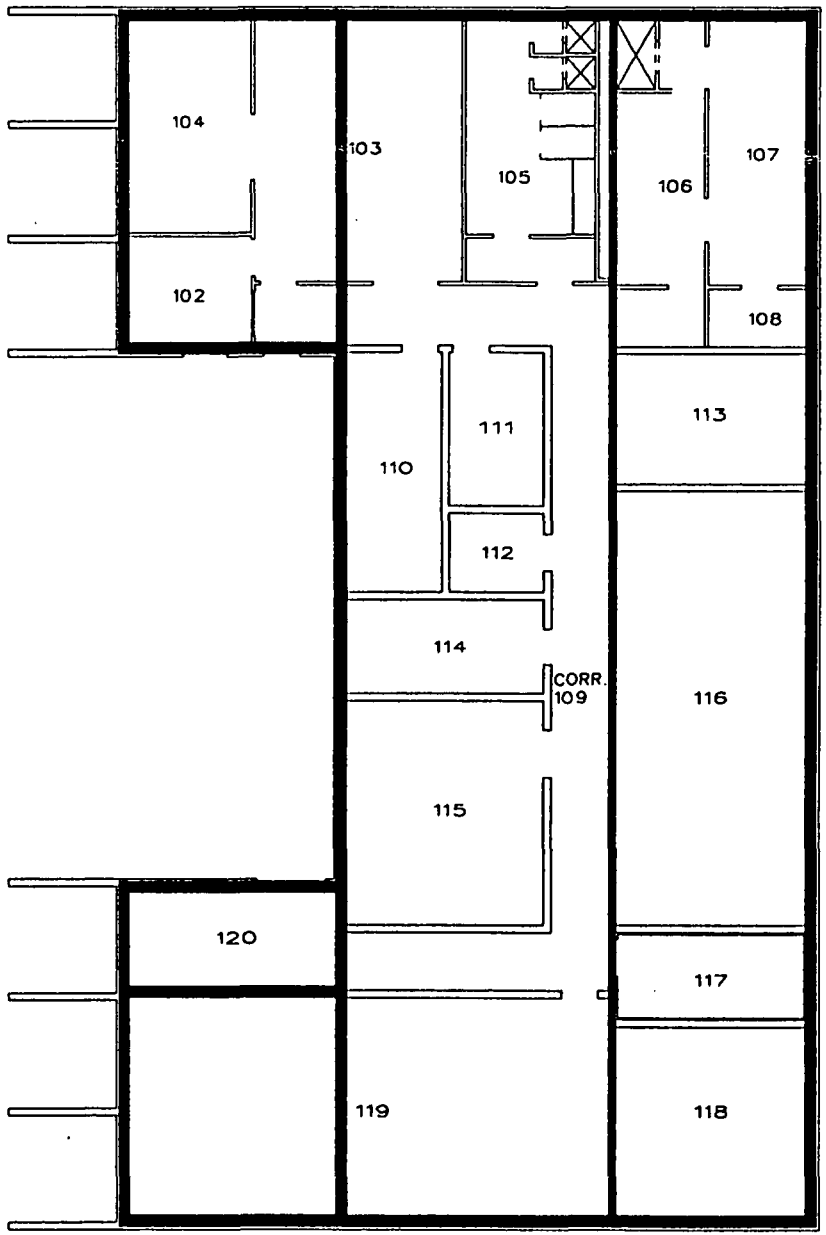
C. Facility Description/Condition

Description

Building 100 is a relatively new building at Mound. It is a single story, stand-alone building in good condition with parking for nine vehicles available in front of the building. The building has a unique construction feature with three of the outside walls covered with earth, making it an energy efficient structure. The building has a sprinkler fire protection system. There are some areas needing improvement. The building exterior south, southeast and southwest walls have several cracks and cuts in the wall finish. The east wall in room 118 and the south wall of the vestibule outside room 119 have paint peeling from them. The other rooms in the building could have touch-up painting to improve the appearance of the wall finish.

Building 100 was constructed in 1988 with a total area of 6222 square feet on one floor. Construction is of concrete. Two load-bearing walls which cannot be removed span the entire length of the building as shown on the following page. The other wall not highlighted may be removed upon the approval of a structural engineer. The building was designed to accommodate a second floor on top of the existing roof.

A 10 ton, 4500 CFM air-to-air heat pump/air handler system serves the primary



LOAD BEARING WALLS BLDG. - 100

SCALE

1 0 5 15

N

KEY:

LOAD BEARING WALL

LOAD BEARING STRUCTURAL BEAM

LAST MISSION
OPERATION PERFORMED
BUILDING - 100

DRAWING NUMBER

DRAWING CLASSIFICATION
UNCLASSIFIED

SIZE	CHECK 14065	SCALE AS NOTED
C	ISSUE	SHEET 3

STATUS MD-REL-

heating and cooling needs of the facility. This system is equipped with 100% outside air capability. The system is also equipped with a heat recovery wheel, which captures some of the heat from the exhaust air and delivers it to the incoming air. A 7 kW heater also preheats the incoming air going to the heat recovery wheel.

Two other electric heaters serve certain areas in the facility: a 2.5 kW floor mounted heater heats vestibule 120 and a 2.5 kW wall-mounted heater serves room 117. Room 118, the electrical equipment room, is not served by the 10 ton HVAC system; air comes from an intake duct direct from the outside, and a 1057 CFM fan exhausts air from this room when a pre-set temperature is reached.

The HVAC system with the building is connected to the plant-wide Direct Digital Control (DDC) system. The DDC panel is located in room 118. Other utilities in the facility include potable water, fire protection water, and sanitary sewers, all provided from the plant's central systems.

The electrical power distribution system consists of one power distribution panel fed adjacent from PDP-2A in PM Building (Building 105), one light panel (LP-100-118-A), and one emergency power panel (EP-100-116-A). The main power feeds the light panel through a transformer. The emergency power panel was originally fed from either LP-100-118-A when commercial power would be present in the facility, or from a 17.5 kW diesel generator located in room 117 in the event that commercial power would be interrupted to the facility. The diesel generator was removed in the Spring of 1995; therefore, LP-100-118-A is now the only source of electrical power to the emergency power panel. A description of the distribution panel is as follows:

Panel	Max. Amps	Volts/Phase/# Wires	Location
PDP-100-118-A	400 amps	460V/3/3w	Room 118
LP-100-118-A	225 amps	120-208V/3/4w	Room 118
EP-100-116-A	100 amps	120-208V/3/4w	Room 116

No signs of fluid leakage were spotted on the floor in room 117 from the diesel generator. This room is equipped with sound-deadening materials in all the walls and has a sound-proof door.

Condition Assessment

Building 100 is in generally good condition and is capable of supporting a variety of operations. Some areas exist which have been repaired in the past, and other areas exist which need repair to improve the appearance. These areas are as follows:

Location	Description	Disposition
South Exterior	Outer layer of stucco cracked - no evidence of damage beyond outside layer.	Needing repair.
Room 113	Small crack in West concrete block wall.	Needing patching and paint.
Room 118	Paint damage on East wall due to water penetration.	Leak repaired - East wall needing surface preparation and paint.
Vestibule 120	Paint damage on West and South walls due to water penetration.	Leak repaired - West wall needing surface preparation and paint.
Throughout Building	Floor tiles with marks.	Marks need to be removed, or floor tile needs to be replaced.

D. Programmatic Considerations

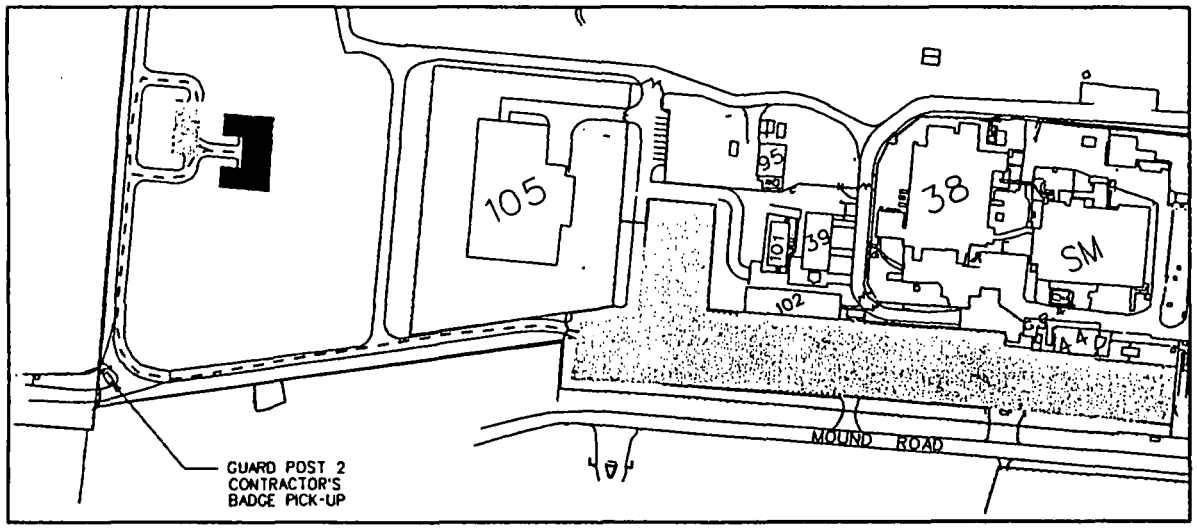
Attached is a Building 100 floor plan and a site location overview showing available, limited parking and pedestrian access from the nearest parking lots. Additional parking near the road will be difficult due to the slope of the land. The nearest existing parking lot, approximately 150 yards away, and is to the East of Building 102 and can be accessed by a paved road (no sidewalks). Presently, the parking lot has a locked gate at the South end. It is anticipated that the gate will be opened in the near future as Mound is privatized; thus allowing traffic between the parking lot and Building 100.

There is no known DOE mission work presently scheduled to be done or planned to be done in this building. Safe shutdown activities for Building 100 have been completed. Phase I EM-60 facility acceptance criteria was approved by DOE/MB on January 11, 1995. Phase II and Phase III EM-60 facility acceptance criteria was approved with one Phase II exception by DOE/MB on April 15, 1995. The exception was due to not having OPSEC approval; one alarm display and communication line remained operable. On May 31, 1995, this line was terminated and removed. On June 1, 1995 OPSEC approved Building 100 Safe Shutdown Checklist. The Phase II exception has been deleted.

Also included in this report is a drawing indicating the type of operations last performed in each room.

KEY:

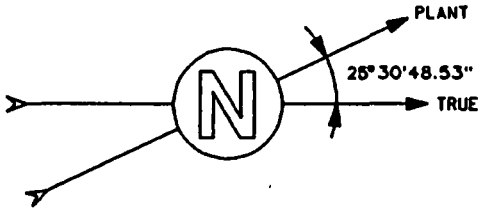
- PARKING AREA
- BUILDING 100
- ROUITE TO AND FROM BUILDING



PARTIAL SITE PLAN - PARKING AREAS

SCALE

50 0 100 200 300



LAST MISSION
OPERATION PERFORMED
BUILDING - 100

DRAWING NUMBER		
DRAWING CLASSIFICATION UNCLASSIFIED		
SIZE C	CHECK 14065	SCALE AS NOTED
	ISSUE	SHEET 2
STATUS MD-REL-		

E. Equipment

Building 100 is vacant. The attached list of equipment (Attachment A) has been capitalized as part of the building.

F. Maintenance, Utilities and Other Services

1. Introduction

The following sections should serve as a basis for decisions relative to on-going maintenance and utilities action for Building 100. Historical repair and recent project information is included as background. It is assumed that future repair actions to include any equipment replacements will be handled on a time and material basis and funded by the city of Miamisburg and/or sublease. Therefore, no attempt has been made to estimate the future replacement costs. Such an estimate would be contingent upon the "baseline" physical condition at which the facility is leased.

Data is also provided to be used as a basis for determining the appropriate utilities cost for this building.

2. Historical Repair Information

The total direct repair cost expended on the infrastructure systems (as taken from the AMMO system) were minimal - about $1,000 per year.

3. Recommended Preventive Maintenance (P.M.)

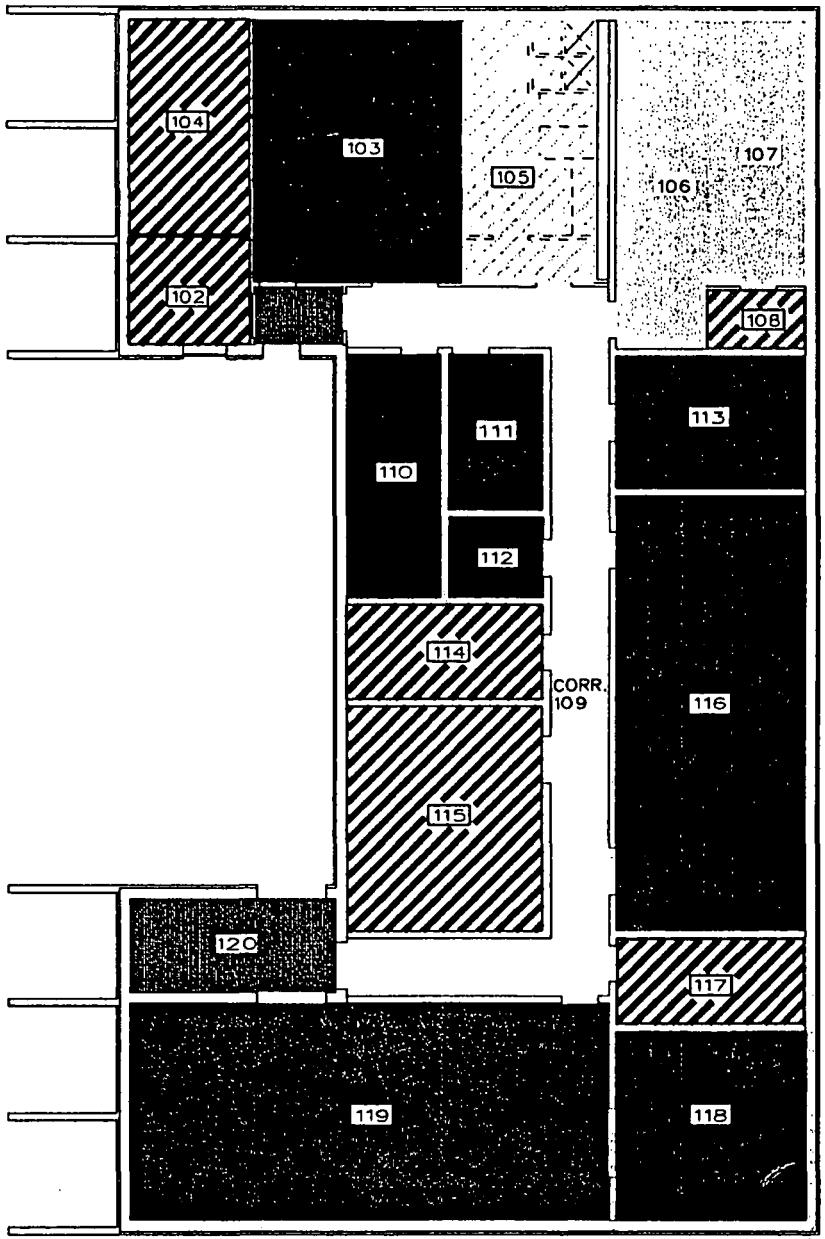
Data is available upon request relative to recommended P.M. activities for the building infrastructure (HVAC) systems (about 30 hours per year).

4. Recent Projects and Upgrades

There has been one substantial upgrade in the past five years: the replacement of the foundation drainage system.

5. Utilities

This building is serviced by the plant domestic and fire water, and the plant sanitary and storm drainage systems. The heating/ventilation/air conditioning method is a heat pump system. The cost per square foot for those services is estimated as follows:



FIRST FLOOR PLAN BLDG. - 100

SCALE

1 0 5 15

N

KEY:

- WOMEN'S CHANGE ROOM
- MEN'S CHANGE ROOM
- STOCK / STORAGE ROOM
- OFFICE AREA
- KITCHEN WITH SINK AND CABINETS
- ELECTRICAL EQUIPMENT ROOM
- GENERATOR #9 ROOM
- COMPUTER ROOM
- WEIGHT ROOM
- MECHANICAL ROOM
- UTILITY ROOM
- VESTIBULE
- GUARD STATION
- JANITOR'S CLOSET WITH MOP SINK
- GUNS AND AMMUNITION STORAGE ROOM

SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ISSUE																					

SHEET	1	2	3	4	5	6
ISSUE						

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION

LAST MISSION OPERATION PERFORMED BUILDING - 100

DRAWING CLASSIFICATION UNCLASSIFIED

SIZE C

DRAWING NUMBER

JOB NUMBER

DWG TYPE ARH

PROJ

CHGE 14065

SCALE AS NOTED

SHEET 1 OF 3

STATUS NO-REL-

ORIGIN MSTATION 4.0

PROJ ENG DATE

PROJ MGR DATE

Building	Utility Operations	Electricity	Total
100	$1.35	$ .75*	$2.10

If the entire building was leased, the building should be separately metered for electrical consumption using Dayton Power and Light (DP&L) standard consumption/demand meters and issue the tenants direct billed by DP&L at standard commercial rates. (There is believed to be 1 feed necessitating 1 meter at a cost of $1500 being necessary to convert this system.)

* Unmetered estimate for a heat pump plus miscellaneous office equipment in a modular.

6. Custodial/Yards and Grounds

Custodial services for these facilities are estimated at $1.11 per square foot for a total cost of $6,906 per year.

7. Fire Department and Alarm System

The cost for fire department and alarm systems services for these facilities are estimated at $.93 per square foot, for a total cost of $5,786 per year. A fire hydrant is located approximately 100 feet to the West of Building 100.

Other notes:

The building is in very good condition; however, the decorative masonry materials attached to the front of the building has noticeable cracks. There are no signs of the cracks extending into the concrete wall.

G. Facility Modifications

The building is relatively new and exists as originally constructed except as noted in Section F, note 4.

H. Safety and Hygiene

Building 100 was reviewed for Safety and Industrial Hygiene concerns. The building was constructed in 1988 when asbestos was no longer allowed to be used in new structures; therefore asbestos should not be an issue.

Building 100 was found to be in good condition; however, the following items should be addressed:

1. There is damaged floor tile in room 113. Mastic associated with floor tile may contain asbestos. Although its present condition is non-friable, the lessee should be informed that the building may contain asbestos and be required by lease agreement to address asbestos repair in the operation and maintenance procedure to insure that the asbestos (if present) is repaired before it is considered friable. See page 10, section O, note 4.

I. Environmental Assessment

Mound remains in compliance with the Clean Water Act by following the parameters of their National Pollutant Discharge Elimination System (NPDES) permit. The permit has site-specific parameters with established effluent limitations. A permit review, with potential parameter modification, is performed whenever a new process or substance is utilized on-site which adversely affects the effluent water quality. All of Mound's sanitary, storm, and process water is directed through one of three regulated outfalls. It may be necessary for the facility to be modified to meet the environmental monitoring sampling requirements.

Typically, industries discharge their waste water to municipal sanitary disposal facilities. Each municipality is considered a Publically Owned Treatment Works (POTW) which has an individual NPDES permit. In order for the POTWs to remain in compliance, the Environmental Protection Agency enforces pre-treatment standards for each industry using a POTW. Mound's sewage disposal plant is not considered a POTW. However, in order to protect it and to remain in compliance, standards will need to be set. The leasing of Building 100 to private businesses could have a direct impact upon Mound's environmental monitoring program and, ultimately, EPA regulatory compliance issues. To reduce the risk of EPA violations, Environmental Technology and Monitoring is recommending the following delineation which states the potential monitoring activities in relation to the leasing of Building 100 for commercial use.

1. *NO IMPACT:* Lessee's operation has no adverse effect upon Mound's effluent; therefore, a specific monitoring program will not be required.

2. *TRIBUTARY GRAB SAMPLING:* Incoming business has potential of causing NPDES permit violations and/or Sanitary Disposal (SD) plant disturbances. Environmental Technology and Monitoring, after consulting with DOE, determines sample frequency and analytical parameters.

   Estimated cost: $1,000 - $10,000 per year

3. *AUTOMATED PERIODIC MONITORING:* New business processes require consistent monitoring; therefore, sampling instrumentation and engineering modifications will be needed.

Estimated costs: $8,000 - $20,000 first year
$1,000 - $10,000 /year thereafter

4. *REAL-TIME/IN-LINE MONITORS:* This level of advanced monitoring can only be estimated on a case-by-case basis.

5. *NPDES PERMIT MODIFICATIONS:* A $750 NPDES permit modification application will be necessary if option two, three, or four is required.

Building 100 Specific Issues

1. Based upon maps of site plans, utilities and services, Building 100 does not appear to create difficulties when considering environmental monitoring feasibility.

2. Occupancy - Environmental Technology and Monitoring can not assess impact or site applicability until an occupant and the associated processes are determined.

Additional walk-throughs and reviews must be done once a business has been identified.

J. Security

Building 100 is a free standing, one story, concrete structure surrounded on three sides with earth. It has no direct access to either classified or Special Nuclear Material. Given the current security posture of the plant, leasing of this building should not cause an increase to the threat level to either classified or SNM. There are no known problems, from a Mound security standpoint, with release of this building. From a custodial perspective, the building is already equipped with all of the hardware needed to secure it for private use and should require no extra efforts (other than key change) to prepare it for lease.

K. Logistics

Parking - employees would most likely park in front of Building 100 and in the large parking lot near Building 102 as shown in yellow on the site drawing. Either parking location is readily accessible on level terrain.

The building is accessible to handicapped employees, but does not meet all the requirements of American Disability Act PL 101-336, 7/26/90.

There is not a good shipping and receiving dock area attached to Building 100. A possibility, if needed, would be to use the central shipping and receiving area located at Building 61.

L. Environmental Restoration (ER) Projects In and Around Building 100

The Building 21 and associated soil ER program is located West of Building 100. The Building 21 demolition is scheduled for FY 1997 and the associated soil removal is scheduled in FY 1999. These efforts should not impact Building 100.

The CERCLA program is presently performing a Removal Action in the vicinity of Building 21. This Removal Action is installing a storm water drainage channel and should be complete by the end of this calendar year. The CERCLA program also has staged drums with Investigative Derived Materials (IDM) to the West of Building 100. The CERCLA program is in the process of removing these drums. This area should be cleaned up in approximately two months. The CERCLA program, specifically Operable Unit 5 (OU5), has characterized the area around Building 100 and has found no chemical contamination that would require further action.

Although ammunition was stored in Building 100, the proper storage of this ammunition appears to have precluded any lead contamination.

Therefore, there is no impact to releasing the facility to the City of Miamisburg.

Although there are a few on-going environmental restoration programs in the vicinity of Building 100, there will be minimal impact to the ER program by the release of this facility to the City of Miamisburg.

M. Adjacent Building Concerns

Building 100 is a stand alone structure. The area to the North and West of Building 100 may present concerns about the general area where this building is located. These areas appear to be uncontrolled access areas and the new building occupants may wander into these areas. The area to the North has many (about 50) monitored truck trailers with radioactive material placards on the trailer. The area to the West has about twenty (20) two-thousand gallon tanks with liquid in them and many steel Low Specific Activity (LSA) boxes located in the vicinity. It seems prudent to relocate these items, or restrict access to these areas, or where appropriate lock containers (waste storage containers, truck trailers) to insure access is only available to authorized personnel.

The large number of plastic 55 gallon drums laying to the West of Building 100 contain sludge. Waste Management is in the process of getting these drums removed from the site. Until these drums are removed (2 months) from the site, they will be stored in an orderly manner and provide proper clearance of nearby fire hydrant.

There are several 2000 gallon white plastic tanks located to the West of Building 100 partially filled with water. These tanks contain purge water and well water taken from

the site. Water samples are then sent off-site for testing. When the test results are returned to Mound and shows there is no contamination in the water, it is then drained into the sanitary sewer in back of Building 100. If the test results are positive, the water is disposed of in accordance with Mound approved procedures. Also, there was a concern as to whether or not anyone can open the valves on these tanks and drain the water. Waste Management has submitted a Material Service Request to have straps fabricated with locks which will allow the valves to be locked. This will also allow Waste Management to control access to these tanks.

The metal rod for the damper control on the exhaust air duct in the vestibule outside of room 119 has come out of the bracket. A Material Service Request (MSR) has been submitted by the Building manager to repair the control. Work was completed 7/25/95.

The truck trailers parked North Building 100 belong to Waste Management. There are two trailers that have empty, unused rad drums stored in them. Some of the trailers contain material which is not rad waste. The trailers which contain low-level rad waste have sealed doors and these seals are checked each work day to confirm that the doors have not been opened. Nuclear Material Accountability is notified after the trailer has been checked. An inventory of the trailer's content is done quarterly.

A small staging area for equipment to be used for the OU5 drainage ditch, West of Building 100, has been set up next to Building 100A. This project is scheduled to run through September, 1995.

Building 100A, a wood shed West of Building 100, is used as a storage area by security. Training equipment is currently stored in this building. The equipment will be removed from 100A and the small shed removed.

Building 100A removal is scheduled for completion on November 1, 1995. Work to be done under Mound's Safe Shutdown program.

The wood pallets which were stored next to Building 100A have been removed.

N. Summary of Issues

The issue of most concern was addressed in Section M regarding the immediate area around Building 100.

Steps shall be taken to adequately label, and communicate the purpose of the water holding tanks, truck trailers and ER work areas and either lock or fence areas as appropriate to limit access.

The need for utility usage metering and waste steam monitoring must also be addressed.

O. Opinions

Building 100 is a good structure and can be commercialized with very little difficulty. The building should be leased as is in accordance with Mound's safe shutdown procedure. It is also the opinion that the items listed below need to be addressed.

1. The contractor to place locks on water holding tank valves. Installation is scheduled for completion before 10/1/95.

2. The contractor to place locks on storage truck trailers. Locks are scheduled to be installed before 10/1/95.

3. Fence and post ER designated work areas in accordance with Mound's operating procedures.

4. Inform lessee that building may contain asbestos and require lessee to write and follow operation and maintenance procedures to keep any asbestos in good repair.

5. Install utility meters at lessee expense.

6. Review need for waste stream monitoring at time of leasing.

7. Inform lessee of needed repairs in Section C, page 3. Repairs to be performed as needed by lessee at lessee expense.

8. Remove Building 100A (small wood storage shed). Building scheduled for removal 11/1/95 by Mound Safe Shutdown.

ATTACHMENT A

Building 100 Equipment List

PROPERTY LISTING: BUILDING "100" INVENTORY 07/11/95

BLDG	ROOM	R/C	ID #	DESCRPTION	A/DATE	T/COST	BOOK/VALUE
100	AREA	900	103459	STORAGE BARN DP&L HUTCH STATION	198512	1189.00	1099.81
100	AREA	900	500460	SITE PREPARATION AND GRADING	198805	102792.05	102792.05
100	AREA	900	500470	ROADS-WALKS-PAVING	198805	15413.82	11731.30
100	AREA	900	500501	BLDG SM-PP PRECINCT 6211 SQ FT	198805	974266.04	834620.96
100	AREA	900	500615	ELECTRICAL SYSTEM DISTRIBUTION	198805	123643.58	88198.68
100	AREA	900	500640	SEWAGE SYSTEM SANITARY	198805	105988.70	80669.44
100	AREA	900	500650	WATER SYSTEM SUPPLY & DISTRIBUTION	198805	87059.72	71461.90

COUNT = 7 T/COST.... = 1410352.91 BOOK/VALUE = 1190574.14

PROPERTY LISTING: BUILDING "100" INVENTORY 07/11/95

BLDG	ROOM	R/C	ID #	DESCRPTION	A/DATE	T/COST	BOOK/VALUE
100	117	900	910264	EMERGENCY GENERATOR	198903	9500.00	9500.00

COUNT = 1 T/COST.... = 9500.00 BOOK/VALUE = 9500.00

PROPERTY LISTING: BUILDING "100" INVENTORY 07/11/95

F I N A L T O T A L S

RECORD COUNT = 0000008

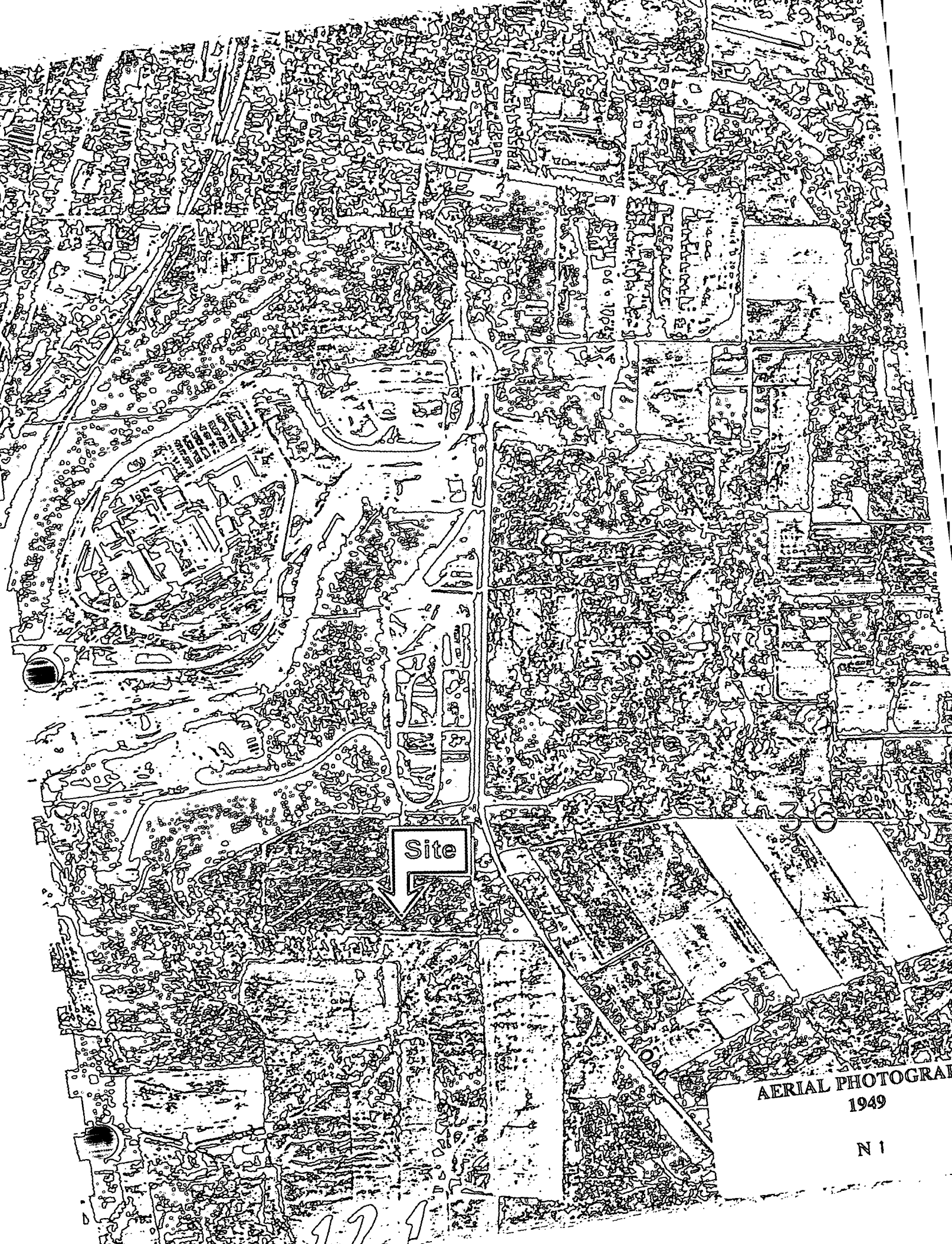
COUNT = 8
T/COST.... = 1419852.91
BOOK/VALUE = 1200074.14

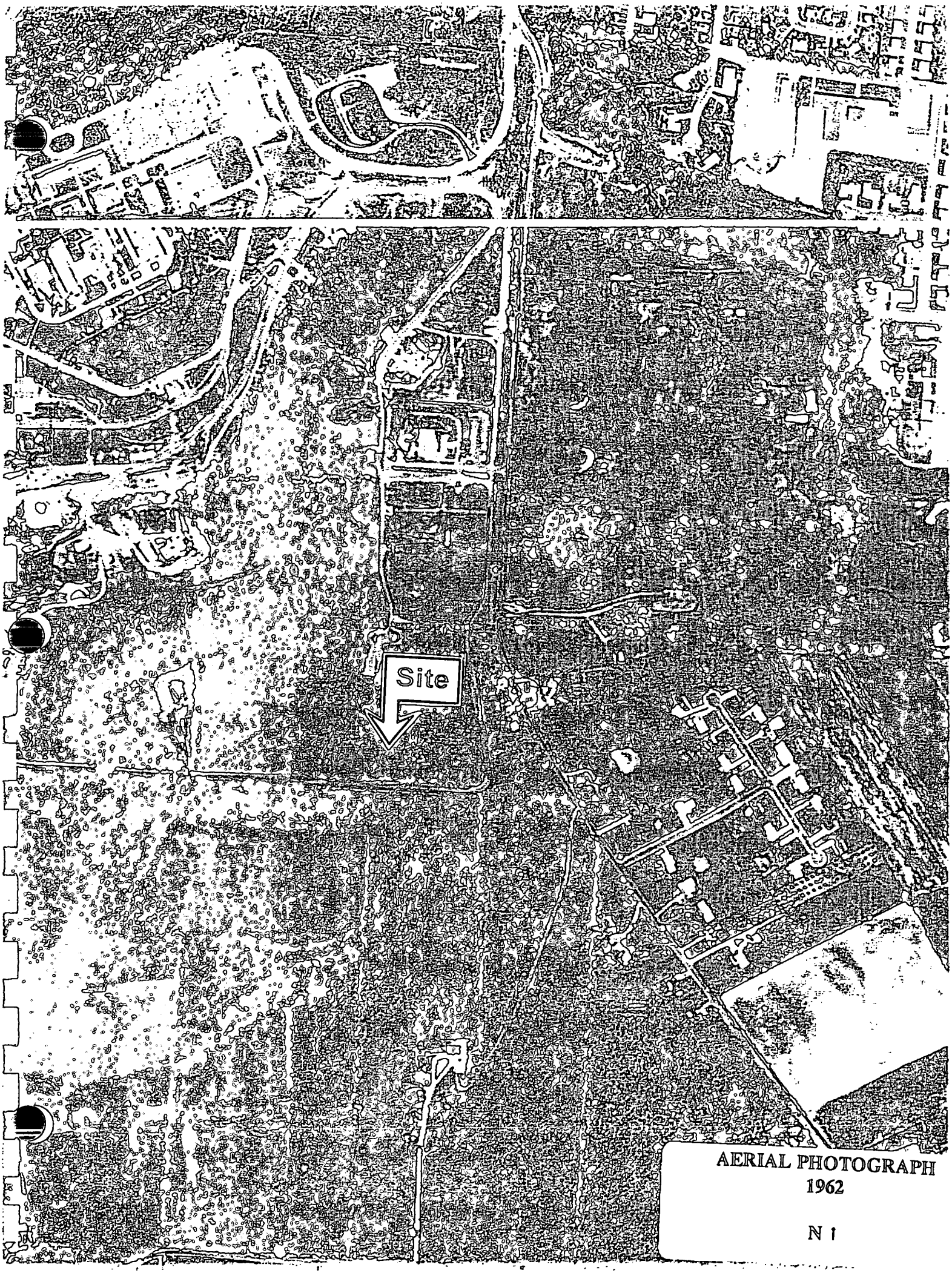
EXHIBIT F

AERIAL PHOTOGRAPHS

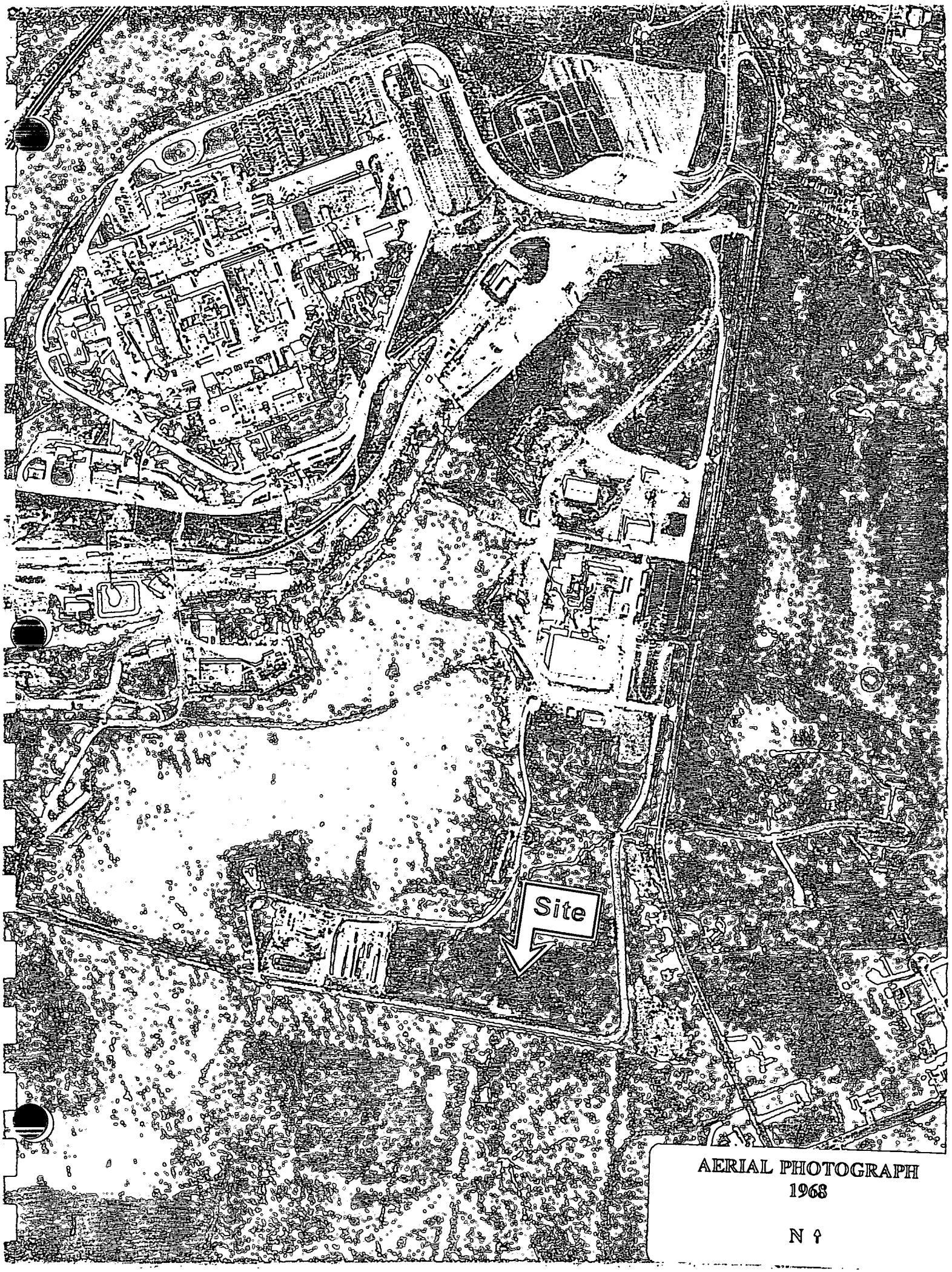
AERIAL PHOTOGRAPH
1938

N


Site
36
AERIAL PHOTOGRAP
1949
N

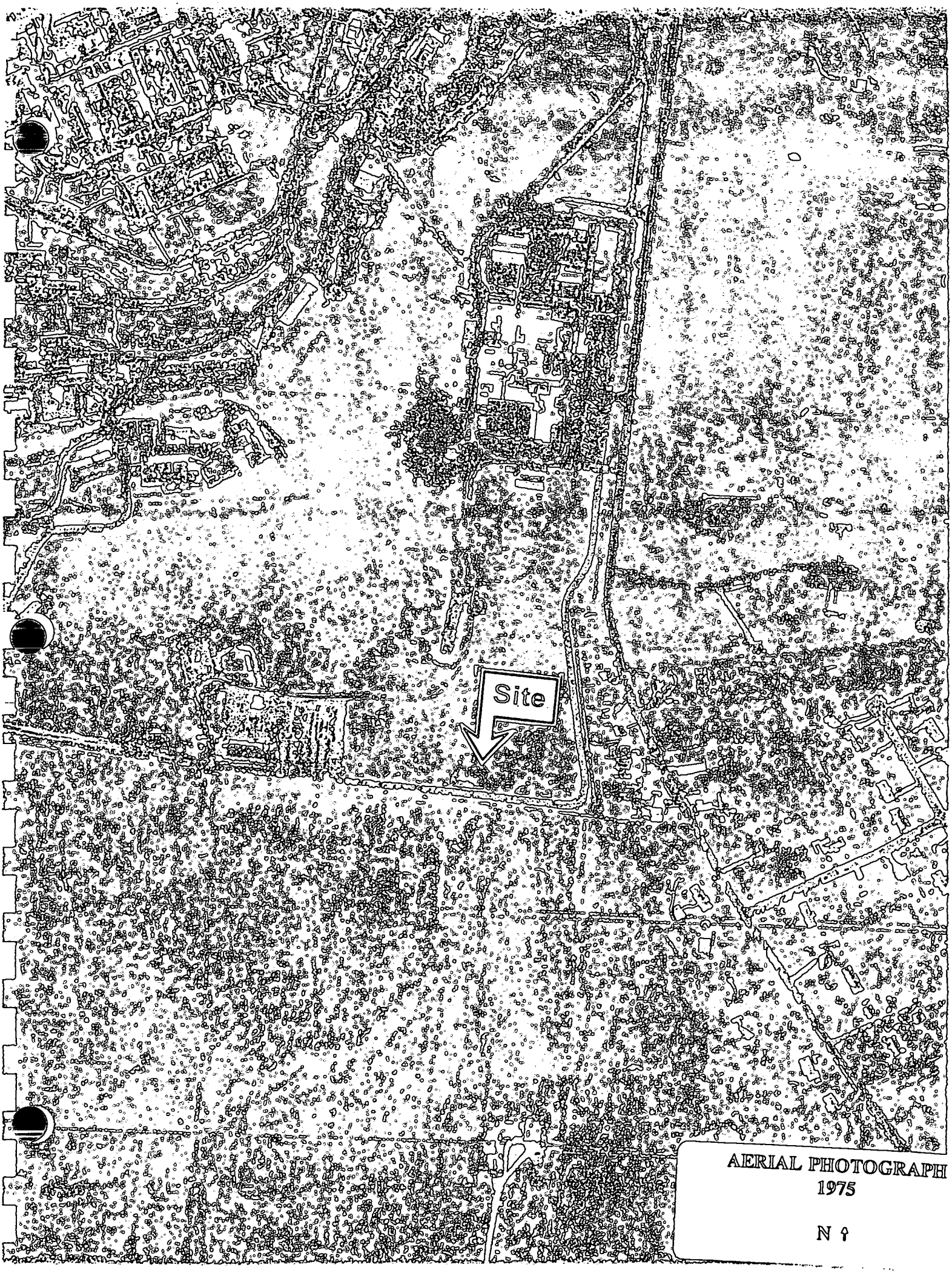


AERIAL PHOTOGRAPH
1962



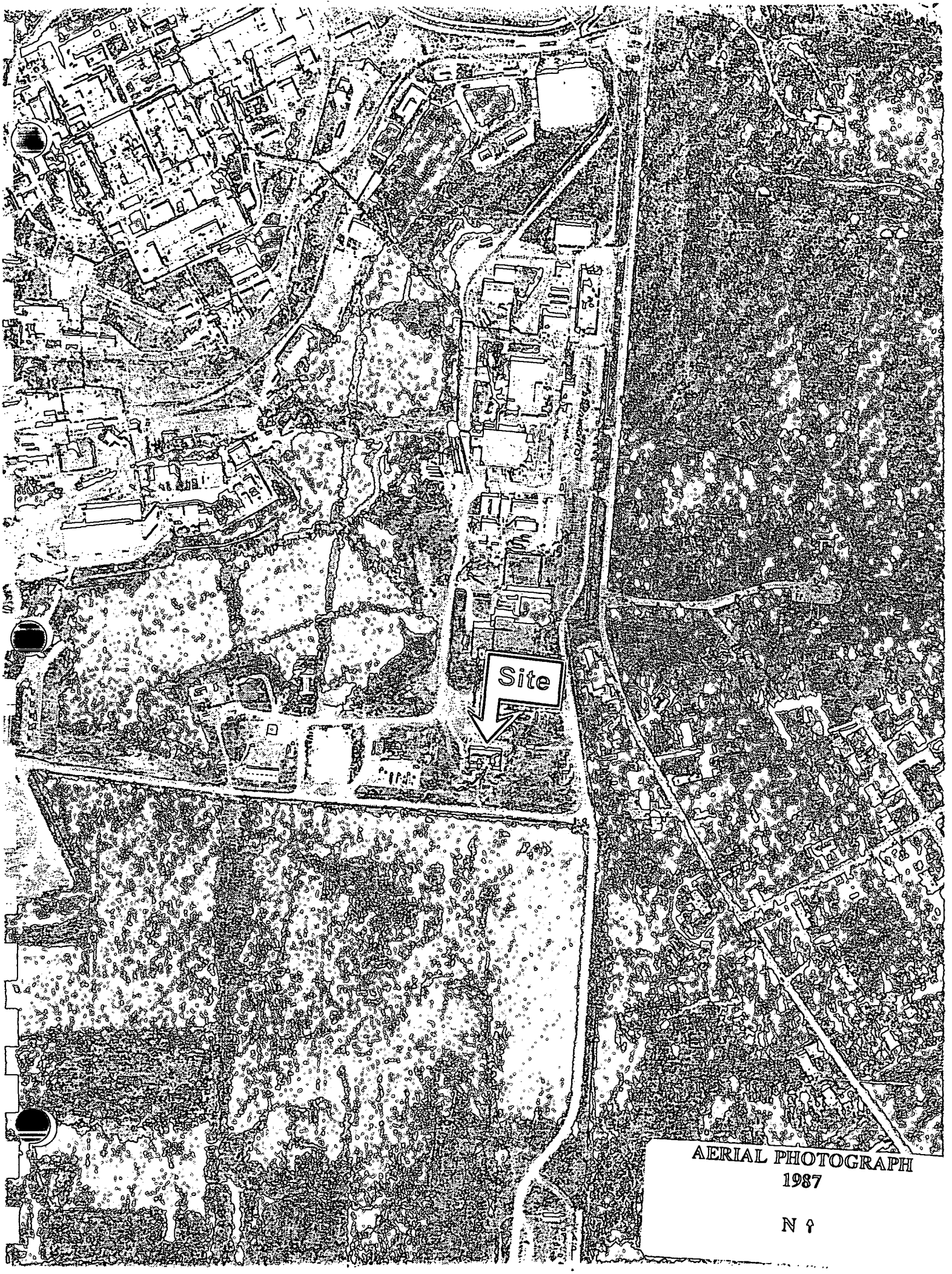
AERIAL PHOTOGRAPH
1968

N



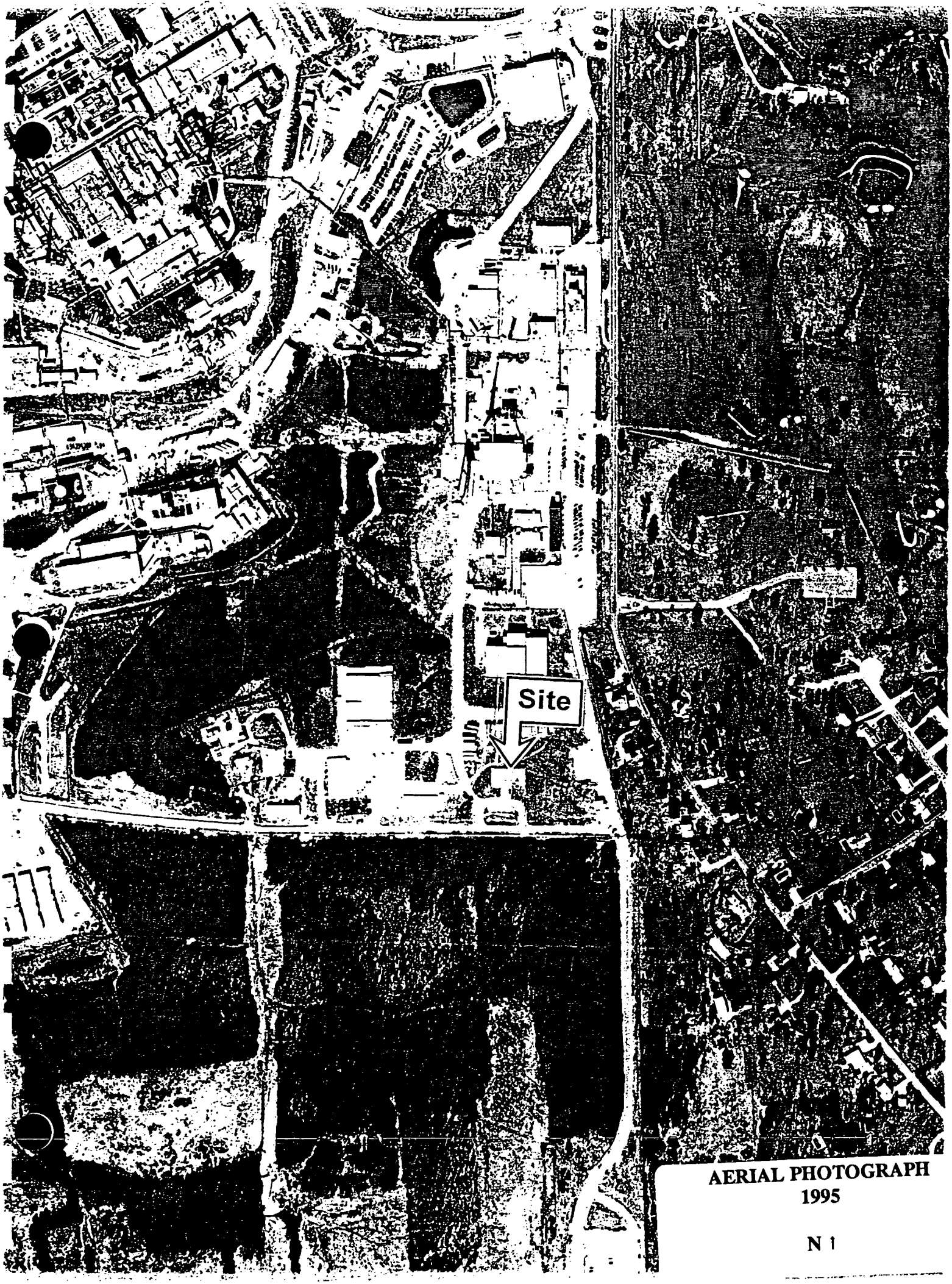
AERIAL PHOTOGRAPH
1975

AERIAL PHOTOGRAPH
1980



AERIAL PHOTOGRAPH
1987

N



AERIAL PHOTOGRAPH
1995

N ↑

EXHIBIT G

SANBORN MAP REQUEST RESPONSE

02/06/96

Environmental Data Resources, Inc.
3530 Boston Post Road
Southport, CT 06490

Phone: (203) 255-6606
Fax : (203) 255-1976

Sanborn Map Search

ORDER# 100553-2

Order Date : 12/12/95

Customer Information

Shelby R. Politte
HOK/K Industrial
2490 Technical Drive
Box 3004
Miamisburg, OH 45343
Phone#:513-866-4211
Fax #:513-866-7473

SPECS FOR SANBORN MAP SEARCH:

Site Name & Address:

US Department of Energy
Off Mound Rd.

Miamisburg, OH 45432

Account # : 1018424
Account Exec : PCD

Cross Street :
Intersection :
County : montgomery

No Sanborn maps were found for the site searched.

EXHIBIT H

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

HOK/K

STAFF PERSONNEL
QUALIFICATIONS RESUME

JOHN W. EY, P.E.

MANAGER, ENVIRONMENTAL ASSESSMENTS

Education

Bachelor of Mechanical Engineering, Vanderbilt University (1979)

MBA - Finance, University of Cincinnati (1988)

Registration

Registered Professional Engineer, Ohio, 1989
Registered Professional Engineer, Louisiana, 1986
Registered Environmental Property Assessor (REPA), 1994
Certified Professional - Ohio EPA Voluntary Action Program (Brownfields), 1994

Qualifications

Mr. Ey is currently the Manager of Environmental Assessments. Mr. Ey has performed over one hundred environmental site assessments throughout Ohio and other midwest states. He has also performed regulatory compliance audits in several large industrial facilities throughout the U.S.

Mr. Ey's former assignment at HOK/K was in the area of underground storage tanks (USTs). His responsibilities included the evaluation of tank systems, oversight of tank integrity testing, removal of underground storage tank systems, testing of soils and groundwater, coordination of remedial action plans with state and regulatory officials and writing of closure plan documents. He has prepared reports in compliance with BUSTR, USEPA and OEPA regulations. After receiving his MBA in 1988, he managed a construction company specializing in installation of UST systems for various petroleum products retailers.

Mr. Ey is a Professional Engineer with seventeen years of experience in a variety of industrial settings. His broad experience began with a major oil company where he had assignments in both refining and production. He developed specific experience in engineering design, plant operations and regulatory liaison. In his regulatory position, he was responsible for commenting on proposed EPA and OSHA regulations, interpreting the promulgated rules, and implementing them for oil and gas operations over a six state area. He coordinated annual NPDES reporting to USEPA for over 100 offshore drilling locations.

Qualifications (cont'd)

In addition, he has a working knowledge of a wide range of environmental regulations associated with the CWA, CERCLA, RCRA, OSHA and SARA.

Relevant Experience

Environmental Site Assessments and Audits

Performed over 100 environmental site assessments throughout Ohio and the midwest. These assessments are used to establish the innocent landowner defense under CERCLA. Mr. Ey has a working relationship with various lending institutions and developers.

Participated in environmental compliance audits of several industrial facilities throughout the U.S. These audits are typically performed for the legal counsel of the potential purchaser of the properties.

Underground Storage Tanks

Provided project management expertise for removal of over 100 underground storage tanks in northwest and southwest Ohio. These closures were prepared in accordance with BUSTR, USEPA and OEPA regulations.

Managed a construction company specializing in installation of underground storage tank systems for various petroleum products retailers.

Regulatory Engineering

Served on oil industry associations and worked with various state and federal regulatory agencies to influence development of new regulations.

Developed company positions regarding proposed regulations and submitted comments to the various agencies.

Interpreted new regulations (USCG, OSHA, COE, EPA and agencies over a six state area) and developed compliance procedures for company use.

Coordinated annual environmental (NPDES) reporting to USEPA for over 100 offshore production and drilling platforms.

Drilling Engineering

Designed drilling plans for fifteen oil and gas wells varying in depth from 5,000 feet to over 15,000 feet in Southeastern United States. This work included selection of appropriate drilling techniques, design of casing and selection of casing points, and testing of productive wells.

Relevant Experience (cont'd)

Refinery Engineering

Monitored refinery energy performance and presented monthly reports to upper management. Developed annual energy use forecasts.

Provided engineering support for mechanical equipment and was responsible for product quality.

Provided engineering support for major unit renovations (turnarounds).

Employment History

1989 - Present	HOK/K INDUSTRIAL Miamisburg, Ohio Manager, Environmental Assessments
1988 - 1989	COURTESY PETROLEUM MAINTENANCE Beavercreek, Ohio Vice President
1979 - 1987	EXXON COMPANY, U.S.A. Baton Rouge and New Orleans, Louisiana Refinery Engineer and Drilling Engineer

HOK/K

STAFF PERSONNEL
QUALIFICATIONS RESUME

JENNIFER C. VICAREL

ENVIRONMENTAL SCIENTIST

Education

Bachelor of Arts, Geology and Spanish, Trinity University (1982); cum laude, Phi Beta Kappa, Who's Who Among American Colleges and Universities.

Junior Academic Year Abroad, Institute of European Studies, Madrid, Spain (1981-1982).

Master of Science, Geology, Ohio State University (1985). Thesis field area: Navidad, Chile.

Continuing Education: Aquatic Toxicology, Tulane University (1986); Hydrogeology, University of New Orleans (1987); Analysis and Design of Aquifer Pumping Tests, National Ground Water Association (1989); Risk Assessment for Soil Contamination, University of Milwaukee-Wisconsin (1992).

Certifications

OSHA 40-hour Hazardous Waste Site Worker Certification; 8-hour Refresher Certification current through 1994

OSHA 8-hour Hazardous Waste Site Supervisor Certification

Qualifications

Ms. Vicarel's qualifications include ten year's experience as an environmental geologist in the environmental industry. Most recently she has performed hydrogeologic and remedial investigations, baseline risk assessments, and environmental impact statements for Fortune 50 industrial clients. Ms. Vicarel has completed numerous environmental site assessments for real estate transactions. She has also participated in environmental investigations of a Mexican border (maquiladora) facility for a Fortune 50 property, for which she also served as translator and liaison with the Spanish-speaking staff.

Qualifications (cont'd)

Ms. Vicarel's duties have included preparation of project proposals, budgets, and schedules; organization and execution of field investigations for data collection and analysis; evaluation of data and assessment of exposure and toxicological effects for baseline risk assessments; performance of hydrogeologic evaluations of state-regulated hazardous waste sites targeted for remediation; supervision of peers and field staff; participation in preliminary design and implementation of remediation systems; and authorship of technical reports and regulatory file review reports.

Ms. Vicarel has also served as an Health & Safety Representative of her company. Responsibilities include preparation and approval of health and safety plans, implementation of medical monitoring program, maintenance of OSHA training requirements, compliance with OSHA recordkeeping requirements, and purchasing of personal protective and monitoring equipment.

Relevant Experience

Risk Assessments

Ms. Vicarel has performed risk assessments for both RCRA- and state Superfund-regulated sites in New York and Ohio. Contaminants of concern at these facilities have included a suite of chlorinated solvents, pesticides, and fuels.

Hydrogeologic and Remedial Investigations

Working on sites regulated by state-Superfund (CERCLA) and RCRA programs in Massachusetts, New York and Ohio, Ms. Vicarel has investigated industrial facilities including a shipyard, several large aeronautics manufacturing facilities, a vacuum products manufacturing plant, corporate headquarter facilities of two large photographic equipment producers, an automotive assembly plant, a nursery, and an electric and gas utility. Chemicals released to soil and/or groundwater at these sites include fuels (gasoline, diesel, fuel oil), PCBs, chlorinated solvents, pesticides, and semivolatile compounds (PAHs, creosote compounds).

Environmental Site Assessments

Ms. Vicarel has performed numerous environmental site assessments in Massachusetts (under Chapter 21E Law), New York, and Ohio prior to real estate transactions. The objective of these assessments is to establish innocent landowner defense under CERCLA. Clients for these projects have included developers, banks, lawyers, manufacturing facilities, and industrial companies.

Relevant Experience (cont'd)

Exploration Geologist

Working in the Frontier Province of the Eastern Gulf of Mexico, Ms. Vicarel identified and assessed exploration prospects using geological and geophysical data. She successfully presented several prospects to upper management thereby influencing corporate decisions regarding off-shore land acquisition.

Professional Affiliations

Association of Groundwater Scientists and Engineers, division of National Ground Water Association

American Association of Petroleum Geologists

Society of Environmental Geology (formerly Society of Economic Paleontology and Mineralogy

Employment History

1994 - Present	HOK/K INDUSTRIAL Miamisburg, Ohio Environmental Scientist
1991 - 1994	H&A OF NEW YORK Rochester, New York Staff Environmental Geologist
1987 - 1991	GZA GEOENVIRONMENTAL, INC. Newton, Massachusetts Geologist
1985 - 1987	SHELL OFFSHORE, INC. New Orleans, Louisiana Exploration Geologist

Appendix 7.3 Lease Agreement for Building (Extract)

Exhibit A Building 100
Article 1
Map and description of the land and improvements
(herein referred to as "REAL PROPERTY")

BUILDING 100

A) Drawing of leased property or building

Attachment A to Article 1, Exhibit A is a drawing of the facilities and buildings to be occupied by the lessee.

B) Description of leased property

a) Building 100 was constructed in 1988 with a total area of 6222 square feet on one floor (useable square footage is 5,613). Construction is of concrete. Two load-bearing walls which cannot be removed span the entire length of the building. The building was designed to accommodate a second floor on top of the existing roof.

A 10 ton, 4500 CFM air-to-air heat pump/air handler system serves the primary heating and cooling needs of the facility. This system is equipped with 100% outside air capability and also a heat recovery wheel, which captures some of the heat from the exhaust air and delivers it to the incoming air. A 7kW heater also preheats the incoming air going to the hear recovery wheel.

Two other electric heaters serve certain areas in the facility: a 2.5kW floor mounted heater heats vestibule 120 and a 2.5kW wall-mounted heater serves room 117. Room 118, the electrical equipment room, is not served by the 10 ton HVAC system; air comes from an intake duct direct from the outside, and a 1057 CFM fan exhausts air from this room when a pre-set temperature is reached.

The HVAC system is connected to the plant-wide Direct Digital Control (DDC) system. The DDC panel is located in Room 118.

Exhibit A Building 100
Article 1
Map and description of the land and improvements
(herein referred to as "REAL PROPERTY")

b) Facility Capabilities

The current active capabilities of Building 100 include:

Electricity
Potable water
Sanitary drainage
Telecommunication devices
Fire protection water/department
Heat Pump for heating and cooling

c) Current Safety Envelope

Building 100 operations are under the classification of standard industrial hazard.

Exhibit A Building 100
Article 2
Inventory of personal property and related personal property

BUILDING 100

A) Personal property

Attachment A to Exhibit A, Article 2 is a list of the personal property located in Building 100 which is being provided to the lessee. In the event of conflicts between this list and the list of property contained in Exhibit A, Article 5 (Facility Survey), this Article shall govern. The government is making personal property available to the lessee, and any sublessee(s), for the duration of the lease. The government shall retain ownership of all personal property, up to the point it sells the personal property to the MMCIC. The lessee, or any sublessee(s), are prohibited from selling, destroying, discarding, disposing, or removing any personal property being made available via this lease without the express written approval by the government. Also, the lessee shall not use the personal property as collateral when obtaining loans. All property/equipment must be used only for the purposes intended, in accordance with operating manuals/procedures.

The government, or its representative, and the lessee or sublessee(s) shall document receipt of the requested equipment and its condition at the time of the property relocation. Execution of the property accountability shall be achieved using the procedures approved by the government or its representative. An amendment to the lease property list (Attachment A to Exhibit A, Article 2) shall be prepared upon completion of the requested property relocations. It is DOE's intention to offer this personal property for sale to the MMCIC as soon as it has completed the required process for making this personal property available for sale.

Also, the lessee is required to comply with the "Interim Guidelines on Export Control and Nonproliferation" and the "Interim Guidelines for Control of High-Risk Personal Property". These guidelines are provided by the government, and may require the lessee to formally sign an agreement to comply with these guidelines, where appropriate.

The book value of the personal property being made available by the government has not

yet been determined. However, this property will be offered at a price less than book.

Exhibit A — Building 100
Article 3
Limits of Operation within the Leased Property
not addressed in Part II, General Provisions (Article 3)

BUILDING 100

Limiting conditions of operation pertaining to leased property or buildings are provided in the following discussion.

A) Electrical

Any changes to electrical panels within the leased area shall be done in accordance to the latest revision of the national electric code and will be the responsibility of the lessee. These changes must be approved by the Lessors' electrical engineering department.

The electrical power distribution system consists of one power distribution panel fed adjacent from PDP-2A in Building 105, one light panel (LP-100-118-A), and one emergency power panel (EP-100-116-A). The main power panel feeds the light panel through a transformer. LP-100-118-A is the only source of electrical power to the emergency power panel.

B) Waste stream generation

The sublessee is responsible for obtaining and complying with the necessary Environmental and any other permits required for the operation of the leased properties. The sublessee must identify to the government any new chemicals (as well as MSDSs associated with those chemicals) introduced into the facility or buildings as well as any new waste streams generated from the facility or building. The sublessee must provide a copy of approved and active operating permits from cognizant Federal, state, and local agencies responsible for oversight of planned operations.

As a way of ensuring that the sublessee's operations are not potentially the cause of, or contributing to, an NPDES exceedance, the government will conduct random sampling of waste streams associated with the sublessee's commercial operations and processes, at the expense of the sublessee. Sampling locations, frequencies, and parameters will be determined at a later date by Mound environmental and waste management professionals, in consultation with the sublessee. If the addition of a waste stream requires the government to modify its NPDES permit, the sublessee will be responsible for this cost. The government may inspect the facility at reasonable times, with reasonable notice.

C) Other

The lessee/sublessee is responsible for the handling and disposition of their own hazardous waste.

Attachment A to Exhibit A, Article 1 shows the property boundary for Building 100. The sublessee shall be responsible for protection of public and worker safety inside the boundary of the leased premises as well as property outside the premises that could be impacted by operations within the leased property .

D) Security limitations

Building 100 is currently located inside a property protection area of the plant. Mound is in the process of reducing the number of buildings and areas of the site residing inside limited access areas. Uncleared persons are granted unescorted access to building 100; entry into other areas of the plant contained inside limited access areas, shall be accordance with site security requirements. Only persons possessing security clearances are permitted unescorted access to limited access areas.

Exhibit A Building 100
Article 4
Description and charges for utility, maintenance and other services
not covered under Part II, General Provisions (Article 4),

BUILDING 100

Maintenance and utility services

The parties are responsible for all general plant maintenance for the leased facilities as described in the base lease. Attachment A to Exhibit A, Article 5 is the facility condition survey conducted of the facility. This document provides a condition assessment of the facility condition and general maintenance requirements.

The lessee will follow the manufacturer's recommendations for minimum maintenance schedules for all machine tools, basic capital equipment, personal property and related personal property made available to the lessee by the government.

The lessee is responsible for maintenance and annual testing of the sprinkler risers, sprinkler lines and sprinkler heads inside the building.

DOE responsible maintenance is defined later in this Article under maintenance costs.

Exhibit A
Article 4

BUILDING 100 UTILITY COSTS

UTILITY	UNIT COST, $/sq. ft./year
Electricity (1)	1.17
Heat Pump	0.72

(1) Electricity is based on an estimated cost and will be based on an allocation of actual plant usage. This cost is subject to change, as well as the cost for the heat pump.

BUILDING 100 MAINTENANCE COSTS

MAINTENANCE	UNIT COST,$/year
Total Maintenance (1)	3640

(1) Total maintenance costs cover snow removal, and fire protection routine inspections. Snow removal could be provided by the lessee or could be provided by the government at the option of the lessee. This cost would be $2440 if provided by the government. This does not include property protection services since the lessee is responsible for this activity.

OTHER COSTS

COST ELEMENT	UNIT COST
Phone service	0.08/local call
Phone maintenance	7.95/month/phone
Voice mail (optional)	1.25/month/box
Moving a phone	25.00/move

(1) The lessee is responsible for all long distance phone calls, all costs associated with the use of facsimile transmission devices and all costs for any electronic data interchange systems. The government will bill the lessee for long distance calls, facsimile transmission costs and electronic data interchange costs received through the site's telephone billing system.

OTHER VARIABLE COSTS

To Be Determined, the costs associated with the sampling activity described (in consultation with the sublessee) in Exhibit A, Article 3.

Exhibit B
Article 1
Map of the installation depicting common areas including means of ingress and egress, and restricted areas.

A) Mound Site Maps

The site map presented in Attachment A to Exhibit B, Article 1 shows the allowed access areas for the lessee. The site map also shows the areas of the plant which require Mound site approved escorts for access to the limited access areas. The map also shows those areas contained within the property protection areas of the site which are not open to the lessee or sublessee(s) without prior notification of the government or its representative.

The site map presented in Attachment B to Exhibit B, Article 1 shows the clearance zones and fragmentation arcs associated with explosive operations at the site. The lessee shall notify the government or its representative when any activities or any duration are required to be performed in these areas. The government or its representative will restrict operations inside the fragmentation arcs during those periods when the lessee is conducting activities of any duration at the magazines.

B) Mound Site Description

Situate in the State of Ohio, County of Montgomery, Township of Miami, partly in the City of Miamisburg, being a part of section 30 and fractional sections 35 and 36, Town 2, Range 5, Miami Rivers Survey (M.R.S.), and being all of city lots numbered 2259, 2290, 4777, 4778, and 4779, and part of out lot 6 lying within the corporation limits of the City of Miamisburg, and also a 35.5 acre parcel and a 24.2 acre parcel lying outside and adjacent to said corporation limits, being all of the tracts of land conveyed to the United States of America by instruments as recorded in Deed Book 1214 pages 10, 12, 15, and 17, Deed Book 1215, page 347, Deed Book 1214 page 248, Deed Book 1246 page 45, Deed Book 1258 page 74, Deed Book 1258 page 56, Deed Book 1256 page 179, Micro-Fiche 81-376A01, and Micro-Fiche 81-323A11 of the Deed Records of said County; and being more particularly bounded and described with bearings referenced to the Ohio State Plane Coordinate System, South Zone, as follows:

Beginning at a spike found (0.5' deep) and reset in concrete, being the Southwest corner of said section 30 and the Southeast corner of fractional section 36, said point

Exhibit B
Article 1

being in the center of Benner Road (40 feet R/W) and being referenced North 84°, 28', 10" West 3102.92 feet from a spike found (0.5' deep) at the intersection of the centerline of Mound Road (60 feet R/W) with the centerline of said Benner Road in said Miami Township, and being the true point of beginning for the land herein described; thence along the centerline of Benner road South 66° 32' 35" West 958.79 feet to a railroad spike found and reset in concrete; thence continuing along said centerline of Benner Road South 73° 18' 20" West 31.01 feet to a railroad spike found and reset in concrete, being a point in the East right-of-way line of the abandoned Miami and Erie Canal; thence leaving Benner Road and with said East right-of-way line for the following four courses: North 14° 05' 35" West 62.14 feet to an iron pin found; thence north 14° 11' 50" West 440.75 feet to an iron pin found; thence North 14° 47' 30" West 259.93 feet to an iron pin found; thence North 14° 45' 50" West 546.20 feet to an iron pin found and reset in concrete in the East right-of way line of the Consolidated Railway Corporation; thence with said Conrail right-of-way line for the following 10 courses: North 75° 00' 55" East 85.04 feet to an iron pin found and reset in concrete; thence North 37° 16' 35" East 96.65 feet to an iron pin set in concrete; thence North 80° 28' 05" East 66.00 feet to an iron pin found and reset in concrete; thence North 09° 31' 55" West 499.80 feet to a concrete monument found; thence North 09° 26' 35" West 696.85 feet to an iron pin set in concrete; thence North 0° 48' 25" West 616.81 feet to a concrete monument found; thence North 84° 43' 35" East 75.08 feet to an iron pin set in concrete; thence along the arc of a curve to the right having a radius of 3669.83 feet, being concentric with and 150 feet distant, measured Eastwardly at right angles, from the centerline between main tracks of said railroad; for a distance of 744.94 feet to a concrete monument set, the chord of said curve bears North 03° 17' 05" East 743.66 feet; thence South 84° 39' 20" East 150.34 feet to a concrete monument set; thence along the arc of a curve to the right having a radius of 3519.83 feet, being concentric with and 300 feet distant, measured Eastwardly at right angles, from the centerline between main tracks of said railroad, for a distance of 1640.97 feet to a concrete monument found, the chord of said curve bears North 22° 36' 55" East 1626.15 feet; thence leaving said railroad right-of-way line South 84° 14' 50" East 102.31 feet to a concrete monument found; thence South 05° 37' 45" West 90.03 feet to a concrete monument found; thence North 65°35' 50" East 809.36 feet to an iron pipe found and being referenced South 05° 47' 45" West 130.89 feet from a concrete monument found at the Northwest corner of said section 30 and the Northeast corner of

November 7, 1995
Revision 3

Exhibit B
Article 1

fractional section 36; thence South 85° 04' 55" East 1023.90 feet to a concrete monument found; thence North 06° 53' 15" East 231.00 feet to a concrete monument found on the West right-of-way line of Mound Road (60 feet R/W); thence South 84° 38' 15" East 30.00 feet to an iron pin set in the centerline of Mound Road; thence South 06° 53' 15" West 100.00 feet to an iron pin set; thence South 84° 38' 15" East 193.40 feet to a concrete monument set; thence along the centerline of Mound Road South 05° 32' 40" West 2709.36 feet to a railroad spike found; thence leaving said Mound Road North 85° 28' 20" West 111.00 feet to an iron pipe found; thence South 07° 06' 55" East 714.44 feet to a concrete monument found; thence South 83° 59' 35" East 34.19 feet to a concrete monument found; thence South 04° 42' 45" West 2010.06 feet to a railroad spike found (0.2' deep) and reset in concrete located in the center of Benner Road; thence along the centerline of Benner Road North 84° 29' 45" West 1333.66 feet to the true point of beginning containing 305.116 acres more or less, and subject to all legal highways and easements of record.

(This description based upon an actual field survey of the described land conducted May, 1982. The description was prepared by Lockwood, Jones & Beals, Dayton, Ohio)

Exhibit B
Article 2
Limits of operation within common areas

A) Common areas

The common areas for the plant, to which the lessee has access are the access roads identified in Attachment A to Exhibit B, Article 1, the parking lot adjacent to the leased facilities as identified in Exhibit A, Article 1, and the cafeteria located in OSE Building.

B) Access way limits

Access to the installation is from Mound Road. Refer to site map, Attachment A to Exhibit B, Article 1 for entry routes into the installation.

C) Weight limit on site roads

Weight limits for the roads shown in Attachment A to Exhibit B, Article 1 as being accessible to the lessee must meet Ohio Department of Transportation rating of H20 (20,000 pound wheel axle limit).

D) Site speed limits

The speed limit for the entire site is 15 miles per hour except as posted in selected areas.

E) Access to parking

Refer to site map, Attachment A to Exhibit B, Article 1.

F) Badging/Security

The lessee, any sublessee, and their visitors will be issued a standard site access badge which will allow unimpeded access to the Mound site. These badges will be furnished and issued by the Lessor.

Exhibit B
Article 2

Security measures will be determined on a building-by building basis according to the nature of the activities undertaken by the DOE within a particular area. Reasonable access to all buildings and areas involved in this Lease shall be available at all times, including twenty-four (24) hours per day, however, access is for business purposes only.

Employee (Lessee and sublessee) vehicles must be registered with the Lessor.

The following privately owned articles are not permitted within the limits of operation of the Common Areas:

a) Any dangerous weapon, explosive, or other dangerous instrument or material likely to produce substantial injury or damage to persons or property.

b) Controlled substances (e.g., illegal drugs and associated paraphernalia). This does not include prescription medicine.

c) Other items prohibited by law.

The Lessee's or sublessee's automated information systems (AIS) will not be connected to any DOE or EG&G Mound AIS network.

The EG&G Mound Protective Force personnel are not authorized to provide law enforcement type services, (e.g., response to break-ins or intrusion detection alarms, investigative duties, arrests, etc.) to the lessee or sublessee.

The lessee or sublessee, may, as required, request assistance from local law enforcement agencies, (e.g., Miamisburg Police Department, Sheriffs Offices, State Police, etc.). To ensure these organizations are allowed unimpeded access to the Mound site, the lessee should notify the Protective Force/EG&G Mound of each request for aid or assistance.

G) Emergency Response

The lessee and sublessee will be considered co-located "facility workers" subject to plant emergency planning and response. Because it is integral to facility worker

Exhibit B
Article 2

safety, plant wide emergency response activities as identified below will be incorporated into the lessee/sublessee operations on the Mound site.
Personnel Evacuation Planning Procedures
Emergency Reporting Procedures (911 call procedures)
Severe Weather and Tornado Warning Alert Procedure

DOE or its representative will provide a site specific overview (through the Mound Advance Technology Center Handbook) to all lessee/sublessee management personnel. Management personnel are then responsible for ensuring that their employees are familiar with the Handbook. The DOE will also provide lessee/sublessee senior management, at their request, with copies of the Site Emergency Plan Implementing Procedures that correspond to the emergency planning and activities identified above. This action will assist lessee/sublessee emergency planning and procedures implementation. Further assistance may be requested from the DOE or its rep.

Also, the Mound Site PA system is an integral part of the Site Headcount and Evacuation Procedures. The lessee/sublessee is not authorized to disconnect the PA system, nor is it authorized to disconnect any fire protection or emergency system.

H) Hazardous Materials Emergency Response

Lessees/sublessees conducting operations using "hazardous substances" as defined in sections 101(14) of CERCLA in a leased facility will be subject to Federal and state regulations and standards, e.g., 29 CFR1910.120. All lessees/sublessees shall submit Material Safety Data Sheets (MSDSs) on all chemicals and materials to the EG&G Mound Fire Department Chief in order for their development of effective and safe emergency plans. Emergency point-of-contacts (for during business and after business hours) also need to be provided by the lessee/sublessee. In addition, the EG&G Mound Fire Dept. Chief is to be contacted after the use of any fire equipment located within the leased building. Fire Dept. services or materials used will be done so at the cost of the sublessee.

In the event that an off-site Hazardous Materials Response Team or some similar outside response team is needed, the lessee/sublessee will be required to pay for the cost of the team. Also, any supplies consumed by any of the response team's, including EG&G Mound, will be the responsibility of the lessee/sublessee.

Exhibit B
Article 2

If forcible entry to a leased space is required by emergency response personnel, the lessee/sublessee shall be responsible for repair of the damaged government property. Since the DOE representative retains fire safety as a site function, it will also retain Incident Command Authority for emergency response activities for events affecting leased facilities. This authority does not apply to Re-entry and Recovery operations nor Public Safety and Law Enforcement Emergency Responses. Also, only initial Off-Site notifications mandated by Federal or state regulations and standards would be made by DOE or its representative. In the event of a spill, the lessee/sublessee shall make the required notifications immediately to the proper federal and/or state agencies, and then notify DOE second.

I) Medical Emergency Response

Access to the Site Emergency Services will be through the 911 system on site. Medical emergency response within the boundaries of the leased property will be provided to the lessee by EG&G Mound, at the cost of the lessee and sublessee. The site will provide emergency first aid services and transportation off-site to the Sycamore Hospital. Workers requesting transportation to facilities other than Sycamore Hospital will be transported by the City of Miamisburg Emergency Services. The City of Miamisburg Emergency Medical Services will provide mutual aid assistance as requested by DOE or its representative.

J) Hazardous and Other Waste

The Lessee/Sublessee shall be responsible for the handling and disposing of its own hazardous and other waste.

Exhibit B
Article 3
Map depicting potential environmental release sites

A) Environmental restoration survey data

Attachment A to Exhibit B, Article 3 is a copy of the available Environmental Restoration data possessed by Mound on known or potential contamination of the areas outside the facilities to be utilized by the lessee.

Appendix 7.4 Environmental Appraisal Report of the Mound Plant for Building 100 (Extract)

9.106 BUILDING 100

9.106.1 Scope of Building 100 Report

In late 1995 and the early months of 1996, EG&G MAT performed a review of environmental conditions at the Mound Plant. The purpose was to develop a performance baseline, and to identify areas for improvement on a building and a sitewide basis. EG&G MAT did not perform a "due diligence" or Phase I Environmental Site Assessment as specified by ASTM 1527 or ASTM 1528. The scope of the appraisal effort and a discussion of the appraisal methodology are detailed in Sections 2.0 and 5.0, found in Volume 1 of this report.

An appraisal was not conducted for Building 100. As stated in the Executive Summary (Volume 1, Section 1.0) of this report, a review was not conducted for those buildings which were leased or sold by DOE to other parties at the time of the appraisal. The appraisal team visited the outside of the building to confirm that it was leased. A sign in the window stated that the building was leased to an organization named Star City. No walk-through was conducted and no records were reviewed.

9.106.2 Description of Building 100

Building 100 was constructed to become the security precinct building. The building is a 6,300-square-foot reinforced concrete structure built into the surrounding hill. It has a built-up membrane roof. It was constructed in 1989. There is electrical service of 240V.

The building housed offices for security personnel, space for weapons storage, and a locker room and workout area. It is located on the southeastern segment of the site next to the perimeter road, west of Building Modular 4. Its location is shown in Attachment 1 (Section 9.106.4.1).

The building is not known to be contaminated with radioactive or energetic materials. However, thorium and plutonium contamination are known to exist in surrounding SMPP soils.

9.106.2 Summary of Findings

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.106.4.2). Building 100 has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A Health Physics safety determination and a liabilities assessment were made. ESA's (ASTM E 1527-94 or ASTM E 1528-93) were not conducted. The building has been leased by DOE to the City of Miamisburg, which accepted the liabilities assessment. The General Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Since the building has been leased, an Environmental Appraisal Checklist (EAC) was not prepared and no further action was taken concerning this building.

Appendix 7.5 Observations from Project Manager Building Walkthrough

INTEROFFICE MEMORANDUM

TO: DAVID MARK, MEMP

FROM: DENNIS GAULT, ER PROJECT MANAGER

SUBJECT: WALKTHROUGH OF BUILDING 100

DATE: 06/17/97

CC: DAVID RAKEL

As part of the Building Data Package (BDP) process to assess the current condition of Building 100 a walkthrough was conducted on June 12, 1997. Those present during the walkthrough included David Mark, DOE, Stan Aberhamson, MMCIC, Jim England, Mound Photographer, and Dennis Gault, ER Project Manager. The tour took approximately one half-hour. The following are observations made during the course of the walkthrough.

Exterior

1. Outside walls have been repaired and painted.

2. The surrounding grounds are neat and well kept.

3. The dirt road at the northwest corner of the parking lot is blocked off.

4. The Fire line next to the Sanitary lift station west of Building 100 is dug up and the fire hydrant appears to be inoperative.

Interior

1. Generally the interior of the building is empty and has been cleaned out.

2. Many of the ceiling tiles were damaged and sagging as if wet or damp.

3 The drywall at the base of the south wall in room 115 appeared to be kicked in at three locations and the blades for the ceiling fans in the room are missing.

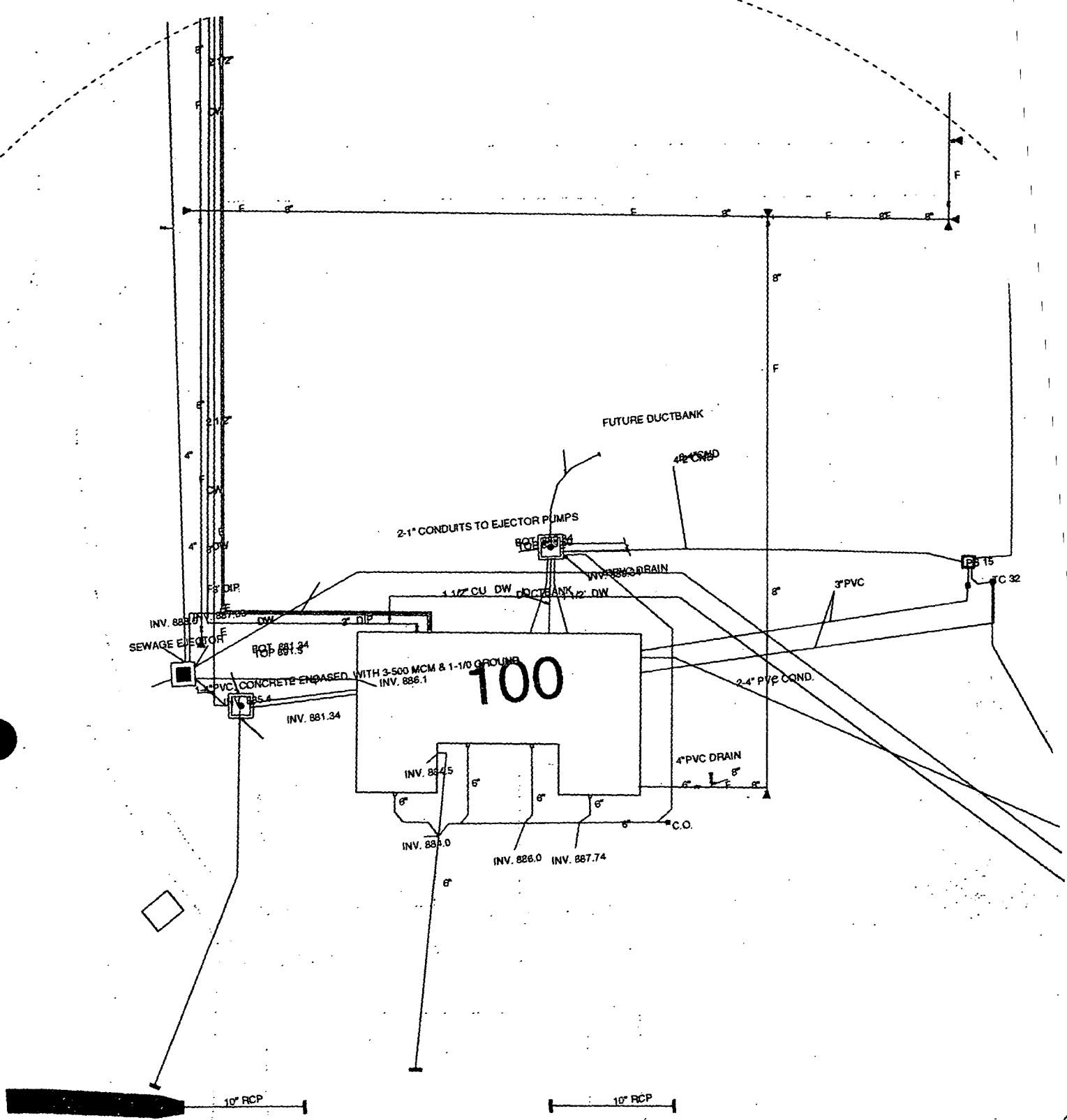
4. The generator in room 117 has been removed.

5. The dry-type transformer in room 119 has been removed.

6. The airhandler in room 119 is in the process of being removed.

7. A replacement airhandler was installed in room 120.

8. The water fountain from corridor 109 has been removed.


FUTURE DUCTBANK
2-1" CONDUITS TO EJECTOR PUMPS
3"PVC
SEWAGE EJECTOR
CONCRETE ENCASED WITH 3-500 MCM & 1-1/0 GROUND
INV. 886.1
100
INV. 881.34
4"PVC DRAIN
C.O.
INV. 886.0
INV. 887.74
10" RCP
10" RCP

Appendix 7.6 PRS 312 Core Team Recommendation

MOUND PLANT
PRS 312
AUGUST 3, 1995

RECOMMENDATION: No further action. The only contamination present at a level warranting removal consideration is thorium and it is only slightly above the regulatory cleanup value (5.02 vs. 5). Levels in areas adjacent to PRS 312 do not approach regulatory limits. Since this is a point source and any exposure pathway would further reduce this concentration, PRS 312 is recommended for no further action.

CONCURRENCE:

DOE: Arthur Klemrath 10/18/95

USEPA: Timothy J. Fritz 10/18/95

OEPA: [illegible] 10/18/95

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from October 24, 1995 to February 15, 1996.

☐ No comments were received during the comment period.

☐ Comment responses can be found on page_____ of this package.

☒ Comments received on November 6, 1995 and resolved during a December 19, 1995 meeting with the stakeholder.

Appendix 7.7 PRS 375 Core Team Recommendation

MOUND PLANT
PRSs 375/377/378
SOIL CONTAMINATION

RECOMMENDATION:

Potential Release Sites (PRSs) 375/377/378 were created due to elevated soil gas measurements relative to surrounding soil areas. Subsequent quantitative sampling showed that all soil samples taken in Release Block D were at or below their respective 10^{-6} Risk Based Guideline Value. Hence:

1) The PETREX measurements, from which these PRSs were created, do not provide any evidence of soil contamination above the 10^{-6} Risk Based Guideline Values.
2) The Quantitative Soil Confirmation Sampling found no evidence of soil contamination above the 10-6 Guideline Values.
3) All Plutonium levels were at or below the 10^{-5} Risk Based Guideline Values. All Thorium levels were at or below the 10^{-5} Risk Based Guideline Values and below the regulatory standard of 5pCi/g.
4) There is no history of hazardous material activities or processes in the area.

Additionally, calculations show that all organic compounds detected in soil in Release Block D do not adversely affect the quality of groundwater at potential drinking water sources. Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath, Remedial Project Manager — 5/8/96 (date)

USEPA: Timothy J. Fischer, Remedial Project Manager — 5/8/96 (date)

OHIO EPA: Brian K. Nickel, Project Manager — 5/8/96 (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 5/15/96 to ~~6/15/96~~ 6/17/96.

☒ No comments were received during the comment period.

☐ Comment responses can be found on page_____ of this package.

Appendix 7.8 Radiological Survey Report

To: Larry Mason OSW 317
x 3550

Attached is the data from the Bd. 100 Safe Shutdown Survey. This survey indicated no direct or removable contamination on the buildings floors, corridors, or stairways. Fidler readings, alpha & beta wipes and meter readings were utilized during this survey.

If you have any questions please call me at x4410.

Mike O'Donoghue
Health Physics Supvr.

Pnt 1

No. COPY

Health Physics Counting Laboratories
Request for Analysis and Health Physics Data Sheet
G Area Specific

To be filled out by Submitter

Name [redacted]	HP #: 5314	RWP #: N/A
Isotope: All	Analysis Required: ☑ Alpha ☑ Beta ☑ H^3	

Type of Sample: ☑ Paper Wipe ☐ Q-tip ☐ Millipore Filter ☐ Glass Fiber Filter ☐ Oil ☐ Water ☐ Other: Explain _____ (i.e. Hazardous Waste)

Description: ☐ Air Sample ☐ Personnel Sample (HP#) _____ ☑ Structural Sample ☐ Other: Explain _____ ☐ Equipment Sample

Time and Date Sample Was Taken: @1230 4-5-95 **Pre-screened:** ☑ Yes ☐ No **No. of Samples:** 90

Remarks: Bldg 100 Safe Shutdown Survey

WIPE AREA: ☑ 100 cm² ☐

Fidler Check # 3028/3663 **Next Cal. Due** 5/3/95

Field Inst. Res.	CHANNEL	One	Out	Two
	Bkg	120	4K	3K
	Pu	19K	28K	4K
	Th	4K	33K	28K

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 cm² #5275	PAC DPM/100 cm² 5291		
Background	Background						α 10.5	β 1330		
	Check Standard						939	309K		
1	104-1 SINK			N/D	N/D	N/A	N/D	N/D		
2	104-2 Floor									
3	104-3 Floor									
4	104-4 Counter Top									
5	104-5 WALL									
6	103-1 Floor									
7	103-2 Floor									
8	103-3 Floor									
9	103-4 Vent									
10	103-5 Floor									
11	102-1 Vent									
12	102-2 Floor									
13	102-3 Floor									
14	102-4 WALL									
15	102-5 Floor									
16	109-1 Floor Coat									
17	109-2 Floor									
18	109-3 Hose Cabinet									
19	109-4 Floor									
20	109-5 Floor									
21	109-6 water Fountain									
22	109-7 Floor									
23	109-8 Floor									
24	109-9 Vent			N/D	N/D	N/A	N/D	N/D		

Counting Facility Technician's Signature [redacted] **HP #** 4079

Radiological Control Technician's Signat [redacted] **HP #** 5314

Date Submitted: 4/6/95 **Date Completed:** 4/6/95

Reviewed By: _____ **HP #** _____ **Date:** _____

Health Physics Counting Laboratories
Request for Analysis and Health Physics Data Sheet
G Area Specific

COPY

CHANNEL		One	Out	Two
	Bkg	120	4K	3K
	Pu	19K	28K	4K
Field Inst. Res.	Th	4K	33K	28K

WIPE AREA:		Fidler Check	#3028/3063
☒ 100 cm² ☐		Next Cal. Due	5/3/95

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 CM² #5275	PAC DPM/100 CM² 5291		
Background	Background			A ~~N/D~~	~~N/D~~	~~N/A~~	α 10.5	β 1330		
	Check Standard						739	309K		
25	109-10 Vent			N/D	N/D	N/A	N/D	N/D		
26	109-11 Vent									
27	109-12 Floor									
28	109-13 Floor									
29	105-1 Drain									
30	105-2 Shower									
31	105-3 Vent									
32	105-4 Floor									
33	105-5 Sink									
34	106-1 Floor									
35	106-2 Sink									
36	106-3 Vent									
37	106-4 Floor									
38	106-5 Floor									
39	106-6 Drain									
40	106-7 Wall									
41	113-1 Floor									
42	113-2 Wall									
43	113-3 Door Knob									
44	113-4 Vent									
45	116-1 Floor entrance									
46	116-2 Wall									
47	116-3 Table									
48	116-4 Floor									
49	116-5 Floor									
50	116-6 Floor									
51	116-7 Sump									
52	116-8 Door									
53	111-1 Floor									
54	111-2 Floor									
55	111-3 Vent									
56	111-4 Door Knob									
57	111-5 Floor									
58	111-6 Floor									
59	114-1 Floor									
60	114-2 Vent									
61	114-3 Floor			N/D	N/D	N/A	N/D	N/D		

[redacted]

Counting Facility Technician's Signature [redacted] HP # 407T

Radiological Control Technician's Signature: _____ HP # _____

Date Submitted: 4/6/95 Date Completed: 4/6/95

Reviewed By: _____ HP # _____ Date: _____

ML-9380 (6-94) G AREA SPECIFIC

Health Physics Counting Laboratories
Request for Analysis and Health Physics Data Sheet
G Area Specific

COPY

CHANNEL		One	Out	Two
	Bkg	120	4K	3K
	Pu	19K	28K	4K
Field Inst. Res.	Th	4K	33K	28K

WIPE AREA:		Fidler Check	#3028/3663
☑ 100 cm² ☐		Next Cal. Due	5/3/95

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 CM² #5275	PAC DPM/100 CM² 5291		
Background	Background						α 10.5	β 1330		
	Check Standard						739	309K		
62	114-4 WALL			N/D	N/D	N/A	N/D	N/D		
63	114-5 FLOOR									
64	114-1 SINK									
65	114-2 VENT									
66	114-3 FLOOR									
67	114-4A FLOOR									
68	115-1 FLOOR									
69	115-2 WALL									
70	115-3 WALL									
71	115-4 FLOOR									
72	115-5 FLOOR									
73	120-1 FLOOR									
74	120-2 FLOOR									
75	120-3 WALL									
76	120-4 WALL									
77	120-5 FLOOR									
78	COVER 109 EYEWASH									
79	119-1 FLOOR									
80	119-2 Ducting									
81	119-3 Ducting									
82	119-4 WALL									
83	119-4 FLOOR									
84	118-1 DOOR									
85	118-2 FLOOR									
86	118-3 FLOOR									
87	118-4 WALL									
88	117-1 FLOOR									
89	117-2 FLOOR									
90	117-3 DOOR KNOB			N/D	N/D	N/A	N/D	N/D		

NKE

Counting Facility Technician's Signature: [redacted] HP # 4079

Radiological Control Technician's Signature: _____ HP # _____

Date Submitted: 4/6/95 Date Completed: 4/6/95

Reviewed By: _____ HP # _____ Date: _____

ML-9380 (6-94) G AREA SPECIFIC

COPY

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: Truck123
Batch Ended: 4/6/95 12:36

Alpha activity action level (DPM): 2.00E+01
Alpha efficiency logfile: PU238AB

Beta activity action level (DPM): 2.00E+02
Beta efficiency logfile: SR90AB

Alpha Activity Multiplier: 1.00E+00
Beta Activity Muliplier: 1.00E+00

Certainty level for MDA and flags: 95.00%
High Voltage Mode: Simultaneous

Crosstalk correction performed.

Application Revision: 0
Application Version: Standard

Batch ID: BLDG. 100 SAFE SHUTDOWN SURVEY/R. MOSS/90 WIPES

Detector ID	Sample ID	Alpha Activity				Beta Activity			
		DPM	σ	flags	MDA	DPM	σ	flags	MDA
B3	39	0.00	3.68	<MDA	1.710E+01	0.00	2.36	<MDA	1.129E+01
B4	40	0.00	3.27	<MDA	1.319E+01	1.23	2.22	<MDA	9.405E+00
C1	41	2.22	4.06	<MDA	1.658E+01	3.19	3.35	<MDA	1.226E+01
C2	42	1.92	3.48	<MDA	1.413E+01	0.00	2.01	<MDA	1.023E+01
C3	43	0.00	3.67	<MDA	1.501E+01	0.00	2.30	<MDA	1.159E+01
C4	44	1.83	3.38	<MDA	1.353E+01	3.66	2.97	<AL	1.014E+01
D1	45	0.00	3.65	<MDA	1.491E+01	1.74	2.67	<MDA	1.056E+01
D2	46	0.00	3.54	<MDA	1.441E+01	0.57	2.35	<MDA	1.036E+01
D3	47	0.00	3.81	<MDA	1.558E+01	0.00	3.88	<MDA	1.801E+01
D4	48	1.89	3.47	<MDA	1.404E+01	0.00	3.10	<MDA	1.433E+01

COPY

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: Truck123
Batch Ended: 4/6/95 12:36

Alpha activity action level (DPM): 2.00E+01
Alpha efficiency logfile: PU238AB

Beta activity action level (DPM): 2.00E+02
Beta efficiency logfile: SR90AB

Alpha Activity Multiplier: 1.00E+00
Beta Activity Muliplier: 1.00E+00

Certainty level for MDA and flags: 95.00%
High Voltage Mode: Simultaneous

Crosstalk correction performed.

Application Revision: 0
Application Version: Standard

Batch ID: BLDG. 100 SAFE SHUTDOWN SURVEY/R. MOSS/90 WIPES

Detector ID	Sample ID	Alpha Activity				Beta Activity			
		DPM	σ	flags	MDA	DPM	σ	flags	MDA
A1	1	0.00	3.71	<MDA	1.520E+01	0.00	2.07	<MDA	1.040E+01
A2	2	0.00	3.83	<MDA	1.558E+01	1.17	3.43	<MDA	1.376E+01
A3	3	0.00	3.78	<MDA	1.839E+01	0.00	3.97	<MDA	1.833E+01
A4	4	0.00	3.49	<MDA	1.427E+01	0.00	2.83	<MDA	1.410E+01
B1	5	0.00	3.59	<MDA	1.473E+01	0.57	2.37	<MDA	1.043E+01
B2	6	0.00	3.71	<MDA	1.799E+01	0.20	3.16	<MDA	1.338E+01
B3	7	0.00	3.68	<MDA	1.511E+01	2.62	2.70	<MDA	9.983E+00
B4	8	0.00	3.27	<MDA	1.319E+01	1.23	2.22	<MDA	9.405E+00
C1	9	0.00	4.05	<MDA	1.656E+01	2.01	3.07	<MDA	1.213E+01
C2	10	0.00	3.48	<MDA	1.413E+01	0.00	2.01	<MDA	1.011E+01
C3	11	0.00	3.69	<MDA	1.506E+01	1.92	2.93	<MDA	1.159E+01
C4	12	0.00	3.35	<MDA	1.344E+01	1.30	2.34	<MDA	9.897E+00
D1	13	0.00	3.65	<MDA	1.494E+01	2.91	2.91	<MDA	1.056E+01
D2	14	0.00	3.53	<MDA	1.438E+01	0.00	2.06	<MDA	1.036E+01
D3	15	0.01	3.81	<MDA	1.554E+01	0.00	3.66	<MDA	1.801E+01
D4	16	0.00	3.46	<MDA	1.405E+01	0.00	3.10	<MDA	1.423E+01
A1	17	2.05	3.72	<MDA	1.524E+01	1.60	2.63	<MDA	1.050E+01
A2	18	0.00	3.81	<MDA	1.553E+01	0.00	3.00	<MDA	1.376E+01
A3	19	0.00	3.79	<MDA	1.844E+01	0.88	4.60	<MDA	1.833E+01
A4	20	0.00	3.49	<MDA	1.427E+01	0.00	2.83	<MDA	1.410E+01
B1	21	0.00	3.59	<MDA	1.470E+01	0.00	2.07	<MDA	1.043E+01
B2	22	0.00	3.70	<MDA	1.796E+01	0.00	2.94	<MDA	1.339E+01
B3	23	0.00	3.69	<MDA	1.514E+01	3.92	3.00	<AL	9.983E+00
B4	24	0.00	3.27	<MDA	1.495E+01	0.00	2.22	<MDA	1.063E+01
C1	25	0.00	4.04	<MDA	1.647E+01	0.00	2.41	<MDA	1.213E+01
C2	26	0.00	3.49	<MDA	1.419E+01	1.67	2.55	<MDA	1.011E+01
C3	27	0.00	3.67	<MDA	1.501E+01	0.00	2.30	<MDA	1.159E+01
C4	28	0.00	3.37	<MDA	1.354E+01	3.89	2.98	<AL	9.896E+00
D1	29	0.00	3.64	<MDA	1.485E+01	0.00	2.10	<MDA	1.056E+01
D2	30	0.00	3.53	<MDA	1.435E+01	0.00	2.06	<MDA	1.036E+01
D3	31	0.00	3.81	<MDA	1.558E+01	0.00	3.88	<MDA	1.801E+01
D4	32	0.00	3.51	<MDA	1.422E+01	4.86	4.13	<MDA	1.423E+01
A1	33	2.05	3.72	<MDA	1.522E+01	0.45	2.36	<MDA	1.050E+01
A2	34	0.00	3.81	<MDA	1.550E+01	0.00	2.76	<MDA	1.376E+01
A3	35	0.00	3.78	<MDA	1.840E+01	0.00	4.19	<MDA	1.833E+01
A4	36	0.00	3.50	<MDA	1.619E+01	0.00	3.30	<MDA	1.410E+01
B1	37	0.00	3.60	<MDA	1.479E+01	4.02	3.10	<AL	1.042E+01
B2	38	0.00	3.70	<MDA	1.796E+01	0.00	2.94	<MDA	1.339E+01

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: Truck124
Batch Ended: 4/6/95 12:57

Alpha activity action level (DPM): 2.00E+01
Alpha efficiency logfile: PU238AB

Beta activity action level (DPM): 2.00E+02
Beta efficiency logfile: SR90AB

Alpha Activity Multiplier: 1.00E+00
Beta Activity Muliplier: 1.00E+00

Certainty level for MDA and flags: 95.00%
Crosstalk correction performed.
High Voltage Mode: Simultaneous

Application Revision: 0
Application Version: Standard

Batch ID: BLDG. 100 SAFE SHUTDOWN SURVEY/R. MOSS/90 WIPES

Detector ID	Sample ID	Alpha Activity				Beta Activity			
		DPM	σ	flags	MDA	DPM	σ	flags	MDA
A1	49	2.05	3.73	<MDA	1.526E+01	2.75	2.87	<MDA	1.050E+01
A2	50	0.00	3.83	<MDA	1.558E+01	1.17	3.43	<MDA	1.376E+01
A3	51	0.00	3.77	<MDA	1.836E+01	0.00	3.74	<MDA	1.833E+01
A4	52	0.00	3.50	<MDA	1.425E+01	0.00	2.83	<MDA	1.410E+01
B1	53	0.00	3.59	<MDA	1.470E+01	0.00	2.07	<MDA	1.043E+01
B2	54	0.00	3.71	<MDA	1.801E+01	1.36	3.36	<MDA	1.338E+01
B3	55	0.00	3.69	<MDA	1.514E+01	3.92	3.00	<AL	9.983E+00
B4	56	0.00	3.31	<MDA	1.332E+01	4.93	3.09	<AL	9.404E+00
C1	57	2.23	4.04	<MDA	1.647E+01	0.00	2.41	<MDA	1.226E+01
C2	58	0.00	3.48	<MDA	1.416E+01	0.56	2.30	<MDA	1.011E+01
C3	59	0.00	3.68	<MDA	1.504E+01	0.64	2.63	<MDA	1.159E+01
C4	60	0.00	3.35	<MDA	1.344E+01	1.30	2.34	<MDA	9.897E+00
D1	61	0.00	3.65	<MDA	1.491E+01	1.74	2.67	<MDA	1.056E+01
D2	62	0.00	3.53	<MDA	1.435E+01	0.00	2.06	<MDA	1.036E+01
D3	63	2.09	3.81	<MDA	1.554E+01	0.00	3.66	<MDA	1.808E+01
D4	64	0.00	3.46	<MDA	1.402E+01	0.00	2.85	<MDA	1.423E+01
A1	65	0.00	3.72	<MDA	1.522E+01	0.57	2.36	<MDA	1.040E+01
A2	66	0.00	3.81	<MDA	1.550E+01	0.00	2.76	<MDA	1.376E+01
A3	67	0.00	3.77	<MDA	1.837E+01	0.00	3.74	<MDA	1.833E+01
A4	68	0.00	3.50	<MDA	1.429E+01	0.00	3.07	<MDA	1.410E+01
B1	69	0.00	3.60	<MDA	1.477E+01	2.87	2.88	<MDA	1.043E+01
B2	70	0.00	3.70	<MDA	1.796E+01	0.00	2.94	<MDA	1.339E+01
B3	71	0.00	3.68	<MDA	1.511E+01	2.62	2.70	<MDA	9.983E+00
B4	72	0.00	3.27	<MDA	1.319E+01	1.23	2.22	<MDA	9.405E+00
C1	73	0.00	4.06	<MDA	1.658E+01	3.34	3.35	<MDA	1.213E+01
C2	74	0.00	3.48	<MDA	1.416E+01	0.56	2.30	<MDA	1.011E+01
C3	75	2.03	3.67	<MDA	1.501E+01	0.00	2.30	<MDA	1.171E+01
C4	76	0.00	3.35	<MDA	1.344E+01	1.30	2.34	<MDA	9.897E+00
D1	77	0.00	3.65	<MDA	1.491E+01	1.74	2.67	<MDA	1.056E+01
D2	78	0.00	3.55	<MDA	1.444E+01	1.71	2.62	<MDA	1.036E+01
D3	79	0.00	3.81	<MDA	1.556E+01	0.00	3.66	<MDA	1.801E+01
D4	80	0.00	3.46	<MDA	1.400E+01	0.00	2.85	<MDA	1.423E+01
A1	81	0.00	3.71	<MDA	1.520E+01	0.00	2.07	<MDA	1.040E+01
A2	82	0.00	3.81	<MDA	1.550E+01	0.00	2.76	<MDA	1.376E+01
A3	83	0.00	3.77	<MDA	1.837E+01	0.00	3.74	<MDA	1.840E+01
A4	84	0.00	3.51	<MDA	1.433E+01	1.20	3.51	<MDA	1.410E+01
B1	85	0.00	3.59	<MDA	1.475E+01	1.72	2.63	<MDA	1.043E+01
B2	86	0.00	3.71	<MDA	1.799E+01	0.20	3.16	<MDA	1.338E+01

COPY

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: Truck124
Batch Ended: 4/6/95 12:57

Alpha activity action level (DPM): 2.00E+01
Alpha efficiency logfile: PU238AB

Beta activity action level (DPM): 2.00E+02
Beta efficiency logfile: SR90AB

Alpha Activity Multiplier: 1.00E+00
Beta Activity Multiplier: 1.00E+00

Certainty level for MDA and flags: 95.00%
High Voltage Mode: Simultaneous

Crosstalk correction performed.

Application Revision: 0
Application Version: Standard

Batch ID: BLDG. 100 SAFE SHUTDOWN SURVEY/R. MOSS/90 WIPES

Detector ID	Sample ID	Alpha Activity				Beta Activity			
		DPM	σ	flags	MDA	DPM	σ	flags	MDA
B3	87	0.00	3.70	<MDA	1.518E+01	6.54	3.53	<AL	9.982E+00
B4	88	0.00	3.29	<MDA	1.323E+01	2.46	2.54	<MDA	9.405E+00
C1	89	0.00	4.05	<MDA	1.653E+01	0.67	2.76	<MDA	1.213E+01
C2	90	1.91	3.50	<MDA	1.422E+01	2.64	2.79	<MDA	1.023E+01

Protocol #: 1 PAPERWIPE 20CC User : HPCL#9 [redacted] HP#4079

Time: 2.00
Data Mode: DPM Nuclide: PW-H3-UG Quench Set: PW-H3-UG
Background Subtract: 1st Vial

COPY

	LL	UL	LCR	2SZ	BKG
Region A:	0.5 -	18.6	0	0.0	8.90
Region B:	2.0 -	18.6	0	0.0	8.30
Region C:	0.0 -	0.0	0	0.0	0.00

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
BLDG. 100 SAFE SHUTDOWN SURVEY/R. MOSS/90 WIPES
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA1.DAT
Spectrum Data Drive & Path: c:\data

S#	SMPL_ID	TIME	CPMA	FLAG	tSIE	DPM1	Sigma
1		10.00	8.90	?B	698.45		0.00
2		2.00	413.60	E	570.46	899.08	64.18
3		2.00	0.00	E?	651.81	0.00	0.00
4		2.00	0.00	E?	601.16	0.00	0.00
5		2.00	0.00	E?	565.84	0.00	0.00
6		2.00	2.10	E	657.77	4.37	5.39
7		2.00	0.60	E	624.33	1.27	5.06
8		2.00	0.00	E?	595.22	0.00	0.00
9		2.00	3.60	E	594.47	7.73	5.97
10	PW-43-2A-74	2.00	0.00	E?	599.05	0.00	0.00
11		2.00	1.10	E	565.77	2.40	5.36
12		2.00	0.00	E?	662.10	0.00	0.00
13		2.00	0.00	E?	611.95	0.00	0.00
14		2.00	0.00	E?	631.45	0.00	0.00
15		2.00	0.00	E?	623.52	0.00	0.00
16		2.00	3.60	E	665.39	7.47	5.77
17		2.00	0.00	E?	670.44	0.00	0.00
18		2.00	1.10	E	595.10	2.36	5.28
19		2.00	0.00	E?	584.57	0.00	0.00
20		2.00	0.10	E	623.96	0.21	4.92
21		2.00	0.00	E?	573.95	0.00	0.00
22		2.00	0.60	E	605.55	1.28	5.11
23		2.00	2.60	E	654.52	5.42	5.54
24		2.00	0.10	E	597.33	0.21	4.99
25		2.00	0.10	E	618.89	0.21	4.93
26		2.00	0.60	E	655.66	1.25	4.99
27		2.00	1.10	E	678.03	2.27	5.07
28		2.00	2.10	E	662.97	4.36	5.38
29		2.00	0.00	E?	624.37	0.00	0.00
30		2.00	0.60	E	577.86	1.30	5.18
31		2.00	0.00	E?	650.65	0.00	0.00
32		2.00	1.60	E	662.10	3.32	5.25
33		2.00	0.00	E?	671.34	0.00	0.00
34		2.00	0.10	E	677.32	0.21	4.79
35		2.00	0.00	E?	656.89	0.00	0.00
36		2.00	0.00	E?	632.12	0.00	0.00

S#	SMPL_ID	TIME	CPMA	FLAG	tSIE	DPM1	Sigma
37		2.00	2.10	E	658.28	4.37	5.39
[illegible]		2.00	0.00	E?	667.76	0.00	0.00
39		2.00	1.10	E	625.34	2.33	5.20
40		2.00	0.00	E?	647.94	0.00	0.00
41		2.00	5.10	E	629.46	10.76	6.26
42		2.00	0.00	E?	675.72	0.00	0.00
43		2.00	0.00	E?	600.62	0.00	0.00
44		2.00	2.60	E	670.09	5.38	5.49
45		2.00	0.60	E	675.98	1.24	4.94
46		2.00	4.10		490.52	9.34	6.48
47		2.00	4.10	E	657.13	8.54	5.92
48		2.00	0.10	E	674.29	0.21	4.80
49		2.00	6.60	E	592.50	14.19	6.75
50		2.00	4.10	E	591.79	8.82	6.11
51		2.00	2.10	E	615.98	4.46	5.51
52		2.00	1.10	E	603.53	2.35	5.26
53		2.00	0.00	E?	613.15	0.00	0.00
54		2.00	1.60	E	660.28	3.33	5.25
55		2.00	1.10	E	637.34	2.31	5.17
56		2.00	1.60	E	591.31	3.44	5.43
57		2.00	1.10	E	632.25	2.32	5.19
58		2.00	4.60	E	658.64	9.57	6.04
59		2.00	0.10		531.89	0.22	5.15
60		2.00	0.10	E	665.17	0.21	4.82
61		2.00	2.60	E	661.54	5.40	5.52
62		2.00	2.10	E	659.86	4.37	5.39
[illegible]		2.00	0.00	E?	590.64	0.00	0.00
[illegible]		2.00	1.60	E	661.17	3.33	5.25
65		2.00	4.10	E	674.10	8.47	5.87
66		2.00	0.00	E?	660.53	0.00	0.00
67		2.00	0.60	E	596.49	1.29	5.13
68		2.00	3.60	E	664.78	7.47	5.77
69		2.00	1.10	E	666.30	2.28	5.10
70		2.00	2.10	E	667.14	4.35	5.37
71		2.00	1.60	E	670.00	3.31	5.23
72		2.00	0.00	E?	636.31	0.00	0.00
73		2.00	3.60	E	660.10	7.49	5.78
74		2.00	2.10	E	622.15	4.45	5.49
75		2.00	0.00	E?	665.65	0.00	0.00
76		2.00	2.60	E	633.99	5.48	5.59
77		2.00	3.10	E	603.62	6.63	5.81
78		2.00	0.60	E	571.30	1.30	5.20
79		2.00	1.60	E	608.22	3.41	5.39
80		2.00	0.60	E	634.06	1.26	5.04
81		2.00	2.10	E	655.78	4.38	5.40
82		2.00	4.10	E	666.46	8.50	5.89
83		2.00	0.10	E	555.56	0.22	5.09
84		2.00	2.60	E	624.62	5.50	5.62
85		2.00	1.60	E	607.02	3.41	5.39
86		2.00	0.10	E	668.54	0.21	4.81
87		2.00	3.10	E	633.04	6.53	5.73
[illegible]		2.00	0.10	E	613.68	0.21	4.94
[illegible]		2.00	3.10	E	607.55	6.61	5.80
90		2.00	3.10	E	669.75	6.42	5.63
91		2.00	2.10	E	672.02	4.34	5.36
92		2.00	2.60	E	661.81	5.40	5.52

Building 100

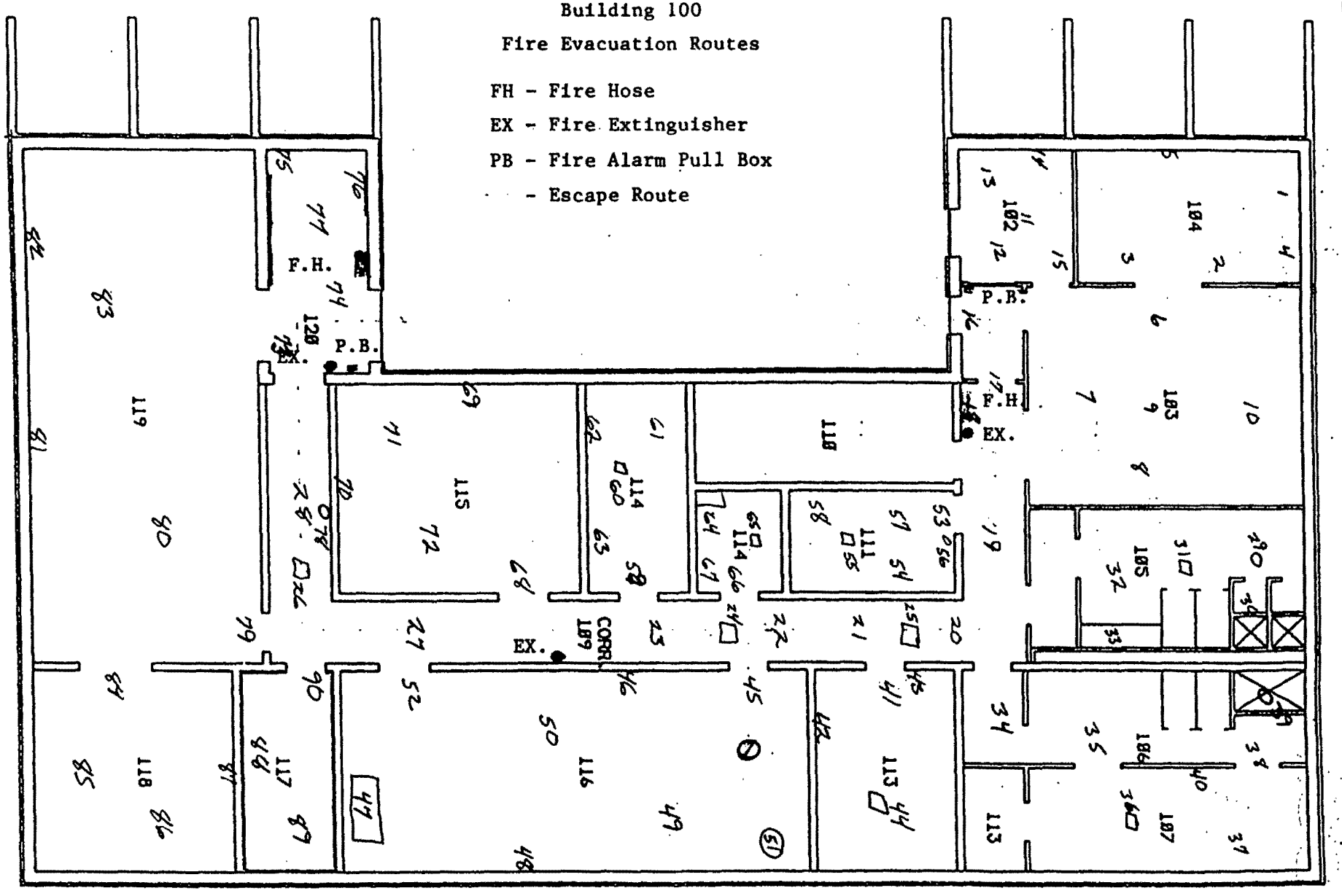
Fire Evacuation Routes

FH - Fire Hose

EX - Fire Extinguisher

PB - Fire Alarm Pull Box

- Escape Route



7.9 Radon Survey

UNC Geotech

UNC Geotech
2597 B 3/4 Road
P.O. Box 14000
Grand Junction, Colorado 81502-5504
303/242-8621

April 12, 1990

Dennis Murphy
EG&G Mound Applied Technonogies
P.O. Box 3000
Mound Road
Miamisburg, OH 45343-3000

File

Dear Mr. Murphy:

I have enclosed the results of the radon measurements made at your site as part of the DOE Indoor Radon Study. A copy of these results can be provided in electronic format if desired. The results will be forwarded to the study sponsor, the DOE Office of Projects and Facilities Management, by the end of April.

Please contact me at FTS 326-6293 or commercial (303) 248-6293 if you have any questions.

Sincerely yours,

Mark D. Pearson

Mark D. Pearson
Project Manager
UNC Geotech

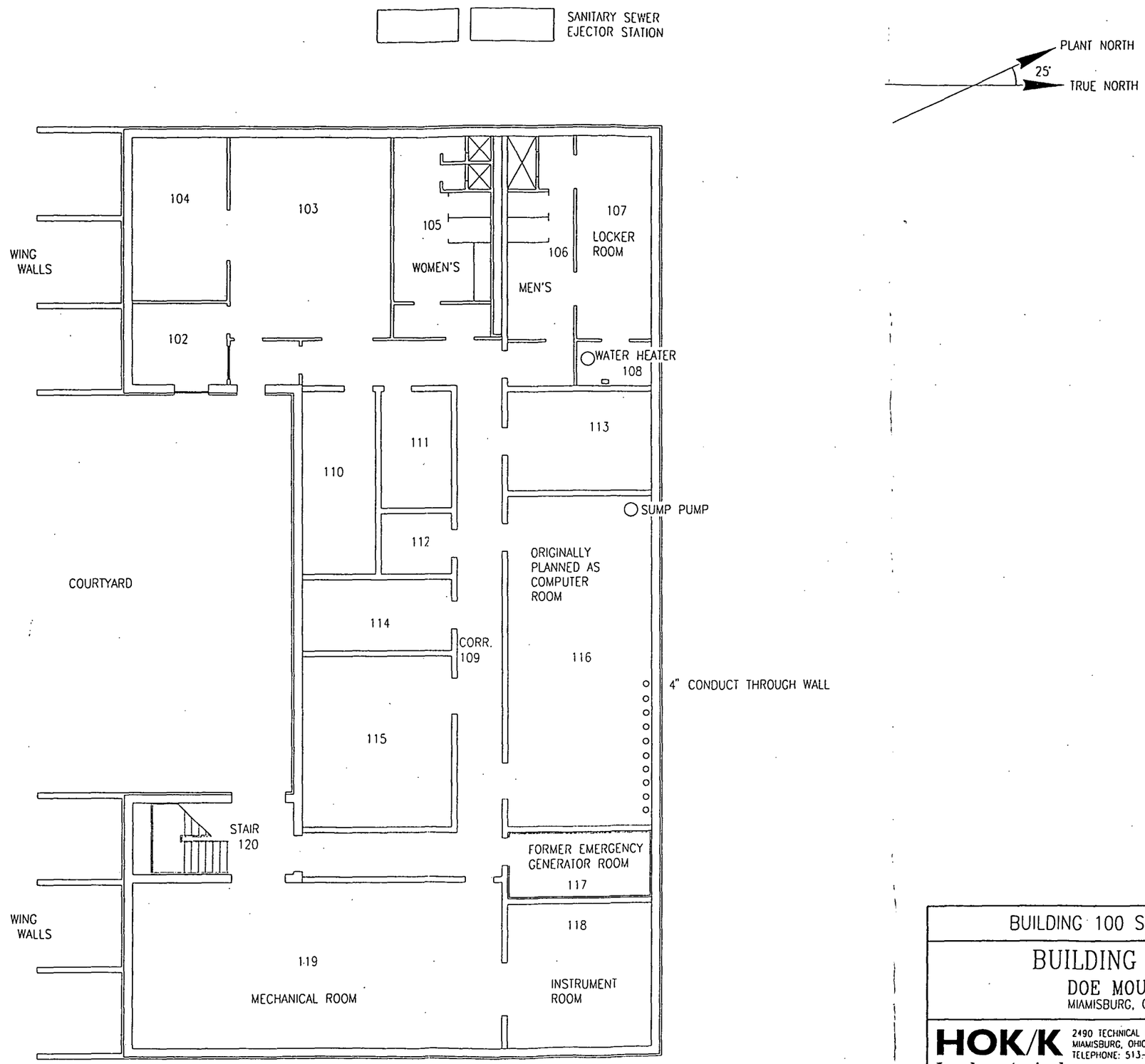
cc: DOE Points of Contact

Area	Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	21		ABOVE AIR SAMPLER	161.1	125.8	1678055	1666782	12/14/89	2/16/90	WET - OLD THORIUM STORAGE
	21		ABOVE AIR SAMPLERS	116.7		1660508		12/14/89	2/16/90	WET - OLD THORIUM STORAGE
		SW	19 MID EAST WALL	4.8		1661547		12/12/89	2/19/90	HISTORY OF ELEVATED READINGS
	40		114 B CLOSET ON SPRINKLER PIPE	3.2		1671292		12/12/89	2/19/90	
	19		ROOM 1	2.6		1678051		12/13/89	2/19/90	
		OLD SO BLDG	BASEMENT RIGHT CABINET	2.4		1681595		12/14/89	2/19/90	
	55		1 BELOW THEMOSTAT ON E WALL	2.1		1661515		12/18/89	2/19/90	
	57		ROOM 1	1.9		1681565		12/12/89	2/19/90	
	87		143	1.5		1681583		12/13/89	2/19/90	
	998	FIRE STATION	ROOM 002 EQUIPMENT ROOM WITH SUMP	1.4		1654460		12/12/89	2/19/90	
	24		ROOM 1 PLANT NORTH WALL	1.3		1672087		12/12/89	2/19/90	
		PAINT SHOP	PS 4	1.2		1661516		12/12/89	2/16/90	
	30		ROOM 3 EAST	1.1		1671262		12/12/89	2/16/90	
	100		103 MIDDLE OF NORTH WALL	1.0		1678060		12/12/89	2/19/90	
	37		6 NORTH WALL	1.0		1678046		12/12/89	2/19/90	
	34		34 A WEST WALL	.9	.6	1672062	1672042	12/12/89	2/19/90	WET
	102		123	.9		1681577		12/14/89	2/19/90	
	61		RM 221 MIDDLE OF NORTH WALL	.9		1681585		12/13/89	2/19/90	
	67		101 H	.9		1678029		12/12/89	2/19/90	
	G-13	LOG	G-514 WEST WALL	.9		1661544		12/12/89	2/16/90	
		T	CORRIDOR 28	.9		1678039		1/15/90	2/19/90	
		T	153	.9		1678067		1/15/90	2/19/90	
		T	78	.9		1678077		1/15/90	2/19/90	
		T	38	.9		1681586		1/15/90	2/19/90	
	105	PARTS MACHINING BUILDING	STAIRWELL NEXT TO ROOM 127	.8		1681564		12/12/89	2/19/90	
	25	ARAC	3 ON BOOK CASE MIDDLE	.8		1671314		12/16/89	2/19/90	
	60		1 ON DOOR TO ROOM 3	.8		1678049		12/12/89	2/19/90	
		A	153C CENTER CUBICLE WEST WALL	.8		1672056		12/14/89	2/16/90	
		C BUILDING OLD CAFETERIA	NORTHEAST SECTION INTERNAL WALL RM2	.8		1672052		12/12/89	2/16/90	
		R BUILDING	68 NORTH WALL	.8		1678060		12/13/89	2/16/90	
		SW	8 WEST WALL AT OLD RECOVERY	.8		1672057		12/11/89	2/16/90	
		WO BLDG	WO 8	.8		1678045		12/18/89	2/16/90	
	87		124	.8		1678032		12/12/89	2/19/90	
	88		ROOM 116 ON NORHT WALL RIGHT OF CEN	.7	.5	1661524	1661535	12/12/89	2/19/90	
	89		101 NEAR BACK CORNER BY ROOF DRAIN	.7	.5	1666783	1660532	12/15/89	2/19/90	
	22		RM 1 EAST CORRIDOR ON STORAGE RACK	.7		1678070		12/13/89	2/19/90	
	56	FIRE PUMP HOUSE	ROOM 1 THERE IS ONLY 1 ROOM	.7		1678066		12/12/89	2/19/90	
		E ANNEX	E 225 EAST WALL	.7		1681552		12/19/89	2/16/90	
		POWER HOUSE PH-1	REPAIR SHOP NORTH EAST CORNER	.7		1678040		12/12/89	2/19/90	
		W BLDG	W-135	.7		1681553		12/12/89	2/16/90	
	26		ROOM 84 SOUTH WEST WALL	.6	.9	1672040	1667159	12/13/89	2/16/90	
	69		RM 7 ON NORTH WALL	.6	.4	1672044	1672077	12/12/89	2/19/90	
	26		ROOM 84 SOUTH WEST WALL	.6		1671279		12/13/89	2/16/90	
	35		RM 7	.6		1654459		12/14/89	2/19/90	
	38	PP BLDG	PP CORR 136	.6		1678016		12/14/89	2/19/90	
	72		ON OVERHEAD DOOR BEAM	.6		1672069		1/03/90	2/19/90	
	93		HALLWAY 107 (MIDWAY)	.6		1681629		12/13/89	2/20/90	
	98	FIRE STATION	ROOM 114 DORM	.6		1661507		12/12/89	2/19/90	
		COS	NW STAIRWELL AT BASEMENT LEVEL	.6		1672086		12/14/89	2/19/90	
		OSW	120 C	.6		1681573		12/12/89	2/16/90	
		SW	150 WEST END GAS BOX	.6		1678043		12/11/89	2/16/90	
		A	34 EAST WALL	.5	.7	1672075	1672051	12/14/89	2/16/90	
	47		102 MIDDLE OF EAST WALL	.5	.5	1658110	1666819	12/12/89	2/16/90	

ea	Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
		R BUILDING	163 NEXT TO NORTH WALL	.5	.5	1660533	1660816	12/13/89	2/16/90	
	101		ROOM 5 ON SOUTH WEST WALL IN OFFSET	.5		1671288		12/12/89	2/19/90	
		"B" 175	175 WEST WALL	.5		1678048		12/12/89	2/16/90	
	36		ELECTRICAL PANEL RM IN ELECTRONICS	.5		1678062		12/12/89	2/19/90	
	40		100	.5		1654480		12/13/89	2/16/90	
	43		1 EAST WALL OVER WATER DISPENSER	.5		1678076		12/12/89	2/20/90	
	44		ON BULLETTIN BOARD	.5		1678047		12/12/89	2/16/90	
	47		102 MIDDLE OF EAST WALL	.5		1678059		12/12/89	2/16/90	
	50		CELL 113	.5		1661582		12/13/89	2/19/90	
	78		CENTRAL HALLWAY WEST OF DOOR TO RM7	.5		1661605		12/18/89	2/16/90	
	89		101 NEAR BACK CORNER BY ROOF DRAIN	.5		1678079		12/15/89	2/19/90	
	91		1ST FLOOR	.5		1661525		12/15/89	2/16/90	
	91		2ND FLOOR OUTSIDE RM215	.5		1661593		12/15/89	2/16/90	
	92		HALLWAY RIGHT OFF ROOM 6	.5		1661509		12/12/89	2/19/90	
	94		BAY 2 NORTH WALL	.5		1654477		12/12/89	2/19/90	
		A	215 WEST WALL	.5		1661572		12/14/89	2/16/90	
		A	108D WEST WALL	.5		1661580		12/14/89	2/16/90	
		COS	119 N WALL NEAR PUNCH PRESS	.5		1654456		12/12/89	2/19/90	
		COS	319 WALL CABINET TO RIGHT OF SINK	.5		1661590		12/12/89	2/19/90	
		E BUILDING	159 WEST WALL	.5		1678039		12/14/89	2/16/90	
		E BUILDING	103 WEST WALL	.5		1678072		12/14/89	2/16/90	
		E ANNEX	E 212 NORTH WALL	.5		1661587		12/18/89	2/16/90	
		GH BUILDING	ROOM 2	.5		1678065		12/12/89	2/16/90	
		GP 81	1A MIDDLE OF WEST WALL	.5		1678054		12/12/89	2/19/90	
		H BLDG	ROOM 127	.5		1661571		12/12/89	2/16/90	
		HH	HH-8	.5		1671269		12/19/89	2/19/90	
		I BUILDING	BASEMENT LEFT CRAWL SPACE DOOR	.5		1671260		12/12/89	2/19/90	
		M BUILDING	M 108	.5		1678056		12/15/89	2/19/90	
		OSE	CORRIDOR 437	.5		1661536		12/15/89	2/16/90	
		OSE	CORRIDOR 301 ACROSS FROM WATER FOUN	.5		1672084		12/15/89	2/16/90	
		OSW	4HT FLOOR	.5		1678028		12/12/89	2/16/90	
		OSE	CORR 212 SOUTH WALL NEAR 210 DOOR	.5		1678036		12/15/89	2/16/90	
		OSW	319	.5		1678069		12/13/89	2/16/90	
		OSW	2ND FLOOR	.5		1661611		12/12/89	2/16/90	
		POWER HOUSE PH-1	STATIONARY BOARD CORNER	.5		1678073		12/12/89	2/19/90	
		R BUILDING	145 WEST WALL ABOVE BALANCE	.5		1654538		12/14/89	2/16/90	
		SM/R TRITIUM COMPLEX	128 OVER LARGE METAL FLOOR DISC	.5		1678019		12/12/89	2/16/90	
		W BLDG	W135 WEST CENTRAL WALL	.5		1671293		12/12/89	2/16/90	
		WO BLDG	WOA 110	.5		1671301		12/18/89	2/16/90	
		"B" 124	EAST WALL	.5		1667189		12/12/89	2/16/90	
		OSE	113 BULLETIN BOARD OPPOSITE ELEVATO	.5		1678027		12/15/89	2/16/90	
	TF-2		114 EAST WALL CENTER OF ROOM	.4		1678064		12/12/89	2/19/90	
		HH	HH-24	.4		1667187		12/14/89	2/19/90	
		DS BUILDING	CORRIDOR 7 NEXT TO ROOM 216	.4		1661514		12/13/89	2/19/90	
		GP 81	1A MIDDLE OF WEST WALL	.4	.5	1672135	1661542	12/12/89	2/19/90	
	105	PARTS MACHINING BUILDING	136 QC OFFICE	.4		1678017		12/12/89	2/19/90	
	27		CELL 8 - WALL	.4		1661583		12/12/89	2/19/90	
	28	CERAMIC PRODUCTION	101	.4		1672061		12/12/89	2/19/90	
	29		HALLWAY	.4		1672105		12/14/89	2/19/90	
		TEST FIRE BUILDING 3	3-315	.4		1672036		12/12/89	2/19/90	
	38	PP BLDG	PP CORR 16/BAY 2 WALL	.4		1661570		12/14/89	2/19/90	
	39		BREAK RM	.4		1678050		12/14/89	2/19/90	
	42		101 B EAST WALL	.4		1678031		12/13/89	2/19/90	

Radon Monitor Results for 08 Mound Facility

Area	Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	45		WORK STATION AREA	.4		1681568		12/14/89	2/19/90	
	46		81 EAST WALL	.4		1672070		12/12/89	2/19/90	
	49		HALL OUTSIDE RM 125	.4		1678020		12/14/89	2/19/90	
	51		107 TOP OF FUME HOOD	.4		1681575		12/12/89	2/19/90	
	63		ROOM 134	.4		1672059		12/13/89	2/20/90	
	63W		RM 4	.4		1678078		12/14/89	2/19/90	
	65		ROOM 10 CONFERANCE ROOM	.4		1671284		12/14/89	2/19/90	
	66		OFFICE AREA	.4		1681554		12/12/89	2/19/90	
	68		EAST WALL CENTER BEAM	.4		1681555		12/14/89	2/19/90	
	69		RM 10A	.4		1681576		12/12/89	2/19/90	
	70		17D MEETING ROOM CENTER WALL	.4		1678041		12/12/89	2/19/90	
	88		ROOM 116	.4		1671295		12/12/89	2/19/90	
	95	SN/PP	95- BLD-ROOM81	.4		1661531		12/12/89	2/20/90	
		DS BUILDING	CORRIDOR 2 - 6 FT. ABOVE FLOOR	.4		1678071		12/13/89	2/19/90	
		I	I HALLWAY	.4		1667194		12/12/89	2/19/90	
		N BUILDING	N 21 WEST WALL	.4		1678057		12/15/89	2/20/90	
		POWER HOUSE PH-1	OFFICE SUPERVISOR	.4		1678035		12/12/89	2/19/90	
		R BUILDING	12 SOUTH WALL	.4		1681566		12/13/89	2/19/90	
	34		BURN ROOM			1654481		12/12/89		BURNT (NOT AVAILABLE)
	61		RM 151			1681567		12/13/89		MISSING



BUILDING 100 SITE PLAN

BUILDING 100
DOE MOUND
MIAMISBURG, OHIO

HOK/K Industrial
2490 TECHNICAL DR.
MIAMISBURG, OHIO 45342
TELEPHONE: 513-866-4211

DWG. NO.: Fig. 2

F:\DATA\QES\USD01\H95234\H95234A\100STPLN.DWG