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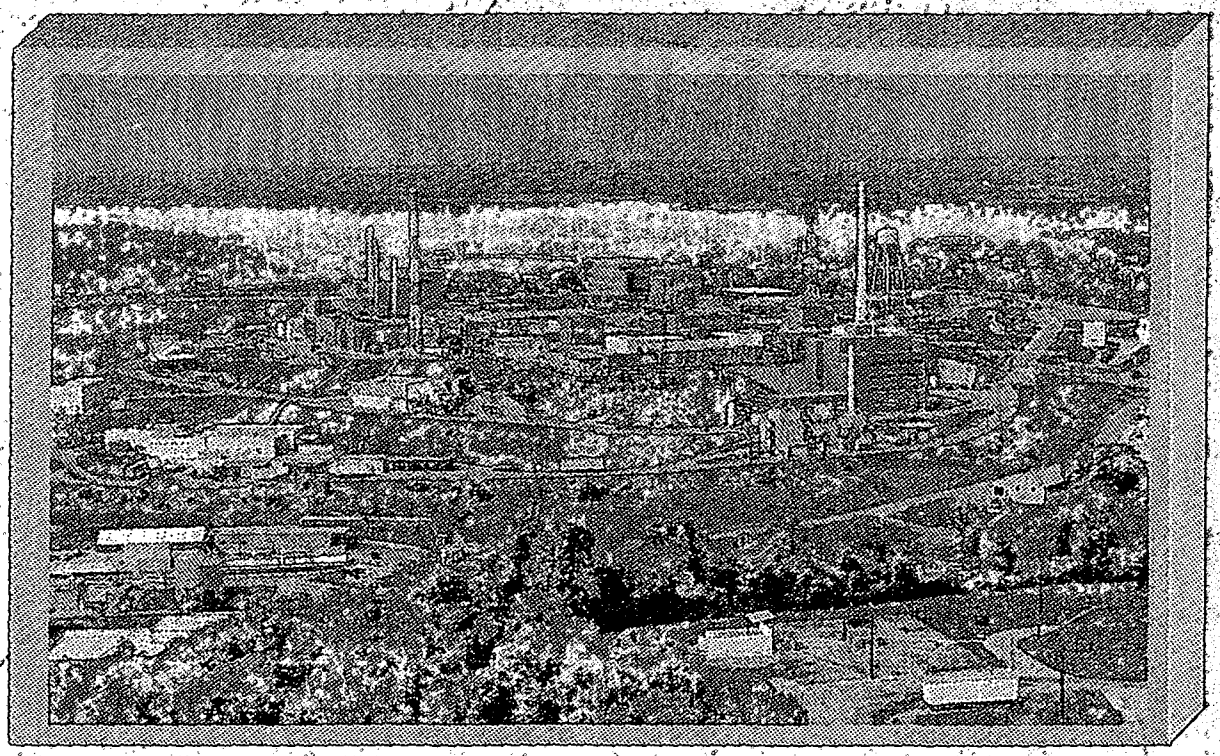
MOUND

Environmental Restoration Program

OhioEPA

MOUND PLANT
Building Data Package
Building 35
Located within Release Block C



BDP 35

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

MOUND PLANT RECOMMENDATION

BUILDINGS 35, 59

Background:

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

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

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

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

Recommendation:

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

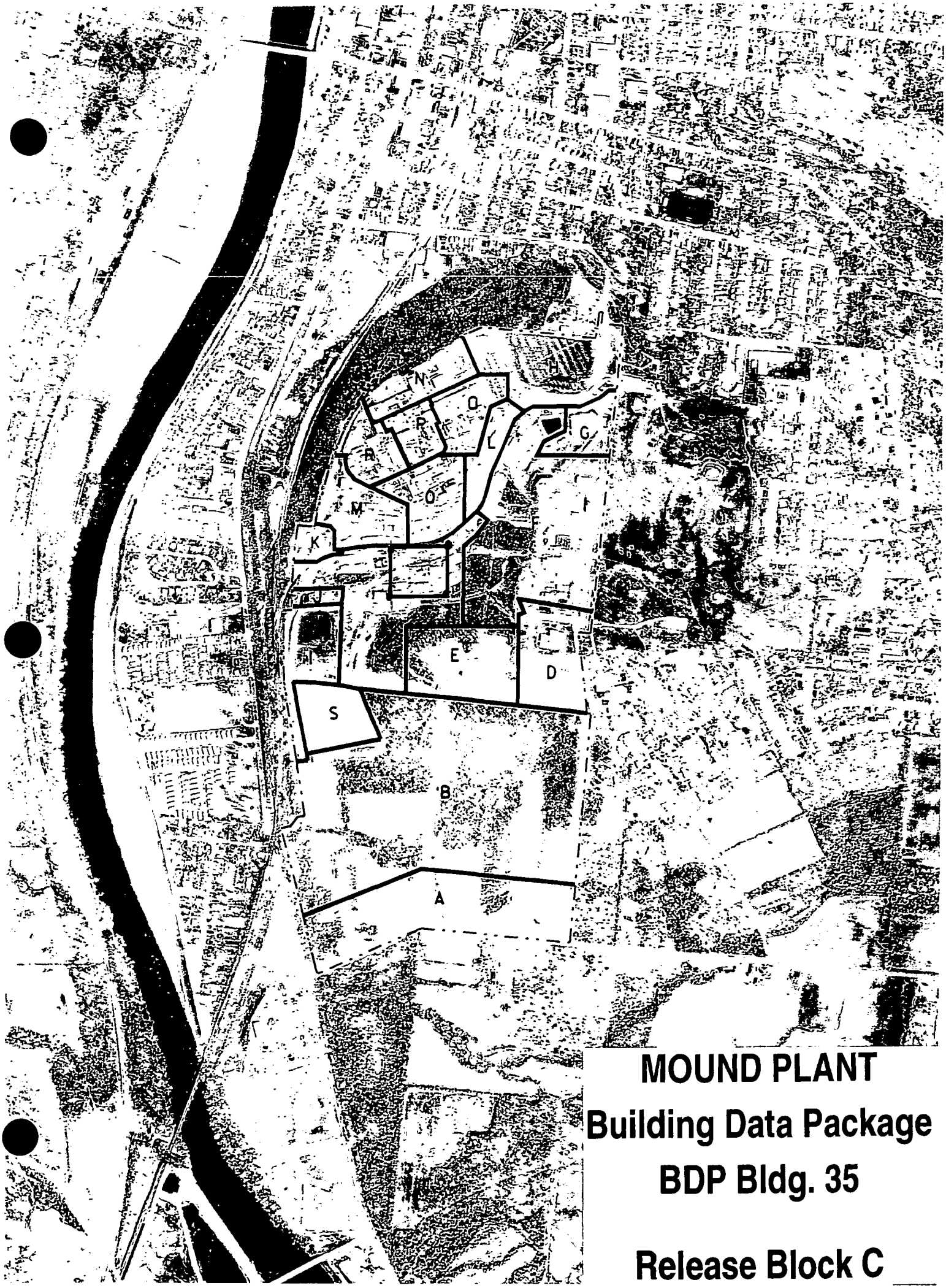
It has been determined that these conditions are not protective of human health and the environment. Therefore, a RESPONSE ACTION is recommended.

Concurrence:

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

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

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



MOUND PLANT

Building Data Package

BDP Bldg. 35

Release Block C

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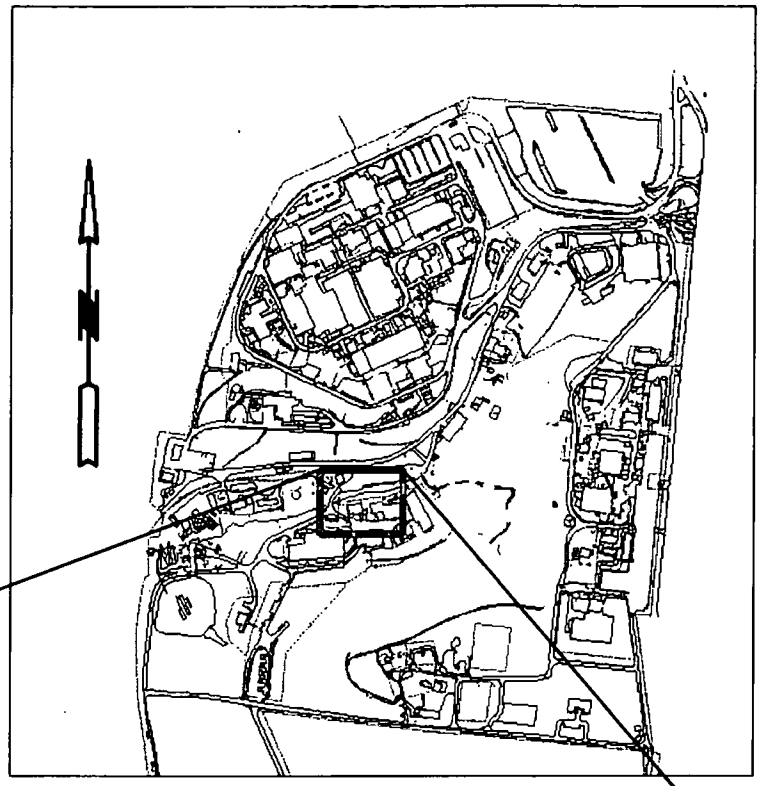
Mound Plant

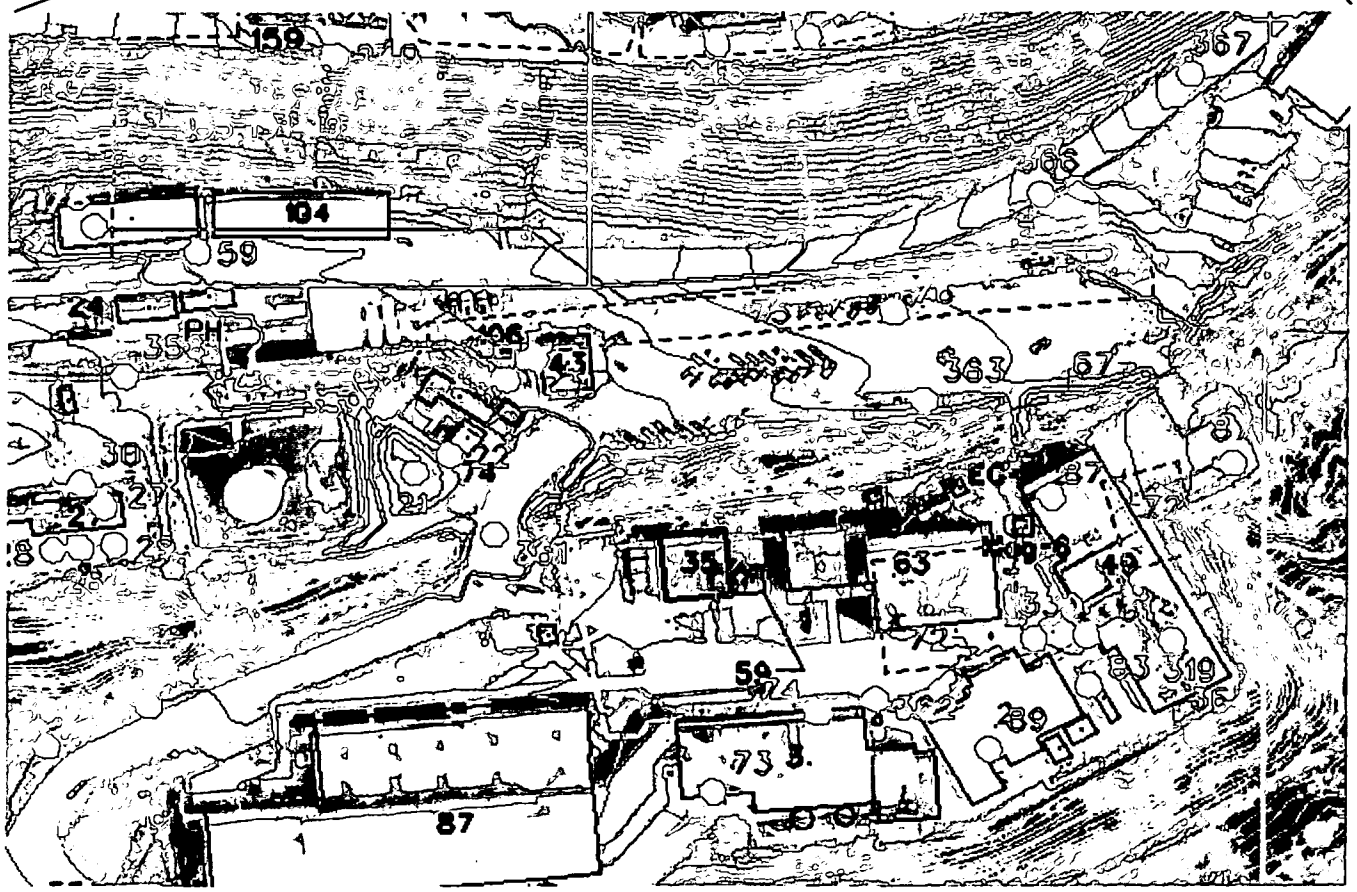
Building 35

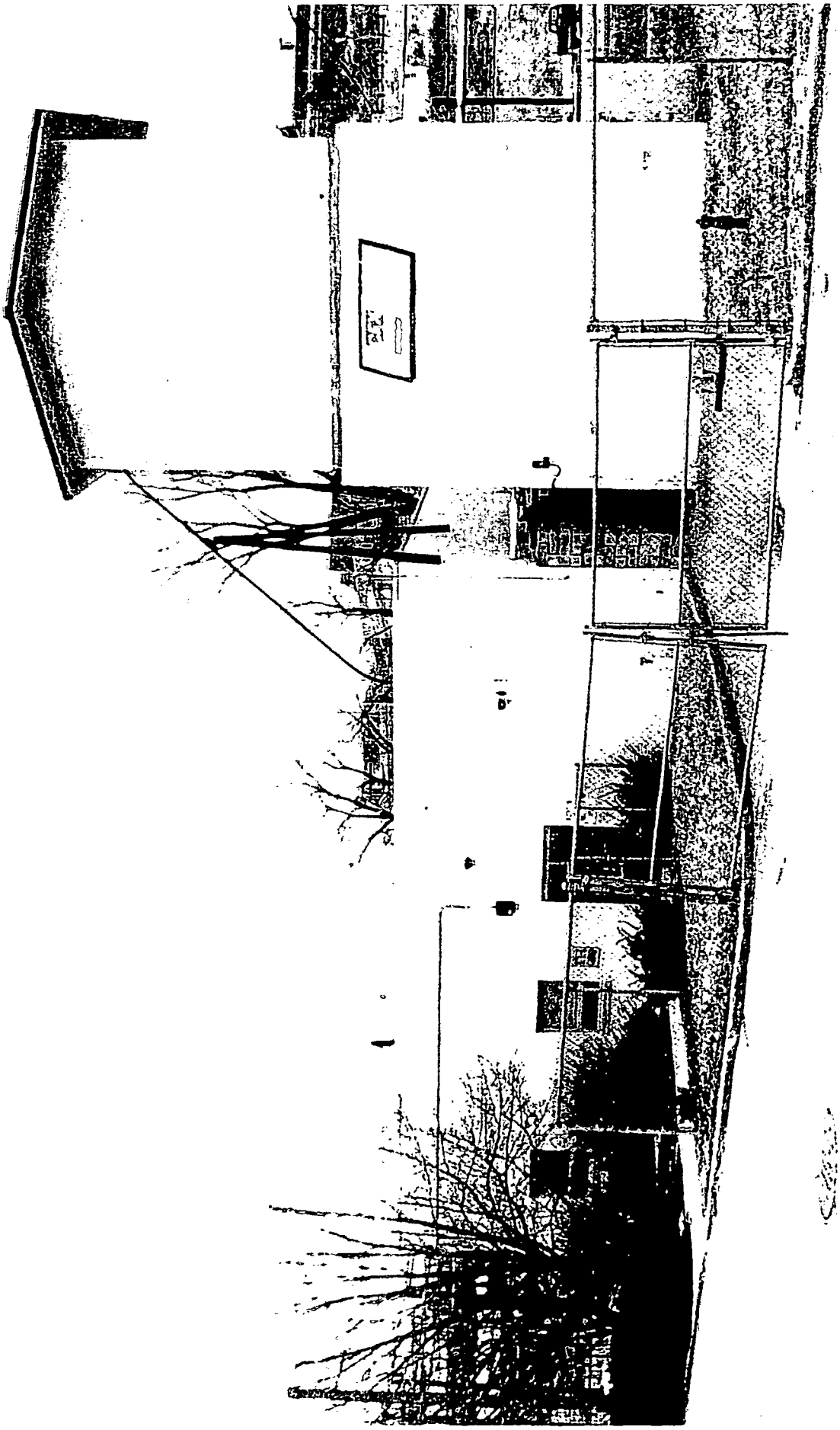
Non-Destructive Testing Facility

Release Block C

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 35

BUILDING DATA PACKAGE (BDP)

BUILDING 35

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 3
- 2.1 Purpose 3
- 2.2 Special Terms and Conditions 3
- 2.3 Limitations and Exceptions of Assessment 3
- 2.4 Limiting Conditions and Methodology Used 4
  - 2.4.1 On-Site Methodology 4
  - 2.4.2 Use of Previous Assessments 4
  - 2.4.3 Historical Information 4
  - 2.4.4 Records Review 4

3.0 Site Description 5
- 3.1 Location and Legal Description 5
- 3.2 Site and Vicinity Characteristics 5
- 3.3 Description of Structures, Roads, Other Improvements on the Site 6
- 3.4 Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience 7
- 3.5 Current Uses of Building 35 7
- 3.6 Past Uses of Building 35 7
- 3.7 Current and Past Uses of Adjacent Buildings and Features 8

4.0 Records Review 9
- 4.1 Standard Environmental Record Sources, Federal and State 9
- 4.2 Physical Setting Source(s) 10
- 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 12
  - 4.4.2 Past Sampling Data 12
    - 4.4.2.1 Radiation Surveys 12
    - 4.4.2.2 Chemical History 12
    - 4.4.2.3 Lead Paint 12
    - 4.4.2.4 Asbestos 12
    - 4.4.2.5 Radon 13
  - 4.4.3 Chemicals Removed After Mission End 13
  - 4.4.4 Reviews of Building Prints 13
  - 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 15
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 Building 35 23
7.3 Environmental Appraisal Report of the Mound Plant for Building 35 (Extract) 24
7.4 Observations from Project Manager Building Walkthrough 25
7.5 Radiological Survey Report 26
7.6 Lead Paint Survey 27
7.7 Asbestos Survey 28
7.8 1996 Chemical Inventory for Building 35 29

1.0 Summary

1.1 General

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

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

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

1.2 Statement of Environmental Concerns

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

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

2.0 Introduction

2.1 Purpose

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

2.2 Special Terms and Conditions

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

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

2.3 Limitations and Exceptions of Assessment

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

2.4 Limiting Conditions and Methodology Used

2.4.1 On-Site Methodology

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

2.4.2 Use of Previous Assessments

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

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

2.4.3 Historical Information

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

2.4.4 Records Review

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

3.0 Site Description

3.1 Location and Legal Description

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

3.2 Site and Vicinity Characteristics

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

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

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

line of the Mound Plant, with agricultural fields and farms occupying the lands beyond.

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

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

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

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

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

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

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

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

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

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

3.5 Current Uses of Building 35

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

3.6 Past Uses of Building 35

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

3.7 Current and Past Uses of Adjacent Buildings and Features

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

These facilities have had no environmental impact on Building 35.

4.0 Records Review

4.1 Standard Environmental Record Sources, Federal and State

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

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

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

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

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

4.2 Physical Setting Source(s)

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

4.3 Historical Use Information

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

buildings began in February 1947 by Maxon Construction Co., Dayton, Ohio. The plant was the first permanent facility of the Atomic Energy Commission, which succeeded the wartime Manhattan Engineering District. The Mound Plant was occupied by MRC personnel in May 1948 and operations involving radionuclides began in January 1949.

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

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

4.4 Additional Record Sources

4.4.1 History of Past Spills and Releases

None.

4.4.1.1 Associated PRS Overview

As a result of the investigations and documentation conducted to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and EG&G Mound Applied Technologies have tabulated all the Potential Release Sites (PRSs) identified under the various regulatory programs in effect at the site. Many additional contaminants of concern and types of operations were identified beyond the original NPL listing of site activities. A total of 413 PRSs have been identified. Of these 413 PRSs, none was attributed to operations in Building 35.

No PRSs affect this building.

4.4.1.2 Occurrence Reports

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

4.4.2 Past Sampling Data

4.4.2.1 Radiation Surveys

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

4.4.2.2 Chemical History

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

4.4.2.3 Lead Paint

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

4.4.2.4 Asbestos

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

4.4.2.5 Radon

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

4.4.3 Chemicals Removed After Mission End

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

4.4.4 Reviews of Building Prints

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

4.4.5 Aerial Photographs

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

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

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

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

Building 35 is visible in the photograph dated 1968.

5.0 Site Reconnaissance

5.1 Hazardous Substances in Connection with Identified Uses

5.1.1 Space

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

5.1.2 Heating/Cooling

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

5.1.3 Stains or Corrosion

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

5.1.4 Drains and Sumps

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

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

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

5.1.5 Wastewater

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

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

5.1.6 Septic Systems

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

5.1.7 Suspected Asbestos Containing Material

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

5.1.8 Paint

Some paint contains lead. See Section 4.4.2.3.

5.1.9 Fluorescent Lamps

Fluorescent lamps are used for lighting in Building 35.

5.2 Hazardous Substance Containers and Unidentified Substance Containers

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

5.3 Storage Tanks

No storage tanks are associated with the building.

5.4 Indications of PCBs

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

5.5 Indications of Solid Waste Disposal

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

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

Migrating hazardous substances are not an issue.

5.7 Other Conditions of Concern

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

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

5.8 Recent Interviews

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

6.0 Findings and Observations

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

There are no radiological or chemical concerns.

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

6.1 Environmental Concerns Evaluation (Matrix)

See following page.

BUILDING # 35: ENVIRONMENTAL CONCERN EVALUATION

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

7.0 Appendices

7.1 Acronyms

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	Action Level
ASTM	American Society for Testing and Materials
BUSTR	Bureau of Underground Storage Tank Regulations
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DPM	Disintegrations Per Minute
EMF	Electromagnetic Field
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration (Program)
ERDA	Energy Research and Development Administration
ERNS	Emergency Response Notification System
FFA	Federal Facility Agreement
FINDS	Facility Index System
FS	Feasibility Study
GSA	General Services Administration
HEPA	High Efficiency Particulate Air
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
M&O	Maintenance and Operations
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Company
MEMP	Mound Environmental Management Project
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation

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

Appendix 7.2 Phase I Environmental Site Assessment of Building 35

HOK/K

PHASE I

ENVIRONMENTAL SITE ASSESSMENT

OF

DOE MOUND, BUILDING 35

DOE MOUND

MIAMISBURG, OHIO 45343-3020

HOK/K
Industrial

March 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, Building 35
Mound Road
Miamisburg, Ohio 45343-3020
Job #: H95234J

Dear Mr. Cheng:

HOK/K Industrial, Inc. has completed a Phase I Environmental Site Assessment of the Department of Energy Mound, Building 35, located at DOE 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 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
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PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
DOE MOUND, BUILDING 35
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

March 8, 1996

H95234J

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	14
5.0	SITE RECONNAISSANCE	22
6.0	NON-SCOPE CONCERNS	27
7.0	FINDINGS AND CONCLUSIONS	29
8.0	SIGNATURES OF ENVIRONMENTAL PROFESSIONALS	30
9.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	31

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	AERIAL PHOTOGRAPHS
EXHIBIT F	SANBORN MAP REQUEST RESPONSE
EXHIBIT G	BUILDING 35 ASBESTOS SURVEY
EXHIBIT H	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

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 35 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 Thursday, February 22, 1996, and was conducted by Ms. Jennifer Vicarel and Mr. John W. Ey. They were accompanied by Ms. Gayle Jewett of EG&G Mound Applied Technologies Maintenance and Operations Group (M&O). 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 site 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.

- The subject property consists of the Mound Building 35 footprint (2,500-square feet in size) and surrounding grounds, which include a concrete pad and driveway on the west side, grass lawn traversed by elevated pipe stanchions on the north side, and grass lawn and sidewalks on the east and south sides. Building 59, the neutron radiograph tower (also known as CFX tower), is connected to the southeast corner of Building 35.

- Building 35, constructed in 1968, was used for the non-destructive testing of various materials in support of the United States weapons mission. The building is currently inactive.

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. Ms. Gayle Jewett of EG&G M&O Staff was designated as the key site manager 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 the 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 35 footprint and surrounding grounds, limited on the north by a chain-link fence, on the east by an imaginary line even with the adjacent Building 59, on the south by the edge of the asphalt-paved roadway, and on the west by the western edge of the adjacent concrete pad and driveway. The site area does not specifically include the adjacent Building 59 CFX (neutron radiograph) tower, although operations in the CFX tower are related to Building 35 operations and are therefore discussed in this report.

At the request of the client, the Table of Contents for the Building 35 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 35 site area, as stated above, is predominantly covered by the building footprint and associated driveway and sidewalks. Therefore, soil conditions beneath these areas could not be observed.

HOK/K personnel did not have access to Room 35-4, the HVAC and electrical equipment room. Our key site manager did not have a key to this locked room. However, HOK/K personnel were able to view much of the room through the door window.

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 35 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 35. 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 multivolume 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 35. 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 35. 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 35 Phase I assessment is presented in Section 4.0.

2.4.2.4 Building and construction information regarding the whole Mound facility and Building 35 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 35 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 compiled from asbestos surveys performed by PEI Associates in 1988 and Barge, Waggoner, Summer, and Cannon Inc. in 1993 were provided to HOK/K by Mr. Timothy Eilers of EG&G Mound Applied Technologies. The ACM data pertaining to Building 35 are described in Section 6.1.

2.4.3 Historical Information

Title and tax records were reviewed for this assessment to determine previous owners of the property. The large body of previous assessments, described in the foregoing subsection, provided the historical operations 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 35 subject area is a Superfund NPL site, most of the detailed environmental regulatory information for Building 35 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 35 site of the U.S. DOE Mound Plant is located in the valley south of the Main Hill of the Mound facility, which itself is situated adjacent to the south side of Miamisburg, Ohio in Sections 30 and 36 (Building 35 is in Section 36), 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 35 footprint, the surrounding grass lawn and sidewalks on the east and south sides, and a concrete pad and driveway on the west side (Refer to Photograph 1 in Exhibit B). Grass lawn also covers the northern edge of the site between the building and the property chain-link fence. Elevated steam, condensate, and other utility pipes on stanchions are routed along the north side of the building. Beyond the northern fenceline, the grass lawn slopes down to a drainage ditch or streambed.

Building 35 comprises 2,500-square feet of space, including non-destructive testing laboratories, offices, and the CFX (neutron radiograph) control room. The CFX tower (Building 59), adjacent to the southeast corner of Building 35, is not considered part of the subject site (Refer to Photograph 2).

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 35 is located in the lower intermediate valley between the two high areas. 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 35, the following adjacent buildings and features of the Mound facility are located:

BUILDING	SQUARE FOOTAGE	CURRENT USE	DIRECTION FROM BLDG. 35
N/A	N/A	Streambed & Parking Lot	North
63	16,461	Quality/Product Tester/Design/Development	East
59	668	Neutron Radiography	Southeast
3	12,391	Test Fire	South
87	38,882	Destructive Testing	Southwest
N/A	N/A	Roadway & Streambed	West
43	1,516	Development	Northwest

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

The site building is a one-story structure of concrete block construction, measuring 2,500 square feet in area. The building was built in 1968 as a non-destructive testing facility, utilizing primarily x-ray and helium-leak test methods. One room of the building has also served as the control room for the CFX instrument (neutron radiograph) housed in the adjacent Building 59. Neutron radiography (euphemistically called "n-ray" testing, per Ms. Jewett) is a radiological photographic method that can produce films of the interior of metal objects with the same precision that x-ray testing produces films of the interior of soft parts such as flesh and tissue.

Building 35 is no longer an operating facility. Most equipment and materials have been removed from cabinets and shelves by EG&G safe shutdown staff. The following paragraphs describe the ten rooms of Building 35, as depicted on Figure 2:

- Room 1 - X-Ray Testing The room contains an inoperative x-ray unit (Photograph 3) and a generator. The storage cabinets in this room are empty. Four empty 55-gallon drums are stored in this room in expectation of the removal and disposal of the 144 uranium plates from the CFX tower.

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

- Room 3 - Neutron Radiograph Control Room The computerized control panel covers the east wall of this room, excluding the exit door leading to the CFX tower at the northeast corner. Lighted panels for viewing x-ray and "n-ray" films are mounted across the north wall of the room (Photograph 4). The fire/sprinkler water plumbing is located against the exterior (south) wall.

- Room 4 - Equipment Room The HVAC and electrical equipment is housed in this room. There is no internal access to this room; it can only be entered from the outside. This room was locked during our site visit and we were only able to view the room through the window in the entrance door.

- Room 5 - Janitor's Closet The room has one utility floor sink.

- Room 6 - Restroom

- Rooms 7,8 - Offices

- Room 9 - Hallway

- Room 10 - Work Area The central part of the room holds two to three large work tables. Storage cabinets, now all empty, line the west wall of the room. A small x-ray unit is installed in the northeast corner of the room (Photograph 5). Fourteen empty 55-gallon drums for uranium plate disposal are currently stored in this room (Photograph 6).

Most of the buildings at Mound, including Building 35, are heated by steam. There are two steam boilers located in the Powerhouse (Building P). The boilers generate saturated steam at 125 psig, which is distributed through above-ground pipes on elevated stanchions to the various buildings and the pressure is reduced to 30 psig for use in the buildings. The condensate is collected in the buildings in vented condensate receivers and is returned to the powerhouse for feed water to the boilers.

Many of Mound's buildings, including Building 35, are air conditioned by central chiller systems that chill and circulate an aqueous solution of 30 percent, by volume, ethylene glycol to the buildings through pipes elevated on above-ground stanchions. There are two central chiller systems: One is in the Powerhouse and one is in Building 95.

At Building 35, the above-ground steam and chiller pipes on stanchions are routed past the north end of the building.

Potable water and sanitary services at Building 35 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.

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. Ms. Gayle Jewett of EG&G Mound Applied Technologies was interviewed during the site visit regarding the site history, current activities and waste disposal practices. Her knowledge 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

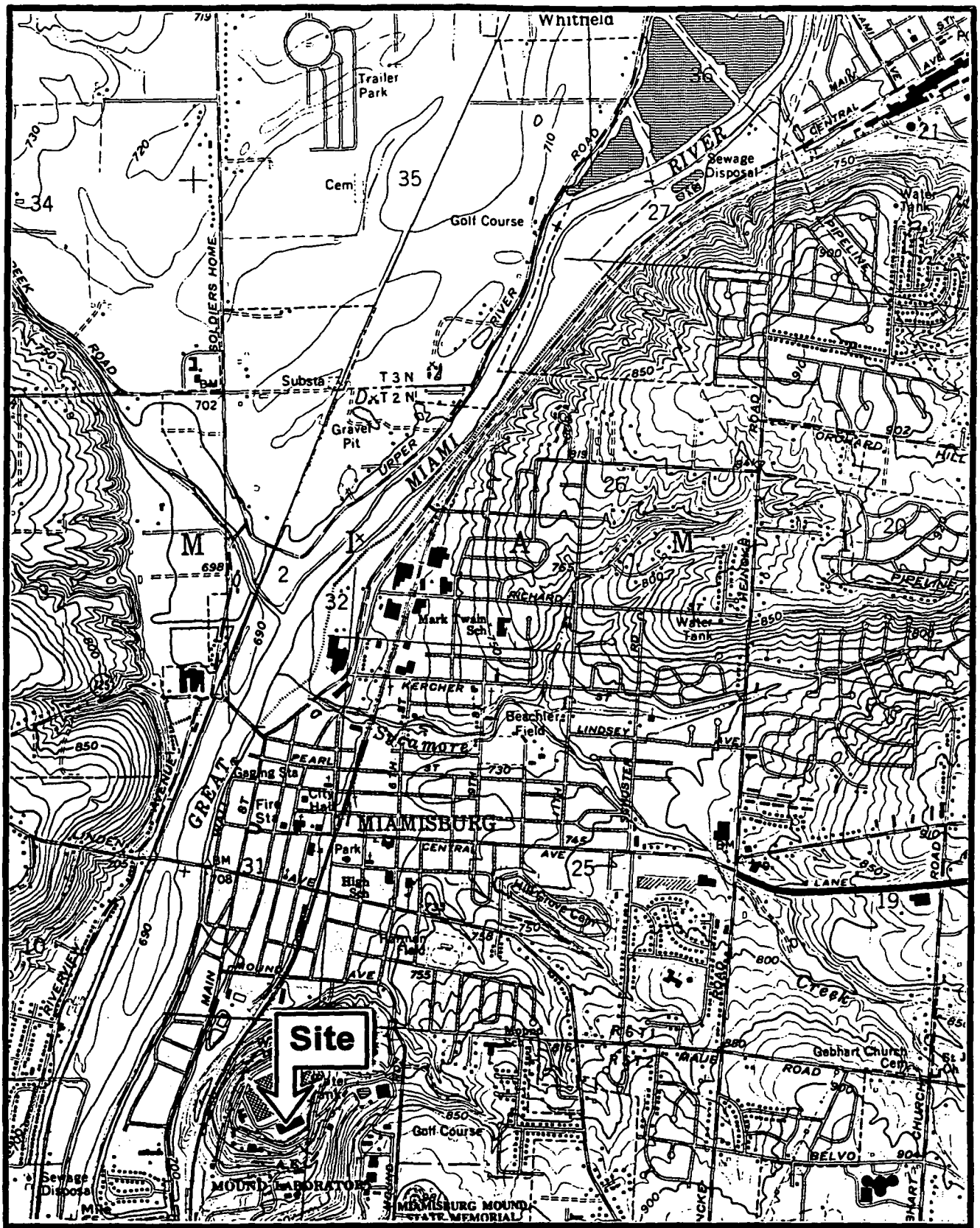
See Section 3.2 and Section 4.3.

3.7 Current and Past Uses of Adjoining Properties

See Section 3.2.

3.8 Site Rendering, Map, or Site Plan

See Figure 2.



Approximate Scale

0 2000 FEET 4000 FEET 6000 FEET

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

Contour Interval 10 feet

Figure 1
Building #35
U.S. Department of Energy

HOK/K Industrial

Project: H952341
Drawn By: SRP
Date: 3/7/96

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

PROPERTY NAME	ADDRESS AND PROXIMITY	STATUS
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 35.

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 regulated chemicals are stored at Building 35 in quantities above 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) and the Mound Facility Physical Characterization (December 1993), to provide this history of ownership and operations.

A history of ownership for Building 35 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 [including Building M], 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 35 was constructed in 1968 as a non-destructive testing facility, utilizing x-ray, helium-leak, and some electrical eddy current testing methods. The Building 59 CFX tower was constructed in 1978, and thus Room 3 of Building 35 began to be used as the CFX control room at that time. The CFX unit, or neutron radiograph, utilizes a californium-252 neutron source, multiplied by 144 aluminum-clad, enriched uranium-235 plates, to expose and produce the "n-ray" films. According to the Mound Facility Physical Characterization document, neutron radiography operations were suspended in 1989. The Volume 7 - Waste Management report recorded no waste management or waste generation activities for Building 35.

4.4 Additional Record Sources

4.4.1 Interviews

Interviews with Ms. Jewett produced the following information regarding past practices and operations at Building 35:

- Photochemical Tanks Prior to the installation of the automatic film development machine in Room 2, this room had been equipped with two above-ground photochemical tanks for the hand-processing and development of photographic film. Rinsewater from this process was funneled through an older silver recovery unit before being released to the sanitary sewer system. Mound waste management staff retrieved and replaced the silver recovery filters on a regular basis.

- Helium Leak-Testing Unit The northeast corner of Room 10 was formerly partitioned off as a separate room for the operation of a helium leak-test unit. This unit was removed in the mid-1980s.

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 E.

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 eastern hill are present.

The 1962 and 1968 photographs show expanding activities at the Mound. The Building 35 site area appears cleared for construction in the 1962 photograph. In discrepancy with the Mound Facility Physical Characterization document, which gives a 1970 construction date for Building 35, the 1968 aerial photograph reveals that Building 35 was already erected by that date. Nearby Buildings 2 and 3 are also present at the plant by 1968.

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 35, we will not include a detailed description of these changes on the Mound, but will concentrate our discussion in the next sentences on Building 35 and its immediate vicinity.

A trailer-sized structure is visible near Building 35 in the 1975 photograph, in the vicinity of what is now Building 63.

The CFX tower (Building 59), adjacent to Building 35, is evident in the 1980 photograph, as is a portion of Building 63.

The 1987 photograph shows that the remainder of nearby Building 63 had been constructed by that date. Building 87, located southwest of Building 35, had also been erected by 1987.

No additional changes in the vicinity of Building 35 are noted in the 1995 aerial photograph. The site appears as it is today.

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 F.

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.

The set of revised building prints are dated August of 1984. The title blocks on the prints reveal a previous revision date of July 21, 1966, at which time a wall and door were omitted between Rooms 1 & 2. The 1984 prints show essentially the same floorplan and arrangement of rooms as exists today, except that Room 2 was not partitioned off but was part of Room 1, Room 9 was a small storage room at the northeast corner of Room 10, and Room 3 was being used as a Surface Defects Inspection Area. There is no mention in these plans of the CFX tower or control room in Building 35, nor is there a doorway indicated leading from Room 3 on the east side of Building 35 to what is now Building 59. This information conflicts with 1978 building date of Building 59 mentioned in the Mound Facility Physical Characterization document.

5.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

5.1 Interior Observations

5.1.1 Heating/Cooling

The heating and cooling system for Mound was described in Section 3.3. At Building 35, the HVAC equipment is located in Room 4.

Steam, condensate, and chiller water pipes supported on elevated stanchions enter the building on the north side.

Two unidentified pipe stickups are located on the south side of Building 35 outside of Room 3 (refer to Photograph 7). The two pipes extend approximately two feet above ground surface, are insulated and topped with blind flanges in the manner of steam pipes; however, Ms. Jewett indicated that these pipes were related to the fire protection water valves located inside Room 3 immediately adjacent to the pipe stickups. An additional pipe stickup is located between the other two. It is approximately one inch in diameter, appears to be of galvanized steel, extends approximately nine inches above ground surface, and is topped by a screw-on protective cap. A review of a revised 1984 building print entitled "Site Work", Drawing No. M-1, revealed that domestic water and fire protection lines are routed through Room 3 on the south side of the building, but no specific mention of the pipe stickups is made.

5.1.2 Stains or Corrosion

HOK/K personnel did not observe stains or corrosion within Building 35.

5.1.3 Drains and Sumps

A utility floor sink with a drain is located in the janitor's closet, and one floor drain is located in the restroom. These drains reportedly lead to the sanitary sewer.

5.2 Exterior Observations

5.2.1 Pits, Ponds, or Lagoons

No pits, ponds, or lagoons were observed at the subject site. However, there were several terracotta clay tile casings with covers embedded in the ground along the north side of the building. Upon inspection, these proved to be grounding cables for the lightning rods mounted on the pipe stanchions and on the corners of Building 35 (Photograph 8).

5.2.2 Stained Soil or Pavement, Stressed Vegetation

No stained soil or pavement or stressed vegetation was evident on the exterior of Building 35 during the site visit.

5.2.3 Wells

There was no evidence of wells (such as a roadbox or pipe stick-up) at Building 35.

5.2.4 Odors

No unusual odors were noted within Building 35.

5.2.5 Hazardous Waste

Rinsewater from the photographic development machine was the only potential hazardous waste noted in Building 35. The development machine is out of service at the present time because non-destructive testing operations at Building 35 have ceased. When formerly produced by the developer, photochemical rinsewater was channeled through a silver recovery unit attached to the developer machine, was filtered and then discharged to the sanitary sewer. The recovered silver was collected on a routine basis by Mound's waste management staff.

5.2.6 Waste Water

Management of process water from the film development machine in Room 2 is described in the foregoing section.

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

5.2.7 Septic Systems

There was no evidence of septic systems (such as leaching field or septic tank vent pipes) in the vicinity of Building 35. According to Mound documentation, there are no septic systems on the Mound Plant because it is serviced by a sanitary sewage treatment plant.

5.3 Hazardous Substances in Connection with Identified Uses

Ms. Jewett reported that an industrial machine oil for use in the x-ray unit is stored in two small tanks installed on the underside of the x-ray unit in Room 1 (Photograph 3).

Three approximately liter-sized containers of a bleach-containing cleaning chemical were observed on a work table in Room 2.

Five to six one-gallon containers of industrial cleaners were also observed in the janitor's closet.

Photochemicals for film development were formerly stored in Room 2 when building activities were operational, according to Ms. Jewett.

5.4 Hazardous Substance Containers and Unidentified Substance Containers

There were no unidentified substance containers noticed during the Building M site walkovers. Refer to 5.3 for discussion of hazardous substance containers.

5.5 Storage Tanks

5.5.1 Above-Ground Storage Tanks

The only above-ground tanks observed at Building 35 were the small machine oil tanks installed on the underside of the x-ray unit in Room 1, as described in Section 5.3.

5.5.2 Underground Storage Tanks (USTs)

No evidence of USTs (such as vent or fill pipes) was noted in our site visit of Building 35. In addition, no USTs were documented in the Active Underground Storage Tank Plan report, described in Section 2.4.2.5.

5.6 Indications of Polychlorinated Biphenyls (PCB's)

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 dialectric fluid of electrical transformers and capacitors, and in the oil of hydraulic systems. PCBs are also present in the ballasts of fluorescent lamps.

No electrical transformers were observed at Building 35 during our site visit. However, HOK/K personnel did not have access to the HVAC and electrical equipment room (Room 4), except through the entrance door window, and cannot comment further on its interior.

An hydraulic elevating table forms part of the x-ray unit in Room 1. Ms. Jewett reported that the hydraulic oil used for this lift table does not contain PCBs.

Fluorescent lighting is used throughout Building 35. 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. If a ballast is not labeled "No PCBs," it should be considered to contain PCBs regardless of the date of manufacture.

Used lamp ballasts that are leaking PCB material are fully regulated under CERCLA and TSCA and must be incinerated at a TSCA approved incinerator. Used, non-leaking PCB-containing lamp ballasts are eligible for disposal as municipal solid waste, although EPA encourages proper disposal of PCB materials in a chemical waste landfill or a high temperature incinerator, which completely destroys the PCB material. However, incineration is costly and landfill disposal carries the potential for future cleanup liability. Lamp ballasts can be successfully recycled, and facilities disposing of waste fluorescent lamp ballasts should consider this disposal alternative.

5.7 Indications of Solid Waste Disposal

Solid waste was not observed in the site building. A Koogler Suburban solid waste dumpster is located on the concrete pad/driveway on the west side of the 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 facility elevation ranges between 720 and 900 feet msl. Based on an evaluation of the surface topography, surface water flows in all directions away from the Mound Main Hill. However, in the vicinity of Building 35 which lies in the intermediate valley between the two hills of the Mound facility, surface water is assumed to flow westward toward the Miami Canal and the Great Miami River.

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 x 10^{-3} to 2.9 x 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.

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.

Asbestos surveys were performed for EG&G by PEI Associates in 1988 and Barge, Waggoner, Sumner, and Cannon Inc. in 1993. ACM was detected in Building 35, and in many places the ACM is so marked within the building. Exhibit G presents summary tables of the ACM detected during the Building 35 asbestos surveys.

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 1970) it is possible that lead based paint has been used within the buildings. The risk of a lead based paint hazard exists when the painted surfaces are damaged (cracked, chipped, loosened, chewed). Analysis of the paint would be necessary to determine if there is lead paint and if a lead hazard exists.

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.

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

6.4 Fluorescent Lamps

Fluorescent lamps are used for lighting throughout this facility. Fluorescent lamps contain on average between 35 and 75 milligrams of elemental mercury and trace amounts of other hazardous heavy metals (e.g., cadmium and lead). Mercury is highly toxic to humans and animals, causing both immediate and long-term effects.

According to current federal law, used fluorescent lamps are considered a solid waste. Used fluorescent lamps are not listed as a hazardous waste under Code of Federal Regulations, Volume 40, Part 262.11 (40 CFR 262.11), but under RCRA, used fluorescent lamps are subject to evaluation against the RCRA hazardous waste characteristics, including the toxicity characteristic. The Toxicity Characteristic Leaching Procedure (TCLP) is a test to determine if a waste is characteristically hazardous. The regulatory limit for mercury is 0.2 milligram/liter. If TCLP results from fluorescent lamp samples show that mercury concentrations equal or exceed this limit, the waste must be managed as a hazardous waste. Conversely, if TCLP results are below the 0.2 mg/L mercury limit, the waste is not considered hazardous and can be managed as municipal solid waste.

In Ohio, used fluorescent lamps must be initially characterized to determine if they are hazardous via the TCLP test. If used fluorescent lamps are characteristically hazardous and bound for disposal, lamps must be managed in compliance with all of Ohio's applicable hazardous waste requirements. If, however, the characteristically hazardous used lamps are bound for recycling or reclamation, they are not considered a solid waste and are not subject to Ohio's hazardous waste requirements. Facilities using and disposing of fluorescent lamps should evaluate their disposal program and should consider recycling or reclamation as an alternative to other disposal methods.

7.0 FINDINGS AND CONCLUSIONS

7.1 HOK/K Industrial, Inc. has performed a Phase I Environmental Site Assessment of the DOE Mound, Building 35 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.

7.2 HOK/K Industrial, Inc. has the following recommendations for the site:

- The asbestos-containing materials (ACM) present in Building 35 appear to be in relatively good condition and do not represent a significant risk to public health or the environment while left in place. If renovation or demolition of the facility is planned, however, the ACM must be removed in compliance with applicable federal and state regulations.

- If the photographic development machine and x-ray testing unit are to be removed prior to occupation of the building by a private enterprise, proper safety protocols should be observed to reduce or eliminate the potential for a release of machine oil or photochemicals (i.e., draining and disposal of chemicals from the machines).

- Further information should be obtained from EG&G M&O staff regarding the function of the three unidentified pipe stickups on the south side of Building 35.

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:

BUILDING 35

PHOTO 2:

BUILDING 59 ON LEFT
BUILDING 35 ON RIGHT
(VIEW SOUTH)

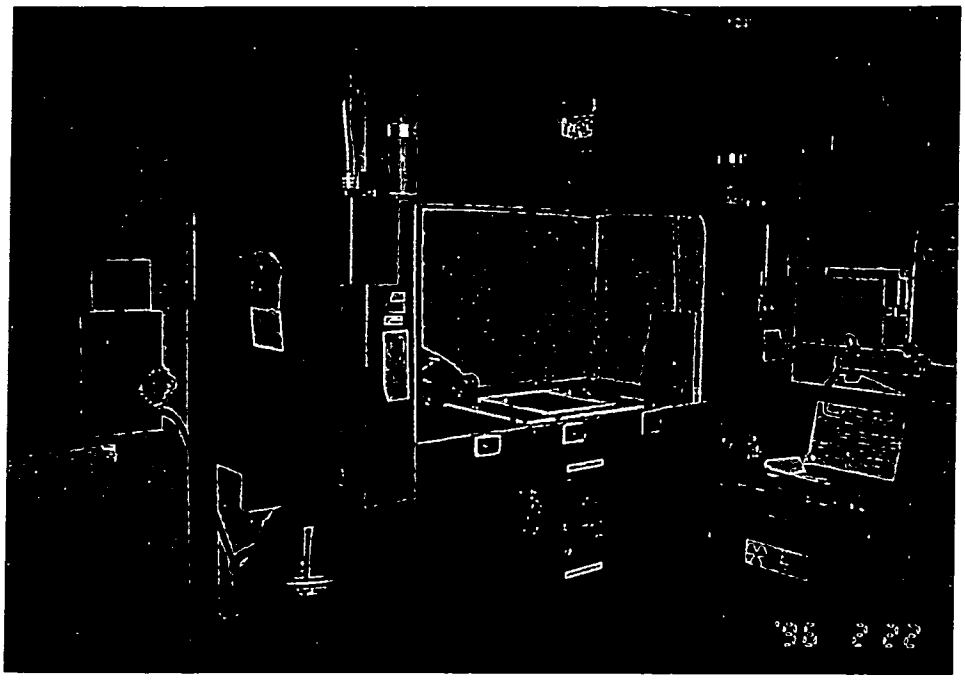


PHOTO 3:

X-RAY UNIT IN ROOM 1

PHOTO 4:

CFX CONTROL ROOM
(ROOM 3)

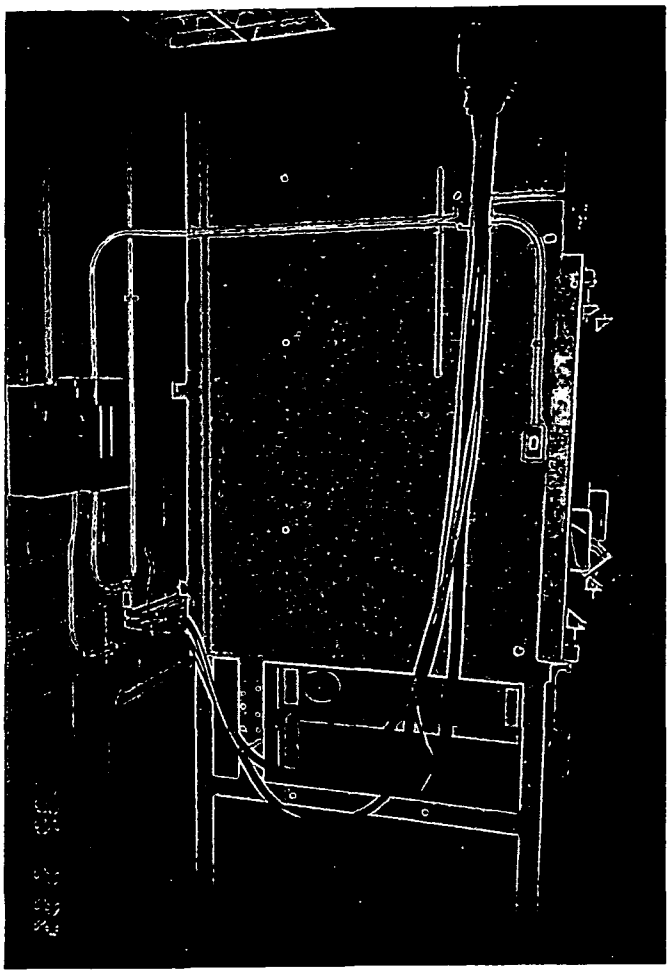


PHOTO 5:

X-RAY UNIT IN ROOM 10

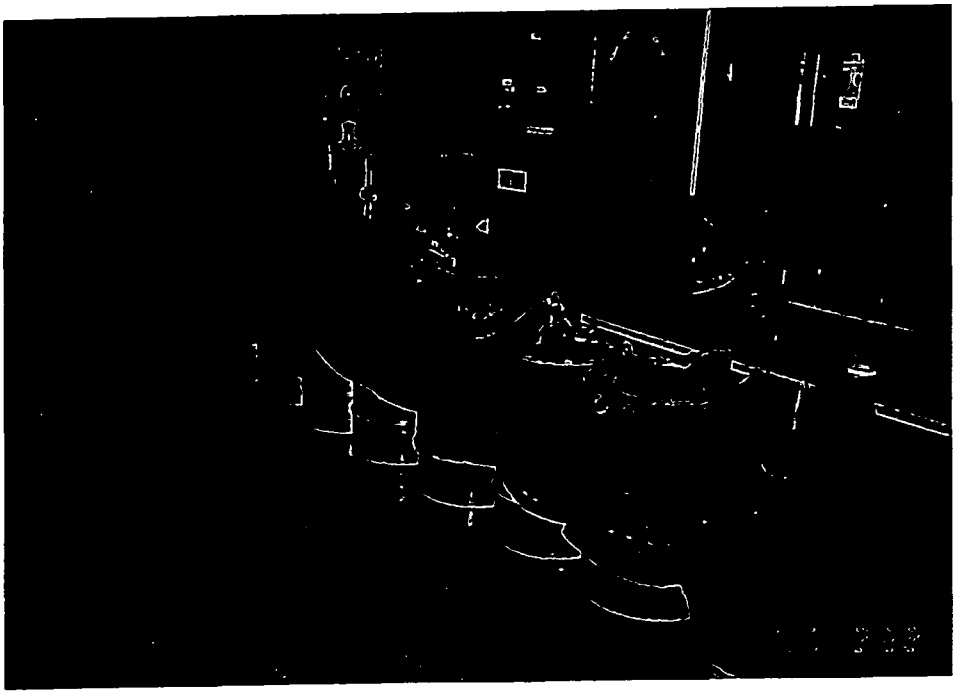


PHOTO 6:

EMPTY 55-GALLON DRUMS
IN ROOM 10

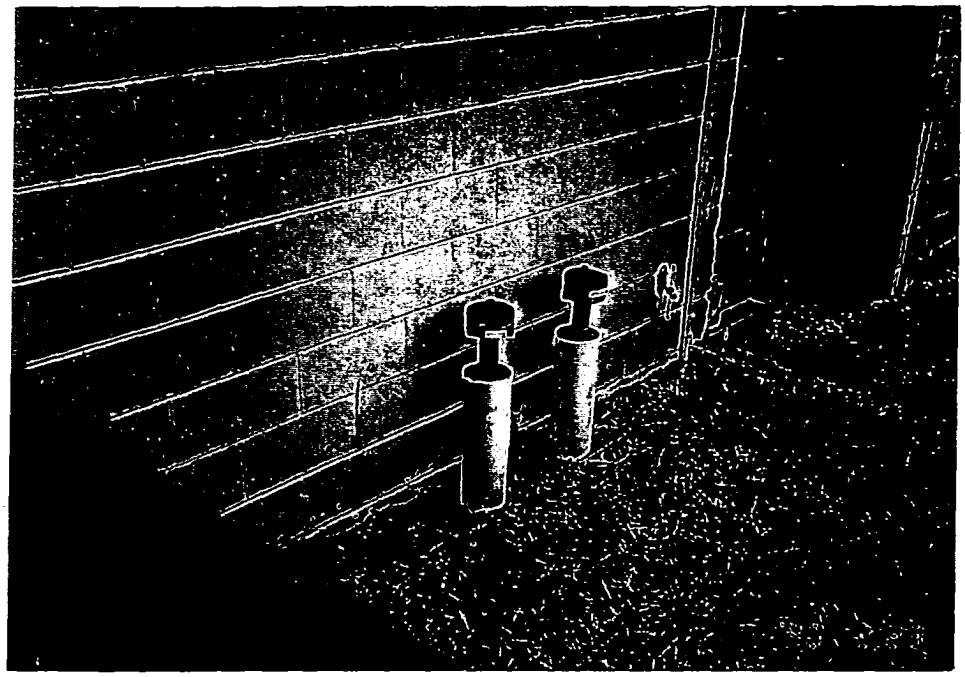


PHOTO 7:

UNIDENTIFIED PIPING
ON SOUTH SIDE
OF BUILDING

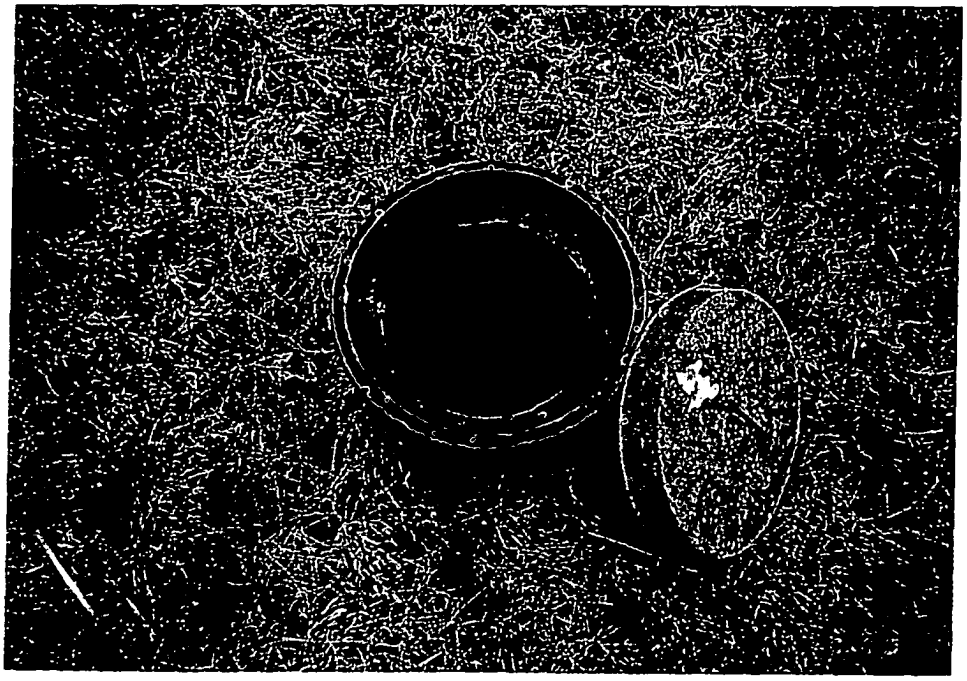


PHOTO 8:

GROUNDING CABLES
IN CLAY TILE CASINGS

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***

EXECUTIVE SUMMARY

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.

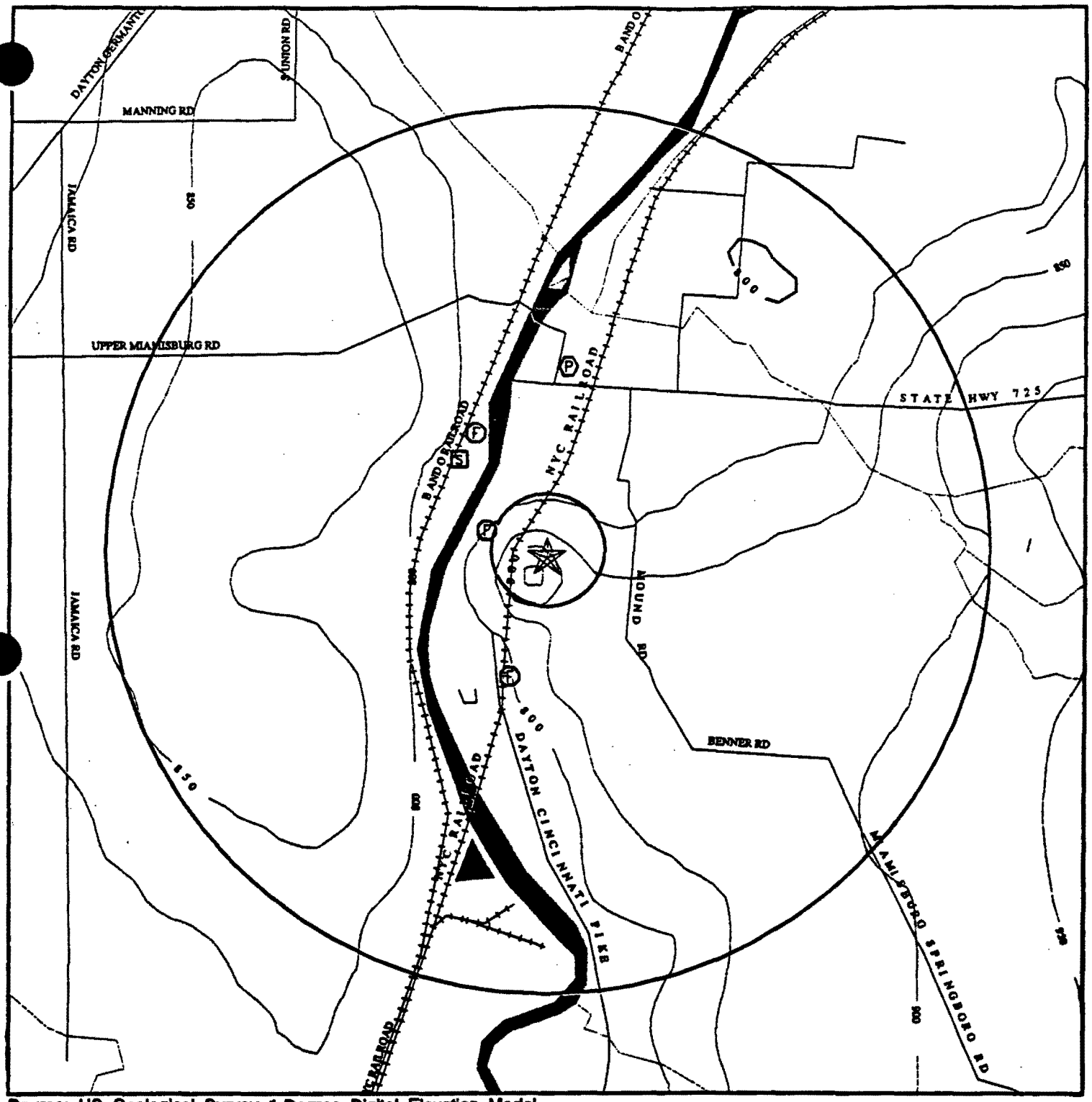
Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*

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
Complied 09/15/92

0 1/4 1/2 1 2
Miles

- Major Roads
- 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

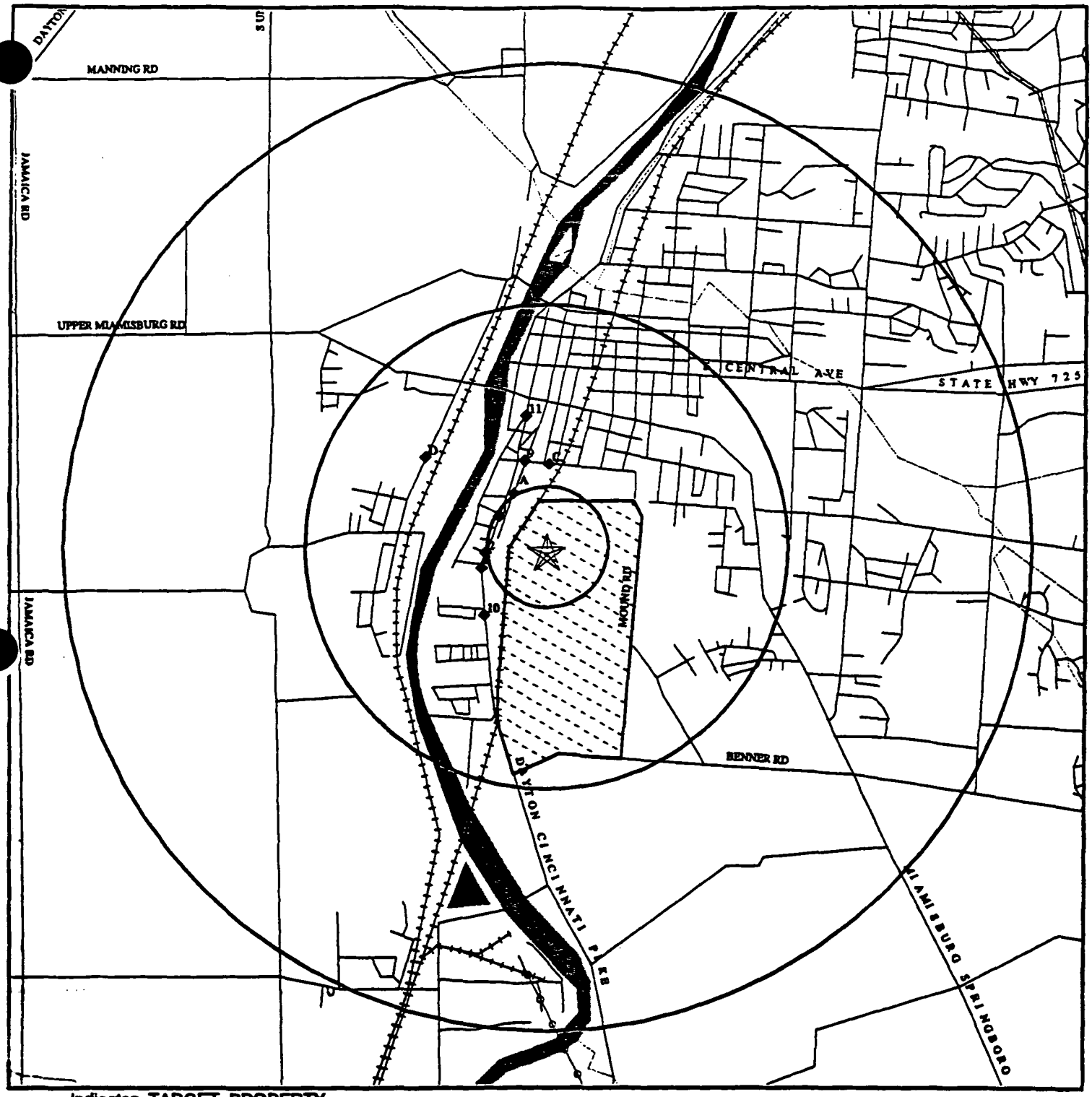
Number of sites tested: 35

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 76, 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

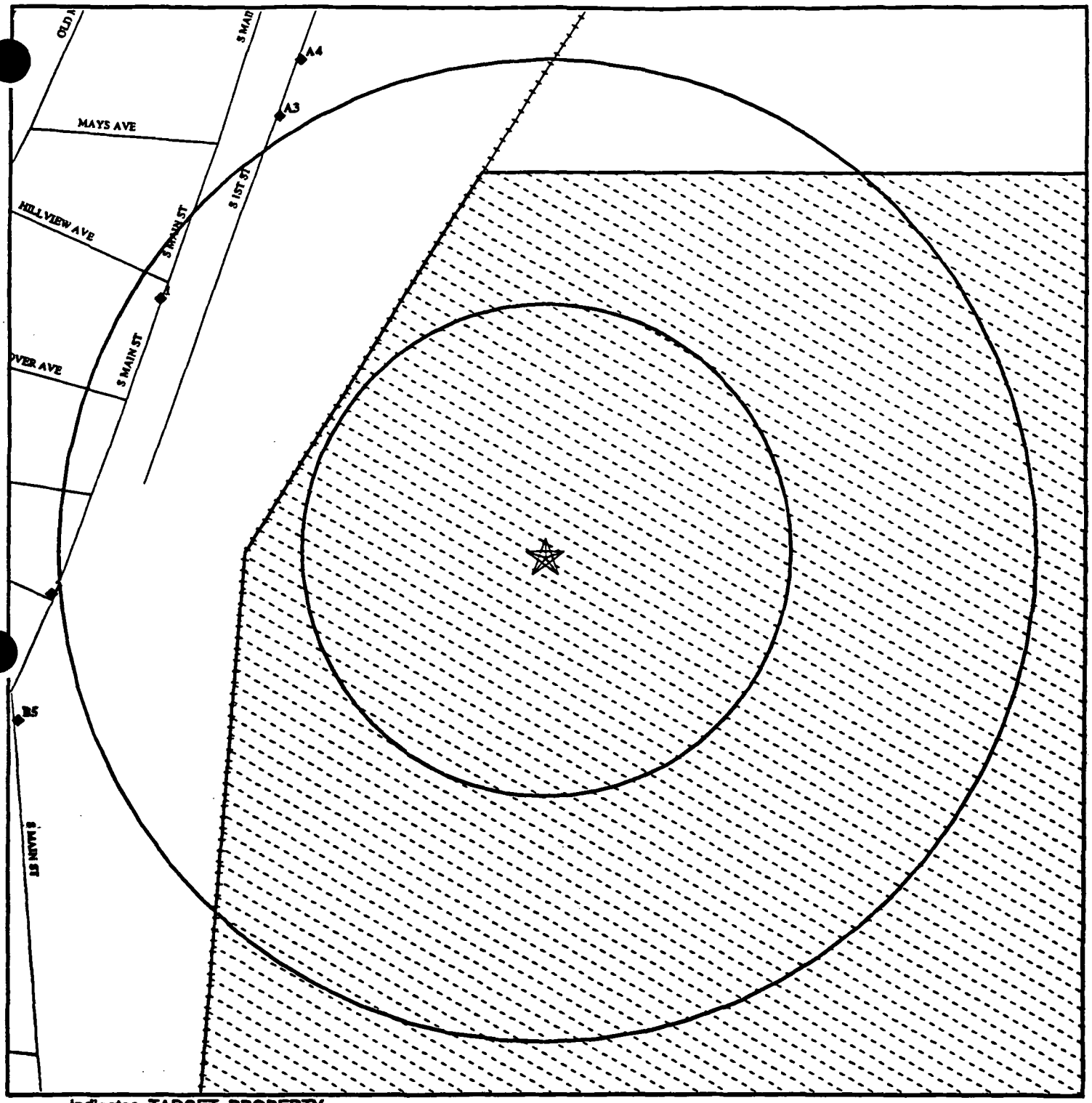
0 1/4 1/2 1 2
Miles

- 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

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

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 CERCLIS FINDS NPL TRIS LUST	1000190772 OH6890008984

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

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

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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 1000243045
UST OHD980896468
LUST

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		

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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

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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		

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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 | SHWS | S100037719
302 S RIVERVIEW AVE | N/A
MIAMISBURG, OH 45342

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	S, SW	10	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.					19	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			Tritium			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)	H-5	In service	Sanitary wastewaters	3, 4, 5	None Suspected	S	4	No Data on soils		
44	Building 57 Grit Conveyor										
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 14, 16	SGS[b] Table B.5 Location 5221 Table B.9 RSS[c] Locations C0099, C0100, S0530, S0532, S0533, S0534, S0535, S0538 (Appendix E in Ref. 6)	12 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 1 14	Tables B.6, B.7, B.8, and B.9 SGS[b], Table B.3 Locations 2216 and 2217 RSS[c] Locations S0233, S0234, S0235, S0236, S0237, S0240 (Appendix E in Ref. 6)	7 12 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 1	Table B.1 (Table III.5 in Ref. 6) SGS[b] Table B.3	6 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-alkylidimethylbenzylammonium 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[a]	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[a]	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[a]	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*	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[a]	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

TABLE A.2. ASSIGNMENT OF REGULATORY AUTHORITIES TO POTENTIAL RELEASE SITES AND RECOMMENDATIONS FOR FURTHER ACTION

Table A.2. Assignment of Regulatory Authorities to Potential Release Sites and Recommendations for Further Action

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
1	Miami-Erie canal (north pond)	C-5	Historical		NA			No	CERCLA	No	4
2	Miami-Erie canal (south pond)	C-5	Waters of the U.S.		CWA			No	CERCLA	No	4
3	Miami-Erie canal (north canal)	D-4 E-4 F-4 G-4	Waters of the U.S.		CWA			Yes	CERCLA	Yes	4
4	Miami-Erie canal (runoff hollow)	G-4	Tributary drainage		NA			Yes[a]	CERCLA	No	4
5	Miami-Erie canal (south canal)	I-4 J-4 K-4 L-4	Waters of the U.S.	Receives effluent from NPDES outfall 002 below point of regulation	CWA	AEA		Yes	CERCLA	Yes	4
6	Miami-Erie canal (overflow creek)	M-4 N-4	Waters of the U.S.		CWA	AEA		Yes	CERCLA	Yes	4
7	Plant Sanitary Pipeline To Greater Miami River	H-5 I-4 I-3	In service	NPDES Outfall 001	CWA	AEA		Yes	CERCLA	Yes	9
8	Site Sanitary Landfill	I-5	Historical		NA	NA	SWMU	No	CERCLA	Yes	1
9	Area 18, Site Sanitary Landfill Cover	I-5	In Service		NA	NA		Yes	CERCLA	Yes	1
10	Historic Landfill	I-4 I-5	Historical		NA	NA	SWMU	Yes	CERCLA	Yes	1
11	Area 2, Thorium and Polonium-Contaminated Wastes (AKA Crushed Drums)	I-4 I-5	Historical		NA	NA		Yes	CERCLA	Yes	1
12	Area B Drum Storage Area	I-5	Historical		NA	NA	SWMU	No	CERCLA	Yes	1
13	Trash incinerator	J-5	Historical		NA	NA		No	CERCLA	No	1
14	Area C, Waste Storage Area (AKA, Drum Staging Area and Chemical Waste Storage Area)	H-6	Historical		NA	NA	SWMU	No	CERCLA	No	5
15	Area C, Lithium Burn Area (AKA, Lithium Carbonate Disposal)	H-5	Historical		NA	NA	SWMU	No	CERCLA	No	5
16	Area C, Past Hazardous Waste Storage Area (See Related Site 345)(AKA, old Building 72)	H-6	Historical		NA		SWMU	Yes historically remediated	CERCLA	No	5

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
17	Oil Burn Structure	H-6	Inactive		NA		SWMU	Yes	CERCLA	Yes	5
18	Building 34, Fire Fighting Training Facility Pits	H-5	Inactive	Permit for open burn by RAPCA	CAA		SWMU	Yes	CERCLA	Yes	5
19	Building 34, Historical Firefighting Training Pit	H-5	Historical		NA		SWMU	Yes	CERCLA	Yes	5
20	Building 34 Aviation Fuel Storage Tank (Tank 219)	H-5	Historical			FFA	SWMU	Yes[b]	CERCLA	No	5
21	Building 1 Leach Pit (Area I)	G-6	Surplus		NA		SWMU	No	CERCLA	No	5
22	Building 1 Explosives Wastewater Settling Basin (AKA Building 1 Sump) (Tank 200)	G-6	Surplus		NA		SWMU	No	CERCLA	No	5
23	Building 43 Explosives Wastewater Settling Basin (AKA Building 43 Sump) (Tank 201)	G-6	Surplus		NA		SWMU	No	CERCLA	No	5
24	Building 43 Solvent Storage Tank (Tank 221)	G-6	Never Used removed		NA			No	NA	No	
25	Building 27 Leach Pit (Area I)	H-6	Surplus		NA		SWMU	No	CERCLA	No	5
26	Building 27 Concrete Flume (Tank 217)	G-6	Surplus		NA		SWMU	No	CERCLA	No	5
27	Building 27 Settling Sump (Tank 218)	G-6	Surplus		NA		SWMU	No	CERCLA	No	5
28	Building 27 Solvent/Drum Storage Area	G-6	Surplus		NA		SWMU	No	CERCLA	No	5
29	Building 27 Filtration System	G-6	Inactive	Included in RCRA Part B permit application	RCRA	RCRA	SWMU	No	NA	OM	
30	Building 27 Diesel Fuel Storage Tank (Tank 123) (actually a propane tank)	G-6	Inactive		NA			No	NA	No	
31	Underground Sanitary Sewer Line G5	H-5	In service	Effluent to wastewater treatment (Building 57)	CWA	AEA	SWMU	No	NA	OM	
32	Underground Sanitary Sewer Line G12	F-8					SWMU	No	NA	OM	
33	Underground Sanitary Sewer Line G14 EAST	H-5 H-6					SWMU	No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
34	Underground Sanitary Sewer Line G14 WEST	H-5 H-6	(Cont.)	(Cont.)	(Cont.)	(Cont.)	SWMU	No	NA	OM	
35	Underground Sanitary Sewer Lines G19 & G14	G-5					SWMU	No	NA	OM	
36	Underground Sanitary Sewer Line G15	E-9					SWMU	No	NA	OM	
37	Building 51 Waste Solvent Storage Tank (Tank 220)	F-8	Historical		NA		SWMU	Yes	CERCLA	Yes	5
38	Building 51 Waste Incinerator	F-8	Historical		NA		SWMU	No	CERCLA	No	5
39	Building 51 Waste Incinerator Scrubber	F-8	Historical		NA		SWMU	No	CERCLA	No	5
40	Building 66 Lot	F-8	Grounds		AEA	AEA		Yes	AEA	D&D	
41	Area 3, Thorium Drum Storage and Redrumming Area	G-5 H-5	Grounds		AEA	AEA		Yes	CERCLA	Yes	5
42	Area A, Construction Soils from T Building	H-5	Grounds		AEA	AEA		Yes[c]	CERCLA	No	5
43	Wastewater Treatment plant Building 57 Grit Chamber (Tank 101)						SWMU	No	NA	OM	
44	Building 57 Grit Conveyor						SWMU	No	NA	OM	
45	Building 57 Comminuter (Tank 102)						SWMU	No	NA	OM	
46	Building 57 Equalization Basin (Tank 103)	H-5	In service	Effluent permitted to discharge under NPDES	CWA	AEA	SWMU	No	NA	OM	
47	Building 57 Equalization Basin (Tank 104)						SWMU	No	NA	OM	
48	Building 57 Equalization Basin (Tank 105)						SWMU	No	NA	OM	
49	Building 57 Equalization Basin (Tank 106)						SWMU	No	NA	OM	
50	Building 57 Aeration Basin (Tank 107)						SWMU	No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
51	Building 57 Aeration Basin (Tank 108)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	SWMU	No	NA	OM	
52	Building 57 Clarifier (Tank 109)						SWMU	No	NA	OM	
53	Building 57 Clarifier (Tank 110)						SWMU	No	NA	OM	
54	Building 57 Sand Filters (2 units)						SWMU	No	NA	OM	
55	Building 57 Chlorine contact chamber (Tank 111)						SWMU	No	NA	OM	
56	Building 57 Chlorine contact chamber (Tank 112)						SWMU	No	NA	OM	
57	Sludge Drying Beds	H-5	Historical		NA		SWMU	Yes	CERCLA	Yes	5
58	Dredge Spoil Drying Beds	H-5	Surplus		NA		SWMU	Yes	CERCLA	Yes	5
59	Contaminated Soil Box Storage Area	G-6	Historical		NA			No	CERCLA	Yes	5
60	Hazardous Waste Storage Area (Building 72)	G-5	In service	HWMU included in Part B application	RCRA	RCRA	SWMU	No	NA	OM	
61	Building 72 Outdoor Hazardous Waste Storage Area		Inactive		RCRA	RCRA	SWMU	No	NA	OM	
62	Building 72 Empty Drum Storage Area		In service		RCRA	RCRA	SWMU	No	NA	OM	
63	Building 19 Soils	G-5	Grounds		AEA	AEA		Yes	CERCLA	Yes	5
64	Building 19 Historic Gasoline Tank (Tank 238)	G-5	Historical		NA			No	CERCLA	Yes	5
65	Building 61 Area, Former Heavy Equipment Area	E-10	Historical		AEA	AEA		Yes	CERCLA	Yes	5
66	Area 7, Thorium and Polonium Wastes	E-8 E-9 F-8 F-9	Historical		NA			Yes	AEA	Yes	5
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	Waters of the U.S.	Effluent permitted to discharge under NPDES (outfall 002)	CWA	AEA	SWMU	Yes	CERCLA	Yes	9
68	Asphalt-Lined Pond	E-9	Waters of the U.S.				SWMU	No	CERCLA	Yes	9

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
69	Overflow Pond	H-5 I-5	Waters of the U.S.	(Cont.)	(Cont.)	(Cont.)	SWMU	No	CERCLA	Yes	9
70	Retention Basins and Weir Basin	H-5	Waters of the U.S.				SWMU	No	CERCLA	Yes	9
71	Building 85 Waste Solvent Tank (Tank 136)	I-5	Inactive	PBR	RCRA	RCRA	SWMU	No	CERCLA	No	5
72	Area 13, Polonium-Contaminated Wood from Dayton Unit IV	H-7	Historical	Runoff to plant drainage ditch	NA			Yes	CERCLA	Yes	5
73	Evaporator Storage Area	H-7	Historical		NA			No	CERCLA	No	5
74	Quonset Hut (former)	H-7	Historical		NA			No	CERCLA	No	5
75	Railroad Siding	G-6 G-7	Inactive		AEA	AEA		Yes	AEA	D&D	
76	Warehouse 9	G-7	Historical		NA			Yes	CERCLA	Yes	5
77	Warehouse 10	G-9	Historical		NA			Yes	CERCLA	Yes	5
78	Warehouse 13	G-9	Historical		NA			Yes	AEA	D&D	
79	Warehouse 15	E-8	Historical		NA			Yes	CERCLA	Yes	5
80	Warehouse 15A	F-8	Historical		NA			Yes	CERCLA	Yes	5
81	Drilling Mud Drum Storage Areas (3 locations)	H-5 I-4	Historical		NA		SWMU	No	CERCLA	No	5
82	Building 57 Diesel Fuel Storage Tank (Tank 118)	H-5	In service		BUSTR	BUSTR			NA	OM	
83	Building 2 Propane Storage Tank (Tank 122)	H-7	Inactive		AEA	NA		No	NA	OM	
84	Building 56 Diesel Fuel Storage Tank (Tank 223)	F-5	Historical		NA			No	CERCLA	Yes	2
85	Building 29 Solvent Storage Shed	E-8	Inactive	PBR	RCRA	RCRA	SWMU	No	NA	OM	
86	Building 29 Septic Tank (Tank 224)	E-9	Historical		NA			Yes	AEA	Yes	6
87	Building 49 Solvent Storage Shed	G-7	Inactive	PBR	RCRA	RCRA	SWMU	No	NA	OM	
88	Tritium in Buried Valley Aquifer	H-4	Historical		SDWA			Yes[d]	AEA	OM	
89	Test Fire Residual Storage Area	H-7	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
90	Site Survey Project Potential Hot Spot Location S0425	G-8	Grounds		AEA	NA		Yes	AEA	Yes	6
91	Main Hill Seep 0601	F-5	NA		NA			Yes	CERCLA	Yes	2
92	Main Hill Seep 0602	G-7	NA		NA			Yes	CERCLA	Yes	2

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
93	Main Hill Seep 0603	D-8	NA		NA			Yes	CERCLA	Yes	2
94	Main Hill Seep 0604	D-6	NA		NA			Yes	CERCLA	Yes	2
95	Main Hill Seep 0605	D-6	NA		NA			Yes	CERCLA	Yes	2
96	Main Hill Seep 0606	D-7	NA		NA			Yes	CERCLA	Yes	2
97	Main Hill Seep 0607	C-7	NA		NA			Yes	CERCLA	Yes	2
98	Main Hill Seep 0608	D-6	NA		NA			Yes	CERCLA	Yes	2
99	Area 6, WD Building Filter-Cleaning Waste	D-8	Historical		NA			No	CERCLA	Yes	2
100	Area F, Chromium Trench	D-8	Historical		NA		SWMU	No	CERCLA	Yes	2
101	Cooling Tower Basins	E-7 E-8	In Service	Discharge to plant drainage ditch	RCRA	RCRA	SWMU	Yes	CERCLA	Yes	2
102	Cooling Tower Drum Storage Area	E-7 E-8	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
103	E Building Soils	E-6 E-7	Grounds		AEA			Yes	CERCLA	Yes	2
104	Scintillation Vial Storage Area	E-6	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
105	E Building Solvent Storage Shed	F-7	Historical		NA		SWMU	Yes	CERCLA	Yes	2
106	G Building Soils (AKA Garage Area)	E-7	Grounds		AEA	AEA		Yes	CERCLA	Yes	2
107	G Building Gasoline Tank (Tank 202)	E-7	Historical		NA			Yes	CERCLA	Yes	2
108	G Building Gasoline Tank (Tank 203)	E-7	Historical		NA			Yes	CERCLA	Yes	2
109	G Building Gasoline Tank (Tank 204)	E-7	Historical		NA			Yes	CERCLA	Yes	2
110	I Building Soils	F-6	Grounds		AEA	AEA		Yes	CERCLA	Yes	2
111	Monitor Well 0034	F-7	Surplus		NA		SWMU	Yes	CERCLA	Yes	2
112	Paint Shop Area	E-7	In Service		AEA	AEA		Yes	CERCLA	Yes	2
113	Powerhouse Soils	E-7	Grounds		AEA	AEA		Yes	CERCLA	Yes	2
114	Powerhouse Fuel Oil Storage Tank (Tank 113)	E-7	In Service		AEA	CWA		Yes	CERCLA	Yes	2
115	Powerhouse Fuel Oil Storage Tank (Tank 114)							Yes	CERCLA	Yes	2
116	Powerhouse Fuel Oil Storage Tank (Tank 115)							Yes	CERCLA	Yes	2

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
117	Powerhouse Fuel Oil Storage Tank (Tank 116)	(Cont.)	(Cont.)		(Cont.)	(Cont.)		Yes	CERCLA	Yes	2
118	M Building Soils	E-7	Grounds		AEA	AEA		Yes	CERCLA	Yes	2
119	Room M-38 Metal Plating Rinse Water Sump (Tank 225)	E-7	Surplus		NA	NA	SWMU	No	CERCLA	No	2
120	Room M-108 Metal Plating Rinse Water Tank (Tank 119)	E-7	In Service	Effluent monitored under NPDES permit	CWA	AEA	SWMU	No	NA	OM	
121	Vapor Degreasers (2 each)	E-7	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
122	Underground Radioactive Waste Lines (Main Hill)	E-6 F-6	Inactive		AEA	AEA		Yes	AEA	Yes	6
123	Area 5, Radioactive Waste Line Break	F-6 F-7	Grounds		NA			Yes	AEA	Yes	6
124	Building 48 Hillside	F-6	Inactive		AEA	AEA		Yes	AEA	D&D	
125	Underground Sewer Line G24	F-6	In Service		AEA	AEA	SWMU	No		OM	
126	Building 28 Solvent Storage Area	E-8	Grounds		AEA	AEA	SWMU	No	CERCLA	No	2
127	Building 28 Solvent Storage Shed	E-8	In Service	PBR	RCRA	RCRA	SWMU	Yes	CERCLA	Yes	2
128	DS Building Solvent Storage Shed	F-7	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
129	B Building Solvent Storage Shed	E-6	Inactive		NA		SWMU	Yes	CERCLA	Yes	2
130	B Building Temporary Drum Storage Area	E-6	Inactive		NA		SWMU	Yes	CERCLA	Yes	2
131	SW Building Soils	E-6 F-6	Grounds		AEA	AEA		Yes	CERCLA	Yes	2
132	Area 15, Entombed SW Cave (Room SW 1-B)	F-6	Historical		AEA	AEA		Yes	AEA	D&D	
133	SW Building Room 1-A	E-6	Historical		AEA	AEA		Yes	AEA	D&D	
134	SW Building Drum Storage Area (AKA Drum Staging Area)	E-6	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
135	Room SW-8 Beta Wastewater Tank (Tank 20)	F-6	Surplus		AEA	AEA		No	NA	OM	
136	Room SW-125 Beta Wastewater Tank (Tank 21)	F-6	In Service		AEA	AEA		No	NA	OM	
137	Room SW-143 Beta Wastewater Tank (Tank 22)	F-6	In Service		AEA	AEA		No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
138	Room SW-137 Alpha Wastewater Sump (Tank 23)	E-6 F-6	Surplus		AEA	AEA		No	AEA	Yes	6
139	Room SW-10 Beta Wastewater Sump (Tank 226)	F-6	Inactive		AEA	AEA		No	AEA	D&D	
140	Beta Waste Solidification Facility - SW Building	E-6 F-6	In Service		AEA	AEA		No	NA	OM	
141	Tritium Effluent Removal System	E-6	In Service		AEA	AEA		No	NA	OM	
142	SW/R Building Solid Radioactive Waste Compactor	E-6 F-6	In Service		AEA	AEA		No	NA	OM	
143	R/SW/T Building Stack Diesel Fuel Storage Tank (Tank 117)	F-6	In Service		BUSTR	BUSTR		No	NA	OM	
144	R Building Sanitary Waste Collection Tank (Tank 120)	F-6	In Service	effluent to wastewater treatment	CWA	AEA		No	NA	OM	
145	Room R-128 Alpha Wastewater Tank (Tank 19)	E-6	In Service		AEA	AEA		No	NA	OM	
146	R Building Rooms 121, 144, 146 and 148	F-6	Historical		AEA	AEA		Yeo	AEA	D&D	
147	HH Building Soils	F-7	Grounds		AEA	AEA		Yes	CERCLA	Yes	2
148	HH Building Solidification Unit	F-7	Historical		NA	NA		No	AEA	No	
149	HH Building Pilot incinerator	F-7	Historical		NA			No	AEA	No	
150	Room HH-15 Beta Wastewater Sump (Tank 236)	F-7	Inactive		NA			No	AEA	D&D	
151	Room HH-6 Alpha Wastewater Sump (Tank 237)	F-7	Historical		NA				AEA	D&D	
152	HH Building Beta Wastewater Sump (Tank 24)	F-7	In Service		AEA	AEA			NA	OM	
153	Area 20, Radioactive Waste Line Break	G-7	Grounds		NA			Yes	AEA	Yes	6
154	Area 23, Thorium Contaminated Soil	F-6 G-6	Grounds		AEA	AEA		Yes	AEA	Yes	6
155	Old Sanitary Disposal (SD) Plant (AKA Old Sanitary Wastewater Treatment Plant)	F-6	Surplus		NA		SWMU	Yes	AEA	D&D	
156	Old SD plant Tank (Tank 205)	F-6	Surplus		NA		SWMU	Yes	AEA	Yes	6

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
157	Old SD plant Tank (Tank 206)	F-6	Surplus		NA		SWMU	Yes	AEA	Yes	6
158	Old SD plant Tank (Tank 207)	F-6	Surplus		NA		SWMU	Yes	AEA	Yes	6
159	Area 4A, Sewage Sludge Drying Pits	F-5 G-5 F-6 G-6	Surplus		NA			Yes	AEA	Yes	6
160	Mixed Waste Storage Area (Building 23)	G-6	In Service	HWMU included in Part B application	RCRA	RCRA	SWMU	No	NA	OM	
161	Glass Melter Furnace	F-6	Inactive	HWMU included in Part B application	RCRA	RCRA	SWMU	No	NA	OM	
162	Glass Melter Feed Drum						SWMU	No	NA	OM	
163	Off-Gas Treatment System Deluge Tank						SWMU	No	NA	OM	
164	Off-Gas Treatment System Venturi Scrubber						SWMU	No	NA	OM	
165	Off-Gas Treatment System Cyclone Demister						SWMU	No	NA	OM	
166	Off-Gas Treatment System HEPA Filter						SWMU	No	NA	OM	
167	Off-Gas Treatment System WD Building Filter Bank						SWMU	No	NA	OM	
168	Off-Gas Treatment System Recycle Tank						SWMU	No	NA	OM	
169	Off-Gas Treatment System Strainer						SWMU	No	NA	OM	
170	Off-Gas Treatment System Leaf Solution Filter	F-6	Historical		NA		SWMU	No	NA	No	
171	Off-Gas Treatment System Iodine Absorption Filter	F-6	Historical		NA		SWMU	No	NA	No	
172	WDA Building Basement Wash Sump (Tank 11) (AKA Glass Melter Room Sump)	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
173	Cyclone Incinerator	F-6 G-6	Historical		NA		SWMU	No	AEA	No	
174	WD Building Drum Staging Area	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
175	Area 4, WD Building Influent Tank Overflow	F-6	Surplus	runoff to plant drainage ditch	AEA	AEA		Yes	AEA	Yes	6

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
176	Area 14, Radioactive Waste Line Break	G-5 G-6	Historical		NA			Yes	AEA	Yes	6
177	Building 41 Alpha Wastewater Tank (Tank 208)	G-6	Historical		NA			Yes	AEA	Yes	6
178	Building 41 Alpha Wastewater Tank (Tank 209)	G-6	Historical		NA			Yes	AEA	Yes	6
179	WD Building Alpha Wastewater Influent Tank (Tank 3)	F-6	In Service		AEA	AEA	SWMU	No	AEA	OM	
180	WD Building Alpha Wastewater Influent Tank (Tank 4)				AEA	AEA	SWMU	No	AEA	OM	
181	WD Building Alpha Wastewater Influent Tank (Tank 5)				AEA	AEA	SWMU	No	AEA	OM	
182	WD Building Alpha Wastewater Influent Tank (Tank 6)				AEA	AEA	SWMU	No	AEA	OM	
183	Room WD-1 Basement Sump (Tank 12)	F-6	In Service		AEA	AEA		No	AEA	OM	
184	Room WD-1 Alpha Wastewater Sump (Tank 17)	F-6	In Service		CWA	AEA		No	NA	OM	
185	Room WD-1 Sanitary Waste Sump (Tank 134)	G-6	In Service	effluent to wastewater treatment	CWA	AEA		No	NA	OM	
186	Room WD-8 Alpha Wastewater Sump (Tank 18)	F-6	In Service					No	NA	OM	
187	WD Building Alpha Wastewater Clariflocculators (2 units)	F-6 G-6	In Service	Wastewater			SWMU	No	NA	OM	
188	WD Building Alpha Wastewater Mixing Box	F-6 G-6	In Service	Treatment Units	CWA	AEA	SWMU	No	NA	OM	
189	WD Building Alpha Wastewater Sand Filters (2 units)	F-6 G-6	In Service	Wastewater Treatment			SWMU	No	NA	OM	
190	WD Building Alpha Wastewater Bone Char Columns (2 units)	F-6 G-6	In Service	Units			SWMU	No	NA	OM	
191	WD Building Alpha Wastewater Effluent Tank (Tank 7)	G-6	In Service	Effluent	CWA	AEA	SWMU	No	NA	OM	
192	WD Building Alpha Wastewater Effluent Tank (Tank 8)			Released to Great Miami River			SWMU	No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
193	WD Building Alpha Wastewater Effluent Tank (Tank 9)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	SWMU	No	NA	OM	
194	WD Building Alpha Wastewater Effluent Tank (Tank 10)						SWMU	No	NA	OM	
195	WD Building Alpha Wastewater Sludge Pits (2 units)	F-6 G-6	In Service		AEA	AEA	SWMU	No	NA	OM	
196	WD Building Alpha Wastewater Sludge Solidification/Drumming Unit	F-6 G-6	In Service		AEA	AEA	SWMU	No	NA	OM	
197	WD Building Solid Radioactive Waste Compactor	F-6 G-6	In Service		AEA			NO	NA	OM	
198	WDA Building Basement Sanitary Waste Tank (Tank 135)	F-6	In Service	effluent to wastewater treatment	CWA	AEA		No	NA	OM	
199	WDA Building Beta Wastewater Influent Tank (Tank 13)	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
200	WDA Building Beta Wastewater Influent Tank (Tank 14)	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
201	WDA Building Beta Wastewater Metering Station	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
202	WDA Building Beta Wastewater Mixing/Solidification Unit	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
203	WDA Building Alpha Wastewater Influent Tank (Tank 15)	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
204	WDA Building Alpha Wastewater Influent Tank (Tank 16)	F-6	In Service		AEA	AEA	SWMU	No	NA	OM	
205	WDA Building Alpha Effluent Tank (Tank 214)	F-6	Inactive		AEA	AEA	SWMU	No	AEA	Yes	6
206	WDA Building Alpha Effluent Tank (Tank 215)				AEA	AEA	SWMU	No	AEA	Yes	6
207	WDA Building Alpha Effluent Tank (Tank 216)				AEA	AEA	SWMU	No	AEA	Yes	6
208	WDA Building Solidification Unit	F-6	Historical		NA			No	AEA	D&D	
209	Building 62 Stack Deluge Tank (Tank 1)	E-6	In Service		AEA	AEA		No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
210	Room H-131 Laundry Water Tank (Tank 2)	E-6	In Service		AEA	AEA		No	NA	OM	
211	A Building Decontamination Shower Water Tank (Tank 28)	E-6	In Service		AEA	AEA		No	NA	OM	
212	A Building Decontamination Shower Water Tank (Tank 29)				AEA	AEA		No	NA	OM	
213	T Building Solidification Unit	F-7	Historical		NA			No	AEA	No	
214	T Building Solid Radioactive Waste Compactor	F-7	In Service		AEA			No	NA	OM	
215	Room T-1 Cooling Water Sump (Tank 124)	F-7	In Service	Effluent to wastewater treatment	CWA	AEA		No	NA	OM	
216	T Building, Corridor 2 Sanitary Wastewater Sump (Tank 125)	F-7	In Service					No	NA	OM	
217	Room T-11F Sanitary Wastewater Sump (Tank 126)	F-7	In Service					No	NA	OM	
218	Room T-15 Sanitary Wastewater Sump (Tank 127)	F-7	In Service					No	NA	OM	
219	T Building, Stair 3 Cooling Water Sump (Tank 128)	F-7	In Service					No	NA	OM	
220	Room T-78 Steam Condensate Sump (Tank 129)	F-7	In Service					No	NA	OM	
221	T Building, Corridor 8 Sanitary Wastewater Sump (Tank 130)	F-7	In Service					No	NA	OM	
222	Room T-78A Sanitary Wastewater Sump (Tank 131)	F-7	In Service					No	NA	OM	
223	Room T-90 Cooling System Condensate Sump (Tank 132)	F-7	In Service					No	NA	OM	
224	Room T-99 Sanitary Wastewater Sump (Tank 133)	F-7	In Service					No	NA	OM	
225	Room T-23 Beta Wastewater Sump (Tank 227)	F-7	Historical		NA			No	AEA	D&D	
226	Room T-3 Floor Drain Sump (Tank 228)	F-7	Historical Filled with concrete 1985		NA			No	AEA	D&D	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
227	Room T-40 Alpha Wastewater Sump (Tank 229)	F-7	Historical Filled with concrete		NA			No	AEA	D&D	
228	Room T-41 Alpha Wastewater Sump (Tank 230)	F-7	Historical Filled with concrete		NA			No	AEA	D&D	
229	Room T-50 Alpha Wastewater Sump (Tank 231)	F-7	Historical Filled with concrete 1975		NA			No	AEA	D&D	
230	Room T-50 Alpha Wastewater Sump (Tank 232)	F-7	Historical Filled with concrete 1975		NA			No	AEA	D&D	
231	T Building, Corridor 8 Alpha Wastewater Sump (Tank 233)	F-7	Historical Filled with concrete 1982		NA			No	AEA	D&D	
232	T Building, Corridor 7 Alpha Wastewater Sump (Tank 234)	F-7	Historical Filled with concrete 1982		NA			No	AEA	D&D	
233	Room T-63 Alpha Wastewater Sump (Tank 235)	F-7	Historical Filled with concrete 1982		NA			No	AEA	D&D	
234	Building 58 Diesel Fuel Storage Tank (Tank 222)	E-6	Historical		NA			No	CERCLA	Yes	2
235	Area of Possible Elevated Thorium Activity	E-8	Grounds		AEA	AEA		Yes	AEA	Yes	6
236	Site Survey Project Potential Hot Spots Location S0166	F-6	Grounds		AEA			Yes	CERCLA	Yes	2
237	Site Survey Project Potential Hot Spots Location S0175	E-5 E-6	Grounds		AEA			Yes	AEA	Yes	6
238	Site Survey Project Potential Hot Spot Location S1092	G-7	Grounds		AEA			Yes	AEA	Yes	6
239	Site Survey Project Potential Hot Spot Location S0208	F-5	Grounds		AEA			Yes	CERCLA	Yes	2

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
240	Site Survey Project Potential Hot Spot Location S0472	G-6	Grounds		AEA			Yes	AEA	Yes	6
241	Northwest Parking Lots	D-6 D-7	Grounds		AEA			Yes	CERCLA	Yes	2
242	VOC Potential Hot Spot Location 1016	D-7	Grounds		AEA			Yes	CERCLA	Yes	2
243	VOC Potential Hot Spot Location 1064	E-7	Grounds		AEA			Yes	CERCLA	Yes	2
244	VOC Potential Hot Spot Locations 1076, 1077, 1079 and 1080	E-6	Grounds		AEA			Yes	CERCLA	Yes	2
245	VOC Potential Hot Spot Location 1085	F-6	Grounds		AEA			Yes	CERCLA	Yes	2
246	VOC Potential Hot Spot Locations 1117 and 1118	G-7	Grounds		AEA			Yes	CERCLA	Yes	2
247	VOC Potential Hot Spot Location 1129	F-8	Grounds		AEA			Yes	CERCLA	Yes	2
248	HH Building Stack	F-7	In Service	NESHAP	CAA	AEA		No	NA	OM	
249	SW Building Stack (NCPDF)	F-6	In Service	NESHAP	CAA	AEA		No	NA	OM	
250	SW Building Stack (SW1C)	F-6	In Service					No	NA	OM	
251	SW Building Stack (HEFS)	F-6	In Service					No	NA	OM	
252	B Building Stack	E-6	Inactive		AEA	AEA		No	AEA	D&D	
253	T Building WEST Stack	F-7	In Service	NESHAP	CAA	AEA		No	NA	OM	
254	T Building EAST Stack	F-7	In Service					No	NA	OM	
255	WD Building Stack (ALR)	F-6	In Service					No	NA	OM	
256	WD Building Stack (AHR)	F-6	In Service					No	NA	OM	
257	WD Building Stack (SS)	F-6	In Service					No	NA	OM	
258	Area H Open Burn Unit (AKA Pyrotechnic Waste Disposal Area)	I-7	In Service	HWMUs included in Part B application	RCRA	RCRA	SWMU	No	NA	OM	
259	Pyrotechnic Waste Shed	I-7	In Service				SWMU	No	NA	OM	
260	Thermal Treatment Unit	I-7	Inactive				SWMU	No	NA	OM	
261	Trash Burner	I-7	Historical		NA	NA	SWMU	No	CERCLA	No	5
262	Retort	I-7	In Service	HWMU included in Part B application	RCRA	RCRA	SWMU	No	NA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
263	Building 90 Blockhouse	I-7	In Service	(Cont.)	(Cont.)	(Cont.)	SWMU	No	NA	OM	
264	Explosive Waste Storage Bunker (Magazine 53)	I-7	In Service				SWMU	No	NA	OM	
265	Biodegradation Unit	I-7	Inactive				SWMU	No	NA	OM	
266	Area 8, Thorium-Contaminated Soils from Areas 1 and 9	F-9	Grounds	runoff to aphalt-lined pond	AEA	AEA		Yes	AEA	Yes	6
267	Area 9, Thorium Storage and Redrumming Area (AKA Former Thorium Storage)	F-9 G-9	Grounds		AEA	AEA		Yes	AEA	Yes	6
268	Building 31, Contaminated Material Storage Building	F-9	In Service		AEA	AEA		No	NA	OM	
269	Building 36 Historic Gasoline Tanks (Tanks 239 and 240)	G-10	Historical		NA	NA		No	CERCLA	No	5
270	Underground Sanitary Sewer Lines G6 & G7	G-10	In service		AEA	AEA	SWMU	No	NA	OM	
271	Building 37 Sanitary Waste Tank (Tank 100)	F-10	In Service	effluent to wastewater treatment	CWA	AEA		No	NA	OM	
272	Area 10, Concrete Debris	G-8 G-9	Grounds	runoff to plant drainage ditch	AEA			Yes	AEA	Yes	6
273	Area 12, Thorium-Contaminated Soil from Area 1	G-9						Yes	AEA	Yes	6
274	Area 21 Old Bunker	H-9						Yes	CERCLA	Yes	5
275	Area 21 Detonator Shack	H-8	Grounds					Yes	CERCLA	Yes	5
276	Area 22, Orphan Soil from other Areas	I-8	Inactive					Yes	CERCLA	Yes	5
277	Area J, Hillside Disposal Area (AKA Dredged Material Disposal Area 11a)	H-8 H-9	Historical				SWMU	Yes	CERCLA	Yes	5
278	Area J, Hillside catch basin	H-8	In Service	Potential wetlands (under Section 404 CWA)	AEA (CWA)		SWMU	No	CERCLA	Yes	5
279	Old Firing Range Drum Storage Area	H-9	Historical		NA		SWMU	Yes	CERCLA	Yes	5
280	Waste Oil Drum Field Area	I-8	Historical		NA		SWMU	Yes	CERCLA	Yes	5
281	Area E, Waste Oil Spill	J-8	Historical		NA			Yes*	CERCLA	No	5

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
282	Spoils Disposal Area/Construction Spoils Area	J-5 K-5	In Service		AEA	AEA	SWMU	Yes	CERCLA	Yes	5
283	Area 1, Bulk Transfer of Thorium Drums (AKA Plutonium Recoverable Waste Storage)	I to L- 6 to 8	Grounds	runoff to plant drainage ditch	AEA			Yes	AEA	Yes	6
284	Building 21, Thorium Sludge Storage Facility	J-7 J-8	Surplus		AEA			Yes	AEA	Yes	6
285	Area 11, Contamination from SM Building Operations	G-9	Surplus	runoff to plant drainage ditch	NA			Yes	AEA	Yes	6
286	Area 16, SM Building Sanitary Sewage Septic Tank\Leach Field	F-9 G-9	Surplus	runoff to plant drainage ditch	NA			Yes	AEA	Yes	6
287	SM Building Historic Septic Tank (Tank 241)	G-9	Historical		NA			No	AEA	Yes	6
288	Area 17, SM Building Soils	G-9 G-10	Surplus	runoff to asphalt-lined pond	AEA			Yes	AEA	Yes	6
289	SM Building Alpha Wastewater Tank (Tank 210)	G-9	Historical		AEA	AEA		Yes	AEA	Yes	6
290	SM Building Alpha Wastewater Tank (Tank 211)	G-9	Historical		NA			Yes	AEA	Yes	6
291	SM Building Alpha Wastewater Tank (Tank 212)	G-9	Historical		NA			Yes	AEA	Yes	6
292	SM Building Alpha Wastewater Tank (Tank 213)	G-9	Historical		NA			Yes	AEA	Yes	6
293	SM Building Solidification Unit (Room SM-1)	G-9	Historical		NA			Yes	AEA	Yes	6
294	WS Building Solidification Unit	G-9	Historical		NA			No	NA	No	
295	Building 38 Solid Radioactive Waste Compactors (2 units)	G-9 H-9	Historical		AEA	AEA		No	AEA	No	
296	Building 38 West Dock Sump (Tank 25)	H-9	In Service		AEA	AEA		No	NA	OM	
297	Building 38 Alpha Wastewater Sump (Tank 26)	G-9	In Service	effluent to WD Building	CWA	AEA		No	AEA	OM	
298	Building 38 Alpha Wastewater Sump (Tank 27)	G-9	In Service	effluent to WD Building	CWA	AEA		No	AEA	OM	

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
299	Building 38 Diesel Fuel Storage Tank (Tank 121)	G-9	In Service		BUSTR	BUSTR		No	BUSTR	OM	
300	Area 19, Underground Waste Transfer Line	G-6 G-7 G-8 G-9	Historical		NA		SWMU	Yes	AEA	Yes	6
301	Building 38 In-Line Incinerator	G-9	Historical		NA		SWMU	No	AEA	No	
302	Area D, Acid Leach Field	H-8 H-9 G-8 G-9	Historical		AEA		SWMU	No	AEA	Yes	6
303	Warehouse 14 (AKA Pad 14)	G-9	Grounds		AEA			No	AEA	No	
304	Excavated Materials Disposal Area (AKA Rader's Hill)	I-8	Grounds	runoff to overflow pond	AEA			No	CERCLA	Yes	5
305	SM Stack	G-9	Surplus		NA			No	AEA	Yes	6
306	SM/PP Hill Seep 0609	L-9	NA		AEA			No	CERCLA	Yes	5
307	Site Survey Project Potential Hot Spots Location C0007	E-9	Grounds		AEA			Yes	AEA	Yes	6
308	Site Survey Project Potential Hot Spots Location C0028	F-10	Grounds		AEA			Yes	AEA	Yes	6
309	Site Survey Project Potential Hot Spot Location S0307	F-9	Grounds		AEA			Yes	AEA	Yes	6
310	Site Survey Project Potential Hot Spot Location S0647	H-9	Grounds		AEA			Yes	AEA	Yes	6
311	Site Survey Project Potential Hot Spot Location S0708	I-6	Grounds		AEA			Yes	CERCLA	Yes	5
312	Site Survey Project Potential Hot Spot Location S0971	J-9	Grounds		AEA			Yes	CERCLA	Yes	5
313	Site Survey Project Potential Hot Spot Location S0982	I-8	Grounds		AEA			Yes	CERCLA	Yes	6
314	Farm Trash Area	M-5	Historical		AEA		SWMU	No	CERCLA	No	5

				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
315	Waste Transport Vehicles	SITE-WIDE	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
316	Trash Dumpsters	SITE-WIDE	In Service	PBR	RCRA	RCRA	SWMU	No	NA	OM	
317	Ventilation Hoods	SITE-WIDE	In Service	PBR	CAA/RCRA		SWMU	No	NA	OM	
318	Transformers	SITE-WIDE	In Service		TSCA	TSCA		No	NA	OM	
319	Epoxy Resin Disposal	G-7 H-7	In Service	PBR	RCRA	RCRA		No	NA	OM	
320	Dayton Unit I	Dayton	Historical		NA			No	NA	No	
321	Dayton Unit II	Dayton	Historical		NA			No	NA	No	
322	Dayton Unit III	Dayton	Historical		NA			Yes	FUSRAP		
323	Dayton Unit IV	Dayton	Historical		NA			Yes	FUSRAP		
324	Dayton Warehouse	Dayton	Historical		NA			No	NA	No	
325	Scioto Facility (Marion)	Marion	Historical		NA			No	NA	No	
326	Building 38 Sanitary Sump (Tank 254)	G-9	In Service	effluent to wastewater treatment (Building 57)	CWA	AEA		No	NA	OM	
327	R-111 Calorimetry Bath (Tank 255)	E-6	Inactive		AEA	AEA		No	NA	D&D	
328	R-111 Calorimetry Bath (Tank 256)	E-6	Inactive		AEA	AEA		No	NA	D&D	
329	Building 62 Hot Waste Sump (Tank 258)	E-6	In Service		AEA	AEA		No	NA	OM	
330	Building 2 Fuel Oil Tank (Tank 260)	H-7	Historical		NA	NA		No	CERCLA	No	5
331	Building 2 Tank (Tank 261)	H-7	Historical		NA	NA		No	CERCLA	Yes	5
332	Building G Waste Oil Tank (Tank 262)	E-7	Inactive		AEA	AEA	SWMU	No	CERCLA	Yes	2
333	Building 87 Explosive Surge Tank (Tank 263)	H-7	In Service	HWMU included in Part B application	CAA	RCRA/AEA		No	NA	OM	
334	Building 87 Explosive Surge Tank (Tank 264)	H-7	In Service	HWMU included in Part B application	CAA	RCRA/AEA		No	NA	OM	
335	Building 87 Explosive Surge Tank (Tank 265)	H-7	In Service	HWMU included in Part B application	CAA	RCRA/AEA		No	NA	OM	

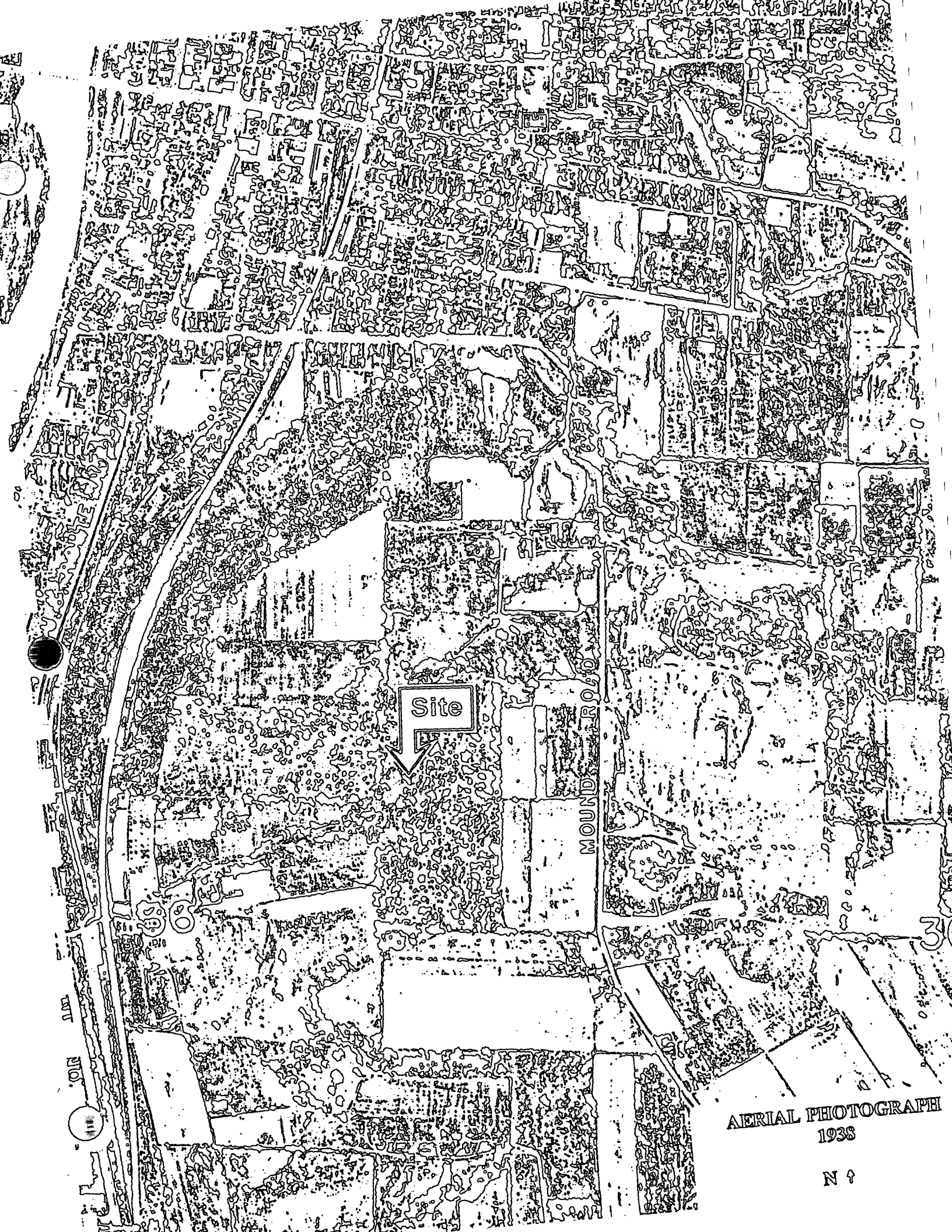
				Operational Jurisdiction				Historic Activities			
No.	Site Name	Location	Status	Regulated Units	Regulatory Authority	Spill Response	SWMU	Evidence Of Release	Response Authority	Further Action Recommended	FFA OU
336	Building 37 Waste Tank (AKA Low RiskWaste Tank (Tank 267)	F-10	In Service	effluent to wastewater treatment (Building 57)	CWA	AEA		No	NA	OM	
337	Building H Condensate Sump (Tank 268)	E-6	In Service		CWA	AEA		No	NA	OM	
338	Building 29 Septic Tank (Tank 270)	E-9	Inactive		AEA	AEA		No	CERCLA	No	5
339	T-44 Wastewater Sump (Tank 250)	F-7	Historical		NA	NA		No	AEA	D&D	
340	T-16b Wastewater Sump (Tank 251)	F-7	Historical		NA	NA		No	AEA	D&D	
341	T-90 Condensate Sump (Tank 269)	F-7	In Service		CWA	AEA		No	NA	OM	
342	T-1 Hot Side Fire Water Tank (Tank 271)	F-7	In Service		AEA	AEA		No	NA	OM	
343	T-20 Fire Water Sump (Tank 272)	F-7	In Service		AEA	AEA		No	NA	OM	
344	T-37 Fire Water Sump (Tank 273)	F-7	In Service		AEA	AEA		No	NA	OM	
345	Area C, Former Equipment Storage Area	H-6	Historical		NA			No	CERCLA	No	5

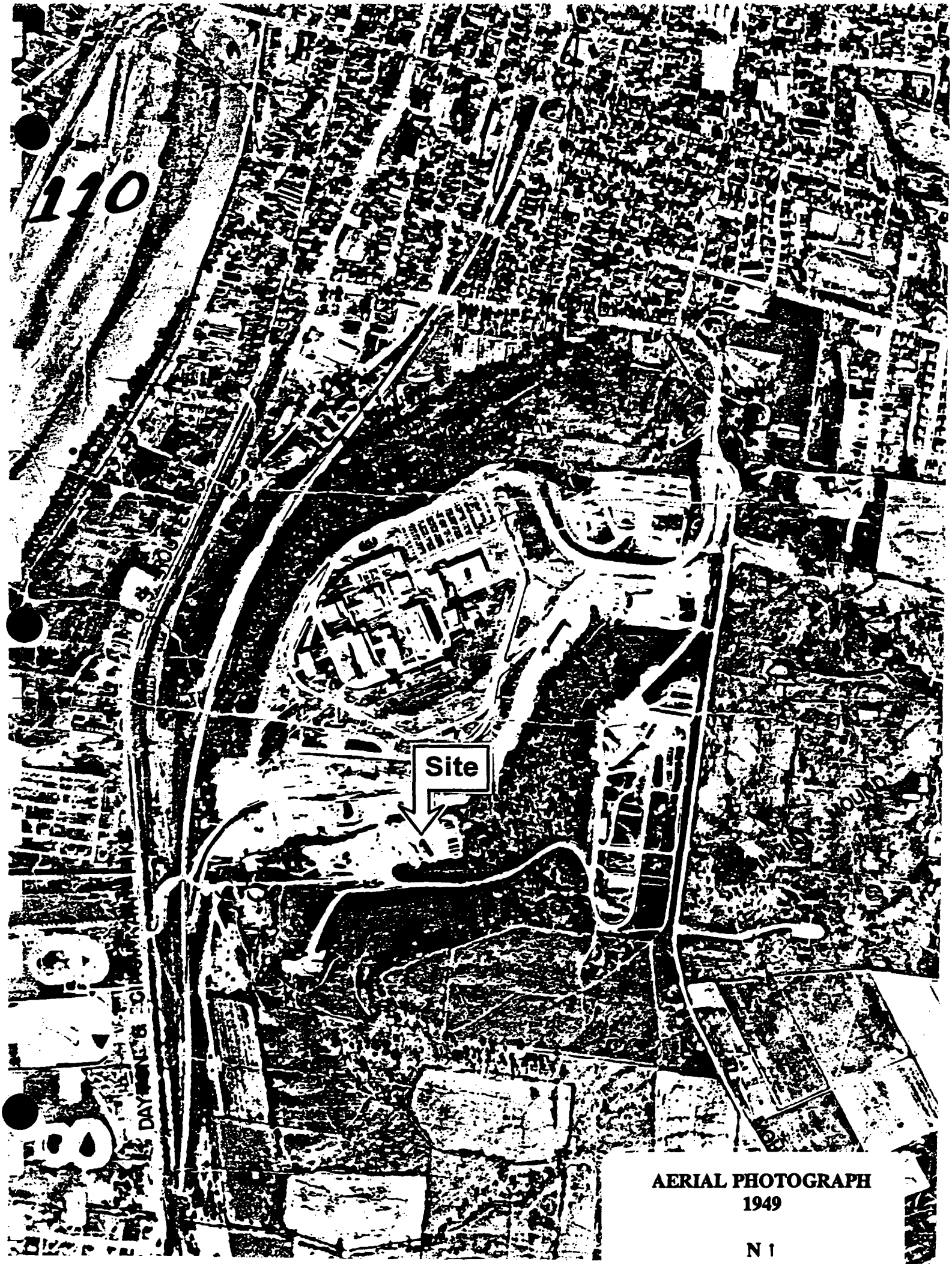
AEA - Atomic Energy Act of 1954
AKA - Also known as
BUSTR - Bureau of underground storage tank regulation
CAA - Clean Air Act
CWA - Clean Water Act
D&D - Action to be taken by Mound Plant Decomission and Decontamination Program
FUSRAP - Formerly Utilized Sites Remedial Action Program
HWMU - Hazardous waste management unit
NA - Not applicable
[a] - Highest plutonium-238 concentration 31.4 pCi/g.
[b] - Tank closed August 1992 (DOE 1992l).
[c] - To be included as part of Area 3 (#41) investigation.
[d] - Actual location unknown, maintained non-public water supply source under SDWA.
[e] - Five gallon release less than reportable quantity. (RQ)

NESHAP - National Emission Standard for Hazardous Air Pollutants
NPDES - Nation Pollution Discharge Elimination System
OM - Action to be taken by Mound Plant operations and maintainence
PBR - permit by rule
RAPCA - Regional Air Pollution Control Authority
RCRA - Resources Conservation and Recovery Act
SDWA - Safe Drinking Water Act
SWMU - Solid waste Management unit

EXHIBIT E

AERIAL PHOTOGRAPHS


Site
MOUND RD
AERIAL PHOTOGRAPH
1938
N



AERIAL PHOTOGRAPH
1949

AERIAL PHOTOGRAPH
1962

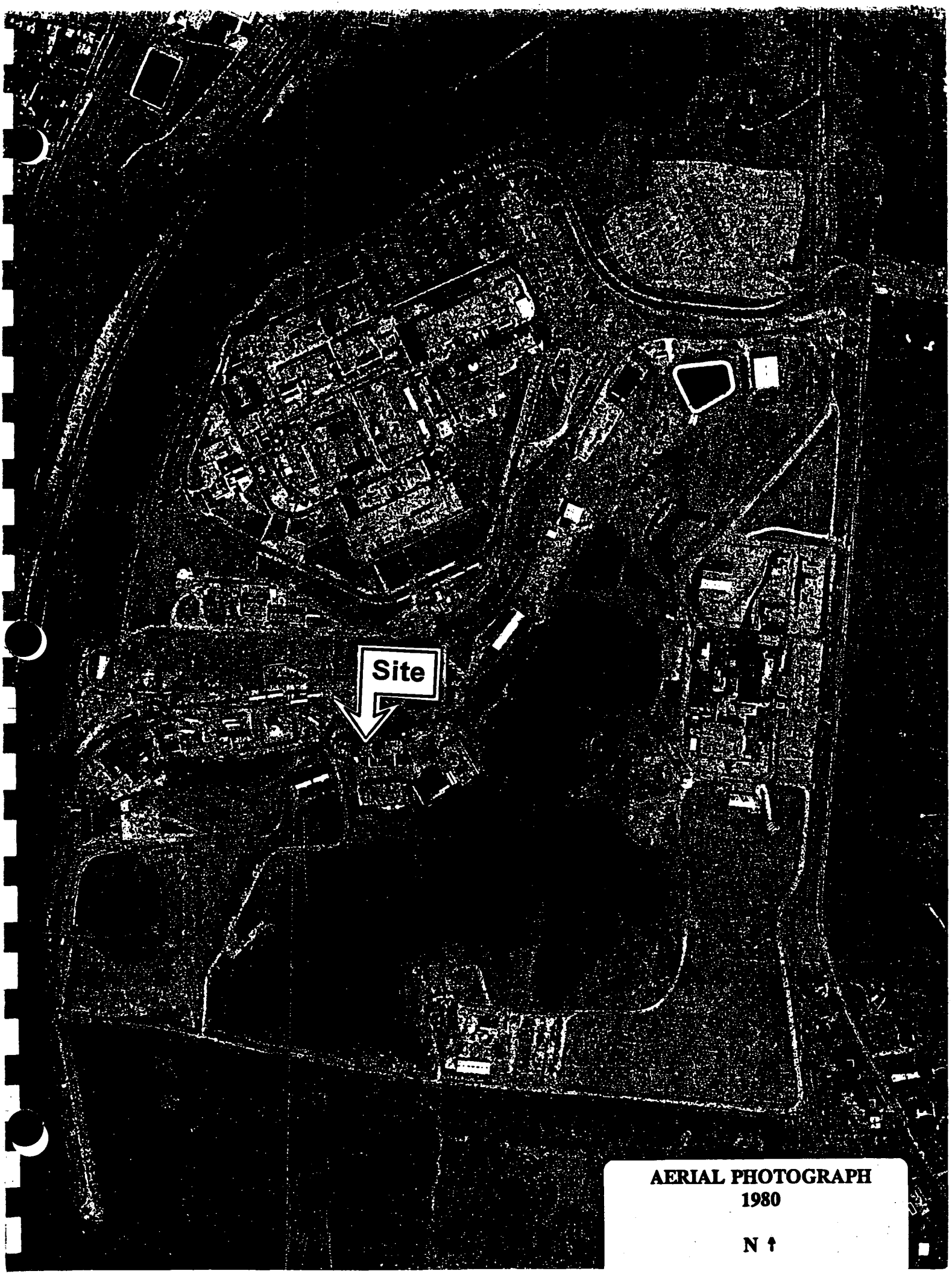
N ↑

AERIAL PHOTOGRAPH
1968

N ↑

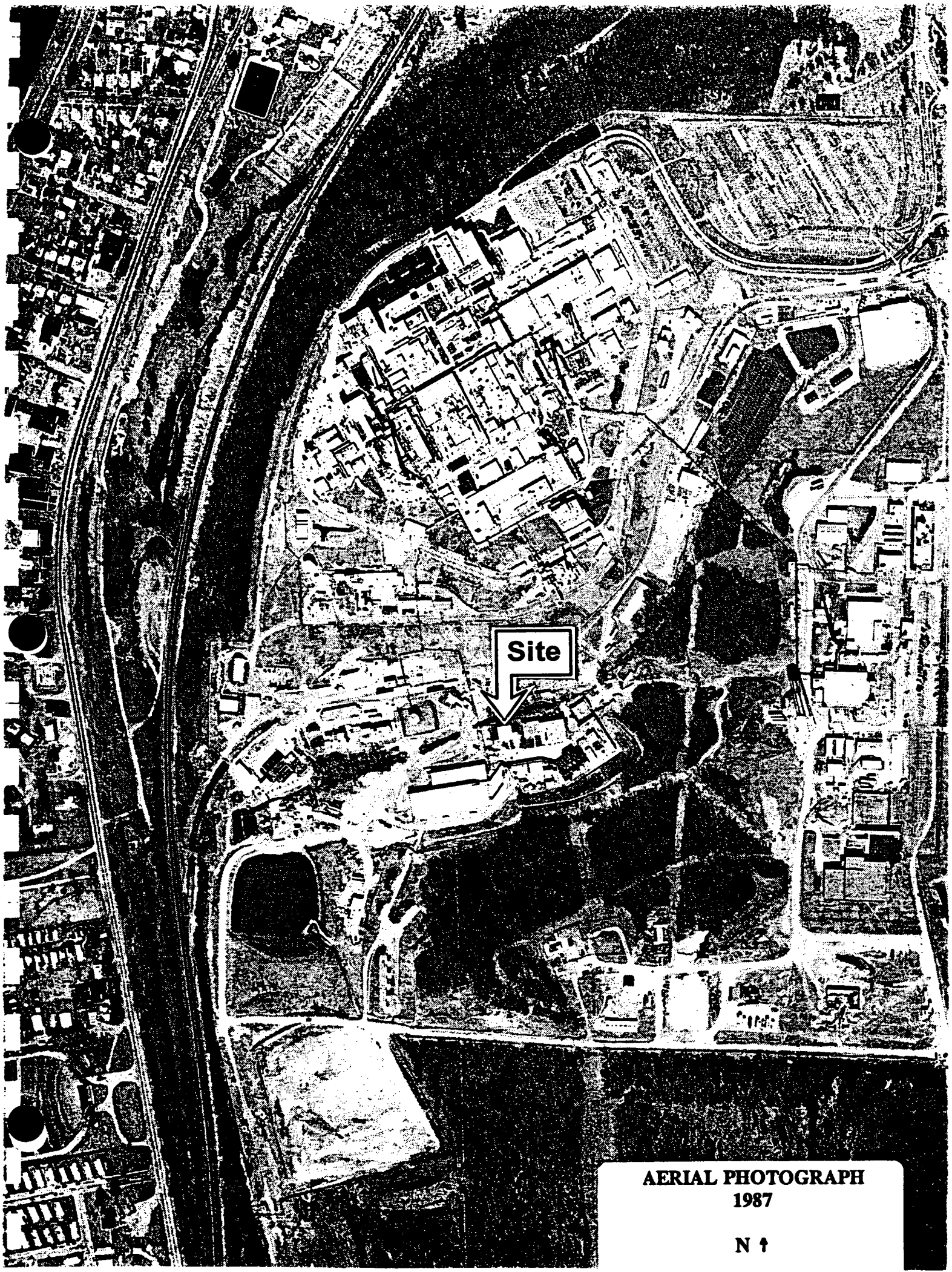
AERIAL PHOTOGRAPH
1975

N ↑



AERIAL PHOTOGRAPH
1980

N ↑



AERIAL PHOTOGRAPH
1987

N ↑

AERIAL PHOTOGRAPH
1995

EXHIBIT F

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

Customer Information

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

ORDER# 100553-2

Order Date : 12/12/95

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 G

BUILDING 35 ASBESTOS SURVEY

MOUND ASBESTOS SURVEY
BUILDING SUMMARY

BUILDING 35

FLOORS:	One	PIPE CHASES:	Yes
DATE BUILT:	1967	PENTHOUSE:	None
CRAWLSPACE:	Yes	GROSS AREA, SQ. FT.:	2,500
SUSPENDED CEILING:	None	ADDITIONS:	None

Asbestos was found to be present in Thermal System Insulation and/or other material in Building 35. The homogeneous areas for the suspect Asbestos Containing Materials are shown below. Refer to the Mound Asbestos Survey Sample Data Report for specific information on sample constituents, estimated amounts of the material, assessments, and percentages of each constituent in the sample.

HOMOGENEOUS AREAS
Sample Numbers: 1.198-1.207, 1.647-1.649

No.	Description	Result
1	Pipe Joint Insulation, Type I, Hard Joints w/Fiberglass Runs	Positive
2	Plaster	Negative
3	Drywall	Negative

Assumed ACM:	Amount	Location
* Floor Tile	N/A	N/A

Drawing Reference: P15

* Floor tile quantities not included in scope.

TABLE 1. HOMOGENEOUS AREAS OF SUSPECT ASBESTOS-CONTAINING MATERIALS IN BUILDING 35, EG&G MOUND APPLIED TECHNOLOGIES, INC.
(Inspected October 27, 1988)

Homogeneous area No.	Type of material	Description of homogeneous area	Does homogeneous material contain asbestos? (assumed/sampled)
1	Thermal system insulation	Cementitious fittings on fiberglass lines	Yes/sampled
2	Miscellaneous	9-in by 9-in vinyl floor tile	Yes/assumed

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

9.58 BUILDING 35

9.58.1 Scope of Building 35 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.

The appraisal team performed a walk-through of Building 35 on the afternoon of February 21, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.58.6.1). The appraisers were not accompanied by the building manager, however, the building Safe Shutdown manager did accompany the appraisal team. Other information has been supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.58.6.2).

9.58.2 Description of Building 35

Building 35 is a 2,500-square-foot single-story structure. It is built of concrete blocks on grade and has a built-up membrane roof. Its location is shown in Attachment 3 (Section 9.58.6.3). The facility is bordered by Building 59 to the east and Building 87 to the southwest. The main Mound plant drainage ditch lies north of Building 35. The building is serviced by central steam, chill water, service, potable water, service water including a fire sprinkler system, and electrical service of 480V (*Mound Facilities Physical Characterization*, 12-1-93).

Building 35 was constructed in 1967. The facility was designed to provide x-ray and eddy current nondestructive testing. Additionally, the facility was used as the control room for the californium-252 multiplier (CFX) neutron radiography facility located in adjacent Building 59. The building has been used for the same purpose since construction. No research, development, or production activities using radioactive materials have occurred in the building. However, non-destructive testing of components containing energetic materials has occurred.

The facility is currently being shut down. All operations have been suspended.

9.58.3 Summary of Findings

The facility is in the process of being shut down with all weapons support operations suspended. The facility appeared to be well-maintained. All chemicals, with the exception of some unopened film processing chemicals, have been removed. There were two observations noted that are potential issues of environmental concern.

9.58.4 Observations

9.58.4.1 Air Emissions

There are no fumehoods. There are no fuel-burning units in the facility. There is no evidence of fugitive dust. No air emission permit applications had been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.58.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.58.4.2.1 Sanitary Wastewater

According to underground utility drawings (Attachment 5—Section 9.58.6.5), Building 35 is serviced by a sanitary line. Confirmation of drainage of sanitary waste into the sanitary line was not within the scope of the project and was, therefore, not verified with dye or smoke tests.

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building 35 does not deviate from that expected by the sanitary treatment plant manager.

9.58.4.2.2 Storm Wastewater

According to underground utility drawings (Attachment 5—Section 9.58.6.5), the facility is serviced by a storm sewer.

9.58.4.2.3 Chemicals

All chemicals, with the exception of a small quantity of unopened photographic chemicals, have been removed from the facility. There were several pieces of idle photo processing equipment in Room 2 that were connected to a floor drain. One of the units was a silver recovery system.

It appeared, from the manner in which the system was installed, that all effluent from the processing passed through the silver recovery system prior to discharge into the drain.

9.58.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross connection. The fountains which supply drinking water have not been tested for lead. According to EPA protocol, annual sampling criteria do not require testing of each fountain. There is service water supplied to the building.

9.58.4.4 Chemical Storage and Hazardous Materials

As noted, all chemicals with the exception of the small quantity of unopened photo processing chemicals, have been removed from the facility. During the inspection, the Safe Shutdown project manager noted that several sealed radioactive calibration sources were found in the facility. The sources are stored in a large, steel-clad lead "pig" (shielded storage cask). Health Physics has examined the sources and recommended they be kept in that same facility until they are removed from the facility. No documentation exists regarding this recommendation.

A review of the procedures and requirements contained in MD-10431, Safe Shutdown Standards Operating Procedures, and the Safe Shutdown Process Managers' records indicate that once Phase II Activities (i.e., commencement of Safe Shutdown) begin, all chemicals within the building are inventoried (chemicals contained in idle equipment are handled separately). Chemicals which can be reused (at Mound or transferred to the City of Miamisburg), subject to age and condition, are identified and processed separately.

Subsequently, all the remaining chemicals are containerized, characterized, and transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance becomes a permanent part of the Mound Safe Shutdown Plan for the specific building. As chemicals are transferred to Waste Management, a central chemical database in the Program Manager's Office is updated monthly to reflect the disposition. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown Process Managers have received training in accordance with 40 CFR 265.16.

9.58.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily paper. There is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a local collection point, then shipped to a landfill by a contractor. The disposal permit is maintained by Waste Management.

The facility never contained radioactive materials with the exception of the sealed radioactive calibration sources. There is asbestos in the thermal system insulation. There was no evidence

of friable asbestos. The facility does not have polychlorinated biphenyl (PCB)-containing equipment (1995 PCB Annual Document Log).

During the Safe Shutdown process, hazardous materials and/or mixed wastes are generated in the process of cleaning idle equipment, furnishings, and personal property; removing tanks, cylinders, and process piping; and cleaning sumps and pits; etc. A review of procedures and requirements contained in MD-10431, Safe Shutdown Standard Operating Procedures, and the Safe Shutdown Process Manager's records indicate that the wastes are containerized, characterized (including testing for radionuclides), and then transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance become a permanent part of the Mound Safe Shutdown Plan for the specific building. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown Process Managers have received training in accordance with 40 CFR 265.16.

9.58.4.6 Waste Minimization and Pollution Prevention

The building has undergone safe shutdown, and waste minimization and pollution prevention activities are not applicable to an empty building.

9.58.5 Findings and Recommendations

Photographs were taken in connection with the appraisal process. They are included in Attachment 6 (Section 9.58.6.6).

The environmental appraisal of Building 35 indicates that the following action items, in order of priority, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

35-1 Health Physics should be contacted regarding the sealed radioactive sources stored in the "pig." These sources should most likely be removed from the facility and stored in a more appropriate location.

35-2 The drain system in Room 2 may be contaminated with photochemical processing materials. Depending on the planned future use of the facility, this may need to be investigated.

Appendix 7.4 Observations from Project Manager Building Walkthrough

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

Appendix 7.5 Radiological Survey Report

Radiological Characterization
Summary
Building 35

Type	RSDS	Location	Amount (dpm/100 cm2)	5400.5 Guidelines for Groups 1,3,4 (fixed + loose) (dpm/100 cm2)	NUREG 1500 Guidelines (loose) (dpm/100 cm2)	Attachment 1 Limit (fixed + loose) (See Note 2) (dpm/100 cm2)	Comments
Highest Alpha Smearable Activity	97-35-008-SC	Room 3 Overhead Vent	6	20	211	20	No Action Necessary
Highest Alpha Fixed Activity	All	All	< 100	100	Note 1	100	No Action Necessary
Highest Beta Smearable Activity	97-35-009-SC	Room 8	7	1,000	9940	1,000	No Action Necessary
Highest Beta Fixed Activity	All	All	< 5,000	5,000	Note 1	5,000	No Action Necessary
Highest Tritium Smearable Activity	97-35-006-SC	Room 1	183	1,000	Note 1	1,000	No Action Necessary

10/15/97

Note 1 NUREG-1500 gives guidelines for loose beta and alpha only.
Note 2 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

RADIOLOGICAL SURVEY DATA SHEET

5-1-5-84

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-001-5C
PURPOSE: SAFE SHUT DOWN COPY	RWP NO. N/A
	DATE: 10.09.97
	TIME: 1300

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
TABLE (1)	TABLE	1,2,3.
(2)	Shelfs, CABNET	4-5-6
(3)	↓ ↓ ↓	7-8-9
(4)		10-11-12
(5)		13-14-15
(6)	Spool Elec. Wire	16-17
(7)	Spool Elec. Wire	18-19
(8)	Power Source	20-21
(9)	Area MONITOR	22
(10)	↓ ↓ ↓	23
(11)		24
(12)		25
(13)		26

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE-Elec.	5397-5407	3-10-98
NE-Elec.	5372-5373	1-28-98
	N/A	

[redacted] 5595	Date: 10-9-97
[redacted] 5809	Date: 10-13-97
Reviewed/Approved by: (Signature/HP#) [redacted] 6031	Date: 10-15-97

ML-9620 (10-95)

2 of 11

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1.				TABLE
2.				↓
3.				↓
4.				CABNET
5.				↓
6.				↓
7.				↓
8.				↓
9.				↓
10.				↓
11.				↓
12.				↓
13.				↓
14.				↓
15.				↓
16.				Spool-wire
17.				↓
18.				Spool-wire
19.				↓
20.				Power Source
21.				↓
22.				Area Monitor
23.				↓
24.				↓
25.				↓
26.				↓
	N.F.E.			

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:

1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG #35	SURVEY NO.
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-09-97
	TIME: 1300

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
14	↓ ↓ ↓	27
15	Remote Monitor	28
16	Remot Monitor	29
17	D.O.E. No. 201638	30
18	D.O.E. No. 201639	31-32
19	Cup dispensers	33
20	Weight 1.5Kg 2.5Kg	34-35
21	Table	36-37-38
22	Moose	39
23	Crowd Wires	40
24	Shelf. Cabnet	41-42-43
25	Shelf. Cabnet	44-45-46
26	X-Ray Screens	47-48

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE-Elec.	5357-5407	3-20-98
NE-Elec	5372-5373	1-28-98

[redacted] 5375 Date: 10-9-97

5379 Date: 10-15-97

Reviewed/Approved by: (Signature/HP#) Date:

ML-9620 (10-95)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

❑ Removable Contamination ❑ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
27.				RES. Monitor
28.				Remote Monit
29.				Remote.
30				201638
31.				201639
32.				↓
33.				Cop desp.
34.				Weight
35				↓
36				Scale
37.				↓
38.				↓
39.				Mouse Comp.
40.				Ground Wires
41.				Shelf CAB
42.				↓
43.				↓
44.				Shelf CAB
45.				↓
46.				↓
47.				
48				X-Ray Screens
	M.F.G.			

❑ Removable Contamination ❑ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
	M.F.G.			

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG #	SURVEY NO.
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-09-97
	TIME: 1300

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
27	X-RAY SCREENS	49-50-51
28	X-RAY SCREENS	52-53-54
29	X-RAY SCREENS	55
30	X-RAY SCREENS	56
31	X RAY SCREENS	57-58-59-60
32	X-RAY SCREENS	61-62-63
33	FUEL CAN	64
34	TABLE	65-66-67
35	SINK	68-69-70-71
36	YELLOW BUCKET	72
37	X-RAY SCREENS	73-74-75
38	X-RAY FILM CONTAINER, CABNET	76-77-78-79-80
39	TYPEWRITER & STAND	81-82-83-84

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE-Elec	5357-5467	3-10-98
NE-Elec.	5372-5373	1-28-98

[redacted] 5378	Date: 10-9-97
[redacted] 5379	Date: 10-13-97
Reviewed/Approved by: (Signature/HP#)	Date:

ML-9620 (10-95)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ___________

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (μCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
49.				X-RAY
50.				↓
51.				↓
52.				X-RAY
53.				↓
54.				↓
55.				X-RAY
56.				X-RAY
57.				X-RAY
58.				↓
59.				↓
60.				↓
61.				X-RAY
62.				↓
63.				↓
64.				Fuel [illegible]
65.				Table
66.				↓
67.				↓
68.				Sink
69.				↓
70.				↓
71.				↓
72.				Bucket
73.				X-RAY
74.				↓
75				↓
76.				Film Container
77.				↓
78.				↓

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (μCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
79.				↓
80.				↓
81.				Type Write-stand
82.				↓
83.				↓
84.				↓

M.F.C.

COMMENTS: All Accessible Areas Surveyed only. All direct readings were < 100dpm/100cm^2 α & < 5,000dpm/100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (μCi/m^3)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR019
Batch Ended: 10/13/97 11:21

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-001-SC CRAFT [84] 10-13-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.73	2.15	<AL	0.42	2.27	<MDA
A2	2	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	3	0.00	2.03	<MDA	1.63	2.12	<MDA
A4	4	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	5	0.00	2.04	<MDA	1.12	2.15	<MDA
B2	6	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	8	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	9	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	10	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	11	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	12	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	13	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	14	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	15	1.74	1.98	<AL	3.51	2.55	<AL
D4	16	0.00	1.91	<MDA	0.40	2.03	<MDA
A1	17	0.00	2.19	<MDA	4.47	3.20	<AL
A2	18	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	19	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	20	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	21	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	22	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	25	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	26	0.00	2.17	<MDA	0.00	1.33	<MDA
C3	27	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	28	0.00	1.98	<MDA	3.63	2.67	<AL
D1	29	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	30	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	31	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	32	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	33	0.00	2.17	<MDA	3.17	2.92	<MDA

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR019
Batch Ended: 10/13/97 11:21

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-001-SC CRAFT [84] 10-13-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A2	34	0.00	2.16	<MDA	5.06	3.20	<AL
A3	35	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	36	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	37	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	38	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	39	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	40	0.00	1.89	<MDA	3.48	2.58	<AL
C1	41	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	42	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	43	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	44	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	45	0.00	2.13	<MDA	1.25	2.14	<MDA
D2	46	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	47	0.00	1.99	<MDA	4.81	2.80	<AL
D4	48	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	49	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	50	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	51	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	52	0.00	1.96	<MDA	3.44	2.69	<AL
B1	53	0.00	2.09	<MDA	6.06	3.28	<AL
B2	54	1.69	2.02	<AL	0.00	1.75	<MDA
B3	55	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	56	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	57	1.91	2.15	<AL	2.35	2.57	<MDA
C2	58	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	59	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	60	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	61	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	62	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	63	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	64	1.59	1.90	<AL	0.00	1.66	<MDA
A1	65	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	66	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	67	0.00	2.03	<MDA	1.63	2.12	<MDA
A4	68	0.00	1.93	<MDA	0.00	1.22	<MDA

8 of 11

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR019
Batch Ended: 10/13/97 11:21

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: T 97-35-001-SC CRAFT [84] 10-13-97 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	69	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	70	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	71	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	72	1.42	1.87	<MDA	1.06	2.00	<MDA
C1	73	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	74	0.00	2.20	<MDA	2.59	2.62	<MDA
C3	75	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	76	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	77	0.00	2.13	<MDA	1.25	2.14	<MDA
D2	78	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	79	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	80	0.00	1.90	<MDA	0.00	1.66	<MDA
A1	81	0.00	2.16	<MDA	1.87	2.61	<MDA
A2	82	1.91	2.11	<AL	0.00	1.32	<MDA
A3	83	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	84	0.00	1.94	<MDA	0.00	1.71	<MDA

9 of 11

Protocol #: 1 Name:Pw H3 #401387 14-Oct-97 07:52
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
T 97-35-001-SC CRAFT [S1-SS4] 10-14-97 TAB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	15	B	7.40	7.00	12.90	634.		0.00
0	2.00	1		469.60	445.00	5.10	614.	938.66	84.76
1	2.00	10		2.10	2.00	0.00	585.	4.23	10.27
2	2.00	14		0.00	0.00	0.00	551.	0.00	0.00
3	2.00	0		3.10	3.00	0.00	560.	6.37	10.07
4	2.00	8		0.00	0.00	0.00	610.	0.00	0.00
5	2.00	31		0.00	0.00	0.00	596.	0.00	0.00
6	2.00	7		0.00	0.00	0.00	533.	0.00	0.00
7	2.00	6		1.10	1.50	0.60	637.	2.17	9.26
8	2.00	11		1.60	2.50	0.00	608.	3.20	10.01
9	2.00	11		1.10	1.00	0.00	506.	2.37	10.56
10	2.00	7		0.00	0.50	1.60	582.	0.00	0.00
11	2.00	0		0.00	0.00	0.00	638.	0.00	0.00
12	2.00	0		0.00	0.00	2.60	614.	0.00	0.00
13	2.00	11		0.00	0.00	0.00	652.	0.00	0.00
14	2.00	14		0.00	0.00	0.00	576.	0.00	0.00
15	2.00	16		0.00	0.00	0.00	441.	0.00	0.00
16	2.00	0		0.00	0.00	0.00	556.	0.00	0.00
17	2.00	6		1.10	1.50	0.00	637.	2.18	9.27
18	2.00	11		0.00	0.00	0.00	595.	0.00	0.00
19	2.00	11		1.60	2.00	1.60	641.	3.15	9.84
20	2.00	0		0.00	0.00	1.60	640.	0.00	0.00
21	2.00	0		1.10	1.00	0.00	635.	2.18	8.85
22	2.00	6		1.60	2.00	0.00	620.	3.19	9.56
23	2.00	0		0.60	1.00	0.00	619.	1.20	8.69
24	2.00	0		1.10	1.00	0.10	617.	2.20	8.92
25	2.00	0		1.10	1.50	0.00	655.	2.14	8.68
26	2.00	0		0.00	0.00	0.00	626.	0.00	0.00
27	2.00	7		0.00	0.50	0.00	646.	0.00	0.00
28	2.00	9		0.00	0.00	0.00	555.	0.00	0.00
29	2.00	13		0.10	1.00	0.00	544.	0.21	9.76
30	2.00	0		0.00	0.00	0.00	621.	0.00	0.00
31	2.00	16		0.00	0.00	0.00	642.	0.00	0.00
32	2.00	0		0.00	0.00	0.00	605.	0.00	0.00
33	2.00	0		0.00	0.00	0.00	608.	0.00	0.00
34	2.00	0		2.10	2.50	0.00	618.	4.19	9.36
35	2.00	8		0.00	0.00	0.00	635.	0.00	0.00
36	2.00	12		0.60	1.50	0.00	621.	1.20	9.56
37	2.00	0		4.10	3.50	0.00	654.	7.97	9.91
38	2.00	22		0.00	0.00	0.00	629.	0.00	0.00
39	2.00	14		0.00	0.00	0.00	651.	0.00	0.00
40	2.00	0		0.60	0.00	0.00	650.	1.17	8.50
41	2.00	14		0.00	1.00	0.00	652.	0.00	0.00
42	2.00	9		0.00	0.00	0.00	535.	0.00	0.00
43	2.00	19		0.00	0.50	0.00	586.	0.00	0.00
44	2.00	0		0.00	0.00	0.00	643.	0.00	0.00

3#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
45	2.00	7		0.00	0.50	0.00	578.	0.00	0.00
46	2.00	0		0.00	0.00	1.60	584.	0.00	0.00
47	2.00	11		1.10	2.00	1.60	654.	2.14	9.52
48	2.00	5		3.60	4.50	0.00	655.	6.99	10.09
49	2.00	0		7.10	6.50	0.00	645.	13.92	11.12
50	2.00	0		0.60	0.00	0.00	638.	1.18	8.60
51	2.00	8		0.00	0.00	0.00	665.	0.00	0.00
52	2.00	0		3.10	2.00	0.00	662.	5.98	9.45
53	2.00	0		1.60	1.00	0.00	634.	3.17	9.08
54	2.00	18		0.10	0.00	0.00	639.	0.20	9.66
55	2.00	5		4.10	4.00	3.10	644.	8.05	10.39
56	2.00	11		1.60	1.50	0.00	550.	3.32	10.36
57	2.00	0		3.60	3.00	0.00	638.	7.11	9.88
58	2.00	11		1.10	2.00	0.00	648.	2.15	9.58
59	2.00	0		0.00	0.00	0.00	615.	0.00	0.00
60	2.00	0		0.00	0.00	0.10	657.	0.00	0.00
61	2.00	10		2.10	2.50	0.00	618.	4.19	10.17
62	2.00	0		3.10	3.00	0.00	638.	6.12	9.67
63	2.00	5		2.60	3.50	2.10	659.	5.03	9.67
64	2.00	6		0.60	1.00	0.10	584.	1.21	9.23
65	2.00	23		0.10	1.00	0.00	601.	0.20	10.22
66	2.00	6		1.10	1.50	0.10	587.	2.21	9.43
67	2.00	9		0.00	0.00	0.00	614.	0.00	0.00
68	2.00	10		0.00	0.00	0.00	615.	0.00	0.00
69	2.00	0		0.00	0.00	0.00	552.	0.00	0.00
70	2.00	17		0.00	0.00	0.60	593.	0.00	0.00
71	2.00	27		0.00	0.00	0.00	379.	0.00	0.00
72	2.00	16		0.00	0.00	0.00	628.	0.00	0.00
73	2.00	0		0.00	0.00	0.00	657.	0.00	0.00
74	2.00	10		2.10	2.50	0.00	629.	4.18	10.14
75	2.00	0		1.10	1.00	0.00	599.	2.21	8.97
76	2.00	0		0.00	0.00	0.00	593.	0.00	0.00
77	2.00	0		0.00	0.00	0.00	635.	0.00	0.00
78	2.00	22		0.00	0.00	0.00	598.	0.00	0.00
79	2.00	30		0.00	0.00	0.00	635.	0.00	0.00
80	2.00	8		0.00	0.00	1.10	657.	0.00	0.00
81	2.00	18		0.00	0.00	0.10	556.	0.00	0.00
82	2.00	36		0.00	0.00	0.00	602.	0.00	0.00
83	2.00	0		0.00	0.00	0.00	538.	0.00	0.00
84	2.00	0		0.00	0.00	1.10	534.	0.00	0.00

T-102

B1 / B2

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35, Room 7	SURVEY NO. 7-35-002 -52
PURPOSE: SAFE SHUT DOWN	SHEET NO. N/A
	DATE: 10-9-97
	TIME: 1000

COPY

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
40	Desk Top	1-3
41	Drawer & Items	4,5
42	Drawer & Items	6,7
43	Drawer & Items	8,9
44	Drawer & Items	10,11
45	Drawer & Items	12,13
46	Telephone	14,15
47	Desk Top	16-18
48	Drawer & Items	19,20
49	Drawer & Items	21,22
50	Drawer & Items	23,24
51	Drawer & Items	25,26
52	Drawer & Items	27,28

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5397/5407	3-10-97
	N/A	

Completed by: (Signature/HP#) [redacted] 8399	Date: 10-9-97
Counted by: (Signature/HP#) [redacted] 5079	Date: 10-9-97
Reviewed/Approved by: (Signature/HP#) [redacted] 6031	Date: 10-14-97

ML-9620 (10-95)

P-3

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ____________

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (μCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				40
2				40
3				40
4				41
5				41
6				42
7				42
8				43
9				43
10				44
11				44
12				45
13				45
14	SEE ATTACHED			46
15				46
16				47
17				47
18				47
19				48
20				48
21				49
22				49
23				50
24				50
25				51
26				51
27				52
28				52
			N/A	

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (μCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm/100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (μCi/m^3)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR026
Batch Ended: 10/9/97 15:59

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-002-SC WHITE [28] 10-09-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	2	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	3	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	4	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	5	0.00	2.05	<MDA	2.36	2.48	<MDA
B2	6	1.69	2.01	<AL	0.00	1.25	<MDA
B3	7	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	8	1.43	1.85	<MDA	0.00	1.17	<MDA
C1	9	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	10	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	11	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	12	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	13	0.00	2.15	<MDA	3.71	2.77	<AL
D2	14	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	15	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	16	0.00	1.95	<MDA	5.06	3.09	<AL
A1	17	3.84	3.03	<AL	1.56	2.61	<MDA
A2	18	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	19	0.00	2.05	<MDA	2.85	2.45	<AL
A4	20	0.00	1.96	<MDA	2.24	2.40	<MDA
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	23	0.00	1.96	<MDA	2.53	2.35	<MDA
B4	24	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	25	1.91	2.14	<AL	1.07	2.23	<MDA
C2	26	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	27	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	28	0.00	1.96	<MDA	0.06	1.70	<MDA

Protocol #: 3 Name:Pw H3 #101068 10-Oct-97 11:06
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
SITE 97-35-002-SC 10-09-97 B1-B28 JC
Conventional DPM
Nuclide 1 = 843
Luminescence Correction On

S#	TIME	LUM	Eff	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	7	0.000	B	4.00	3.70	6.00	626.		0.00
0	2.00	1	0.509		447.00	416.30	3.00	624.	877.72	87.02
1	2.00	20	0.000		0.00	0.00	1.00	641.	0.00	0.00
2	2.00	14	0.000		0.00	0.00	0.00	545.	0.00	0.00
3	2.00	0	0.507		2.00	2.30	2.50	620.	3.94	7.28
4	2.00	12	0.000		0.00	0.00	0.00	638.	0.00	0.00
5	2.00	20	0.000		0.00	0.00	0.00	618.	0.00	0.00
6	2.00	20	0.000		0.00	0.00	0.00	606.	0.00	0.00
7	2.00	0	0.517		3.00	3.30	0.00	639.	5.80	7.65
8	2.00	14	0.000		0.00	0.00	3.00	595.	0.00	0.00
9	2.00	15	0.000		0.00	0.00	0.00	632.	0.00	0.00
10	2.00	27	0.000		0.00	0.00	1.00	621.	0.00	0.00
11	2.00	27	0.000		0.00	0.00	0.00	600.	0.00	0.00
12	2.00	0	0.495		4.50	4.30	1.00	579.	9.08	8.73
13	2.00	63	0.498		3.00	2.30	3.00	593.	6.02	15.76
14	2.00	10	0.513		1.00	1.30	0.00	631.	1.95	7.71
15	2.00	38	0.531		0.50	0.80	1.00	665.	0.94	8.95
16	2.00	22	0.000		0.00	0.00	0.00	624.	0.00	0.00
17	2.00	12	0.000		0.00	0.00	2.50	605.	0.00	0.00
18	2.00	15	0.000		0.00	0.00	0.00	638.	0.00	0.00
19	2.00	15	0.000		0.00	0.00	0.50	596.	0.00	0.00
20	2.00	0	0.513		0.50	0.80	0.00	632.	0.97	6.34
21	2.00	15	0.000		0.00	0.00	0.50	653.	0.00	0.00
22	2.00	61	0.507		1.50	1.80	1.00	619.	2.96	9.79
23	2.00	22	0.000		0.00	0.30	0.00	578.	0.00	0.00
24	2.00	14	0.000		0.00	0.00	0.00	591.	0.00	0.00
25	2.00	0	0.500		1.00	0.30	0.00	603.	2.00	6.81
26	2.00	0	0.000		0.00	0.00	0.00	621.	0.00	0.00
27	2.00	0	0.000		0.00	0.30	0.00	619.	0.00	0.00
28	2.00	12	0.000		0.00	0.00	0.00	577.	0.00	0.00

R-198 D-1/D-28 57 7

RADIOLOGICAL SURVEY DATA SHEET

COPY

LOCATION: (BLDG./AREA/ROOM) BLDG # 35 Room 7	SURVEY NO. 97-35--003 -ST
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-9-97
	TIME: 1100

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
52	Desk Top	1,2
54	Drawer & Items	3,4
55	Drawer & Items	5,6
56	Desk Top	7-9
57	Drawer & Items	10,11
58	Drawer & Items	12,13
59	Drawer & Items	14,15
60	Drawer & Items	16,17
61	Drawer & Items	18,19
62	Metal Cart	20-22
63	Trash Can	23,24
64	Chair	25,26
65	Chair	27,28

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5397/5407	3-10-98
	N/A	

Completed by: (Signature/HP#) [redacted] 5379	Date: 10-9-97
[redacted] 5379	Date: 10-13-97
Reviewed/Approved by: (Signature/HP#) [redacted] 6031	Date: 10-15-97.

ML-9620 (10-95)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1				53
2				53
3				54
4				54
5				55
6				55
7				56
8				56
9				56
10				57
11				57
12				58
13				58
14	SEE ATTACHED			59
15				59
16				60
17				60
18				61
19				61
20				62
21				62
22				62
23				63
24				63
25				64
26				64
27				65
28				65
			N/A	

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR005
Batch Ended: 10/13/97 8:22

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: T 97-35-003-SC WHITE [28] 10-13-97 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
C2	1	0.00	2.19	<MDA	1.29	2.27	<MDA
A2	2	0.00	2.16	<MDA	5.06	3.20	<AL
A3	3	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	4	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	0.00	2.06	<MDA	4.70	3.02	<AL
B3	7	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	8	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	9	1.91	2.12	<AL	0.00	1.83	<MDA
C3	11	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	12	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	13	1.93	2.13	<AL	1.10	2.14	<MDA
D2	14	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	15	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	16	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	17	0.00	2.16	<MDA	1.87	2.61	<MDA
A2	18	1.90	2.12	<AL	0.00	1.85	<MDA
A3	19	1.91	2.01	<AL	0.00	1.24	<MDA
A4	20	1.61	1.93	<AL	0.00	1.22	<MDA
B1	21	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	22	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	23	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	24	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	25	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	26	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	27	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	28	0.00	1.96	<MDA	0.06	1.70	<MDA

 10-14-97

Protocol #: 7 Name:Pw H3 #401388 13-Oct-97 12:39
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
97-35-003-SC WHITE [D1-D28] MB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	2Sigma
-1	10.00	7.50	8.80	13.40	B	69	563.		0.00
0	2.00	7.00	5.20	76.10		10	342.	19.12	16.88
1	2.00	2.00	0.70	0.00		0	628.	3.86	9.05
2	2.00	0.50	0.00	0.00		0	610.	0.98	8.55
3	2.00	0.00	0.00	0.00		0	606.	0.00	0.00
4	2.00	0.00	0.00	0.00		0	650.	0.00	0.00
5	2.00	3.00	0.70	0.00		0	593.	5.95	9.72
6	2.00	0.00	0.00	0.00		0	491.	0.00	0.00
7	2.00	3.50	0.70	0.00		5	625.	6.77	10.06
8	2.00	3.00	1.70	0.00		0	647.	5.68	9.29
9	2.00	0.50	0.00	0.60		0	635.	0.96	8.35
10	2.00	0.00	0.00	0.00		8	589.	0.00	0.00
11	2.00	0.50	0.00	1.10		0	553.	1.01	8.82
12	2.00	0.00	0.00	0.00		27	574.	0.00	0.00
13	2.00	0.00	0.00	0.00		11	604.	0.00	0.00
14	2.00	0.00	0.00	0.00		18	602.	0.00	0.00
15	2.00	2.00	0.00	0.00		0	527.	4.19	9.83
16	2.00	0.00	0.00	0.00		0	582.	0.00	0.00
17	2.00	0.50	0.00	0.00		0	628.	0.96	8.41
18	2.00	1.50	0.20	72.10		11	510.	3.22	10.72
19	2.00	0.00	0.00	0.00		16	590.	0.00	0.00
20	2.00	0.00	0.00	0.00		10	544.	0.00	0.00
21	2.00	0.00	0.00	0.00		0	548.	0.00	0.00
22	2.00	0.00	0.00	0.00		36	569.	0.00	0.00
23	2.00	0.00	0.00	0.00		0	554.	0.00	0.00
24	2.00	0.00	0.00	1.60		8	516.	0.00	0.00
25	2.00	0.00	0.00	0.00		12	523.	0.00	0.00
26	2.00	0.00	0.00	0.00		8	574.	0.00	0.00
27	2.00	3.00	1.20	0.00		0	552.	6.08	9.93
28	2.00	0.00	0.00	0.00		16	559.	0.00	0.00

R-198 J1/J28 P7

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35, Room 7	SURVEY NO. 97-35-044-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: [redacted]-97
	TIME: 1330

COPY

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
66	Desk Top	1-3
67	Drawer & Items	4,5
68	Drawer & Items	6,7
69	Drawer & Items	8,9
70	Drawer & Items	10,11
71	Drawer & Items	12,13
72	Drawer & Items	14,15
73	Drawer & Items	16,17
74	Drawer & Items	18,19
75	Drawer & Items	20,21
76	Shelf & Items	22,23
77	Shelf & Items	24,25
78	3 Black Files	26-28

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5397/5407	3-10-98
	N/A	

Completed by: (Signature/HP#) [redacted] 2394	Date: 10-9-97
Counted by: (Signature/HP#) [redacted] 5379	Date: 10-13-97
Reviewed/Approved by: (Signature/HP#) [redacted] 2031	Date: 10-14-97

ML-9620 (10-95)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ____________

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				66
2				66
3				66
4				67
5				67
6				68
7				68
8				69
9				69
10				70
11				70
12				71
13				71
14	SEE ATTACHED			72
15				72
16				73
17				73
18				74
19				74
20				75
21				75
22				76
23				76
24				77
25				77
26				78
27				78
28				78
			N/A	

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100 dpm/100cm^2 α & < 5,000 dpm/100cm^2 β. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N/A	N/A

NOTES:

1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR006
Batch Ended: 10/13/97 8:34

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-004-SC WHITE [28] 10-13-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	2	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	3	0.00	2.05	<MDA	2.85	2.45	<AL
A4	4	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	5	1.88	2.04	<AL	0.96	2.15	<MDA
B2	6	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	8	0.00	1.88	<MDA	2.33	2.31	<MDA
C1	9	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	10	1.87	2.19	<AL	1.14	2.27	<MDA
C3	11	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	12	0.00	1.98	<MDA	3.63	2.67	<AL
D1	13	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	14	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	15	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	16	0.00	1.91	<MDA	0.40	2.03	<MDA
A1	17	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	18	0.00	2.14	<MDA	2.46	2.61	<MDA
A3	19	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	20	0.00	1.96	<MDA	3.44	2.69	<AL
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	25	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	26	0.00	2.20	<MDA	2.59	2.62	<MDA
C3	27	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	28	0.00	1.98	<MDA	3.63	2.67	<AL

Protocol #: 7 Name:Pw H3 #401393 13-Oct-97 11:06
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
T 97-35-OU4-SC WHITE 10-13-97 (J1-J28) CYR
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	8	B	7.30	6.90	13.10	637.		0.00
0	2.00	1		425.20	398.60	3.40	633.	848.11	86.83
1	2.00	20		0.00	0.00	0.00	630.	0.00	0.00
2	2.00	12		0.00	0.00	0.00	504.	0.00	0.00
3	2.00	16		0.00	0.00	0.00	550.	0.00	0.00
4	2.00	8		0.00	0.00	0.00	575.	0.00	0.00
5	2.00	20		0.00	0.00	0.00	635.	0.00	0.00
6	2.00	33		0.00	0.00	4.40	629.	0.00	0.00
7	2.00	14		0.00	0.60	0.00	643.	0.00	0.00
8	2.00	9		0.00	0.00	0.00	611.	0.00	0.00
9	2.00	27		0.00	0.60	0.90	654.	0.00	0.00
10	2.00	9		0.00	0.00	0.00	648.	0.00	0.00
11	2.00	24		0.00	0.00	0.00	659.	0.00	0.00
12	2.00	0		0.70	0.60	0.00	670.	1.35	8.39
13	2.00	18		0.00	0.00	0.00	666.	0.00	0.00
14	2.00	9		0.00	0.00	0.00	602.	0.00	0.00
15	2.00	23		0.20	0.60	0.00	670.	0.39	9.82
16	2.00	17		0.00	0.00	0.90	612.	0.00	0.00
17	2.00	7		0.00	0.00	0.00	611.	0.00	0.00
18	2.00	22		0.00	0.00	0.00	611.	0.00	0.00
19	2.00	18		0.00	0.00	0.00	651.	0.00	0.00
20	2.00	0		0.20	0.00	0.00	623.	0.40	8.49
21	2.00	14		0.00	0.00	1.40	627.	0.00	0.00
22	2.00	33		0.00	0.00	0.00	613.	0.00	0.00
23	2.00	20		0.00	0.00	1.40	543.	0.00	0.00
24	2.00	10		2.20	1.60	0.90	589.	4.49	10.40
25	2.00	36		0.00	0.00	0.00	600.	0.00	0.00
26	2.00	14		0.00	0.10	5.90	628.	0.00	0.00
27	2.00	14		0.00	0.10	0.00	613.	0.00	0.00
28	2.00	6		0.70	1.60	0.00	674.	1.35	8.79

T-102

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-005-SS
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-9-97
	TIME: 1400

COPY

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
79	Black Paper File	1
80	Brown Book Shelf	2, 3
81	File	4
82	Work Bench	5-7
83	Graph Machine	8, 9
84	Tape Dispenser	10
85	Counter	11, 12
86	Work Bench	13-15
87	Microscope	16-18
88	Power Supply	19, 20
89	Microscope	21-23
90	File	24
91	Microscope Base assembly	25, 26

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5397/5407	3-10-98

Completed by: (Signature/HP#) [redacted] 2299	Date: 10-9-97
Counted by: (Signature/HP#) [redacted] 6379	Date: 10-9-97
Reviewed/Approved by: (Signature/HP#) [redacted] 6031	Date: 10-14-97

ML-9620 (10-95)

P-7

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ____________

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm²) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			79
2				80
3				80
4				81
5				82
6				82
7				82
8				83
9				83
10				84
11				85
12				85
13				86
14				86
15				86
16				87
17				87
18				87
19				88
20				88
21				89
22				89
23				89
24				90
25				91
26				91
N/A				

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm²) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
N/A				

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100 dpm/100cm² α & < 5,000 dpm/100cm² B. ✱: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m³)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (10-95)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR027
Batch Ended: 10/9/97 16:12

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-005-SC WHITE [26] 10-09-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	2	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	3	0.00	2.03	<MDA	1.63	2.12	<MDA
A4	4	1.61	1.94	<AL	0.00	1.71	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	7	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	8	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	9	0.00	2.16	<MDA	3.79	2.88	<AL
C2	10	0.00	2.17	<MDA	0.00	1.33	<MDA
C3	11	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	12	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	13	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	14	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	15	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	16	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	17	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	18	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	19	1.91	2.02	<AL	0.26	1.73	<MDA
A4	20	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	21	0.00	2.04	<MDA	1.12	2.15	<MDA
B2	22	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	23	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	24	1.42	1.88	<MDA	2.21	2.31	<MDA
C1	25	0.00	2.15	<MDA	2.51	2.57	<MDA
C2	26	0.00	2.19	<MDA	1.29	2.27	<MDA

 CDW 10-13-97

Protocol #: 7 Name:Pw H3 #101068 10-Oct-97 13:58
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
SITE 97-35-005-SO 10-09-97 D1-D26 JC
Conventional DPM
Nuclide 1 = S43
Luminescence Correction On

S#	TIME	LUM	Eff	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	7	0.000	B	6.00	5.80	5.90	667.		0.00
0	2.00	0	0.306		441.00	410.70	6.10	616.	873.31	37.03
1	2.00	12	0.000		0.00	0.00	2.10	586.	0.00	0.00
2	2.00	0	0.000		0.00	0.00	0.10	529.	0.00	0.00
3	2.00	61	0.000		0.00	0.00	0.10	571.	0.00	0.00
4	2.00	0	0.000		0.00	0.00	1.60	604.	0.00	0.00
5	2.00	0	0.000		0.00	0.00	0.00	605.	0.00	0.00
6	2.00	0	0.000		0.00	0.00	0.00	582.	0.00	0.00
7	2.00	35	0.000		0.00	0.00	0.00	633.	0.00	0.00
8	2.00	12	0.000		0.00	0.00	1.10	591.	0.00	0.00
9	2.00	0	0.000		0.00	0.00	0.00	638.	0.00	0.00
10	2.00	0	0.000		0.00	0.00	0.00	626.	0.00	0.00
11	2.00	0	0.000		0.00	0.00	0.00	626.	0.00	0.00
12	2.00	14	0.000		0.00	0.00	0.10	643.	0.00	0.00
13	2.00	14	0.000		0.00	0.00	0.00	606.	0.00	0.00
14	2.00	0	0.502		1.50	0.70	0.00	611.	2.99	7.78
15	2.00	41	0.000		0.00	0.00	0.00	602.	0.00	0.00
16	2.00	23	0.000		0.00	0.00	1.60	623.	0.00	0.00
17	2.00	0	0.000		0.00	0.00	0.60	626.	0.00	0.00
18	2.00	0	0.000		0.00	0.20	0.00	613.	0.00	0.00
19	2.00	12	0.000		0.00	0.00	0.10	630.	0.00	0.00
20	2.00	11	0.000		0.00	0.00	0.00	638.	0.00	0.00
21	2.00	20	0.000		0.00	0.00	0.10	643.	0.00	0.00
22	2.00	25	0.000		0.00	0.00	0.10	637.	0.00	0.00
23	2.00	9	0.000		0.00	0.00	2.10	637.	0.00	0.00
24	2.00	0	0.000		0.00	0.00	0.00	613.	0.00	0.00
25	2.00	22	0.000		0.00	0.00	1.10	612.	0.00	0.00
26	2.00	12	0.000		0.00	0.00	1.60	651.	0.00	0.00

A-198 A-1/A-185 PC

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-006-SC
PURPOSE: SAFE SHUT DOWN Equipment	RWP NO. N/A
	DATE: 10-09-98
	TIME: 0830

COPY

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
92	TABLE, Lab Top	1-2-3
93	1st file	4-5
94	2nd file	6-7
95	3rd file	8-9
96	4th file	10-11
97	5th file	12-13
98	6th file	14-15
99	7th file	16-17
100	8th file	18-19
101	9th file	20-21
102	10th file	22-23
103	11th file	24-25
104	12th file	26-27

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE-Electra	5397-5407	3-10-98
NE Electra	5372-5373	1-28-98
	N/A	

		Date:
[redacted]	578	10-9-97
[redacted]	1611	10-13-97
[redacted] (Signature/HP#)	6031	10-15-97

ML-9620 (10-95)

2 OF 11

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ____________

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm²) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				92
2				92
3				92
4				93
5				93
6				94
7				94
8				95
9				95
10				96
11	SEE ATTACHED			96
12				97
13				97
14				98
15				98
16				99
17				99
18				100
19				100
20				100
21				101
22				102
23				102
24				103
25				103
26				104
27				104
			N/A	

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm²) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS: All Accessible Areas Surveyed only. All direct readings were < 100dpm/100cm² α & < 5,000dpm/100cm² β. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m³)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-026-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-13-97
	TIME:

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
105	13th file	28-29
106	14th file	30-31
107	15th file	32-33
108	16th file	34-35
109	17th file	36-37
110	18th file	38-39
111	19th file	40-41
112	20th file	42-43
113	21st file	44-45
114	22nd file	46-47
115	23rd file	48-49
116	24th file	50-51
117	CABNET	52-53-54

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE-Electra	5397-5407	3-10-98
NE-Electra	5372-5373	1-28-98
	N/A	

Completed by: (Signature/HP#) [redacted] 5975	Date: 10-9-97
Counted by: (Signature/HP#)	Date:
Reviewed/Approved by: (Signature/HP#)	Date:

ML-9620 (10-95)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
28				105
29				105
30				106
31				106
32				107
33				107
34				108
35				109
36				109
37				109
38				110
39				110
40				111
41	SEE ATTACHED			111
42				112
43				112
44				113
45				113
46				114
47				114
48				115
49				115
50				116
51				116
52				117
53				117
54				117
			N/A	

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
			N/A	

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-006-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-13-97
	TIME:

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
118	Film light	55-56-57
119	Classified Container	58-59
120	Heat Press	60-65
121	Hand Cart	66-70
122	Clock	71-72
123	Power On - X-Ray On light	73-74-75
124	X-Ray Machine	76-85
	N/A	

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE-Electra	5397-5407	3-10-98
NE-Electra	5372-5373	1-28-98
	N/A	

[redacted] 576	Date: 10-13-97
Counted by: (Signature/HP#)	Date:
Reviewed/Approved by: (Signature/HP#)	Date:

6 of 11

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
55				118
56				118
57				118
58				119
59				119
60				120
61				120
62				120
63				120
64				~~122~~ 120
65				~~122~~ 120
66				~~123~~ 121
67				~~123~~ 121
68				~~123~~ 121
69				~~124~~ 121
70	SEE ATTACHED			~~124~~ 121
71				122
72				122
73				123
74				123
75				123
76				124
77				124
78				124
79				124
80				124
81				124
82				124
83				124
84				124

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
85	SEE ATTACHED			124

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR023
Batch Ended: 10/13/97 15:23

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: 97-35-006-SC CRAFT [85] MB

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	2	1.90	2.14	<AL	2.31	2.61	<MDA
A3	3	1.91	2.01	<AL	0.00	1.23	<MDA
A4	4	0.00	1.98	<MDA	5.83	3.18	<AL
B1	5	0.00	2.05	<MDA	2.36	2.48	<MDA
B2	6	1.69	2.01	<AL	0.00	1.25	<MDA
B3	7	0.00	1.96	<MDA	2.53	2.35	<MDA
B4	8	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	9	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	10	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	11	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	12	0.00	1.96	<MDA	0.06	1.70	<MDA
D1	13	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	14	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	15	0.00	1.96	<MDA	2.53	2.28	<AL
D4	16	0.00	1.95	<MDA	5.06	3.09	<AL
A1	17	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	18	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	19	0.00	2.01	<MDA	0.00	1.24	<MDA
A4	20	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	23	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	24	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	25	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	26	0.00	2.17	<MDA	0.00	1.33	<MDA
C3	27	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	28	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	29	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	30	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	31	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	32	0.00	1.94	<MDA	3.89	2.86	<AL
A1	33	0.00	2.15	<MDA	0.57	2.27	<MDA

7 of 11

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR023
Batch Ended: 10/13/97 15:23

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: 97-35-006-SC CRAFT [85] MB

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A2	34	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	35	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	36	0.00	1.96	<MDA	2.24	2.40	<MDA
B1	37	0.00	2.05	<MDA	2.36	2.48	<MDA
B2	38	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	39	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	40	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	41	0.00	2.16	<MDA	3.79	2.88	<AL
C2	42	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	43	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	44	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	45	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	46	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	47	1.74	1.94	<AL	0.10	1.62	<MDA
D4	48	0.00	1.90	<MDA	0.00	1.66	<MDA
A1	49	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	50	0.00	2.14	<MDA	2.46	2.61	<MDA
A3	51	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	52	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	53	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	54	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	55	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	56	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	57	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	58	0.00	2.20	<MDA	2.59	2.62	<MDA
C3	59	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	60	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	61	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	62	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	63	0.00	1.95	<MDA	1.40	1.98	<MDA
D4	64	0.00	1.92	<MDA	1.57	2.34	<MDA
A1	65	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	66	1.90	2.12	<AL	0.00	1.85	<MDA
A3	67	0.00	2.01	<MDA	0.00	1.24	<MDA
A4	68	0.00	1.94	<MDA	0.00	1.71	<MDA

8 of 11

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR023
Batch Ended: 10/13/97 15:23

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: 97-35-006-SC CRAFT [85] MB

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	69	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	70	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	71	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	72	0.00	1.88	<MDA	2.33	2.31	<MDA
C1	73	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	74	0.00	2.20	<MDA	2.59	2.62	<MDA
C3	75	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	76	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	77	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	78	0.00	2.11	<MDA	4.89	3.24	<AL
D3	79	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	80	0.00	1.91	<MDA	0.40	2.03	<MDA
A1	81	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	82	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	83	0.00	2.03	<MDA	1.63	2.12	<MDA
A4	84	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	85	0.00	2.03	<MDA	0.00	1.76	<MDA

9 of 11

Protocol #: 2 Name:PW H3 #401387 14-Oct-97 12:23
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
T 97-35-006-SC CRAFT [A1-A85] 10-14-97 TAS
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	10	B	6.50	6.60	13.30	662.		0.00
0	2.00	1		484.00	456.90	0.00	637.	956.86	85.69
1	2.00	8		0.00	0.00	0.00	622.	0.00	0.00
2	2.00	17		0.00	0.00	1.70	524.	0.00	0.00
3	2.00	16		0.00	0.00	0.00	602.	0.00	0.00
4	2.00	11		0.00	0.00	0.00	627.	0.00	0.00
5	2.00	33		0.00	0.00	0.00	606.	0.00	0.00
6	2.00	7		0.50	0.90	0.00	663.	0.96	8.32
7	2.00	0		0.00	0.00	0.00	591.	0.00	0.00
8	2.00	18		0.00	0.00	0.00	646.	0.00	0.00
9	2.00	14		0.00	0.40	0.00	636.	0.00	0.00
10	2.00	7		1.00	0.00	0.00	605.	2.00	8.87
11	2.00	0		1.00	0.40	0.70	612.	2.00	8.39
12	2.00	18		0.00	0.00	0.00	636.	0.00	0.00
13	2.00	0		0.00	0.00	5.70	623.	0.00	0.00
14	2.00	16		0.00	0.00	0.00	628.	0.00	0.00
15	2.00	13		1.00	0.90	0.00	642.	1.97	9.14
16	2.00	5		3.00	3.40	0.00	652.	5.84	9.47
17	2.00	16		2.00	2.90	0.00	636.	3.96	10.02
18	2.00	12		1.50	0.40	0.00	631.	2.98	9.45
19	2.00	7		0.50	0.00	4.70	641.	0.98	8.50
20	2.00	11		0.00	0.00	0.00	658.	0.00	0.00
21	2.00	17		0.00	0.00	0.00	591.	0.00	0.00
22	2.00	0		1.50	1.40	0.00	669.	2.87	8.27
23.	2.00	10		3.50	3.90	0.00	647.	6.85	10.10
24	2.00	0		4.00	2.90	0.00	674.	7.63	9.28
25	2.00	0		0.00	0.00	0.00	661.	0.00	0.00
26	2.00	8		0.00	0.00	0.00	642.	0.00	0.00
27	2.00	5		5.00	4.40	0.00	651.	9.75	10.27
28	2.00	6		2.00	1.40	0.20	672.	3.82	8.88
29	2.00	0		0.00	0.00	0.00	609.	0.00	0.00
30	2.00	0		1.50	0.40	0.00	654.	2.92	8.39
31	2.00	7		1.00	0.90	0.00	671.	1.91	8.47
32	2.00	0		0.50	0.00	0.00	658.	0.97	7.89
33	2.00	17		0.00	0.00	0.00	683.	0.00	0.00
34	2.00	0		0.00	0.00	0.00	673.	0.00	0.00
35	2.00	7		0.50	0.00	0.00	646.	0.98	8.45
36	2.00	0		3.50	2.40	0.00	638.	6.91	9.40
37	2.00	9		0.00	0.00	0.00	553.	0.00	0.00
38	2.00	10		0.00	0.00	0.00	624.	0.00	0.00
39	2.00	0		0.00	0.00	0.00	628.	0.00	0.00
40	2.00	0		1.50	0.90	0.00	637.	2.96	8.53
41	2.00	0		0.00	0.00	1.70	567.	0.00	0.00
42	2.00	0		0.00	0.00	1.20	628.	0.00	0.00
43	2.00	18		0.00	0.00	0.00	608.	0.00	0.00
44	2.00	0		0.00	0.00	0.00	636.	0.00	0.00

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
45	2.00	8		0.00	0.00	0.00	642.	0.00	0.00
46	2.00	8		0.00	0.00	0.00	637.	0.00	0.00
47	2.00	0		1.50	0.90	0.00	635.	2.97	8.55
48	2.00	7		0.50	0.40	0.00	650.	0.98	8.42
49	2.00	0		0.00	0.00	0.00	638.	0.00	0.00
50	2.00	7		0.50	0.00	0.00	634.	0.99	8.55
51	2.00	8		0.00	0.40	0.00	642.	0.00	0.00
52	2.00	7		1.00	0.40	0.00	635.	1.98	8.77
53	2.00	0		2.00	1.90	0.00	667.	3.84	8.50
54	2.00	8		89.50	71.40	22.70	569.	182.53	32.68
55	2.00	6		2.00	1.40	0.00	610.	4.00	9.30
56	2.00	7		1.00	0.40	0.00	613.	2.00	8.85
57	2.00	7		0.50	0.90	0.00	658.	0.97	8.35
58	2.00	0		0.00	0.00	0.00	640.	0.00	0.00
59	2.00	0		0.00	0.00	2.20	585.	0.00	0.00
60	2.00	19		0.50	1.40	0.00	567.	1.02	9.71
61	2.00	8		0.00	0.00	4.70	619.	0.00	0.00
62	2.00	12		0.00	0.00	0.00	582.	0.00	0.00
63	2.00	7		0.50	0.00	0.00	618.	1.00	8.61
64	2.00	18		1.00	1.90	0.00	640.	1.97	9.58
65	2.00	6		2.00	2.40	0.00	636.	3.96	9.20
66	2.00	7		0.50	0.90	0.00	570.	1.02	8.79
67	2.00	16		0.00	0.00	0.00	562.	0.00	0.00
68	2.00	6		1.50	1.40	0.00	529.	3.16	9.57
69	2.00	9		0.00	0.40	0.20	669.	0.00	0.00
70	2.00	16		0.00	0.00	0.00	668.	0.00	0.00
71	2.00	0		3.00	1.90	0.00	650.	5.86	9.08
72	2.00	20		0.00	0.00	0.00	642.	0.00	0.00
73	2.00	9		0.00	0.00	0.00	640.	0.00	0.00
74	2.00	0		0.00	0.00	0.00	639.	0.00	0.00
75	2.00	0		0.50	0.00	0.00	566.	1.02	8.33
76	2.00	11		2.00	1.90	0.00	639.	3.95	9.59
77	2.00	7		1.00	0.90	0.00	589.	2.01	8.90
78	2.00	0		2.00	1.40	0.00	525.	4.23	9.37
79	2.00	24		0.00	0.00	0.00	657.	0.00	0.00
80	2.00	0		3.50	2.90	0.00	601.	7.02	9.55
81	2.00	0		0.50	0.40	0.00	658.	0.97	7.89
82	2.00	0		8.00	7.90	0.00	623.	15.94	11.25
83	2.00	6		2.00	1.90	0.00	599.	4.01	9.33
84	2.00	14		0.00	0.40	0.00	614.	0.00	0.00
85	2.00	0		0.50	0.00	0.70	515.	1.07	8.71

RADIOLOGICAL SURVEY DATA SHEET

COPY

C/132 P4

LOCATION: (BLDG./AREA/ROOM) BLDG.# 35	SURVEY NO. 97-35-007-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-13-97
	TIME: 1045

MAP/DRAWING

SAFE SHUT DOWN #	DESCRIPTION	SMEAR #
125	Trash Can	1, 2
126	Metal Cart	3-5
127	Metal Cart	6-8
128	Bucket & Items	9-11
129	Metal Stand	12-14
130	1 Box of Sponges	15, 16
131	1 Bag of Dust Caps	17
132	Tool Box	18, 20
133	Tool Box	21-23
134	Desk Top	24-26
135	Drawer & Contents	27, 28
136	Drawer & Contents	29, 30
137	Drawer & Contents	31, 32

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5309/5320	1-14-98

Completed by: (Signature/HP#) [redacted] 6595	Date: 10-13-97
[redacted] #) 1611	Date: 10-14-97
Reviewed/Approved by: (Signature/HP#)	Date:

ML-9620 (10-95)

2 OF 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				125
2				125
3				126
4				126
5				126
6				127
7				127
8				127
9				128
10				128
11				128
12				129
13				129
14				129
15	SEE ATTACHED			130
16				130
17				131
18				132
19				132
20				132
21				133
22				133
23				133
24				134
25				134
26				134
27				135
28				135
29				138
30				136

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31	SEE ATTACHED			137
32			—	137

COMMENTS: All ACCESSIBLE AREAS SURVEYED ONLY.
All DIRECT READINGS WERE <5000 DPM/100cm² β⁻ + <100 DPM/100 cm² α
*DENOTES SMEARS COUNTED FOR TRITIUM

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	
	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR026
Batch Ended: 10/14/97 7:53

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: 97-35-007-SC WHITE ~~130~~ 1 MB

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	2	0.00	2.14	<MDA	2.46	2.61	<MDA
A3	3	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	4	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	7	0.00	1.96	<MDA	2.53	2.35	<MDA
B4	8	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	9	0.00	2.15	<MDA	2.51	2.57	<MDA
C2	10	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	11	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	12	0.00	1.96	<MDA	0.06	1.70	<MDA
D1	13	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	14	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	15	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	16	1.59	1.92	<AL	1.43	2.34	<MDA
A1	17	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	18	0.00	2.16	<MDA	5.06	3.20	<AL
A3	19	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	20	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	21	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	23	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	24	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	25	0.00	2.15	<MDA	2.51	2.57	<MDA
C2	26	1.87	2.18	<AL	0.00	1.86	<MDA
C3	27	1.70	1.98	<AL	0.00	1.20	<MDA
C4	28	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	29	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	30	0.00	2.11	<MDA	4.89	3.24	<AL
D3	31	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	32	1.59	1.89	<AL	0.00	1.19	<MDA

3 of 4

4 OF 4

Protocol #: 4 Name:Pw H3 #401388 14-Oct-97 09:04
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
97-35-007-SC WHITE 10-14-97 (C1-C32) CYR

R198

Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	2Sigma
-1	10.00	6.70	7.60	13.50	B	74	513.		0.00
0	2.00	430.30	412.40	5.00		0	599.	850.49	78.68
1	2.00	0.00	0.00	0.00		8	605.	0.00	0.00
2	2.00	1.80	0.40	1.00		16	614.	3.52	9.91
3	2.00	0.00	0.00	0.00		10	542.	0.00	0.00
4	2.00	2.80	1.40	0.00		5	557.	5.65	9.83
5	2.00	5.30	3.40	0.00		0	588.	10.54	10.29
6	2.00	0.00	0.00	0.00		10	590.	0.00	0.00
7	2.00	0.00	0.00	0.00		27	601.	0.00	0.00
8	2.00	4.30	2.90	0.00		5	518.	9.12	10.97
9	2.00	0.00	0.00	0.00		40	629.	0.00	0.00
10	2.00	0.00	0.00	0.00		23	626.	0.00	0.00
11	2.00	0.80	0.00	0.00		13	624.	1.55	9.01
12	2.00	0.00	0.00	0.00		10	599.	0.00	0.00
13	2.00	0.00	0.00	0.00		10	637.	0.00	0.00
14	2.00	0.00	0.00	0.00		8	633.	0.00	0.00
15	2.00	0.00	0.00	0.00		12	632.	0.00	0.00
16	2.00	0.00	0.00	0.00		0	567.	0.00	0.00
17	2.00	7.30	2.40	0.00		37	618.	14.22	15.44
18	2.00	3.30	1.90	0.00		0	574.	6.61	9.55
19	2.00	1.80	0.90	0.00		11	564.	3.62	9.80
20	2.00	1.80	0.40	0.00		6	611.	3.53	9.13
21	2.00	0.00	0.00	0.00		8	595.	0.00	0.00
22	2.00	0.00	0.00	0.00		14	568.	0.00	0.00
23	2.00	0.00	0.00	1.50		8	598.	0.00	0.00
24	2.00	0.00	0.00	0.00		17	626.	0.00	0.00
25	2.00	3.80	2.90	0.00		0	621.	7.38	9.46
26	2.00	0.00	0.00	0.00		33	581.	0.00	0.00
27	2.00	0.30	0.00	0.00		14	623.	0.58	8.82
28	2.00	2.80	0.40	0.00		0	573.	5.61	9.34
29	2.00	0.00	0.00	0.00		20	589.	0.00	0.00
30	2.00	1.80	0.90	0.00		11	629.	3.47	9.38
31	2.00	0.00	0.00	0.00		14	613.	0.00	0.00
32	2.00	0.00	0.00	1.50		27	626.	0.00	0.00

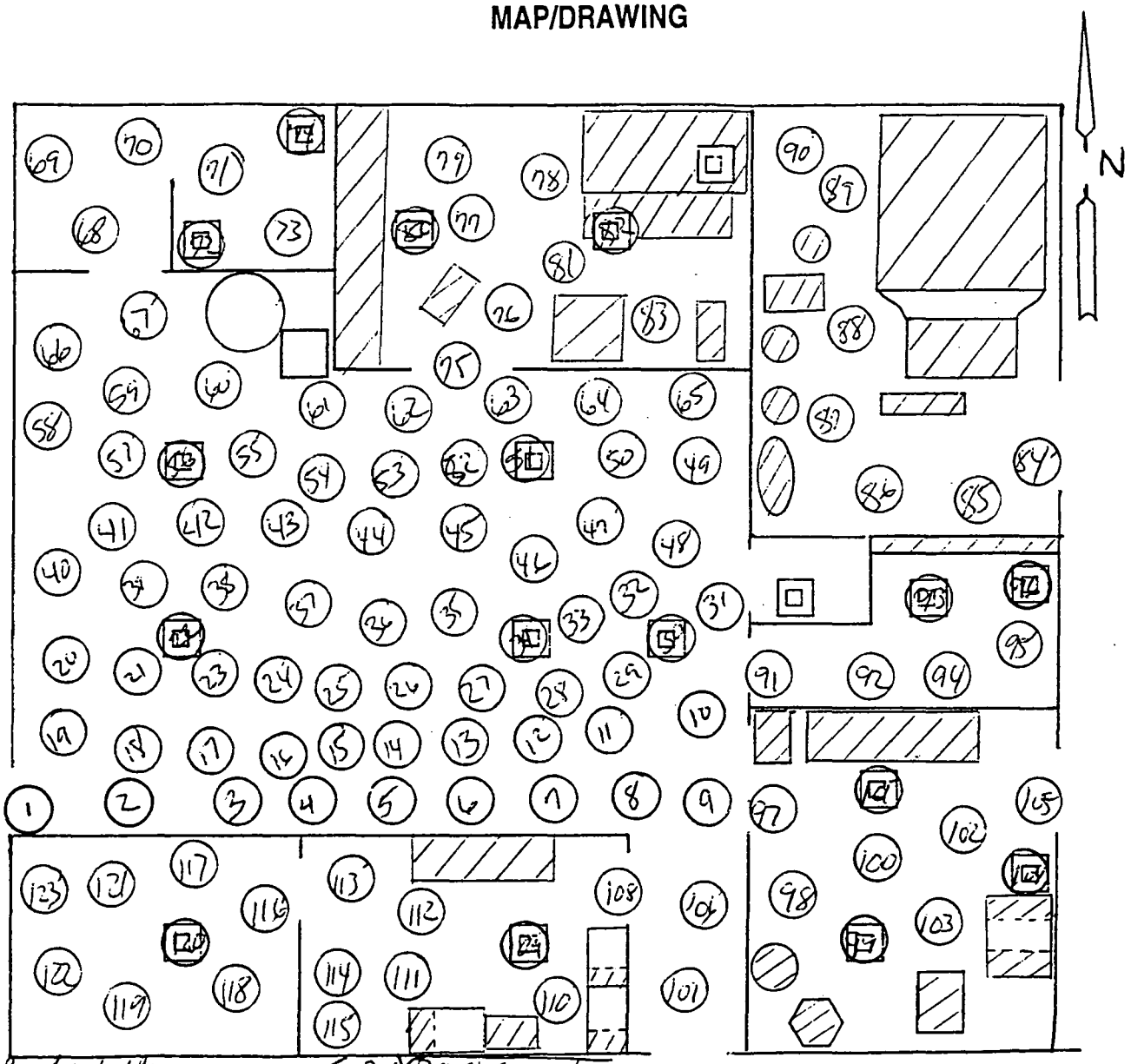
R-198 G-1/R-2 SP6

RADIOLOGICAL SURVEY DATA SHEET

COPY

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-008-SC
PURPOSE: SITE CHARACTERIZATION	RWP NO. NA
	DATE: 10-13-97
	TIME: 0800

MAP/DRAWING



all finished readings < 2X background.

LEGEND: # = ~~mrem/hr~~ microrem/hour (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
= OVERHEAD ENT
= INACCESSIBLE FLOOR AREA
(#) = SWIPE NUMBER UNDER OBJECT
= mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5380 / 5381	2-9-98
~~Eberline~~	~~3313 / 3314~~	10/15/97
AGION FIDDLER	3831 / 3870	1/30/98

Completed by: (Signature/HP#) [redacted] 7400	Date: 10-13-97
Counted by: (Signature/HP#) [redacted] 1611	Date: 10-14-97
[redacted] nature/HP#) 6031	Date: 10-15-97

ML-9620 (10-95)

2 of 11

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				Low
2				Low
3				Low
4				Low
5				Low
6				Low
7				Low
8				Low
9	S	S	S	Low
10	E	E	E	Low
11	E	E	E	Low
12				Low
13	A	A	A	Low
14	T	T	T	Low
15	T	T	T	Low
16	A	A	A	Low
17	C	C	C	Low
18	H	H	H	Low
19	E	E	E	Low
20	D	D	D	Low
21				Low
22				Vent
23				Low
24				Low
25				Low
26				Low
27				Low
28				Low
29				Low
30				Vent

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				Low
32				Low
33				Low
34				Vent
35				Low
36				Low
37				Low
38				Low
39	S	S	S	Low
40	E	E	E	Low
41	E	E	E	Low
42				Low
43	A	A	A	Low
44	T	T	T	Low
45	T	T	T	Low
46	A	A	A	Low
47	C	C	C	Low
48	H	H	H	Low
49	E	E	E	Low
50	D	D	D	Low
51				Vent
52				Low
53				Low
54				Low
55				Low
56				Vent
57				Low
58				Low
59				Low
60				Low

COMMENTS: * All smears counted for β/γ & tritium. All direct readings < 100 dpm/100cm² & < 5,000 dpm/100cm² β/γ

← N/A →

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	
	N

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. DW 10-15-97

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
61				flow
62				flow
63				flow
64				flow
65				flow
66				flow
67				flow
68				flow
69	S	S	S	flow
70	E	E	E	flow
71	E	E	E	flow
72				vent
73	A	A	A	flow
74	T	T	T	vent
75	T	T	T	flow
76	A	A	A	flow
77	C	C	C	flow
78	H	H	H	flow
79	E	E	E	flow
80	D	D	D	vent
81				flow
82				vent
83				flow
84				flow
85				flow
86				flow
87				flow
88				flow
89				flow
90				flow

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
91				flow
92				flow
93				vent
94				flow
95				flow
96				vent
97				flow
98				flow
99	S	S	S	vent
100	E	E	E	flow
101	E	E	E	vent
102				flow
103	A	A	A	flow
104	T	T	T	flow
105	T	T	T	flow
106	A	A	A	vent
107	C	C	C	flow
108	H	H	H	flow
109	E	E	E	vent
110	D	D	D	flow
111				flow
112				flow
113				flow
114				flow
115				flow
116				flow
117				flow
118				flow
119				flow
120				vent

COMMENTS: SEE Page 2

N

A

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	
	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. DU 10-15 m

☒ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
121	SEE			flow
122				flow
123		ATTACHED		flow

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS:

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	
	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR027
Batch Ended: 10/14/97 8:17

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: 97-35-008-SC [123] WHITE (1-60) MB

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	2	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	3	1.91	2.02	<AL	0.26	1.73	<MDA
A4	4	1.60	1.96	<AL	2.12	2.40	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	7	1.76	1.97	<AL	3.55	2.62	<AL
B4	8	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	9	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	10	1.87	2.19	<AL	1.14	2.27	<MDA
C3	11	0.00	2.03	<MDA	3.93	2.67	<AL
C4	12	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	13	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	14	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	15	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	16	0.00	1.92	<MDA	1.57	2.34	<MDA
A1	17	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	18	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	19	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	20	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	1.69	2.02	<AL	0.00	1.75	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.88	<MDA	2.33	2.31	<MDA
C1	25	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	26	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	27	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	28	0.00	1.97	<MDA	2.44	2.39	<MDA
D1	29	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	30	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	31	0.00	1.96	<MDA	2.53	2.28	<AL
D4	32	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	33	1.74	2.13	<AL	0.00	1.33	<MDA

10-15-97

5 of 11

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR027
Batch Ended: 10/14/97 8:17

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: 97-35-008-SC [123] WHITE (1-60) MB

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A2	34	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	35	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	36	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	37	0.00	2.04	<MDA	1.12	2.15	<MDA
B2	38	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	39	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	40	0.00	1.89	<MDA	3.48	2.58	<AL
C1	41	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	42	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	43	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	44	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	45	1.93	2.11	<AL	0.00	1.25	<MDA
D2	46	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	47	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	48	0.00	1.90	<MDA	0.00	1.66	<MDA
A1	49	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	50	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	51	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	52	1.61	1.93	<AL	0.00	1.22	<MDA
B1	53	0.00	2.06	<MDA	3.59	2.77	<AL
B2	54	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	55	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	56	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	57	6.10	3.65	<AL	0.00	1.31	<MDA
C2	58	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	59	0.00	2.02	<MDA	2.74	2.38	<AL
C4	60	0.00	1.96	<MDA	0.06	1.70	<MDA

10-15-97

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR028
Batch Ended: 10/14/97 8:47

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: 97-35-008-SC WHITE [123] (61-123) MB

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	61	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	62	1.90	2.12	<AL	0.00	1.85	<MDA
A3	63	1.91	2.02	<AL	0.26	1.73	<MDA
A4	64	1.60	1.96	<AL	2.12	2.40	<MDA
B1	65	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	66	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	67	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	68	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	69	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	70	4.02	3.07	<AL	0.00	1.86	<MDA
C3	71	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	72	0.00	1.98	<MDA	3.63	2.67	<AL
D1	73	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	74	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	75	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	76	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	77	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	78	1.91	2.11	<AL	0.00	1.32	<MDA
A3	79	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	80	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	81	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	82	1.70	2.01	<AL	0.00	1.25	<MDA
B3	83	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	84	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	85	0.00	2.15	<MDA	2.51	2.57	<MDA
C2	86	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	87	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	88	1.62	1.96	<AL	0.00	1.70	<MDA
D1	89	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	90	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	91	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	92	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	93	0.00	2.14	<MDA	0.00	1.86	<MDA

7 OF 11

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR028
Batch Ended: 10/14/97 8:47

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: 97-35-008-SC WHITE [123] (61-123) MB

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A2	94	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	95	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	96	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	97	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	98	0.00	2.05	<MDA	3.47	2.76	<AL
B3	99	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	100	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	101	6.10	3.65	<AL	0.00	1.30	<MDA
C2	102	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	103	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	104	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	105	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	106	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	107	0.00	1.95	<MDA	1.40	1.98	<MDA
D4	108	0.00	1.94	<MDA	3.89	2.86	<AL
A1	109	0.00	2.19	<MDA	4.47	3.20	<AL
A2	110	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	111	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	112	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	113	1.88	2.03	<AL	0.00	1.76	<MDA
B2	114	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	115	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	116	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	117	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	118	0.00	2.20	<MDA	2.59	2.62	<MDA
C3	119	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	120	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	121	0.00	2.13	<MDA	1.25	2.14	<MDA
D2	122	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	123	1.74	1.94	<AL	0.10	1.62	<MDA

8 of 11

10-15-97

Protocol #: 6 Name:Pw H3 #401388 14-Oct-97 10:50
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
me = 2.00 QIP = tSIE/AEC ES Terminator = Count
-35-008-SC WHITE [G1-G123] MB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	2Sigma
-1	10.00	6.70	6.80	14.40	B	23	455.		0.00
0	2.00	460.80	435.20	0.00		0	608.	905.91	82.01
1	2.00	0.00	0.00	0.00		0	643.	0.00	0.00
2	2.00	0.80	0.00	0.10		7	647.	1.52	8.41
3	2.00	1.30	0.00	0.00		0	654.	2.45	8.13
4	2.00	0.30	0.20	0.00		0	647.	0.57	7.73
5	2.00	0.00	0.00	0.00		27	640.	0.00	0.00
6	2.00	3.30	2.20	0.00		5	635.	6.32	9.53
7	2.00	0.30	0.00	0.00		14	639.	0.57	8.68
8	2.00	0.00	0.00	0.00		0	655.	0.00	0.00
9	2.00	0.00	0.00	0.00		18	635.	0.00	0.00
10	2.00	0.00	0.00	0.00		18	640.	0.00	0.00
11	2.00	1.30	0.70	0.00		0	649.	2.46	8.18
12	2.00	1.30	1.20	0.00		6	655.	2.44	8.55
13	2.00	2.30	2.20	0.00		0	644.	4.37	8.64
14	2.00	0.00	0.00	0.00		16	639.	0.00	0.00
15	2.00	1.80	0.70	0.00		0	654.	3.39	8.35
16	2.00	0.80	0.20	0.00		7	645.	1.52	8.42
17	2.00	0.00	0.00	0.00		0	649.	0.00	0.00
18	2.00	0.80	0.70	0.00		0	651.	1.51	7.94
19	2.00	0.30	0.20	0.00		7	649.	0.57	8.17
20	2.00	0.30	0.00	0.00		0	643.	0.57	7.77
21	2.00	0.00	0.00	0.00		17	651.	0.00	0.00
22	2.00	0.80	0.20	0.00		0	669.	1.49	7.81
23	2.00	0.00	0.00	0.00		0	647.	0.00	0.00
24	2.00	0.00	0.00	0.00		10	657.	0.00	0.00
25	2.00	0.00	0.00	0.00		11	661.	0.00	0.00
26	2.00	2.30	2.20	0.00		6	642.	4.38	9.07
27	2.00	4.80	4.20	0.00		0	650.	9.07	9.59
28	2.00	1.80	1.20	0.00		0	645.	3.42	8.42
29	2.00	0.80	0.70	0.00		0	643.	1.52	7.99
30	2.00	2.30	1.70	0.00		11	653.	4.33	9.36
31	2.00	0.00	0.00	0.00		0	655.	0.00	0.00
32	2.00	0.00	0.00	0.00		0	652.	0.00	0.00
33	2.00	0.00	0.00	1.60		0	648.	0.00	0.00
34	2.00	0.00	0.00	0.00		10	664.	0.00	0.00
35	2.00	0.00	0.00	0.00		8	653.	0.00	0.00
36	2.00	1.30	1.70	0.00		17	648.	2.46	9.40
37	2.00	0.00	0.00	0.00		9	660.	0.00	0.00
38	2.00	2.30	2.70	0.00		6	653.	4.33	8.98
39	2.00	0.00	0.00	0.00		8	655.	0.00	0.00
40	2.00	0.00	0.00	0.00		0	655.	0.00	0.00
41	2.00	0.30	0.20	0.00		0	645.	0.57	7.75
42	2.00	0.00	0.00	0.00		0	649.	0.00	0.00
43	2.00	0.00	0.00	0.00		0	651.	0.00	0.00
44	2.00	0.80	0.20	0.00		0	646.	1.52	7.97

S#	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	2Sigma
45	2.00	0.30	0.20	0.00		0	652.	0.57	7.70
46	2.00	2.30	1.70	0.00		0	653.	4.33	8.57
47	2.00	0.00	0.00	0.00		11	656.	0.00	0.00
48	2.00	2.30	2.20	0.10		6	646.	4.36	9.03
49	2.00	0.00	0.00	0.00		14	651.	0.00	0.00
50	2.00	0.00	0.00	0.00		0	636.	0.00	0.00
51	2.00	1.80	1.70	0.00		6	625.	3.48	9.01
52	2.00	0.00	0.00	0.00		0	636.	0.00	0.00
53	2.00	1.80	1.20	0.00		0	636.	3.44	8.49
54	2.00	2.30	1.20	0.00		0	632.	4.42	8.74
55	2.00	0.30	0.00	0.00		0	638.	0.57	7.80
56	2.00	0.30	0.00	0.00		0	641.	0.57	7.78
57	2.00	1.30	0.70	0.00		0	630.	2.50	8.32
58	2.00	13.80	12.20	0.00		3	641.	26.29	12.97
59	2.00	0.30	0.00	0.00		0	620.	0.58	7.94
60	2.00	0.30	0.00	0.00		0	656.	0.56	7.67
61	2.00	0.00	0.00	0.00		10	632.	0.00	0.00
62	2.00	0.00	0.00	0.00		0	652.	0.00	0.00
63	2.00	2.30	1.20	1.60		6	635.	4.41	9.13
64	2.00	0.00	0.00	0.00		0	639.	0.00	0.00
65	2.00	0.00	0.00	2.60		0	640.	0.00	0.00
66	2.00	1.80	0.20	0.00		6	629.	3.47	8.97
67	2.00	0.00	0.00	0.00		0	598.	0.00	0.00
68	2.00	0.00	0.00	0.00		0	615.	0.00	0.00
69	2.00	2.80	2.20	0.00		5	644.	5.32	9.25
70	2.00	1.80	1.70	0.00		0	610.	3.53	8.71
71	2.00	5.80	5.20	0.00		0	595.	11.49	10.44
72	2.00	0.00	0.00	0.00		0	586.	0.00	0.00
73	2.00	0.00	0.00	0.00		0	619.	0.00	0.00
74	2.00	0.00	0.00	0.00		8	610.	0.00	0.00
75	2.00	0.00	0.00	0.00		9	620.	0.00	0.00
76	2.00	0.30	0.20	0.00		0	618.	0.58	7.95
77	2.00	2.80	2.70	0.00		5	610.	5.49	9.56
78	2.00	0.80	0.00	0.00		0	617.	1.56	8.19
79	2.00	1.80	1.20	0.10		0	636.	3.45	8.50
80	2.00	0.00	0.00	0.00		0	645.	0.00	0.00
81	2.00	0.00	0.00	0.00		9	597.	0.00	0.00
82	2.00	0.80	0.70	0.00		7	625.	1.55	8.58
83	2.00	0.00	0.00	0.00		0	612.	0.00	0.00
84	2.00	0.80	1.20	0.00		7	619.	1.56	8.63
85	2.00	0.30	0.20	0.00		0	634.	0.58	7.83
86	2.00	0.00	0.00	0.00		0	617.	0.00	0.00
87	2.00	0.00	0.00	0.10		0	613.	0.00	0.00
88	2.00	5.80	5.20	0.00		4	605.	11.42	10.75
89	2.00	0.00	0.00	0.00		12	641.	0.00	0.00
90	2.00	5.30	4.70	0.10		4	628.	10.22	10.34
91	2.00	0.00	0.00	0.00		0	644.	0.00	0.00
92	2.00	0.00	0.00	0.00		0	645.	0.00	0.00
93	2.00	0.80	0.20	0.00		0	615.	1.56	8.21
94	2.00	0.00	0.00	0.00		8	618.	0.00	0.00
95	2.00	1.80	1.20	0.00		0	626.	3.48	8.58
96	2.00	0.80	0.70	0.00		0	613.	1.57	8.23
97	2.00	1.80	0.70	0.00		0	649.	3.40	8.39
98	2.00	3.30	1.70	0.00		0	642.	6.28	9.07
99	2.00	0.00	0.00	0.00		18	610.	0.00	0.00
100	2.00	0.00	0.00	0.00		0	621.	0.00	0.00

S#	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	2Sigma
101	2.00	2.30	1.20	0.00		0	621.	4.47	8.84
102	2.00	2.80	2.70	0.00		5	620.	5.44	9.47
103	2.00	2.80	1.70	0.00		0	648.	5.30	8.81
104	2.00	0.00	0.00	0.00		0	610.	0.00	0.00
105	2.00	1.30	1.20	0.00		12	622.	2.52	9.24
106	2.00	2.30	2.20	0.00		11	599.	4.55	9.82
107	2.00	0.80	0.00	0.00		0	623.	1.55	8.15
108	2.00	0.00	0.00	0.00		0	619.	0.00	0.00
109	2.00	0.00	0.00	0.00		0	629.	0.00	0.00
110	2.00	0.80	0.70	0.00		0	618.	1.56	8.19
111	2.00	1.30	1.20	0.00		17	615.	2.54	9.70
112	2.00	2.80	1.70	0.00		0	629.	5.39	8.98
113	2.00	0.00	0.00	0.00		8	619.	0.00	0.00
114	2.00	0.00	0.00	0.00		0	619.	0.00	0.00
115	2.00	5.30	4.20	0.00		0	609.	10.41	10.17
116	2.00	0.00	0.00	0.00		0	616.	0.00	0.00
117	2.00	0.00	0.00	0.00		8	611.	0.00	0.00
118	2.00	0.00	0.00	0.00		0	610.	0.00	0.00
119	2.00	0.00	0.00	0.00		0	603.	0.00	0.00
120	2.00	0.80	0.20	0.00		0	617.	1.56	8.19
121	2.00	5.80	3.70	0.00		0	614.	11.33	10.30
122	2.00	0.00	0.00	0.00		0	629.	0.00	0.00
123	2.00	0.00	0.00	0.00		0	622.	0.00	0.00

R-198 E1/E30 P4

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG.# 35	SURVEY NO. 97-35-009 -SC
PURPOSE: SAFE SHUT DOWN COPY	RWP NO. N/A
	DATE: 10-13-97
	TIME: 1500

MAP/DRAWING

SAFE SHUT DOWN #	DESCRIPTION	SMEAR#
138	Drawer & Items	1,2
139	1 Box w/ Eye washer	3,4
140	Chair	5,6
141	Desk Top	7-9
142	Drawer & Items	10,11
143	Drawer & Items	12,13
144	Drawer & Items	14,15
145	Drawer & Items	16,17
146	Drawer & Items	18,19
147	Drawer & Items	20,21
148	Drawer & Items	22-24
149	Drawer & Items	25-27
150	Drawer & Items	28-30

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
AE ELECTRA	5309/5320	1-19-98

Completed by: (Signature/HP#) [redacted] 8789	Date: 10-13-97
Counted by: (Signature/HP#) [redacted] 1611	Date: 10-14-97
Reviewed/Approved by: (Signature/HP#) [redacted] 603	Date: 10-15-97

ML-9620 (10-95)

2 of 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm²) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1				138
2				138
3				139
4				139
5				140
6				140
7				141
8				141
9				141
10				142
11				142
12				143
13				143
14				144
15	SEE ATTACHED			144
16				145
17				145
18				146
19				146
20				147
21				147
22				148
23				148
24				148
25				149
26				149
27				149
28				150
29				150
30				150

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm²) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All ACCESSIBLE AREAS SURVEYED ONLY.
All DIRECT READINGS WERE <5000 DPM/100cm² β⁻ + <100 DPM/100 cm² α
*DENOTES SMEARS COUNTED FOR TRITIUM

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m³)
N	
	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR025
Batch Ended: 10/14/97 7:39

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: 97-35-009-SC WHITE [30] MB

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.73	2.14	<AL	0.00	1.86	<MDA
A2	2	0.00	2.14	<MDA	2.46	2.61	<MDA
A3	3	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	4	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	5	0.00	2.05	<MDA	2.36	2.48	<MDA
B2	6	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	8	3.25	2.65	<AL	5.53	3.06	<AL
C1	9	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	10	0.00	2.17	<MDA	0.00	1.33	<MDA
C3	11	1.70	1.98	<AL	0.00	1.21	<MDA
C4	12	1.62	1.96	<AL	0.00	1.70	<MDA
D1	13	1.93	2.13	<AL	1.10	2.14	<MDA
D2	14	0.00	2.10	<MDA	3.45	2.89	<AL
D3	15	1.74	1.92	<AL	0.00	1.15	<MDA
D4	16	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	17	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	18	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	19	0.00	2.06	<MDA	4.07	2.73	<AL
A4	20	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.92	<MDA	6.93	3.27	<AL
C1	25	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	26	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	27	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	28	0.00	1.96	<MDA	0.06	1.70	<MDA
D1	29	0.00	2.13	<MDA	1.25	2.14	<MDA
D2	30	0.00	2.07	<MDA	0.00	1.46	<MDA

3 of 4

Protocol #: 4 Name:Pw H3 #401387 14-Oct-97 17:11
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
T 97-35-009-SC WHITE [E1-E30] 10-14-97 CYR
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	36	B	5.60	6.30	12.30	629.		0.00
0	2.00	1		455.90	435.70	3.20	619.	910.03	82.85
1	2.00	0		0.40	0.00	2.20	634.	0.79	7.48
2	2.00	12		0.00	0.00	0.70	652.	0.00	0.00
3	2.00	0		0.00	0.00	0.00	642.	0.00	0.00
4	2.00	8		0.40	0.00	0.00	649.	0.78	7.88
5	2.00	16		0.40	0.00	4.70	621.	0.80	8.52
6	2.00	17		0.00	0.00	0.00	617.	0.00	0.00
7	2.00	13		1.90	1.70	0.70	631.	3.78	9.16
8	2.00	9		0.00	0.00	2.70	646.	0.00	0.00
9	2.00	0		1.40	0.20	0.00	639.	2.76	7.95
10	2.00	0		0.40	0.00	0.00	616.	0.80	7.54
11	2.00	7		1.40	0.70	0.00	642.	2.75	8.40
12	2.00	7		1.90	1.20	0.00	641.	3.74	8.64
13	2.00	0		4.90	3.70	0.00	641.	9.65	9.51
14	2.00	18		0.00	0.00	0.00	630.	0.00	0.00
15	2.00	29		0.00	0.70	0.00	637.	0.00	0.00
16	2.00	11		0.00	0.00	0.00	647.	0.00	0.00
17	2.00	10		0.00	0.00	0.00	646.	0.00	0.00
18	2.00	5		5.90	5.70	2.70	646.	11.56	10.25
19	2.00	8		0.90	0.00	0.70	636.	1.78	8.22
20	2.00	10		0.00	0.00	0.00	624.	0.00	0.00
21	2.00	0		2.40	1.20	0.70	633.	4.76	8.48
22	2.00	0		1.40	0.70	0.00	636.	2.77	7.97
23	2.00	0		1.90	1.20	0.00	646.	3.72	8.14
24	2.00	8		0.90	0.70	2.70	643.	1.77	8.16
25	2.00	0		0.90	0.20	0.00	652.	1.75	7.60
26	2.00	11		2.90	2.70	0.00	645.	5.69	9.46
27	2.00	6		2.90	1.70	0.00	649.	5.66	9.01
28	2.00	14		0.90	0.00	0.00	645.	1.76	8.60
29	2.00	17		0.00	0.00	0.00	642.	0.00	0.00
30	2.00	0		0.00	0.00	0.00	652.	0.00	0.00

K-198 7-Y-13 P1

RADIOLOGICAL SURVEY DATA SHEET COPY

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-010-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-14-97
	TIME: 0745

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
151	Red File Cabinet	1-3
152	Drawer and Contents	4-5
153	Drawer & Contents	6-7
154	Drawer + Contents	8-9
155	Drawer + Contents.	10-11
156	Chain	12
157	Counter top	13-15
158	Blue Drawer + Contents	16-17
159	Blue Drawers + Contents	18-19
160	Blue Drawer + Contents	20-21
161	Blue Drawer + Contents	22-23
162	Blue Drawer + Contents	24-25
163	Blue Drawers + Contents	26-27

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5350/5381	2-9-98

Completed by: (Signature/HP#) [redacted] 8760	Date: 10-14-97
Contacted by: (Signature/HP#) [redacted] 5579	Date: 10-14-97
Reviewed/Approved by: (Signature/HP#) [redacted] 6031	Date: 10-15-97

ML-9620 (10-95)

2 OF 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ____________

☒ Removable Contamination ❑ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1	|	|	*1	151
2	|	|		151
3	|	|		151
4	|	|	*2	152
5	|	|		152
6	S	S	*3	153
7	E	E		153
8	E	E	*4	154
9				154
10	A	A	*5	155
11	T	T		155
12	T	T	*6	156
13	A	A	*7	157
14	C	C		157
15	H	H		157
16	E	E	*8	158
17	D	D		158
18	|	|	*9	159
19	|	|		159
20	|	|	*10	160
21	|	|		160
22	|	|	*11	161
23	|	|		162 161
24	|	|	*12	162 162
25	|	|		163 162
26	|	|	*3	163
27	|	|		163
		N/A		

❑ Removable Contamination ❑ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm/100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N/A	N/A

NOTES:

1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 *for calculations of WB, extremity and skin dose rates*
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR002
Batch Ended: 10/14/97 13:26

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35--10-2C BLACK /BECKER [27] 10-14-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	2	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	3	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	4	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	7	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	8	1.42	1.86	<MDA	0.00	1.64	<MDA
C1	9	0.00	2.17	<MDA	5.07	3.15	<AL
C2	10	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	11	0.00	2.02	<MDA	2.74	2.38	<AL
C4	12	0.00	1.98	<MDA	3.63	2.67	<AL
D1	13	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	14	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	15	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	16	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	17	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	18	0.00	2.15	<MDA	3.76	2.92	<AL
A3	19	0.00	2.01	<MDA	0.00	1.24	<MDA
A4	20	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	21	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.89	<MDA	3.48	2.58	<AL
C1	25	0.00	2.17	<MDA	5.07	3.15	<AL
C2	26	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	27	0.00	2.00	<MDA	1.55	2.07	<MDA

10-15-97 DW

3 of 4

Protocol #: 1 Name:Pw H3 #401393 14-Oct-97 16:38
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
7-35-010-SC BLACK [Z1-Z13] MB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	6	B	6.70	6.30	13.20	648.		0.00
0	2.00	0		479.30	455.20	2.80	635.	954.63	95.00
1	2.00	7		0.30	0.20	0.80	635.	0.60	8.61
2	2.00	11		1.80	1.70	5.80	662.	3.50	9.46
3	2.00	17		0.00	0.00	0.00	656.	0.00	0.00
4	2.00	17		1.30	2.20	0.80	666.	2.52	9.62
5	2.00	0		0.80	0.20	0.00	665.	1.55	8.15
6	2.00	6		1.30	0.70	0.80	619.	2.61	9.14
7	2.00	0		3.80	3.20	0.30	654.	7.45	9.55
8	2.00	6		2.30	3.20	0.30	667.	4.45	9.22
9	2.00	0		0.00	0.00	5.80	662.	0.00	0.00
10	2.00	26		0.00	1.70	0.00	674.	0.00	0.00
11	2.00	8		0.00	0.00	0.00	668.	0.00	0.00
12	2.00	0		12.80	8.20	0.00	664.	24.84	12.67
13	2.00	9		3.80	3.20	2.80	658.	7.42	10.29

K-118 K-1 K-28

RADIOLOGICAL SURVEY DATA SHEET

COPY

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-011-S c.
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10/14/97
	TIME: 0800

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
164	TRASH CAN	1,2
165	TRASH CAN	3,4
166	ELECTRICAL STRIP	5-7
167	COUNTER TOP	8-10
168	HEPA FILTER - BOXED	11,12
169	HEPA FILTER - BOXED	13,14
170	TRASH CAN	15,16
171	UNISTRUT	17-19
172	DOE # 087158 TAGLIS TOP	20,21
173	ALLEN WRENCH SET	22,23
174	SPECIFIC GRAVITY BULB & BOX	24,25
175	ANGLE IRON	26
176	ALUMINUM PLATE	27,28

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5347/5352	1/15/98
	A	
	N	

[redacted] gnature/HP#) [redacted]	Date: 10/14/97
[redacted]	Date: 10/14/97
[redacted] ature/HP#) [redacted] 6031	Date: 10/15/97

ML-9620 (10-95)

2 of 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☑ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1	A			164
2				164
3				165
4				165
5				166
6				166
7				166
8				167
9				167
10				167
11				168
12				168
13				169
14	SEE	ATTACHED		169
15				170
16				170
17				171
18				171
19				171
20				172
21				172
22				173
23				173
24				174
25				~~175~~ 174
26				175
27				176
28				176
		N	A	

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (10-95)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR001
Batch Ended: 10/14/97 13:16

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-011-SC ROGERS [28] 10-14-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	2	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	3	0.00	2.03	<MDA	1.63	2.12	<MDA
A4	4	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	5	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	6	0.00	2.03	<MDA	1.02	2.14	<MDA
B3	7	1.77	1.92	<AL	0.00	1.19	<MDA
B4	8	0.00	1.88	<MDA	2.33	2.31	<MDA
C1	9	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	10	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	11	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	12	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	13	0.00	2.15	<MDA	3.71	2.77	<AL
D2	14	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	15	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	16	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	17	3.85	3.00	<AL	0.00	1.33	<MDA
A2	18	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	19	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	20	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.88	<MDA	2.33	2.31	<MDA
C1	25	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	26	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	27	0.00	2.04	<MDA	5.11	2.92	<AL
C4	28	0.00	1.97	<MDA	1.25	2.07	<MDA

3 of 4

14 Oct 97 17:40 ALPHA/BETA - 1.01 Page #1
Protocol #: 2 PW H3 #403728 User : 5379

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL Quench Set: SMVIAL
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	6.30
Region B:	2.0 -	18.6	0	0.0	6.20
Region C:	20.0 -	2000	0	0.0	11.70

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
T 97-35-011-SC ROGERS [X1-X29] 10-14-97 TAS
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT2.DAT
Count Data Filename: c:\data\SDATA2.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.30	2	B	643.02		0.00	11.70
0	2.00	447.70	0		616.15	885.54	79.91	5.80
1	2.00	0.00	0	E	648.13	0.00	0.00	0.00
2	2.00	2.70	0	E	669.78	5.25	8.81	0.00
3	2.00	0.00	0	E	662.83	0.00	0.00	0.00
4	2.00	0.20	0	E	659.53	0.39	7.69	0.80
5	2.00	0.00	0	E	664.07	0.00	0.00	0.30
6	2.00	0.00	0		623.36	0.00	0.00	1.30
7	2.00	0.20	0		594.42	0.40	7.91	0.00
8	2.00	1.20	0		623.88	2.37	8.26	1.80
9	2.00	2.70	0		581.49	5.49	9.21	0.00
10	2.00	0.00	0		617.22	0.00	0.00	0.00
11	2.00	0.00	0		481.45	0.00	0.00	0.30
12	2.00	0.00	0		518.45	0.00	0.00	0.00
13	2.00	0.00	0		624.35	0.00	0.00	0.80
14	2.00	1.20	0	E	666.18	2.34	8.15	1.80
15	2.00	0.00	0	E	649.66	0.00	0.00	2.80
16	2.00	5.20	0	E	645.42	10.19	9.92	0.00
17	2.00	0.00	0		615.93	0.00	0.00	1.80
18	2.00	0.00	0		591.27	0.00	0.00	0.00
19	2.00	1.70	0		635.67	3.34	8.46	0.00
20	2.00	1.70	0		639.52	3.34	8.45	0.00
21	2.00	2.20	0		570.41	4.52	9.07	3.30
22	2.00	0.00	0		606.86	0.00	0.00	0.00
23	2.00	0.20	0		631.10	0.39	7.76	0.00
24	2.00	0.70	0	E	642.71	1.37	7.97	0.00
25	2.00	0.00	0	E	675.56	0.00	0.00	3.30
26	2.00	0.00	0	E	656.98	0.00	0.00	0.00
27	2.00	0.00	0		622.61	0.00	0.00	0.00
28	2.00	0.00	0		595.34	0.00	0.00	0.00

R-198 S-1/S-13 3 P 1

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-012-SC
PURPOSE: SAFE SHUT DOWN COPY	SWP NO. N/A
	DATE: 10-14-97
	TIME: 0900

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
177	Drawer & Contents	1,2
178	Drawer & Contents	3,4
179	Drawer & Contents	5,6
180	Drawer & Contents	7,8
181	Drawer & Contents	9,10
182	Drawer & Contents	11,12
183	Drawer & Contents	13,14
184	Drawer & Contents	15,16
185	Drawer & Contents	17,18
186	Drawer & Contents	19,20
187	Drawer & Contents	21,22
188	Drawer & Contents	23,24
189	Shelf & Contents	25-27

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5385/5381	2-9-98
	N/A	

Completed by: (Signature/HP#) [redacted] 5399	Date: 10-14-97
[redacted] 5379	Date: 10-14-97
Reviewed/Approved by: (Signature/HP#) [redacted] 6031	Date: 10-15-97

ML-9620 (10-95)

2 of 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1			1*	177
2				177
3			2*	178
4				178
5			3*	179
6				179
7			4*	180
8				180
9			5*	181
10				181
11			6*	182
12				182
13			7*	183
14	SEE ATTACHED			183
15			8*	184
16				184
17			9*	185
18				185
19			10*	186
20				186
21			11*	187
22				187
23			12*	188
24				188
25			13*	189
26				189
27				189
		N/A		

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR000
Batch Ended: 10/14/97 13:05

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: T 97-35-012-SC WHITE [27] 10-14-97 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	2	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	3	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	4	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	1.70	2.01	<AL	0.00	1.25	<MDA
B3	7	0.00	1.97	<MDA	3.70	2.62	<AL
B4	8	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	9	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	10	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	11	0.00	2.03	<MDA	3.93	2.67	<AL
C4	12	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	13	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	14	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	15	0.00	1.94	<MDA	0.26	1.62	<MDA
D4	16	0.00	1.91	<MDA	0.40	2.03	<MDA
A1	17	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	18	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	19	1.90	2.04	<AL	1.48	2.12	<MDA
A4	20	0.00	1.96	<MDA	2.24	2.40	<MDA
B1	21	0.00	2.05	<MDA	2.36	2.48	<MDA
B2	22	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	23	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	24	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	25	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	26	0.00	2.17	<MDA	0.00	1.33	<MDA
C3	27	0.00	1.98	<MDA	0.00	1.20	<MDA

3 of 4

DW 10-15-97

Protocol #: 1 Name:Pw H3 #401387 14-Oct-97 22:53
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
97-35-012-SC WHITE [S1-S13] MB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	16	B	6.20	6.30	13.60	643.		0.00
0	2.00	1		462.80	440.20	11.90	624.	922.00	83.53
1	2.00	0		4.30	4.20	0.00	584.	8.67	9.79
2	2.00	14		3.80	4.70	0.00	561.	7.81	11.35
3	2.00	7		0.80	1.20	0.00	632.	1.59	8.54
4	2.00	7		1.30	1.70	1.40	578.	2.63	8.95
5	2.00	14		0.00	0.00	0.00	569.	0.00	0.00
6	2.00	0		2.30	1.70	3.90	596.	4.62	8.87
7	2.00	0		0.00	0.00	0.00	487.	0.00	0.00
8	2.00	0		0.00	0.00	0.00	598.	0.00	0.00
9	2.00	0		0.00	0.00	0.00	597.	0.00	0.00
10	2.00	11		2.80	3.20	0.00	590.	5.63	9.95
11	2.00	7		0.80	0.70	0.00	640.	1.58	8.47
12	2.00	8		0.00	0.20	0.00	645.	0.00	0.00
13	2.00	8		0.00	0.00	0.00	672.	0.00	0.00

RADIOLOGICAL SURVEY DATA SHEET

W-1 W-13

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-013-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
COPY	DATE: 10-14-97
	TIME: 0950

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
190	Desk Top	1, 2
191	Drawer & Contents	3, 4
192	Drawer & Contents	5, 6
193	Drawer & Contents	7, 8
194	Drawer & Contents	9, 10
195	Drawer & Contents	11, 12
196	Dolly	13, 14
197	Desk	15-17
198	Shelf	18, 19
199	Shelf	20, 21
200	Shelf	22, 23
201	Shelf	24, 25
202	Electronic Cabinet	26-30

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	1389/5341	2-9-98

Completed by: (Signature/HP#) [redacted] 2318	Date: 10-14-97
[redacted] 5699	Date: 10-14-97
[redacted] HP#) 607	Date: 10-15-97

ML-9620 (10-95)

2 OF 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1			1*	190
2				190
3			2*	191
4				191
5			3*	192
6				192
7			4*	193
8				193
9			5*	194
10				194
11			6*	195
12				195
13			7*	196
14				196
15	SEE ATTACHED		8*	197
16				197
17				A7 ~~196~~ COW 10-14-97
18			9*	198
19				198
20			10*	199
21				199 ~~198~~ COW 10-14-97
22			11*	200
23				200
24			12*	201
25				201 ~~200~~ COW 10-14-97
26			13*	202
27				202
28				202
29				202
30				202

☐ Removable Contamination ☐ Airborne Activity (check one)				
Swipes (dpm/100cm^2) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm^2 α & < 5,000dpm /100cm^2 B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N	N
A	A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR041
Batch Ended: 10/14/97 11:47

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: T 97-35-013-SC WHITE [30] 10-14-97 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	2	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	3	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	4	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	5	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	6	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	8	1.42	1.88	<MDA	2.21	2.31	<MDA
C1	9	1.91	2.11	<AL	0.00	1.31	<MDA
C2	10	0.00	2.17	<MDA	0.00	1.32	<MDA
C3	11	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	12	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	13	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	14	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	15	0.00	1.95	<MDA	1.40	1.98	<MDA
D4	16	0.00	1.91	<MDA	0.40	2.03	<MDA
A1	17	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	18	1.90	2.13	<AL	1.01	2.26	<MDA
A3	19	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	20	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	21	1.88	2.01	<AL	0.00	1.26	<MDA
B2	22	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	23	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	24	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	25	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	26	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	27	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	28	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	29	0.00	2.13	<MDA	1.25	2.14	<MDA
D2	30	0.00	2.10	<MDA	3.45	2.89	<AL

10-15-97

3 of 4

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL Quench Set: SMVIAL
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	7.30
Region B:	2.0 -	18.6	0	0.0	6.90
Region C:	20.0 -	2000	0	0.0	11.30

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
T 97-35-013-SC WHITE [W1-W13] 10-14-97 TAS
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT3.DAT
Count Data Filename: c:\data\SDATA3.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.30	1	B	649.24		0.00	11.30
0	2.00	482.20	0		623.31	953.70	84.35	8.70
1	2.00	0.00	0		559.44	0.00	0.00	0.00
2	2.00	0.20	0		604.27	0.40	8.45	0.00
3	2.00	0.00	0		635.89	0.00	0.00	0.00
4	2.00	0.00	0		568.19	0.00	0.00	0.00
5	2.00	0.00	0		591.82	0.00	0.00	2.70
6	2.00	0.70	0		624.73	1.38	8.60	0.00
7	2.00	1.20	6		529.88	2.62	9.73	0.70
8	2.00	0.00	0		591.33	0.00	0.00	0.20
9	2.00	0.00	0		609.89	0.00	0.00	0.00
10	2.00	0.20	0		626.34	0.40	8.36	1.70
11	2.00	0.00	0		608.40	0.00	0.00	1.70
12	2.00	0.00	0		601.75	0.00	0.00	0.00
13	2.00	0.00	0		622.02	0.00	0.00	4.20

R-198 V-1/26 3P7

RADIOLOGICAL SURVEY DATA SHEET

COPY

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-014-SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10/14/97
	TIME: 1000

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
203	ALUMINUM PLATE	1,2
204	ALUMINUM PLATE	3,4
205	CAM	5
206	SIEN	6,7
207	TIMER	8,9
208	X-RAY CONTROLLER	10,11
209	X-RAY TOWER	12-14
210	COUNTERTOP	15,16
211	ELECTRICAL STRIP	17-19
212	ALUMINUM COVER	20
213	SEALED BAG OF ALARMS	21,22
214	UNISTRUT	23,24
215	UNISTRUT	25,26

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5347/5352	1/15/98
	N	

[redacted] ature/HP#)	Date: 10/14/97
[redacted] 5CM	Date: 10/14/97
[redacted] 603	Date: 10/15/97

ML-9620 (10-95)

2 of 4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. ____________

☑ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1	↑			203
2				203
3				204
4				204
5				205
6				~~205~~ 206
7				206
8				207
9				207
10				208
11				208
12				209
13	SEE ATTACHED			209
14				209
15				210
16				210
17				211
18				211
19				211
20				212
21				213
22				213
23				214
24				214
25			↓	215
26				215
		N/A		

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS: All Accessible Areas Surveyed only. All direct readings were < 100 dpm/100cm^2 α & < 5,000 dpm/100cm^2 β. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N/A	N/A

NOTES:

1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620 (10-95)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR040
Batch Ended: 10/14/97 11:35

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-35-014-SC ROGERS [26] 10-14-97 TAS

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	2	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	3	0.00	2.01	<MDA	0.00	1.23	<MDA
A4	4	0.00	1.96	<MDA	2.24	2.40	<MDA
B1	5	1.88	2.01	<AL	0.00	1.26	<MDA
B2	6	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	7	0.00	1.95	<MDA	1.36	2.03	<MDA
B4	8	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	9	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	10	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	11	0.00	2.00	<MDA	1.55	2.07	<MDA
C4	12	0.00	1.95	<MDA	0.00	1.21	<MDA
D1	13	0.00	2.10	<MDA	0.00	1.25	<MDA
D2	14	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	15	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	16	0.00	1.90	<MDA	0.00	1.66	<MDA
A1	17	0.00	2.14	<MDA	0.00	1.86	<MDA
A2	18	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	19	1.90	2.06	<AL	3.91	2.73	<AL
A4	20	0.00	1.96	<MDA	3.44	2.69	<AL
B1	21	3.88	2.86	<AL	0.80	2.15	<MDA
B2	22	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	23	3.67	2.72	<AL	0.00	1.66	<MDA
B4	24	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	25	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	26	0.00	2.17	<MDA	0.00	1.32	<MDA

DW 10-15-97

3 of 4

Protocol #: 7 Name:Fw H3 #401387 14-Oct-97 23:46
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
97-35-014-3C ROGER [V1-V26] MB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	7	B	6.90	7.00	12.00	638.		0.00
0	2.00	1		499.10	469.00	1.00	636.	987.49	87.77
1	2.00	0		0.10	0.00	0.00	629.	0.20	8.14
2	2.00	6		2.10	1.00	0.00	634.	4.16	9.46
3	2.00	9		0.00	0.00	0.00	598.	0.00	0.00
4	2.00	0		1.60	1.50	0.00	614.	3.20	8.89
5	2.00	6		1.60	2.00	0.00	640.	3.15	9.19
6	2.00	5		3.10	3.50	0.00	663.	5.98	9.60
7	2.00	0		0.00	0.00	0.00	650.	0.00	0.00
8	2.00	0		2.60	2.00	0.00	612.	5.20	9.33
9	2.00	20		0.00	0.00	0.00	634.	0.00	0.00
10	2.00	12		0.00	0.00	0.50	616.	0.00	0.00
11	2.00	7		0.10	0.50	0.00	668.	0.19	8.31
12	2.00	16		0.00	0.00	0.00	631.	0.00	0.00
13	2.00	11		0.00	0.00	0.00	593.	0.00	0.00
14	2.00	5		3.10	3.00	0.00	667.	5.95	9.56
15	2.00	0		0.60	0.50	0.00	624.	1.20	8.40
16	2.00	5		3.60	4.00	4.00	651.	7.02	9.90
17	2.00	6		2.10	1.50	0.00	617.	4.19	9.53
18	2.00	0		0.10	0.00	0.50	645.	0.20	8.03
19	2.00	0		0.00	0.00	0.00	608.	0.00	0.00
20	2.00	5		3.10	3.00	2.50	644.	6.08	9.77
21	2.00	0		0.60	0.00	0.00	667.	1.15	8.09
22	2.00	0		0.00	0.00	0.50	605.	0.00	0.00
23	2.00	0		2.60	2.00	0.00	609.	5.20	9.34
24	2.00	0		1.60	0.50	0.00	667.	3.07	8.54
25	2.00	7		0.10	0.50	0.00	622.	0.20	8.64
26	2.00	0		2.10	1.50	0.00	538.	4.40	9.54

K-198 T1/C13 SP4

RADIOLOGICAL SURVEY DATA SHEET

COPY

LOCATION: (BLDG./AREA/ROOM) BLDG # 35	SURVEY NO. 97-35-015 -SC
PURPOSE: SAFE SHUT DOWN	RWP NO. N/A
	DATE: 10-14-97
	TIME: 1130

SAFE SHUT DOWN #	MAP/DRAWING DESCRIPTION	SMEAR #
216	Roll of Plastic	1, 2
217	Roll of Plastic	3, 4
218	Trash Can Top	5, 6
219	Dust Mop	7, 8
220	Mop Bucket	9, 10 [illegible] 10-14-97
221	Fertail	11, 12
222	Dust Pan	13
223	Motor Assembly	14-17
224	X-Ray Unit	18
225	Roll-A-Round Cart	19-21
226	Phillips Generator	22-24
227	Hepa Filter	25
228	Metal Plate	26

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE ELECTRA	5347/5352	1-15-98
	N/A	

Completed by: (Signature/HP#) [redacted] 6319	Date: 10-14-97
[redacted] 6609	Date: 10-14-97
[redacted] ure/HP#) 6031	Date: 10-15-97

ML-9620 (10-95)

20F4

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm²) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments
1			1*	216
2				216
3			2*	217
4				217
5			3*	218
6				218
7			4*	219
8				219
9			5*	220
10				220
11			6*	221
12				221
13	SEE ATTACHED		7*	222
14			8*	223
15				223
16				223
17				223
18			9*	224
19			10*	225
20				225
21				225
22			11*	226
23				226
24				226
25			12*	227
26			13*	228
			N/A	

☐ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm²) or Airborne (µCi/cc)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: All Accessible Areas Surveyed only. All direct Readings were < 100dpm/100cm² α & < 5,000dpm /100cm² B. *: Denote's Smears counted for Tritium

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m³)
N/A	N/A

NOTES:
1. LSC results #3 corresponds to Sample #1 on this RSDS.
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR039
Batch Ended: 10/14/97 11:17

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: T 97-35-015-SC GENTRY / WHITE [26] 10-14-97 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	2	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	3	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	4	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	5	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	6	0.00	2.00	<MDA	0.00	1.25	<MDA
B3	7	0.00	1.93	<MDA	0.19	1.66	<MDA
B4	8	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	9	0.00	2.11	<MDA	0.00	1.30	<MDA
C2	10	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	11	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	12	1.62	1.96	<AL	0.00	1.70	<MDA
D1	13	0.00	2.14	<MDA	2.48	2.47	<MDA
D2	14	0.00	2.09	<MDA	2.01	2.51	<MDA
D3	15	0.00	1.98	<MDA	3.67	2.55	<AL
D4	16	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	17	0.00	2.15	<MDA	0.57	2.27	<MDA
A2	18	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	19	0.00	2.02	<MDA	0.42	1.73	<MDA
A4	20	0.00	1.94	<MDA	0.00	1.71	<MDA
B1	21	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	22	3.68	2.83	<AL	0.00	1.25	<MDA
B3	23	1.77	1.92	<AL	0.00	1.19	<MDA
B4	24	1.42	1.87	<MDA	1.06	2.00	<MDA
C1	25	0.00	2.13	<MDA	1.22	2.23	<MDA
C2	26	0.00	2.18	<MDA	0.00	1.86	<MDA

10-15-97
DM

4 of 4

Protocol #: 4 Name:Pw H3 #401388 14-Oct-97 21:30
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
7-35-015-SC WHITE [T1-T13] MB
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	CPMA	CPMB	CPMC	FLAG	LUM	tSIE	DPM1	2Sigma
-1	10.00	13.40	14.60	14.70	B	62	514.		0.00
0	2.00	434.60	409.40	2.80		0	605.	855.95	79.16
1	2.00	0.00	0.00	0.00		17	537.	0.00	0.00
2	2.00	0.00	0.00	0.00		0	555.	0.00	0.00
3	2.00	0.00	0.00	0.00		10	502.	0.00	0.00
4	2.00	0.00	0.00	0.80		28	632.	0.00	0.00
5	2.00	0.00	0.00	0.00		9	557.	0.00	0.00
6	2.00	0.00	0.00	0.00		0	587.	0.00	0.00
7	2.00	0.00	0.00	0.00		5	579.	0.00	0.00
8	2.00	0.00	0.00	0.00		20	494.	0.00	0.00
9	2.00	0.00	0.00	0.00		9	589.	0.00	0.00
10	2.00	0.00	0.00	0.00		0	606.	0.00	0.00
11	2.00	0.00	0.00	0.00		8	583.	0.00	0.00
12	2.00	0.00	0.00	0.00		75	306.	0.00	0.00
13	2.00	0.00	0.00	0.00		20	573.	0.00	0.00

Appendix 7.6 Lead Paint Survey

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

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

COPY

M o u n d Electronic Message/AOS

59

From :Sandra Geibel
GEIBSL
Dept. :Industrial Hygiene
Tel. No :
Date :23-Sep-1996 09:10am EST
Subject :Buildings 59 and 35, Lead Based Paint Sampling.

TO :Dean Buckner (BUCKDA)

CC :Randall Wood (WOODRL)

Dean,

On September 19, 1996 I conducted sampling of the paint in buildings 59 and 35 for lead. "Instant Lead Testing, Lead Check Swabs" (BGI Incorporated) Lot Number 94009 was used to conduct the sampling. The BGI Inc. Lead Check Swabs have a detection limit of 0.5%. Sampling was conducted on all layers of paint down to substrate or bare metal material. The following is a list of results:

Building 59

Room	Item	Description (layer, color, etc)	Results
1	East Wall,near door	beige	Negative
1	North Wall	beige	Negative
N/A	Brown rail, outside	brown, top layer	Negative
N/A	Brown rail, outside	green, second layer	Negative
N/A	Brown rail, outside	orange, bottom layer	Negative
N/A	Outside door to stairway	green	Negative
N/A	Outside building	beige top layer	Negative
N/A	Outside building	green bottom layer	Negative

Building 35

Room	Item	Description	Results
1	South wall	beige top layer	Negative
1	South wall	green bottom layer	Negative
10	East wall	beige top layer	Negative
10	East wall	green bottom layer	Negative
3	West wall	light blue paint	Negative
3	Door	dark blue	Negative
6	Door	orange	Positive
6	Bathroom partitions	orange	Positive
6	North wall	blue/white	Negative
10	Cabinets	rust color	Negative

All other rooms in building 35 which have the same type of paint as listed above should be considered homogeneous areas.

If you have any questions or need further assistance please do not hesitate to call me at extension 3358 or Randall Wood at extension 3923.

Appendix 7.7 Asbestos Survey

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

From: Christopher Weber
To: schnjm
Date: 10/13/97 3:04pm
Subject: Building 35 Survey

After conducting a walk through of building 35, and a records search of previous asbestos surveys conducted by PEI and BWS&C, each potentially asbestos - containing material has been addressed. If Tim Eilers is agreement that we can assume the two types of floor tile and the roofing system is asbestos for demolition purposes no further surveys are necessary at this time.

Both the ceiling plaster and the drywall in the building were sampled during the BWS&C survey in 1992. These materials do not contain asbestos. Pipe insulation in room 4 has been identified as positive asbestos - containing material. It is possible that other TSI through out the building not identified in these surveys are asbestos - containing materials.

Also identified is a labhood with transite paneling located in room 1. This can be easily detached from the ductwork and removed from the building prior to building demolition with little potential for employee exposure.

CC: eiletj

Appendix 7.8 1996 Chemical Inventory for Building 35

CHEMICAL INVENTORY TOTALS ON BUILDING

BY CHEMICAL STATE

BUILDING: 35

ROOM	CONTAINER ID	CHEMICAL NAME	SOLID QTY (LBS)	LIQUID QTY (GAL)	GAS QTY (CYL)	LABEL DATE	LAST TRANACT DATE	LAST TRANSACTION
1	WM000702	RUBBER CEMENT	.000			17-JAN-96	29-MAY-96	DISPOSED
1	WM000703	TWO TON EPOXY	.062			17-JAN-96	29-MAY-96	DISPOSED
1	WM000704	TWO TON EPOXY HARDNER	.062			17-JAN-96	29-MAY-96	DISPOSED
			.124	.000	.000			
1	WM000705	LEAD			.000	17-JAN-96	29-MAY-96	DISPOSED
10	WM001183	LEAD			.000	16-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
10	WM001213	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001214	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001215	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001216	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001217	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001218	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001219	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001220	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001221	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001222	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001223	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001224	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001225	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001226	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001227	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001228	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001229	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001230	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001231	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001232	X-RAY DEV PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001233	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001234	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001235	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001236	X-RAY DEV PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001237	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001238	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001239	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001240	X-RAY DEV PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001241	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001242	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001243	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001244	X-RAY DEV PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001245	X-RAY DEV REPLEN PART A	.011			17-JAN-96	29-MAY-96	DISPOSED
10	WM001246	X-RAY DEV REPLEN PART A	.011			17-JAN-96	29-MAY-96	DISPOSED
10	WM001247	X-RAY DEV REPLEN PART A	.011			17-JAN-96	29-MAY-96	DISPOSED
10	WM001248	X-RAY DEV &REPLEN PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001249	X-RAY DEV &REPLEN PART C	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001250	X-RAY DEV & REPLEN PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001252	X-RAY DEV & REPLEN PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001253	X-RAY DEV & REPLEN PART D	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001254	X-RAY DEV & REPLEN PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001255	X-RAY DEV & REPLEN PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001256	X-RAY DEV & REPLEN PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001257	X-RAY DEVELOPER PART D	.000			17-JAN-96	29-MAY-96	DISPOSED

CHEMICAL INVENTORY TOTALS ON BUILDING

BY CHEMICAL STATE

BUILDING: 35

ROOM	CONTAINER ID	CHEMICAL NAME	SOLID QTY (LBS)	LIQUID QTY (GAL)	GAS QTY (CYL)	LABEL DATE	LAST TRANACT DATE	LAST TRANSACTION
10	WM001258	X-RAY DEVELOPER REPLEN	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001259	TIN 40%/LEAD 60% SOLDER	1.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001260	ANTI-SIEZE COMPOUND	.250			16-JAN-96	29-MAY-96	DISPOSED
10	WM001261	SEALANT CLEANER GP	.188			17-JAN-96	29-MAY-96	DISPOSED
10	WM001262	MSY SILICONE COMPOUND	.219			17-JAN-96	29-MAY-96	DISPOSED
10	WM001263	UNKNOWN	.000			16-JAN-96	29-MAY-96	DISPOSED
10	WM001264	MAGNAFLUX DRY POWDER RED	.062			17-JAN-96	29-MAY-96	DISPOSED
10	WM001265	MAGNAFLUX DRY POWDER BLACK	.062			17-JAN-96	29-MAY-96	DISPOSED
10	WM001266	MAGNAFLUX WHITE PAINT	.750			17-JAN-96	29-MAY-96	DISPOSED
10	WM001267	MAGNAFLUX PREPARED BATH	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001268	MAGNAFLUX CLEANER	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001270	MAGNAFLUX PREPARED BATH	.500			17-JAN-96	29-MAY-96	DISPOSED
10	WM001271	MAGNAFLUX DRY POWDER	1.000			17-JAN-96	29-MAY-96	DISPOSED
			4.070	.000	.000			
10	WM001272	FILM			.000	16-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
10	WM001273	ETHYL ALCOHOL	.000			17-JAN-96	29-MAY-96	DISPOSED
10	WM001274	ETHYL ALCOHOL	.000			17-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
2	WM001194	AUFIX PART B			.000	17-JAN-96	29-MAY-96	DISPOSED
2	WM001195	AUFIX PART A			.000	17-JAN-96	29-MAY-96	DISPOSED
2	WM001196	AUDEL PART A			.000	16-JAN-96	29-MAY-96	DISPOSED
2	WM001197	AUDEL PART B			.000	16-JAN-96	29-MAY-96	DISPOSED
2	WM001198	AUDEL PART A			.000	16-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
2	WM001199	AUFIX CONCENTRATE PART B	.000			17-JAN-96	29-MAY-96	DISPOSED
2	WM001200	AUFIX REPLENISHER PART A	.000			17-JAN-96	29-MAY-96	DISPOSED
2	WM001201	PART C	.000			16-JAN-96	29-MAY-96	DISPOSED
2	WM001202	PART B	.000			16-JAN-96	29-MAY-96	DISPOSED
2	WM001204	AJAX OXYGEN BLEACH CLNR	1.312			17-JAN-96	29-MAY-96	DISPOSED
2	WM001205	AJAX OXYGEN BLEACH CLNR	1.312			17-JAN-96	29-MAY-96	DISPOSED
2	WM001206	AJAX OXYGEN BLEACH CLNR	1.312			17-JAN-96	29-MAY-96	DISPOSED
2	WM001207	AJAX OXYGEN BLEACH CLNR	1.312			17-JAN-96	29-MAY-96	DISPOSED
2	WM001208	ADSTART DEVELOPER STARTER	.001			17-JAN-96	29-MAY-96	DISPOSED
2	WM001209	ADCLEAN DEVELOPER SYS	.001			17-JAN-96	29-MAY-96	DISPOSED
2	WM001210	ADCLEAN DEVELOPER SYS	.001			17-JAN-96	29-MAY-96	DISPOSED
2	WM001211	ISOPROPYL ALCOHOL	.002			17-JAN-96	29-MAY-96	DISPOSED
2	WM001212	DEVELOPER STARTER	.001			16-JAN-96	29-MAY-96	DISPOSED
2	WM007241	ALCOHOL 200 PROOF	.002			16-JAN-96	29-MAY-96	DISPOSED
			5.257	.000	.000			
3	WM001184	RADIOACTIVE SOURCE			.000	17-JAN-96	29-MAY-96	DISPOSED
3	WM001185	LIQUID NITROGEN			.000	16-JAN-96	29-MAY-96	DISPOSED

CHEMICAL INVENTORY TOTALS ON BUILDING

BY CHEMICAL STATE

BUILDING: 35

ROOM	CONTAINER ID	CHEMICAL NAME	SOLID QTY (LBS)	LIQUID QTY (GAL)	GAS QTY (CYL)	LABEL DATE	LAST TRANACT DATE	LAST TRANSACTION
			.000	.000	.000			
3	WM001186	UNKNOWN	.000			16-JAN-96	29-MAY-96	DISPOSED
3	WM001187	UNKNOWN	.000			16-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
3	WM001188	NEUTRON ACTIVATION SAMPLES			.000	01-AUG-94	29-MAY-96	DISPOSED
3	WM001189	NEUTRON ACTIVATION SAMPLES			.000	01-AUG-94	29-MAY-96	DISPOSED
3	WM001190	NEUTRON ACTIVATION SAMPLES			.000	01-AUG-94	29-MAY-96	DISPOSED
3	WM001191	NEUTRON ACTIVATION SAMPLES			.000	01-AUG-94	29-MAY-96	DISPOSED
3	WM001192	NEUTRON ACTIVATION SAMPLES			.000	01-AUG-94	29-MAY-96	DISPOSED
3	WM001193	NEUTRON ACTIVATION SAMPLES			.000	16-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
5	WM000681	NABC BATHROOM CLEANER	.001			17-JAN-96	29-MAY-96	DISPOSED
5	WM000682	FLOOR FINISH	.004			17-JAN-96	29-MAY-96	DISPOSED
5	WM000683	SCS CORPORAL CONCENTRATE	.002			01-AUG-94	29-MAY-96	DISPOSED
5	WM000684	CLEANER 4	.001			16-JAN-96	29-MAY-96	DISPOSED
[illegible]	WM000685	ODOR BANE CARPET CLEANER	.002			16-JAN-96	29-MAY-96	DISPOSED
[illegible]	WM000686	DISINFECTANT CLEANER	.002			17-JAN-96	29-MAY-96	DISPOSED
[illegible]	WM000687	ZIP FLOOR STRIPPER	.002			17-JAN-96	29-MAY-96	DISPOSED
5	WM000688	WINDOW CLEANER	.001			16-JAN-96	29-MAY-96	DISPOSED
6	WM000680	CHERRY DISINFECTANT	.000			16-JAN-96	29-MAY-96	DISPOSED
7	WM000689	CHERRY DISINFECTANT	.000			16-JAN-96	29-MAY-96	DISPOSED
			.015	.000	.000			
7	WM000690	REFRIGERATOR			.000	16-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
8	WM000691	MARKER BOARD CLEANER	.000			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM000692	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM000693	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM000694	BASE ADHESIVE	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM000695	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM000696	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM000697	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
			#######	.000	.000			
OUTSIDE	WM001181	CHLORODIFLUOROMETHANE			.000	17-JAN-96	29-MAY-96	DISPOSED
			.000	.000	.000			
OUTSIDE	WM001182	FERTILIZER	5.000			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM00698	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED

CHEMICAL INVENTORY TOTALS ON BUILDING

BY CHEMICAL STATE

BUILDING: 35

ROOM	CONTAINER ID	CHEMICAL NAME	SOLID QTY (LBS)	LIQUID QTY (GAL)	GAS QTY (CYL)	LABEL DATE	LAST TRANACT DATE	LAST TRANSACTION
OUTSIDE	WM00699	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM00700	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
OUTSIDE	WM00701	BLACK BASE COAT	44.903			16-JAN-96	29-MAY-96	DISPOSED
			#######	.000	.000			

MOUND

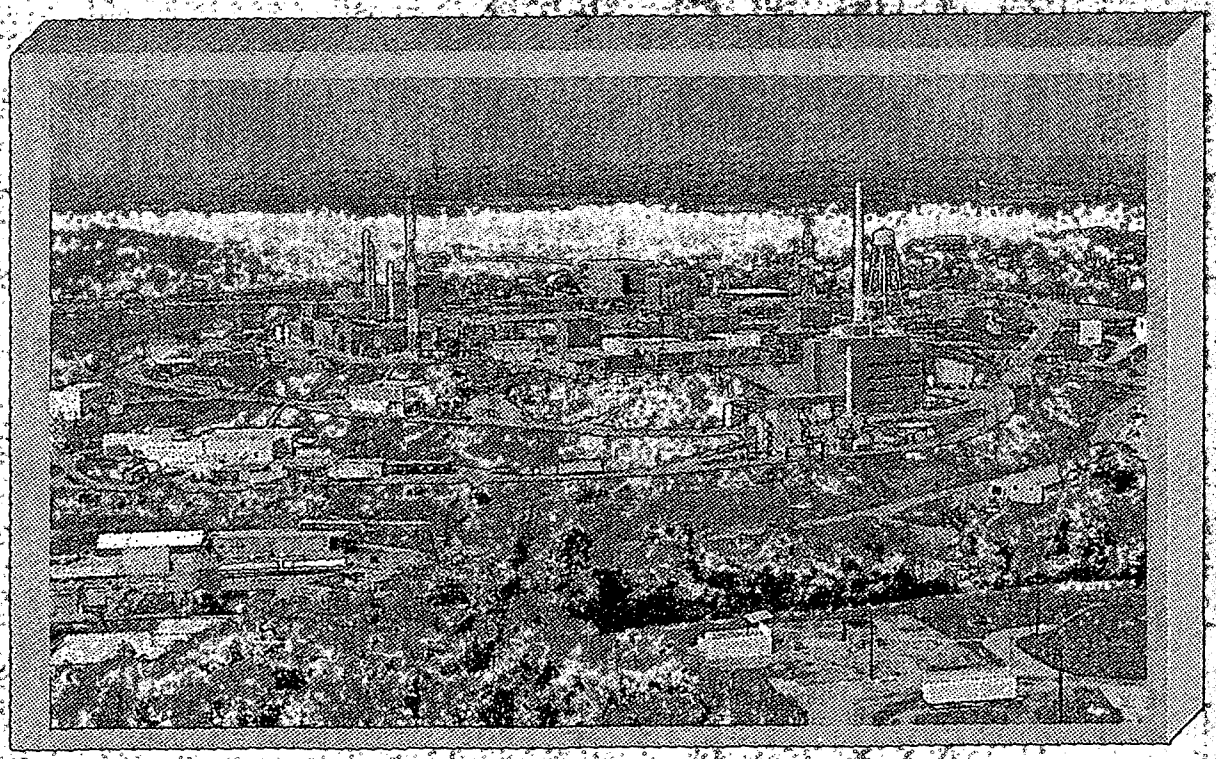
Environmental Restoration Program

MOUND PLANT

Building Data Package

Bldg. 59

Located within Release Block C



BDP 59

REV	DESCRIPTION	DATE
PUBLIC RELEASE 0	Available for comment.	**Jan. 13, 1998**
FINAL RELEASE 1	Comment period complete.	

MOUND PLANT RECOMMENDATION

BUILDINGS 35, 59

Background:

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

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

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

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

Recommendation:

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

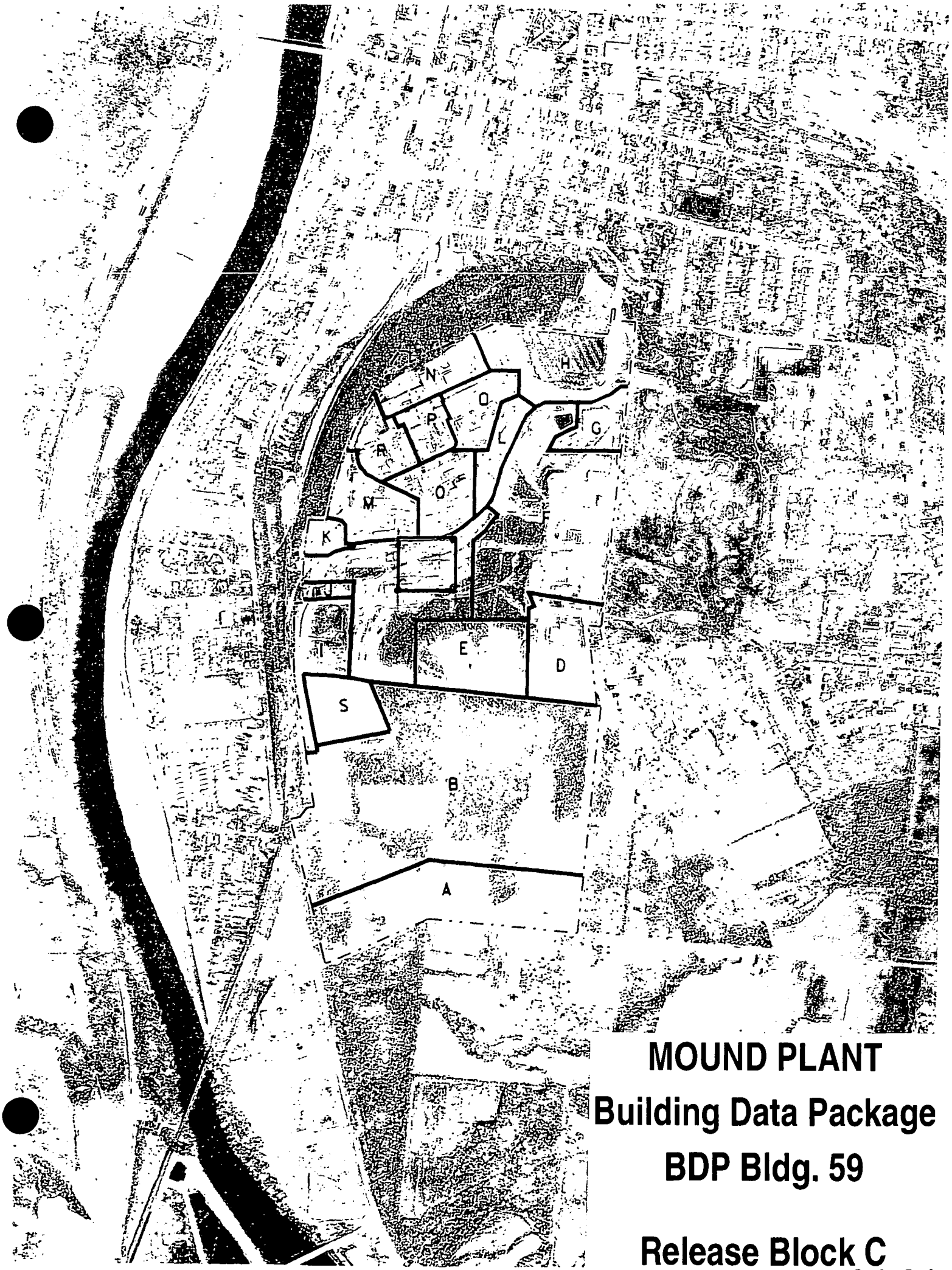
It has been determined that these conditions are not protective of human health and the environment. Therefore, a RESPONSE ACTION is recommended.

Concurrence:

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

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

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



MOUND PLANT

Building Data Package

BDP Bldg. 59

Release Block C

H
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Bldg. 59
E
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A

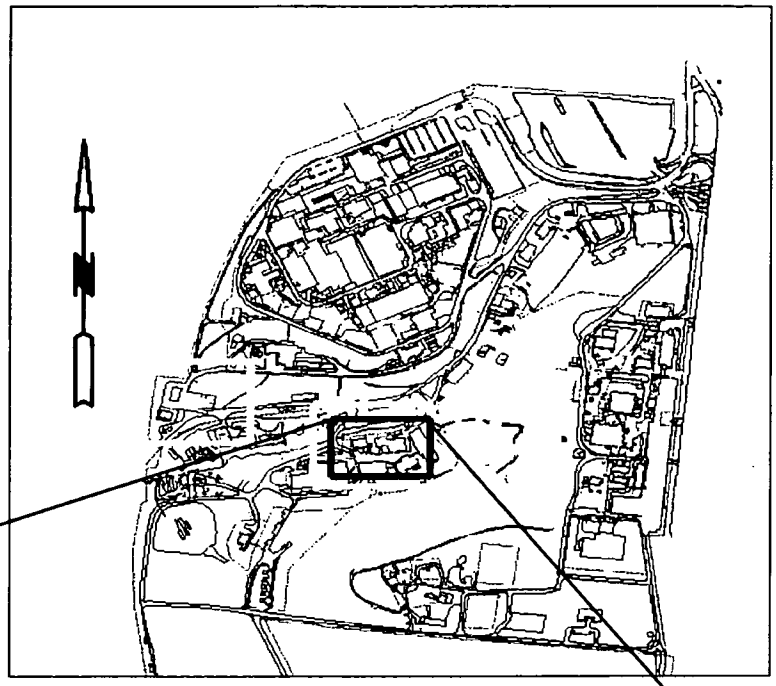
Mound Plant

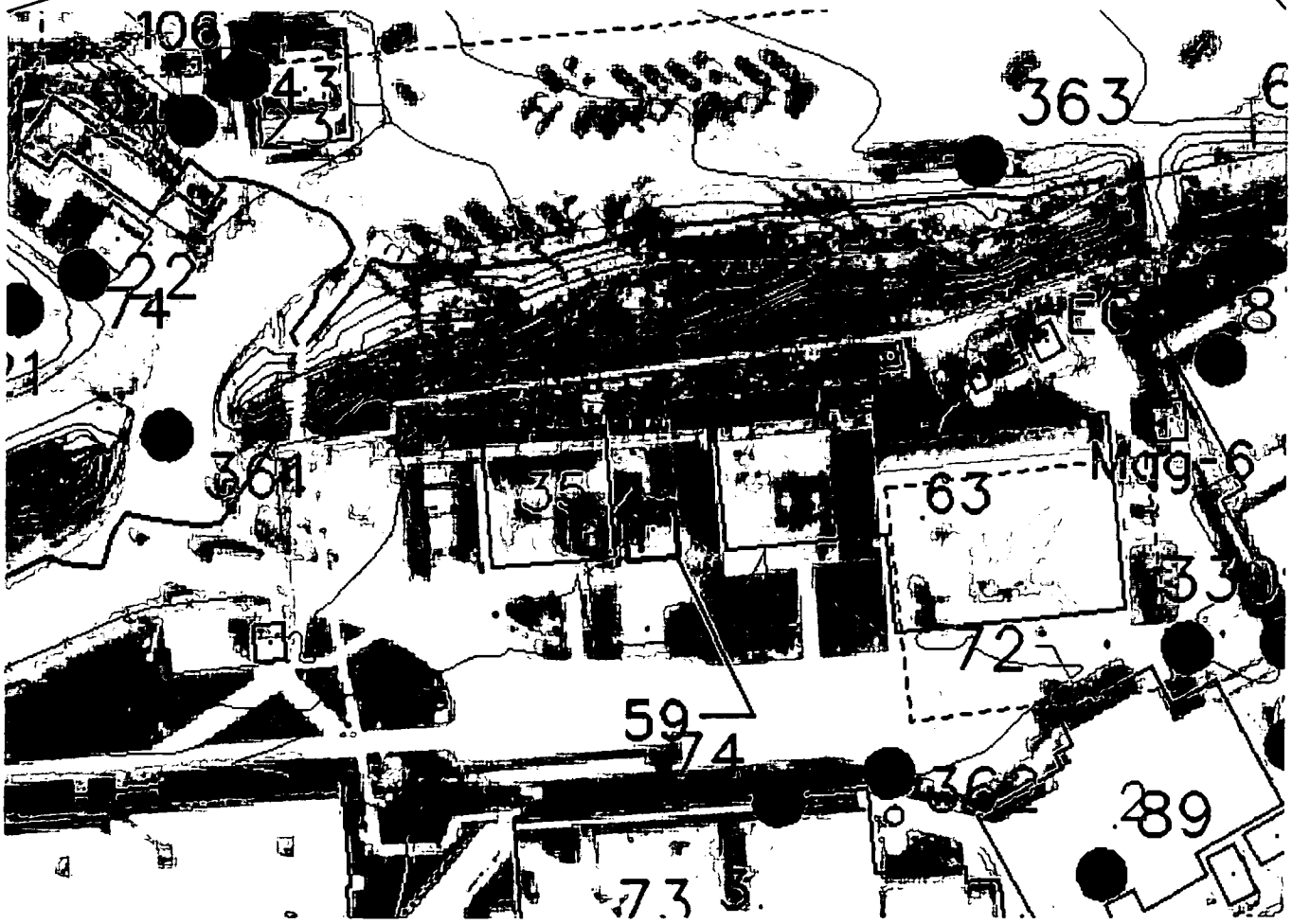
Building 59

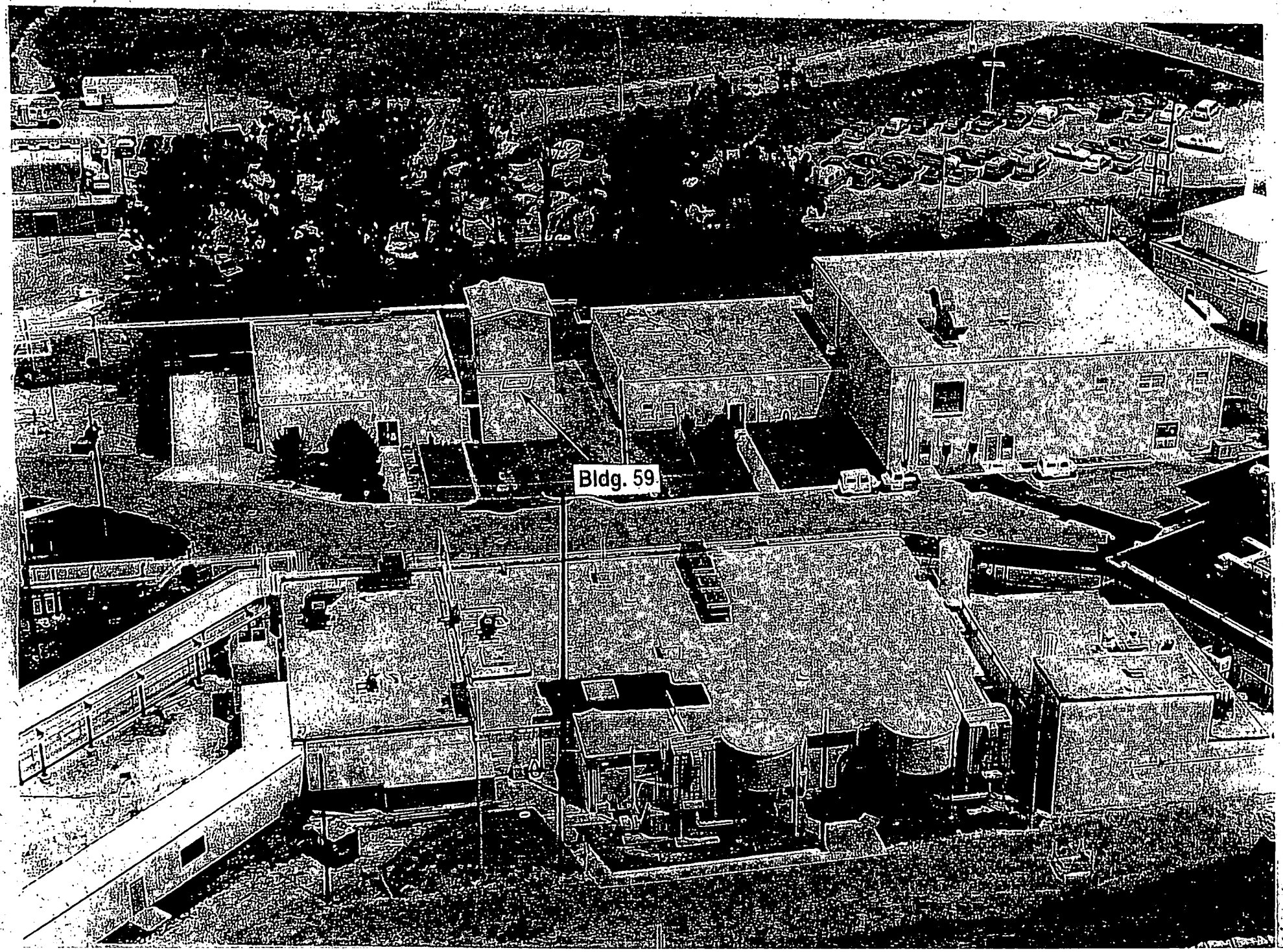
Neutron Radiography Facility

Release Block C

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






Bldg. 59

BUILDING DATA PACKAGE (BDP)

BUILDING 59

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 3
  - 2.4.1 On-Site Methodology 3
  - 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 59 5
- 3.6 Past Uses of Building 59 5
- 3.7 Current and Past Uses of Adjacent Buildings and Features 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 12
    - 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 12

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 15
5.6 Physical Setting Analysis, If Migrating Hazardous Substances Are An Issue 15
5.7 Other Conditions of Concern 15
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 Maps, Figures, Photographs, and PRS Supplemental Information 23
7.2.1 Map of Montgomery County 24
7.2.2 Site Plan and PRS Release Blocks 25
7.2.3 Building Drawings 26
7.2.4 PRS Supplemental Information 27
7.2.5 Aerial Photographs 28
7.3 Owner/Historical Documentation: "Title Search" 29
7.4 Regulatory Documentation: "EDR Document" 30
7.5 Environmental Appraisal Report of the Mound Plant (Extract) 31
7.6 Radiological and Other Survey Reports 32
7.6.1 Radiological 33
7.6.2 Asbestos Survey 34
7.6.3 Lead 35
7.6.4 Chemical History 36

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 59 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 59 was performed in October 1997. This investigation included a review of the historical aerial photographs and maps, a review of federal and state regulatory agency records, and a review of Mound records. In addition, radiological, lead paint, and asbestos surveys have been conducted. An analysis and inspection survey was performed of the building and of the area around the building. (See Paragraphs 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 59 footprint, and an arbitrary 15-foot wide perimeter around the building. Building 59 contains 648 square feet.

1.2 Statement of Environmental Concerns

- Cobalt 60 due to activation.
- Tritium due to water spills.

2.0 Introduction

2.1 Purpose

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

2.2 Special Terms and Conditions

Key Site Manager – The Key Site Manager is the person identified by the owner of a property as having good knowledge of the uses and physical characteristics of the property. This individual is frequently, but not necessarily always, the Building Manager. Mr. Robert Ward, Building Manager, has been designated as the Key Site Manager for Building 59.

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 59 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 59, there will be activation in the soil next to the U-tube, located under Building 59, which stored the Californium source for several years. Soil samples near Building 59 will be taken.

2.4 Limiting Conditions and Methodology Used

2.4.1 On-Site Methodology

Mound Plant Personnel examined the site during the week of October 20, 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.
- MD-22153, Mound Site Radionuclides by Location, July 1995
- Environmental Appraisal of the Mound Plant, March 1996

2.4.3 Historical Information

A complete title search of the Mound Plant was completed on 6/3/95 for the site to determine the previous owners of the site. A copy of the report is in Appendix 7.3.

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. See Appendix 7.4.

3.0 Site Description

3.1 Location and Legal Description

Building 59 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 Appendix 7.2 and Appendix 7.3.

3.2 Site and Vicinity Characteristics

The subject property consists of Building 59 footprint, an arbitrary 15-foot wide perimeter around the building. (See Appendix 7.2 and Introduction Pages.)

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 59 is located in this valley. The 124-acre tract, acquired in 1981, is an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working on-site.

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

line of the Mound Plant, with agricultural fields and farms occupying the lands beyond.

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

Building 59 is a two story concrete building that was constructed in 1977 and acted as a neutron radiography and neutron activation facility. There were no other structures, roads, or improvements that would impact the environmental conditions of the building.

- Room 1 - The first floor housed the positioning mechanism for radiography and the top of the U-tube for source storage is visible. The positioning mechanisms have been removed.

- Room 101 - The second floor housed the CFX unit that has been removed.

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. See Appendix 7.3.

3.5 Current Uses of Building 59

Building 59 is currently inactive. The building has been vacant and unused since 1990.

3.6 Past Uses of Building 59

Building 59 has only been used for neutron radiography and neutron activation.

3.7 Current and Past Uses of Adjacent Buildings and Features

Building	Square Footage	Current Use	Past Use	Direction from Building
N/A	N/A	Steam bed & Parking Lot	Steam bed & Parking Lot	North
63	16,461	Quality/Production Tester/Design/Development	Quality/Production Tester/Design/Development	East
35	2500	Vacant	Nondestructive Testing	West
3	12,391	Test Fire	Test Fire	South
87	38,882	Vacant	Destructive Testing	Southwest
N/A	N/A	Roadway & Stream bed	Roadway & Stream bed	West
43	1,516	Vacant	Development	Northwest

These facilities have had no environmental impact on Building 59.

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. See Appendix 7.4.

There are fourteen sites within the appropriate radii for an ASTM Phase I Environmental Site Assessment search. See Table 1.

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 59 in quantities above the regulatory threshold.

4.2 Physical Setting Source(s)

See 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 Engineering District for the purpose of developing an atomic bomb. This undertaking became known as the "Manhattan Project." In 1943, the director of Monsanto Chemical Company (MCC, now Monsanto Corporation) Central Research department in Dayton, Ohio, accepted the responsibility for chemistry and the metallurgy of radioactive polonium-210, and the Dayton Project was launched. MCC operated five (5) units of the Dayton Project at various locations around the Dayton area. For Dayton Unit V (more formally known as the Dayton Engineer Works under the Dayton Engineer District), a 128-acre site on the outskirts of the town of Miamisburg, Montgomery County, Ohio, was selected in 1946 as the location for a permanent research facility in support of the Manhattan Project. In July 1946, the Monsanto Research Corporation (MRC), a subsidiary of MCC, engaged the firm of Giffels and Vallet of Detroit, Michigan, to design the plant. Construction of the new facility, consisting of fourteen (14) original buildings began in February 1947 by Maxon Construction Co., Dayton, Ohio. The plant was the first permanent facility of the Atomic Energy Commission, which succeeded the wartime Manhattan Engineering District. The Mound Plant was occupied by MRC personnel in May 1948 and operations involving radionuclides began in January 1949.

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

Building 59 was constructed in 1977 as a neutron radiography and neutron activation facility.

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 59.

No PRSs affect this building.

4.4.1.2 Occurrence Reports

No record of occurrence reports associated with Building 59 were located.

4.4.2 Past Sampling Data

4.4.2.1 Radiation Surveys

A Property/Waste Release Evaluation (P/WRE) has not been prepared to do a wipe and scan survey of Building 59 but P/WREs have been generated for the materials removed from Building 59. Building 59 will have a radiation survey performed per a Sampling and Analysis Plan. Building 59 surveys performed during material removal indicate readings for beta-gamma fixed activity and tritium smearable activity. The highest beta-gamma fixed activity is 130,000 dpm/100cm^2 along the inner surface of the concrete "donut." The highest tritium smearable activity is 276 dpm/100cm^2 located on a visible water spill on concrete. (See Appendix 7.6.1.) Building 59 debris will be surveyed before disposal.

4.4.2.2 Chemical History

There are no chemicals remaining in Building 59. Appendix 7.6.4 is a 1996 chemical inventory for Building 59.

4.4.2.3 Lead Paint

Building 59 contains no lead paint per the lead based paint sampling performed by Industrial Hygiene, September 23, 1996. (See Appendix 7.6.3.)

4.4.2.4 Asbestos

Building 59 has no asbestos per an Industrial Hygiene Surveillance Report dated 6/9/97. (See Appendix 7.6.2.)

4.4.2.5 Radon

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

4.4.3 Chemicals Removed After Mission End

Safe shutdown activities during 1996 removed all chemicals from Building 59. Appendix 7.6.4 is an inventory list of that activity.

4.4.4 Reviews of Building Prints

Building prints were reviewed and included in Appendix 7.2.3.

4.4.5 Aerial Photographs

Aerial photographs from 1994, 1983, 1973, 1968, 1965, 1959, 1949 and 1938 were reviewed and copies are found in Appendix 7.2.5.

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 59 is visible in the photograph dated 1983.

5.0 Site Reconnaissance

5.1 Hazardous Substances in Connection with Identified Uses

5.1.1 Space

Building 59 has two rooms, which consist of the first and second floors. The first floor housed the positioning mechanisms and the second floor housed the CFX unit.

5.1.2 Heating/Cooling

Building 59 has no cooling. Each floor in Building 59 has a thermostat controlled electric heater to prevent the water in the sprinkler piping from freezing.

5.1.3 Stains or Corrosion

No stains or corrosion were observed in Building 59 except for water stains resulting from a water recirculation system for the CFX unit. This recirculation system was removed in 1996 for safe shutdown. One water stain on the concrete had a count of 276 dpm/100cm^2 for tritium activity.

5.1.4 Drains and Sumps

There are no floor drains in Building 59. There is one "sump" but this "sump" was to prevent neutron backscatter and it was not used to collect liquids.

5.1.5 Wastewater

Building 59 generated no wastewater.

Storm water is presumably directed northwestward in the immediate vicinity of Building 59, toward the drainage swale that flows westward past the northern edge of the subject property.

5.1.6 Septic Systems

There was no evidence of septic systems (such as leaching field or septic tank vent pipes) in the vicinity of Building 59.

5.1.7 Suspected Asbestos Containing Material

Building 59 contains no asbestos.

5.1.8 Paint

No paint contains lead.

5.1.9 Fluorescent Lamps

Fluorescent lamps are not present in Building 59.

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 ballasts of fluorescent lamps. No PCBs are in Building 59. See Section 5.1.9.

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 59.

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

Cobalt 60 due to activation. The inside of the concrete "donut" and the soil surrounding the U-tube are activated.

5.8 Recent Interviews

Ms. Gayle Jewett of Babcock & Wilcox of Ohio was interviewed about past practices and operations at Building 59. Ms. Jewett worked in the CFX facility for approximately six (6) years.

On October 2, 1997, Ms. Jewett talked about the activities in Building 59 and confirmed that the information in this Building Data Package regarding Building 59 activities is correct. At an earlier date, Ms. Jewett was the source for the information that the water stains may contain tritium because of the way evaporated water was replaced in the reactor core tank. See Section 5.1.3.

6.0 Findings and Observations

This Building Data Package for Building 59 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.

In summary, radiological contamination is the sole concern. There are no concerns related to chemical, asbestos, lead, PCB, or HVAC contamination.

6.1 Environmental Concerns Evaluation (Matrix)

See following page.

BUILDING # 59: ENVIRONMENTAL CONCERN EVALUATION

DESCRIPTION	PROBLEM?	COMMENT	PROPOSED RESOLUTION	REFERENCE
Tritium	Yes	Water Stain	Removal	Para. 5.1.3
Cobalt 60	Yes	Inside of "donut"	Removal	Para. 4.4.2.1
Cobalt 60	Yes	Soil near U-tube	Removal	Para. 2.3

7.0 Appendices

7.1 Acronyms

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	Action Level
ASTM	American Society for Testing and Materials
BUSTR	Bureau of Underground Storage Tank Regulations
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DPM	Disintegrations Per Minute
EMF	Electromagnetic Field
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration (Program)
ERDA	Energy Research and Development Administration
ERNS	Emergency Response Notification System
FFA	Federal Facility Agreement
FINDS	Facility Index System
FS	Feasibility Study
GSA	General Services Administration
HEPA	High Efficiency Particulate Air
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
M&O	Maintenance and Operations
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Company
MEMP	Mound Environmental Management Project
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation

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

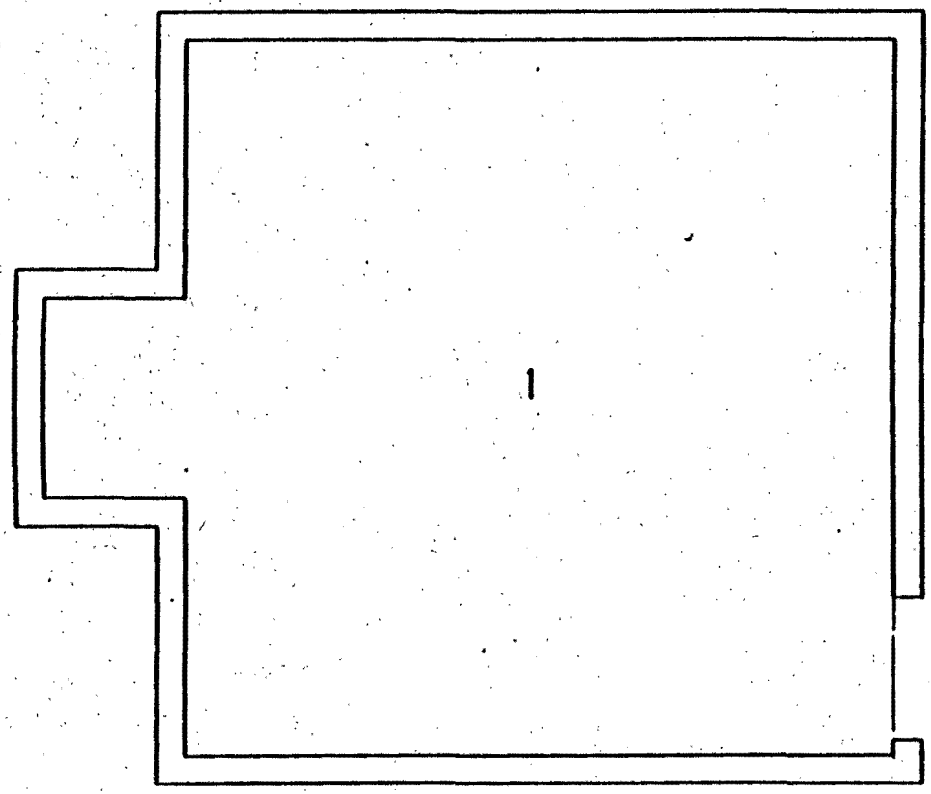
Appendix 7.2 Maps, Figures, Photographs, and PRS Supplemental Information

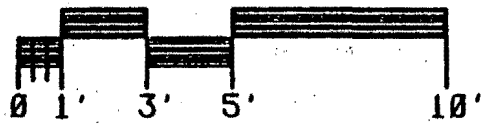
Appendix 7.2.1 Map of Montgomery County

Appendix 7.2.2 Site Plan and PRS Release Blocks

Appendix 7.2.3 Building Drawings

REV	DATE	REVISIONS	BY	CHKD	DWN	APPD	APVD	B
B	12/12/91	ASBUILT ISSUE	DCW				DVD	





BLDG #59
FIRST FLOOR
BLDG CODE:3059

SHEET	1	2	3	4	5	6
TOTAL	2	2				

TITLE: BLDG #59 FLOOR PLANS

(U) TITLE CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE: C | DRAWING NUMBER: FSC911266 | JOB NUMBER: 12335

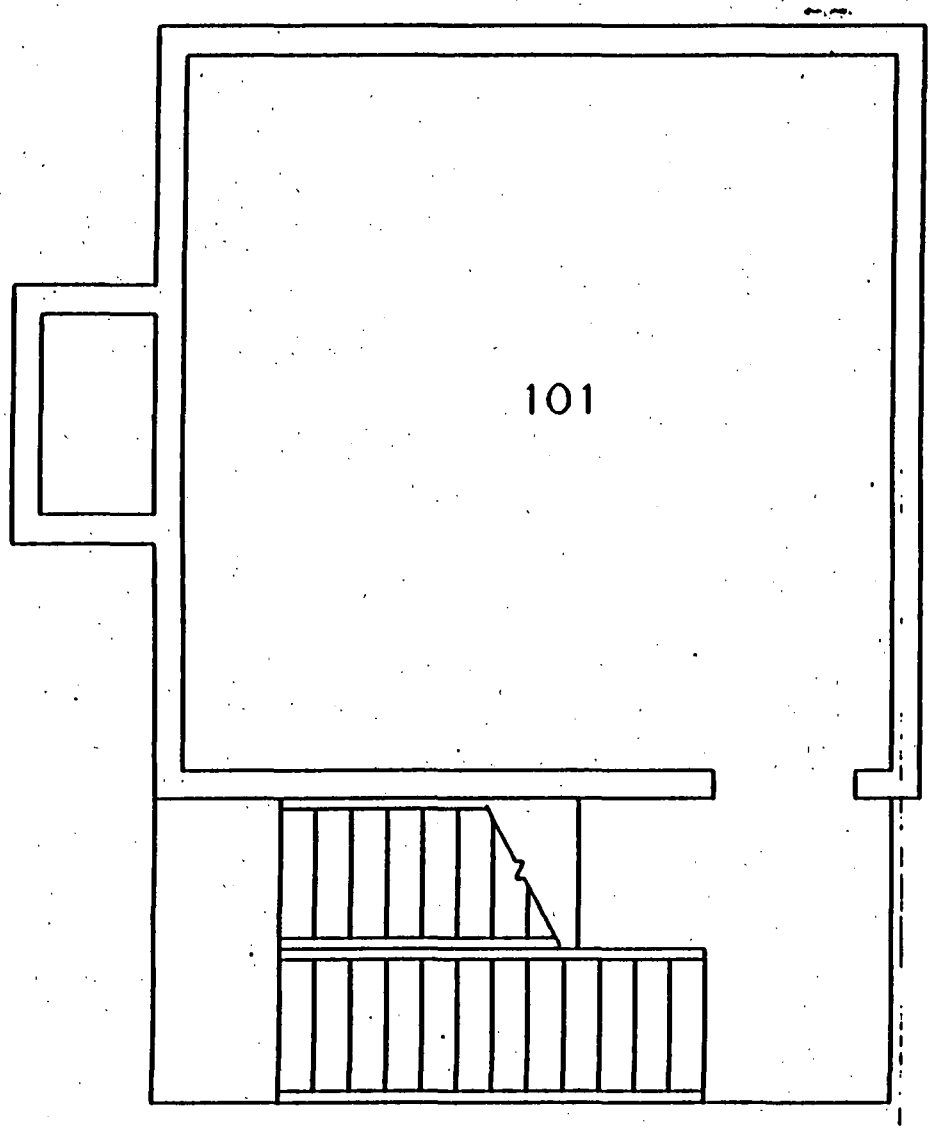
DWG TYPE: SFP | PROJ: BLDG #59 | CODE: 14863 | SCALE: AS NOTED | SHEET 1 OF 2

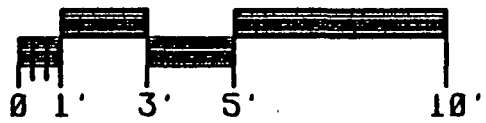
STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.0

DESIGN ENG | PROJ ENG | DRAFT | DWG REV | CP & IC | PROJ REV | DWG MGR | APVD | DATE

REVISIONS: DONE ___ DONE ___ DONE ___ DATE:

C3





BLDG #59
SECOND FLOOR
BLDG CODE:3059

DRAWING NUMBER FSC911266	JOB NUMBER 12333
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C	DATE 14MAR5 / SCALE AS NOTED
	TOTAL 8 / SHEET 2
STATUS NO-REL.-12/12/91	

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 59

DATE: 5-14-96

UNCLASSIFIED

Appendix 7.2.4 PRS Supplemental Information

(None)

Appendix 7.2.5 Aerial Photographs

Appendix 7.3 Owner/Historical Documentation: "Title Search"

FA/MTS-OH
FORM 100
TITLE INSURANCE
COMMITMENT

COMMITMENT FOR TITLE INSURANCE

First American Title Insurance Company

FIRST AMERICAN TITLE INSURANCE COMPANY, A CALIFORNIA CORPORATION, herein called the Company, for valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor: all subject to the provisions of Schedule A and B and to the Conditions and Stipulations hereof.

This Commitment shall be effective only when the identity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent indorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six (6) months after the effective date hereof or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue such policy or policies is not the fault of the Company. This Commitment shall not be valid or binding until countersigned by an authorized officer or agent.

IN WITNESS WHEREOF, the Company has caused its corporate name and seal to be hereunto affixed.

Issued By:

MIDLAND TITLE SECURITY, INC.

First American Title Insurance Company

BY Parker S. Kennedy PRESIDENT

ATTEST William C. Gaeyler Jr. SECRETARY

Countersigned:

By J. Michael Thomas

Validating Signatory

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Schedule A

Effective date: June 3, 1995 at 7:59 A.M.

1. **Policy or Policies to be issued:**	**Amount**
a. **Owner's Policy** **Proposed Insured:** The United States of America	$TBD
b. **Loan Policy** **Proposed Insured:** To Be Determined, its successors and/or assigns	$TBD

2. **The estate or interest in the land described or referred to in this Commitment and covered herein is a Fee Simple and title to the estate or interest in said land is at the effective date hereof vested in:**
The United States of America

3. **The land referred to in this Commitment is described as follows:**

The examined property consists of all legal descriptions as shown on source deeds listed on Schedule B, Section II, note regarding vesting of title. A new legal description with appropriate approvals must be obtained prior to title transfer.

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Schedule B Section I

The following are the requirements to be complied with:

Instrument(s) creating the estate or interest to be insured must be approved, executed, delivered and filed for record.

End of Schedule B - Section I

Schedule B Section II

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

1. Defects, liens, encumbrances, adverse claims or other-matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed Insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment.

2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.

3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by public records.

4. Any lien, or right to an lien, for services labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

5. Rights of parties in actual possession of all or any part of the premises.

6. Special assessments and special taxes, if any, and taxes not yet due and payable.

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Continuation of Schedule B - Section II :

Note: Title Holder took Title in Deed Book 1256-179, Deed Book 1265-361, Deed Book 1214-12, Deed Book 1214-248, Deed Book 1215-347, Deed Book 1246-45 , Deed Book 1258-56, Deed Book 1258-74, Deed Microfiche 81-376-A01, Deed Microfiche 81-323-A11, Deed Book 1214-10, Deed Book 1214-15 and Deed Book 1214-17

7. Subject to restrictions as shown of record in Deed Book 939, Page 322, Volume 1116-262, Volume 1116-265, Volume 1116-268 and Microfiche 89-560-E08.

8. Easement to The Dayton Power and Light Co. as shown of record in Deed Book 2341-323, Deed Book 1275-9, Deed Book 2341-43 and Deed Book 2437-611.

9. Easement to the City of Miamisburg as shown of record in Deed Book 2260-228.

10. Subject to a Reservation as shown of record in Deed Book 548-218.

11. Subject to an Agreement between The New York Central Railroad Company and the Cleveland, Cincinnati, Chicago and St. Louis Railway Company and The United States of America as shown of record in Deed Book 1282-401.

12. Subject to an Affidavit as shown of record in Deed Microfiche 90-616-D02.

13. Subject to an Agreement between William F. Mobley and Margaret Mobley and William Hamilton and Janet W. Hamilton as shown of record in Deed Book 1214, Page 8.

14. Subject to conditions as shown in Quitclaim Deed Book 1212, Page 87.

NOTE: The Mound Property has all been annexed to City of Miamisburg, which makes some USA deed Descriptions obsolete.

15. 1994 Duplicate for Aud. Parcel Number K46-3-34-14 & 21 (2.390 Acres) lists taxes in the name of The United States of America
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 7,530.00 Building: 0.00 Total: 7,530.00.

Aud. Parcel Number K46-5-3-13 (88.320 Acres, Lot 2290)
First Installment due January 1995 is $ 0 .00.
Second Installment due July 1995 is $ 0.00.
Land: 618,240.00 Building: 0.00 Total: 618,240.00.

Aud. Parcel Number K46-11-9-1 (21.170 Acres, Lot 4777)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 29,650.00 Building: 0.00 Total: 29,650.00.

Aud. Parcel Number K46-11-9-2 (42.877 Acres, Lot 4778)
First Installment due January 1995 is $ 0.00.

FIRST AMERICAN TITLE INSURANCE COMPANY

Commitment No: 9-41914

Continuation of Schedule B - Section II :

Second Installment due July 1995 is $ 0.00.
Land: 60,030.00 Building: 0.00 Total: 60,030.00.

Aud. Parcel Number K46-11-9-3 (1.6 Acres, Lot 4779)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 2,240.00 Building: 0.00 Total: 2,240.00.

Aud. Parcel Number K46-5-1-2 & 9 (86.198 Acres, Lot 2259)
First Installment due January 1995 is $ 36.91, which includes a Delinquent Incinerator Assessment of $ 34.46, plus a $ 2.45 penalty. (First Installment is not paid.)
Second Installment due July 1995 is $ 0.00.
Land: 814,380.00 Building: 0.00 Total: 814,380.00.

Aud. Parcel Number K46-15-7-1 (35.500 Acres, Lot 6127)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 49,700.00 Building: 0.00 Total: 49,700.00.

Aud. Parcel Number K46-15-7-2 (24.197 Acres, Lot 6128)
First Installment due January 1995 is $ 0.00.
Second Installment due July 1995 is $ 0.00.
Land: 33,530.00 Building: 0.00 Total: 33,530.00.

End of Schedule B - Section II

Appendix 7.4 Regulatory Documentation: "EDR Document"

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.

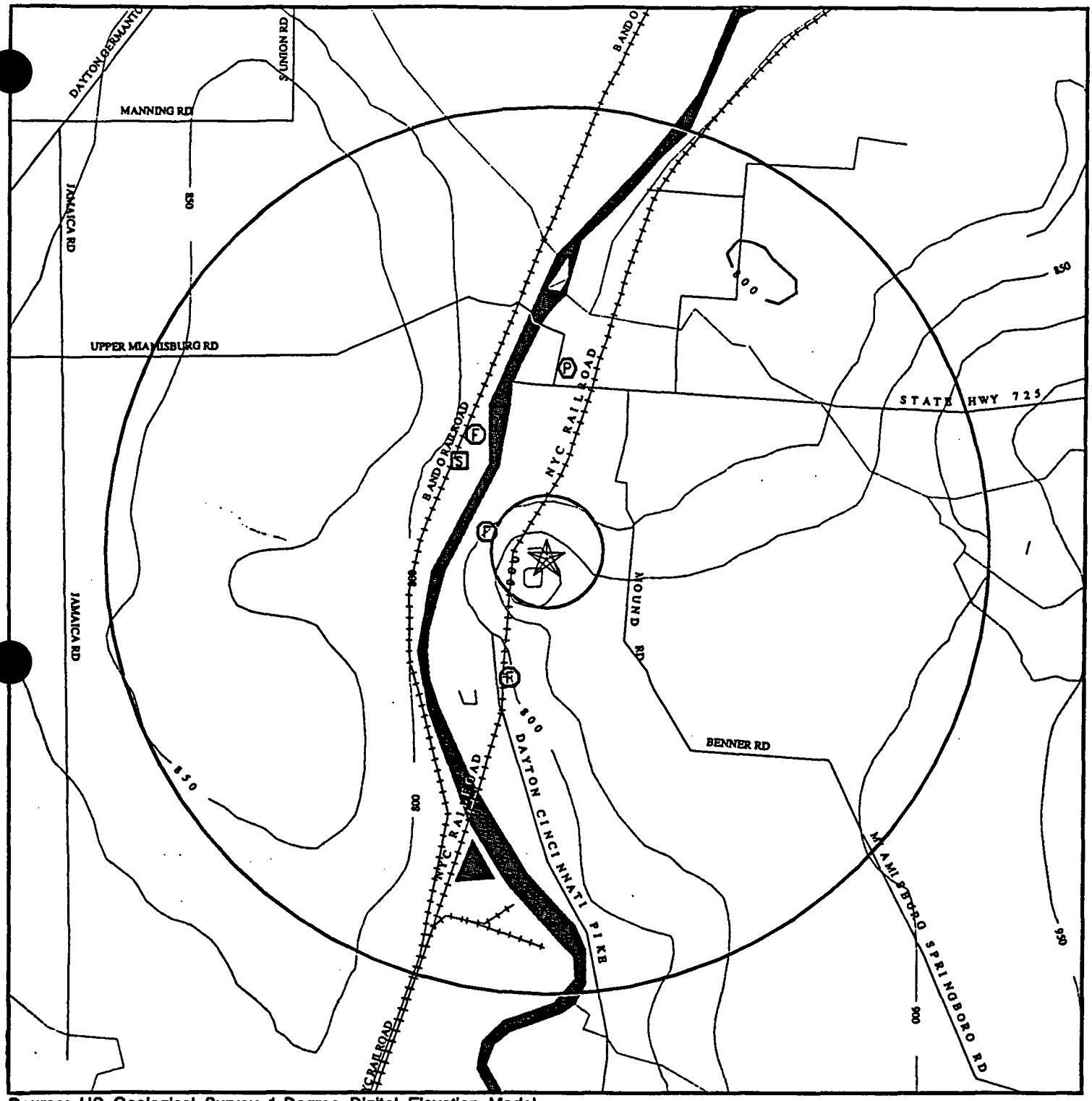
Equal/Higher Elevation	Page	Lower Elevation	Page
US DOE MOUND PLANT	*8*	*US DOE MOUND PLANT*	*8*

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

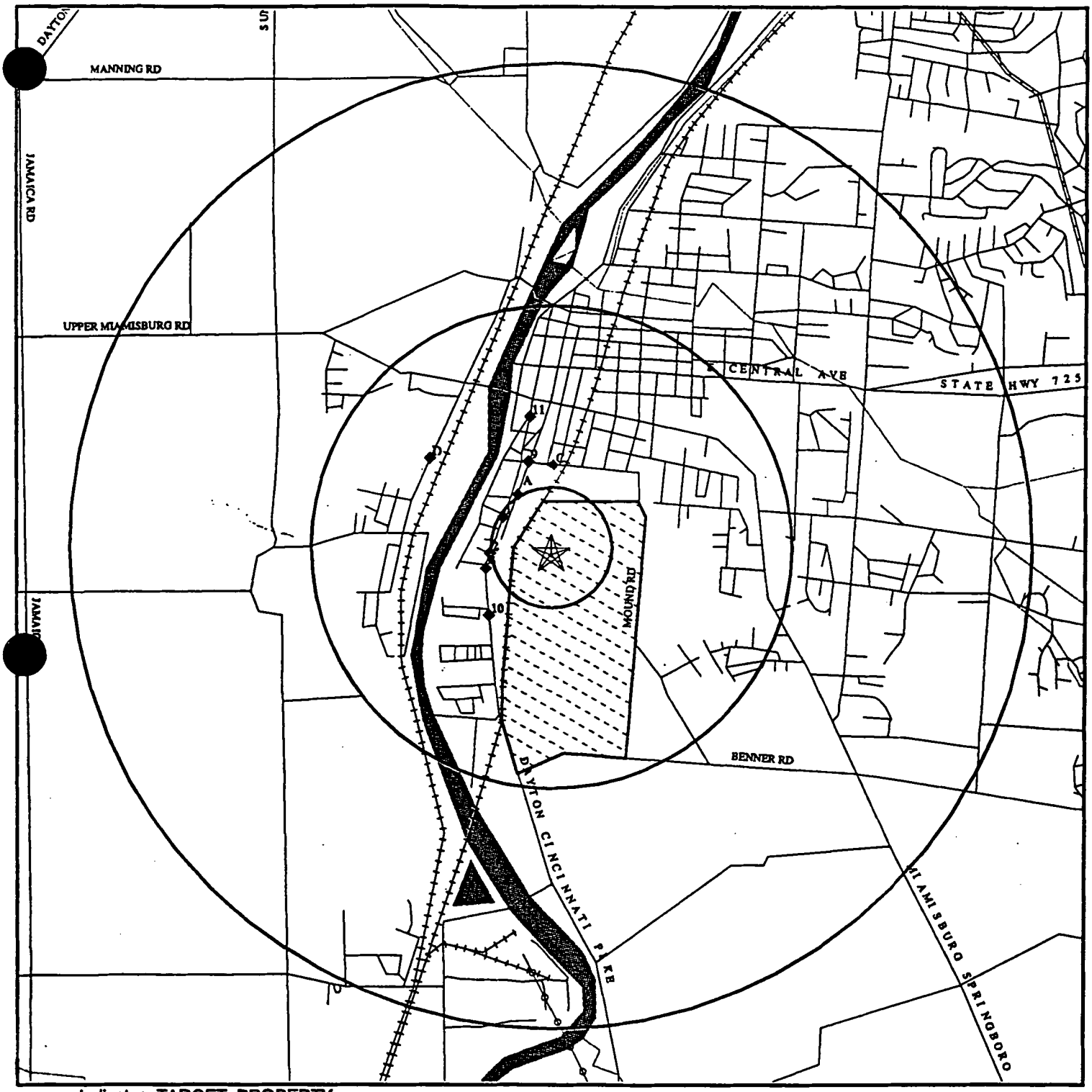
Number of sites tested: 35

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

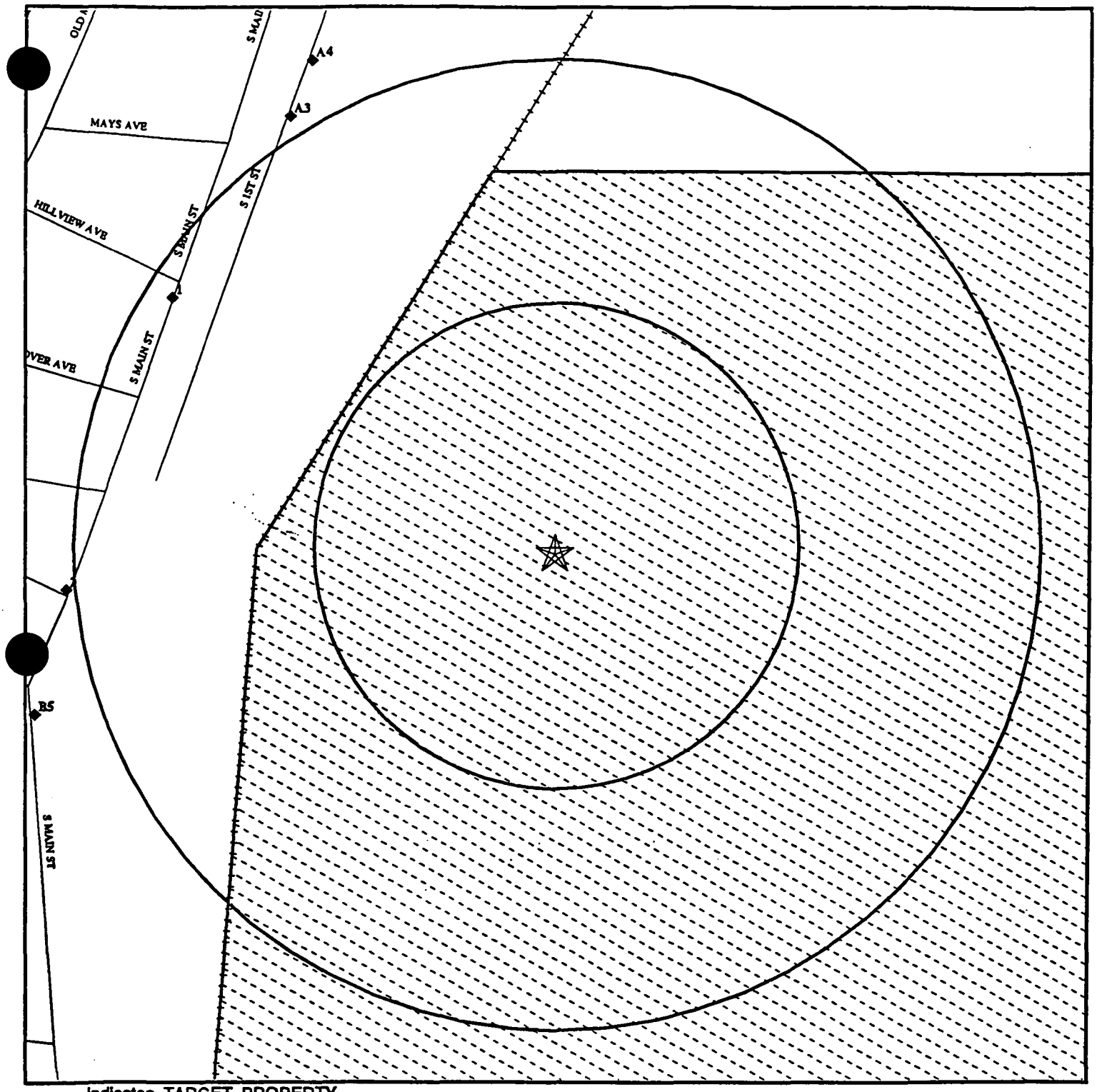
0 1/4 1/2 1 2
Miles

- 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

N

- 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

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

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 CERCLIS FINDS NPL TRIS LUST	1000190772 OH6890008984

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

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

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

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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 1000243045
UST OHD980896468
LUST

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		

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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

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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		

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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 | SHWS | S100037719
302 S RIVERVIEW AVE | N/A
MIAMISBURG, OH 45342

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

Appendix 7.5 Environmental Appraisal Report of the Mound Plant (Extract)

9.78 BUILDING 59

9.78.1 Scope of Building 59 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.

The appraisal team performed a walk-through of Building 59 on the afternoon of February 21, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.78.6.1). The appraisers were not accompanied by the building manager, however, the building Safe Shutdown process manager was present. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.78.6.2).

9.78.2 Description of Building 59

Building 59, a neutron radiography facility, is a 700-square-foot, two-story reinforced concrete structure with a rolled roof. The building has a high-bay area. Its location is shown in Attachment 3 (Section 9.78.6.3). The facility is bordered by Building 35 to the west and Building 87 to the southwest. The main plant drainage ditch lies to the north of Building 59. Floor plans are presented in Attachment 4 (Section 9.78.6.4). The facility is serviced from Building 35 with 120/240V electric, compressed air, fire sprinklers, a unit electric heater and exhaust fan with filter.

Building 59 was constructed in 1970 to provide neutron radiography capability to the site. The facility housed a neutron source (californium-252) used to supply neutrons to an assembly of uranium plates. The plates are located in a core tank surrounded by shielding composed of 3-inch thick lead and several inches of concrete and concrete block. Water that is filtered and demineralized circulated in the core and acted as a neutron moderator. The core assembly is located on the second floor of Building 59 in the high bay area. The californium-252 source was stored remotely from the core when not in use (i.e., when radiography operations were to be conducted the source would be transported via a hand-cranked source transfer system into its proper location within the core assembly).

The facility is currently undergoing Safe Shutdown. The californium-252 source was removed from the facility and transported to Oak Ridge National Lab in 1995. The uranium plates and cadmium rods are scheduled to be removed from the facility in the near future. Prior to removal of the rods and plates from the core, it will be necessary to drain and process the water still present in the core.

9.78.3 Summary of Findings

On the day of the inspection it was noted that Building 59 appears to be well-maintained. There were no issues of environmental concern identified during the facility walk-through.

9.78.4 Observations

9.78.4.1 Air Emissions

There are no fumehoods or other sources of air emissions. There was no evidence of fugitive dust.

No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.78.4.2 Wastewater Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to discharge. Radioactively contaminated wastewater is treated in Building WD by physical-chemical treatment. If appropriate, wastewater may be discharged by hard pipe to the Great Miami River. If concentrations of radioactive contaminants cannot be reduced to acceptable levels, wastewater is solidified and shipped to the Nevada Test Site or Envirocare for disposal. All outfalls are permitted under an active NPDES permit. Routine monitoring activities are in place. Based on NPDES monitoring report data reviewed, it appears that the facility is in compliance with qualitative and quantitative conditions of the permit.

9.78.4.2.1 Sanitary Wastewater

The building has no sanitary service. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.78.6.5), the facility is not serviced by a sanitary line. There were no floor drains evident during the inspection.

9.78.4.2.2 Storm Wastewater

Facility drawings indicate the facility is not serviced by a storm sewer.

9.78.4.2.3 Process Wastewater

The water circulating in the core is tritium-contaminated and will be required to be disposed of accordingly. The water is still in use and is not considered waste at this time.

9.78.4.2.4 Chemicals

There are no chemicals used or stored in the facility.

9.78.4.3 Potable and Service Water

The building is not supplied with potable water. A closed loop distilled water system is provided for the core circulating water system. Distilled makeup water is added to the system as required. Service water in the fire sprinkler system is provided from Building 35.

9.78.4.4 Chemical Storage and Hazardous Materials

There is no storage of chemicals in Building 59. A sump does exist on the first floor. The sump is to collect fire water or other discharge. The sump has never been used.

As noted, the facility still contains an assembly of aluminum-clad uranium plates and associated cadmium rods within the water-filled core. Disposition of these plates and rods is being addressed by the Safe Shutdown CFX Facility Deactivation Program.

The facility is suspected of containing asbestos, (MD-10391, *Asbestos Program Manual*, 9-14-95).

The facility does not contain polychlorinated biphenyls (PCB's) (1995 PCB Annual Document Log).

9.78.4.5 Solid, Hazardous and Radioactive Wastes

As noted, the water circulating in the core is contaminated with tritium. When the core water is drained it must be disposed of as radioactive wastewater. The Safe Shutdown program for Building 59 will address the disposal of the tritiated water.

Research activities using radioactive sources has occurred in the building. No research or production activities using energetic materials have occurred, (*Mound Facility Physical Characterization*, 12-1-93).

9.78.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856. As part of the Safe Shutdown process, equipment and supplies were evaluated for reuse. They were handled in several ways: reused at Mound; sent to other DOE facilities; claimed by the City of Miamisburg; sold at auction; sold to recycle; or disposed of.

9.78.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.78.6.6). The environmental appraisal of Building 59 indicates that there are no action items which need to be planned and scheduled for accomplishment.

Appendix 7.6 Radiological and Other Survey Reports

Appendix 7.6.1 Radiological

Radiological Characterization Summary
CFX Facility, Building 59

Type	Location	Amount (dpm/100 cm^2)	5400.5 Guidelines for Groups 1, 3, 4 (fixed + loose) (dpm/100 cm^2)	Attachment 1 Limit (fixed + loose) (See Note 1) (dpm/100 cm^2)	Comments
Highest Alpha Smearable Activity	Entire building	None detected	20	20	
Highest Alpha Fixed Activity	Entire building	None detected	100	100	
Highest Beta-Gamma Smearable Activity	Entire building	None detected	1,000	1,000	
Highest Beta-Gamma Fixed Activity	Direct reading along the inner surface of the concrete donut used for shielding the core.	130,000	5,000	5,000	The subsurface activation products interfere with the fixed surface measurement. Once activated portions of the building are removed, accurate direct readings can be obtained throughout the remainder of the building as part of the release survey.
Highest Tritium Smearable Activity	Visible water spill on concrete.	276	1,000	1,000	This is the highest wipe for material still remaining in the building.

Note 1 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

A maximum activity of 1.6 pCi/g for cobalt-60 was found in the concrete shielding block core samples. (These blocks have been removed from Building 59.)

The highest dose rate for Building 59 in its present condition is inside the donut at 1 mrem/hr.

October 30, 1997

Radiological Characterization Summary and Radiological Survey Data Sheets for Building 59 Data Package

November 17, 1997

Radiological Characterization
Summary
Building 59

Type	RSDS	Location	Amount (dpm/100 cm2)	5400.5 Guidelines for Groups 1,3,4 (fixed + loose) (dpm/100 cm2)	NUREG 1500 Guidelines (loose) (dpm/100 cm2)	Attachment 1 Limit (fixed + loose) (See Note 2) (dpm/100 cm2)	Comments
Highest Alpha Smearable Activity	97-TF-038	2nd Floor	2	20	211	20	Additional Removable Surveys as Specified in Sampling Plan
Highest Alpha Fixed Activity	97-TF-038	All	<100	100	Note 1	100	Core Sampling as Specified in Sampling Plan
Highest Beta Smearable Activity	97-TF-038	2nd Floor	7	1,000	9940	1,000	Additional Removable Surveys as Specified in Sampling Plan
Highest Beta Fixed Activity	R-1473-96	Inside Rx Core Area	130k	5,000	Note 1	5,000	Activated material will need removed. Additional core sampling as specified in the Sampling Plan.
Highest Tritium Smearable Activity	R-1415-96	Room 101	95	1,000	Note 1	1,000	Additional Removable Surveys as Specified in Sampling Plan

Note 1 NUREG-1500 gives guidelines for loose beta and alpha only.
Note 2 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

A maximum activity of 1.6 pCi/g for cobalt-60 was found in the concrete shielding block core samples.
The highest fixed beta was identified within the empty core area. All other fixed beta activity outside the core vicinity was < 5000 dpm/100 cm^2, and fixed alpha activity 100 dpm< 100 cm^2.
Radiation levels in the first and second floor outside the Rx Core tophat area were < 0.025 mrem/hr. Highest radiation recorded in the empty core area on RSDS R-1473-96 was 0.8 mr/hr.

II16

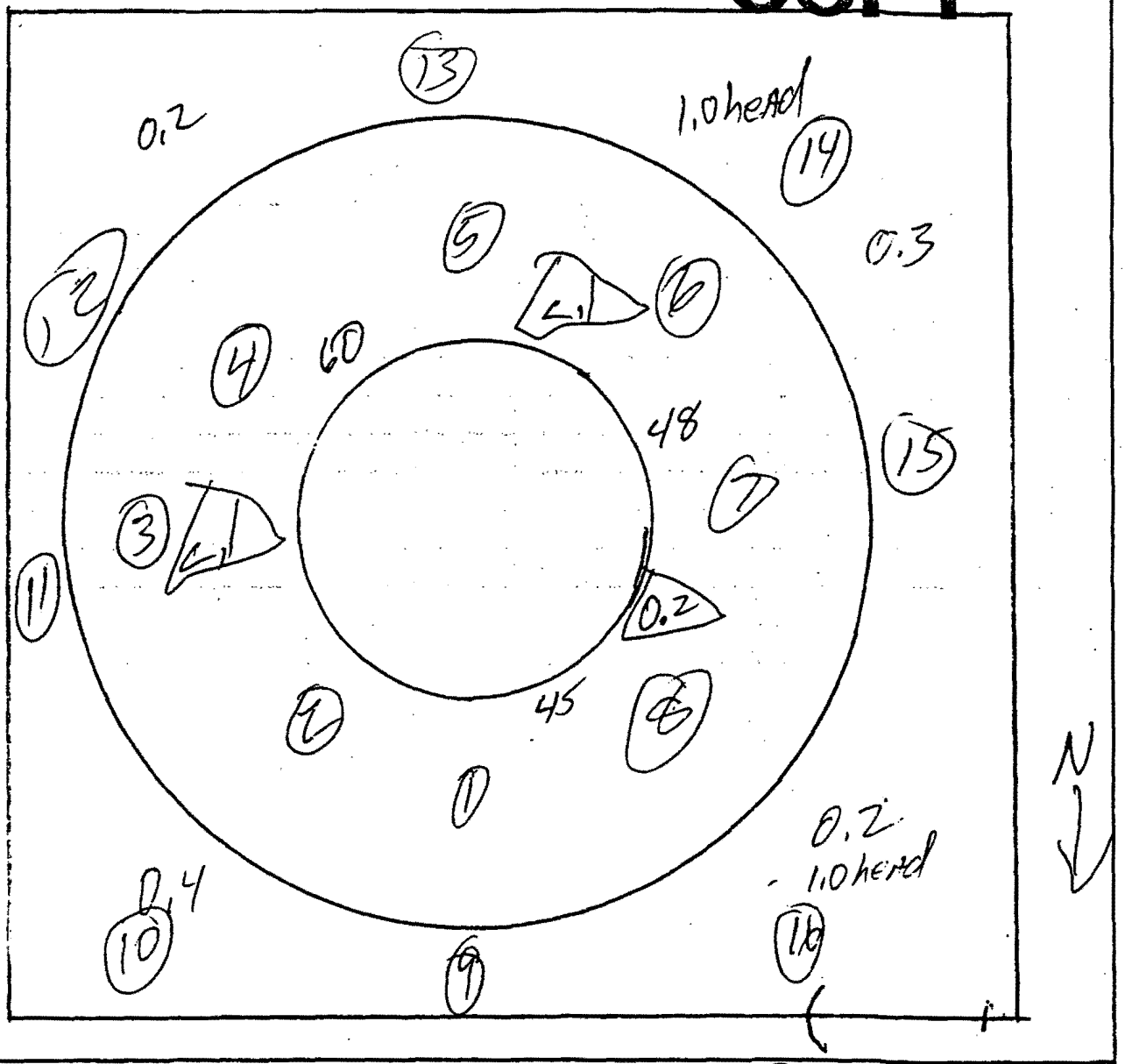
K-163

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg 59 2nd floor	SURVEY NO. R-1415-96
PURPOSE: Daily	RWP NO. R-039-96
	DATE: 9/4/96
	TIME: 1425

MAP/DRAWING

COPY



LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5306/5318	1/31/97
ESP2 w/NRD	4101/4102	11/17/96
RO2	3256	2/8/97
	NA	

[redacted]	8466	Date: 9/4/96
[redacted]	8433	Date: 9-4-96
[redacted] gnature/HP#)	5281	Date: 10/8/96

ML-9620 (10-95)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Red
Data file name: SMEAR005
Batch Ended: 9/4/96 16:02

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: SHOEMAKER R-1415-96 [16] 9-4-96 SG

Detector ID	Sample ID	Alpha Activity				Beta Activity			
		DPM	σ	flags	MDA	DPM	σ	flags	MDA
A1	1	0.00	2.06	<MDA	6.414E+00	0.53	1.80	<MDA	8.688E+00
A2	2	0.00	2.08	<MDA	7.008E+00	3.91	2.56	<AL	7.814E+00
A3	3	1.98	2.06	<AL	6.249E+00	0.00	1.27	<MDA	8.738E+00
A4	4	0.00	1.88	<MDA	5.363E+00	0.00	1.18	<MDA	8.092E+00
B1	5	0.00	1.98	<MDA	6.689E+00	1.43	2.08	<MDA	8.568E+00
B2	6	0.00	2.08	<MDA	6.830E+00	0.28	1.85	<MDA	9.289E+00
B3	7	1.65	1.89	<AL	6.804E+00	0.00	1.19	<MDA	8.699E+00
B4	8	0.00	2.11	<MDA	6.716E+00	0.00	1.33	<MDA	9.302E+00
C1	9	0.00	1.92	<MDA	6.062E+00	0.00	1.19	<MDA	8.367E+00
C2	10	2.01	2.41	<AL	9.021E+00	0.00	1.09	<MDA	7.064E+00
C3	11	0.00	2.02	<MDA	6.376E+00	0.35	1.82	<MDA	9.024E+00
C4	12	0.00	1.92	<MDA	6.483E+00	3.71	2.57	<AL	8.129E+00
D1	13	0.00	2.07	<MDA	7.136E+00	0.00	1.27	<MDA	1.153E+01
D2	14	0.00	2.11	<MDA	6.769E+00	0.25	1.72	<MDA	8.635E+00
D3	15	0.00	2.18	<MDA	6.996E+00	0.00	1.30	<MDA	8.731E+00
D4	16	0.00	1.94	<MDA	5.929E+00	0.00	1.20	<MDA	8.344E+00

Protocol #: 3 Name:Pw H3 #401393 04-Sep-96 18:19
Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
PACEMAKER R-1415-96 [II1-II16] 9/4/96 JML
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

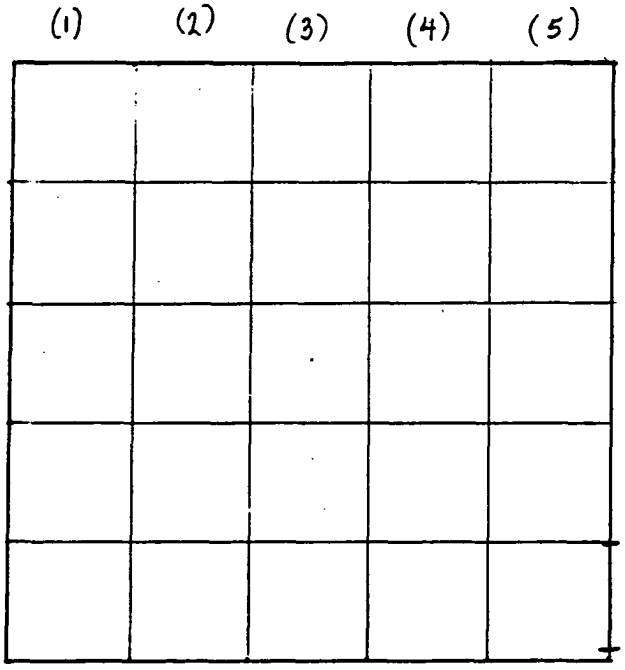
S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	2	B	10.10	9.70	27.40	671.		0.00
0	2.00	1		444.90	419.80	0.00	658.	926.76	94.03
1	2.00	12		0.00	0.00	0.00	605.	0.00	0.00
2	2.00	14		0.00	0.00	0.10	595.	0.00	0.00
3	2.00	12		1.90	2.30	0.00	613.	4.05	12.43
4	2.00	0		16.40	14.80	1.10	616.	34.87	16.27
5	2.00	1		28.90	27.30	0.00	591.	62.94	20.52
6	2.00	2		17.40	16.30	0.00	616.	36.98	16.83
7	2.00	10		0.00	0.00	0.00	616.	0.00	0.00
8	2.00	0		0.40	0.30	0.00	605.	0.86	10.74
9	2.00	6		6.90	5.80	0.00	620.	14.62	13.78
10	2.00	4		1.90	2.30	0.00	620.	4.03	11.62
11	2.00	5		0.40	0.30	0.00	640.	0.84	10.95
12	2.00	0		4.90	4.80	0.10	624.	10.37	12.37
13	2.00	1		33.90	33.30	0.00	607.	72.64	21.48
14	2.00	4		44.90	42.80	0.00	615.	95.51	24.57
15	2.00	0		3.90	3.30	0.00	627.	8.25	11.99
16	2.00	11		3.40	4.30	0.00	656.	7.09	12.71

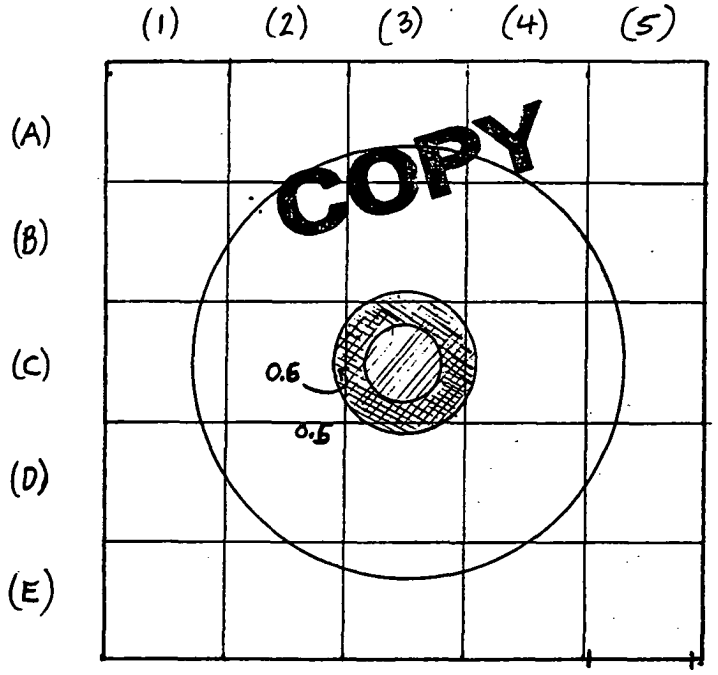
TK-144 FF-54 P4

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG 59	SURVEY NO. 97-TF-038
PURPOSE: SURVEY OF FLOOR AREAS TO DETERMINE RADIATION LEVELS AND FIXED/REMOVABLE CONTAMINATION	RWP NO. N/A
	DATE: 110397
	TIME: 1600

MAP/DRAWING





FIRST FLOOR
TOOK DIRECT READING WITH NE
RESULTS α = < 100 dpm/100cm²
β = < 5K dpm/100cm²
ON 1ST FLOOR 11-11-97 RJW

SEE PAGE 2 FOR SWIPE LOCATION I.D.

TOOK READINGS WITH MICROR AT CONTACT
RESULTS < .025 mrem REM
ON 1ST FLOOR 11-11-97

SECOND FLOOR
TOOK DIRECT READING WITH
NE ON FLOOR AND SIDE OF
DONUT - α = < 1000 dpm/100cm²
β = < 5K dpm/100cm²
ON 2ND FLOOR
11-11-97 RJW

2nd FLOOR Between
Wall and Donut
MICRO-R Readings
ND-mRem/hr. BW 11-13-97

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = GRID I.D.
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
ELECTRA	5335/5338	041598
BICRON 44Rom	3864	121297

Completed by: (S[redacted] 4992	Date: 110397
[redacted]	Date: 11/04/97
[redacted] nature/HP#) 6015	Date: 11/11/97

ML-9620 (10-95)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
1				A1 FIRST FLOOR
2				A2
3				A3
4				A4
5				A5
6				B1
7				B2
8				B3
9				B4
10				B5
11				C1
12				C2
13				C3
14				C4
15				C5
16				D1
17				D2
18				D3
19				D4
20				D5
21				E1
22				E2
23				E3
24				E4
25				E5
26				A1 SECOND FLOOR
27				A2
28				A3
29				A4
30				A5

☒ Removable Contamination ☐ Airborne Activity (check one)

Swipes (dpm/100cm^2) or Airborne (µCi/cc)

Sample #	β/γ	Alpha	Tritium	Comments
31				B1 SECOND FLOOR
32				B2
33				B3
34				B4
35				B5
36				C1
37				C2
38				C3
39				C4
40				C5
41				D1
42				D2
43				D3
44				D4
45				D5
46				E1
47				E2
48				E3
49				E4
50				E5
51				C-2 INSIDE DONUT WALL
52				B3
53				C4
54				D3
		NTG		

COPY

COMMENTS: SEE ATTACHMENTS FOR RESULTS!

Max. Activity on Large Area Wipe (dpm)	Tritium Airborne Activity (µCi/m^3)
N/A	N/A

NOTES:

1. ~~LSC results #3 corresponds to Sample #1 on this RSDS.~~ RSR
2. See MD-80036 10002 for calculations of WB, extremity and skin dose rates
3. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
4. Annotate special sample type (e.g. soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR022
Batch Ended: 11/4/97 14:01

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Recalibration Date: 8/20/98
Serial Number: 26966-1

Batch ID: T 97-TF-038 RYAN [54] 11-03-97 JM

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.13	<MDA	0.00	1.33	<MDA
A2	2	0.00	2.13	<MDA	1.16	2.26	<MDA
A3	3	1.90	2.04	<AL	1.48	2.12	<MDA
A4	4	0.00	1.93	<MDA	0.00	1.22	<MDA
B1	5	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	6	1.69	2.01	<AL	0.00	1.25	<MDA
B3	7	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	8	0.00	1.87	<MDA	1.18	2.00	<MDA
C1	9	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	10	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	11	0.00	1.99	<MDA	0.36	1.69	<MDA
C4	12	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	13	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	14	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	15	1.74	1.97	<AL	2.38	2.28	<MDA
D4	16	0.00	1.96	<MDA	6.22	3.31	<AL
A1	17	0.00	2.17	<MDA	3.17	2.92	<MDA
A2	18	0.00	2.12	<MDA	0.00	1.85	<MDA
A3	19	0.00	2.03	<MDA	1.63	2.12	<MDA
A4	20	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	21	0.00	2.03	<MDA	0.00	1.76	<MDA
B2	22	0.00	2.04	<MDA	2.24	2.47	<MDA
B3	23	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	24	0.00	1.85	<MDA	0.00	1.17	<MDA
C1	25	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	26	0.00	2.18	<MDA	0.00	1.86	<MDA
C3	27	1.70	1.98	<AL	0.00	1.20	<MDA
C4	28	0.00	1.97	<MDA	1.25	2.07	<MDA
D1	29	0.00	2.12	<MDA	0.02	1.75	<MDA
D2	30	0.00	2.08	<MDA	0.57	2.05	<MDA
D3	31	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	32	0.00	1.91	<MDA	0.40	2.03	<MDA
A1	33	0.00	2.13	<MDA	0.00	1.33	<MDA

COPY

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR022
Batch Ended: 11/4/97 14:01

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Certainty level for MDA and flags: 95%

Crosstalk correction performed.

Batch ID: T 97-TF-038 RYAN [54] 11-03-97 JM

Recalibration Date: 8/20/98
Serial Number: 26966-1

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A2	34	0.00	2.14	<MDA	2.46	2.61	<MDA
A3	35	1.90	2.05	<AL	2.70	2.45	<MDA
A4	36	0.00	1.95	<MDA	1.04	2.08	<MDA
B1	37	0.00	2.01	<MDA	0.00	1.26	<MDA
B2	38	0.00	2.01	<MDA	0.00	1.75	<MDA
B3	39	0.00	1.92	<MDA	0.00	1.19	<MDA
B4	40	0.00	1.86	<MDA	0.03	1.64	<MDA
C1	41	0.00	2.12	<MDA	0.00	1.83	<MDA
C2	42	0.00	2.19	<MDA	1.29	2.27	<MDA
C3	43	0.00	1.98	<MDA	0.00	1.20	<MDA
C4	44	0.00	1.96	<MDA	0.06	1.70	<MDA
D1	45	1.93	2.11	<AL	0.00	1.25	<MDA
D2	46	0.00	2.07	<MDA	0.00	1.46	<MDA
D3	47	0.00	1.92	<MDA	0.00	1.15	<MDA
D4	48	0.00	1.89	<MDA	0.00	1.19	<MDA
A1	49	0.00	2.16	<MDA	1.87	2.61	<MDA
A2	50	0.00	2.11	<MDA	0.00	1.32	<MDA
A3	51	1.90	2.04	<AL	1.48	2.12	<MDA
A4	52	0.00	1.99	<MDA	7.02	3.40	<AL
B1	53	0.00	2.05	<MDA	2.36	2.48	<MDA
B2	54	0.00	2.00	<MDA	0.00	1.25	<MDA

COPY

Time: 2.00
Data Mode: DPM Nuclide: SMVIAL Quench Set: SMVIAL
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	5.10
Region B:	2.0 -	18.6	0	0.0	5.10
Region C:	20.0 -	2000	0	0.0	11.70

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
T 97-TF-038 [FF1-FF54] RYAN 11-4-97 RLH
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT4.DAT
Count Data Filename: c:\data\SDATA4.DAT
Spectrum Data Drive & Path: c:\data

COPY

S#	TIME	CPMA	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	5.10	6	B	631.86		0.00	11.70
0	2.00	485.40	0		613.83	958.30	84.49	2.80
1	2.00	0.40	0		538.51	0.86	7.75	0.00
2	2.00	0.00	0		510.63	0.00	0.00	3.30
3	2.00	0.00	0		474.32	0.00	0.00	0.00
4	2.00	2.90	0		525.15	6.32	9.29	3.80
5	2.00	0.90	0		565.35	1.85	7.73	0.00
6	2.00	0.40	0		495.73	0.90	8.11	0.00
7	2.00	0.90	0		518.87	1.97	8.24	0.00
8	2.00	0.90	0		515.91	1.98	8.26	0.80
9	2.00	1.90	0		546.92	4.01	8.47	0.00
10	2.00	1.90	0		534.06	4.09	8.65	0.00
11	2.00	1.90	0		556.93	3.95	8.34	2.30
12	2.00	0.40	0		527.89	0.87	7.88	1.80
13	2.00	0.90	0		496.70	2.01	8.41	3.80
14	2.00	0.90	8		534.98	1.94	8.08	0.30
15	2.00	3.90	0		525.85	8.50	9.79	2.30
16	2.00	0.40	0		494.74	0.90	8.12	0.00
17	2.00	0.90	0		517.15	1.98	8.25	0.00
18	2.00	0.00	0		506.22	0.00	0.00	0.00
19	2.00	1.40	0		569.08	2.87	7.97	0.00
20	2.00	1.40	0		503.24	3.11	8.65	0.00
21	2.00	0.00	0		530.65	0.00	0.00	3.30
22	2.00	0.00	0		507.76	0.00	0.00	3.30
23	2.00	2.40	0		549.47	5.04	8.70	0.80
24	2.00	3.90	0		587.17	7.86	9.06	0.00
25	2.00	1.40	0		548.20	2.95	8.19	0.00
26	2.00	0.00	0		562.71	0.00	0.00	0.00
27	2.00	0.00	0		610.58	0.00	0.00	1.80
28	2.00	0.00	0	E	648.33	0.00	0.00	0.00
29	2.00	2.90	0	E	652.18	5.66	8.31	0.00
30	2.00	3.90	0		637.71	7.64	8.80	0.00
31	2.00	2.40	0		614.36	4.74	8.17	0.00
32	2.00	0.40	0	E	652.02	0.78	7.07	0.00
33	2.00	1.90	0		635.82	3.72	7.87	0.00
34	2.00	5.90	0		620.27	11.62	9.70	0.00

S#	TIME	CPMA	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
35	2.00	0.90	0		591.09	1.81	7.55	1.80
36	2.00	0.00	0		614.00	0.00	0.00	0.00
37	2.00	6.40	0	E	664.65	12.43	9.77	1.30
38	2.00	2.90	0		587.99	5.84	8.59	0.00
39	2.00	2.40	0	E	659.86	4.67	8.06	0.00
40	2.00	2.40	0		614.77	4.74	8.17	0.80
41	2.00	0.90	0		617.50	1.77	7.41	0.30
42	2.00	2.90	6	E	653.47	5.65	8.31	0.30
43	2.00	0.00	0	E	655.29	0.00	0.00	0.00
44	2.00	8.40	0		638.50	16.45	10.62	0.00
45	2.00	3.40	0		504.31	7.55	9.73	0.00
46	2.00	1.90	0		591.34	3.82	8.07	0.80
47	2.00	2.40	0		621.26	4.73	8.15	0.00
48	2.00	3.40	0		619.34	6.70	8.63	1.80
49	2.00	6.40	0		604.71	12.71	9.98	0.30
50	2.00	5.40	0	E	648.43	10.54	9.41	0.00
51	2.00	13.40	0		582.49	27.14	12.77	0.00
52	2.00	4.90	0		608.19	9.70	9.33	0.80
53	2.00	6.40	0	E	659.54	12.45	9.78	0.00
54	2.00	4.90	0		634.93	9.61	9.24	0.00

COPY

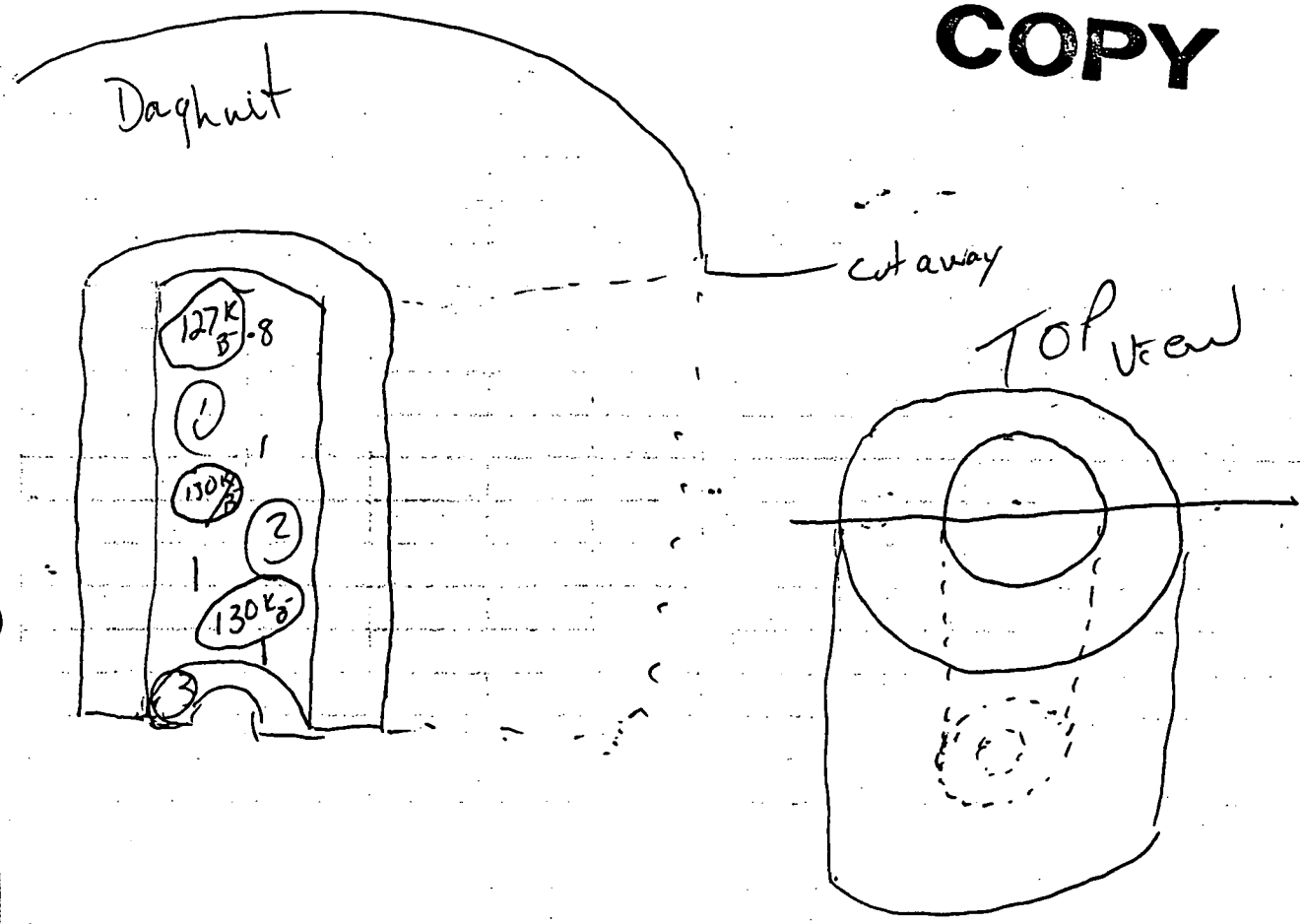
D3

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) BLDG 59	SURVEY NO. R-1473-96
PURPOSE: Concrete Whole in Doughnut	RWP NO. R-044-96
	DATE: 9/12/96
	TIME: 1600

MAP/DRAWING

COPY



All Dose Rates on contact

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Pdz		
UE Electra	5818/5306	1/31/97

Completed by: (Signature/HP#)	Date: 9-12-96
Counted by: (Signature/HP#)	Date: 9-13-96
Reviewed/Approved by: (Signature/HP#)	Date:

ML-9620 (10-95)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR000
Batch Ended: 9/13/96 6:58

Crosstalk correction performed.

Batch ID: WHITE RWP#R-044-96 [3] 9/12/96 JML

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

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

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

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

Application Revision: 0
Application Version: Standard

Detector ID	Sample ID	Alpha Activity				Beta Activity			
		DPM	σ	flags	MDA	DPM	σ	flags	MDA
A1	1	0.00	2.14	<MDA	8.430E+00	0.00	1.38	<MDA	1.025E+01
A2	2	0.00	2.16	<MDA	8.196E+00	2.31	2.44	<MDA	9.118E+00
A3	3	0.00	2.15	<MDA	6.934E+00	0.00	1.39	<MDA	1.018E+01

Protocol #: 4 Name:Pw H3 #401393 13-Sep-98 10:1

Region A: LL-UL= 0.5-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=20.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
R-044-98 [D1-D3] 9-12-98 SG
Conventional DPM
Nuclide 1 = 800
Luminescence Correction On

S#	TIME	LUM	FLAG	CPMA	CPMB	CPMC	tSIE	DPM1	2Sigma
-1	10.00	11	B	6.30	6.10	24.40	667.		0.00
0	2.00	1		472.20	446.40	11.60	659.	981.87	98.10
1	2.00	12		1.70	1.40	0.00	650.	3.57	9.66
2	2.00	18		1.20	1.40	5.60	646.	2.52	10.19
3	2.00	3		10.70	8.40	0.00	611.	22.84	13.36

Appendix 7.6.2 Asbestos Survey

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

ASBESTOS SURVEY REQUEST

FOLLOW-UP

A. PROJECT ENGINEER COMPLETES THIS SECTION

PROJECT TITLE: BUILDING 59 DECONTAMINATION & DECOMMISSIONING

CHARGE NO.: BO 8887 ER/D&D, CFX, BLDG 59

LOCATION (CRAWL SPACE, PENTHOUSE, ETC.) AND TYPE OF MATERIAL TO BE SAMPLED:

CHECK BUILDING 59 ROOFING MATERIAL FOR ASBESTOS. Follow-up survey from 7/9/96 survey findings.

KNOWN HISTORICAL ASBESTOS INFORMATION (Review the drawings for this project, if asbestos is identified briefly indicate the location, quantity, and identity.) NONE

PROJECT ENGINEER:	PHONE:	DATE SUBMITTED:
LARRY T. LAMSA	4182	04/25/97

B. INDUSTRIAL HYGIENE COMPLETES THIS SECTION

FINDINGS:

See attached surveillance report.

IF HIDDEN ASBESTOS IS ENCOUNTERED DURING THIS PROJECT, STOP WORK AND CALL INDUSTRIAL HYGIENE.

IS ALL ASBESTOS ACCOUNTED FOR ACCORDING TO PAST SURVEYS? ☐ YES ☒ NO

ABATEMENT ACTION REQUIRED:

See attached surveillance report

DATE:	APPROVED:
6/9/97	Timothy J. Eh[illegible] INDUSTRIAL HYGIENE REP.

ML-8682 (3-94)

INDUSTRIAL HYGIENE SURVEILLANCE REPORT

The purpose of this form is to document daily Industrial Hygiene surveillance of the Mound work place. Use this form to describe areas surveyed for hazards and abatement actions taken. Additionally, daily activities or problems encountered by the individual Industrial Hygienist may be documented on this form.

RAC: N/a	STANDARD: N/a	DATE: 6-9-97 Revised
INDUSTRIAL HYGIENIST: Tim Eilers	LOCATION: **Revised** Building 59 (CFX Deactivation)	MSR NO. N/a

DESCRIPTION:

Follow-up asbestos survey of Building 59 (CFX facility) to determine material condition, bulk sample the materials, and regulatory requirements for removal of the building roof. The roof removal will involve separating the roof via cutting the roof materials, drilling holes thru the roof, and inserting lifting bolts. The roofing sections will be lifted by crane. Each roof section will be disposed of per Waste Management guidelines.

The findings enclosed in this surveillance report augment the information provided in the completed Asbestos Survey Request titled CFX Deactivation completed 7/9/96. The survey and bulk samples were performed by Tim Eilers (Ohio Department of Health certified "Asbestos Hazard Abatement Specialist", "Asbestos Hazard Evaluation Specialist", and "Asbestos Hazard Abatement Project Designer") with the assistance of Chris Weber.

CORRECTIVE ACTION:

Representative samples of the roofing materials were collected and sample results did not indicate the presence of asbestos materials. Attached is a copy of the laboratory analytical report.

Although no asbestos-containing materials are present, the demolition of the building will require the submittal of a Ohio EPA Notification of Demolition and Renovation, 20 working days prior to the start of work. This notification is completed with the assistance of Industrial hygiene and is submitted to DOE for approval. (This requirement has changed from the previous survey findings.)

ADDITIONAL INFORMATION:

ASBESTOS BULK SAMPLE DATA SHEET

PROJECT TITLE: Bldg 59 (CFX facility) Deactivation

Page No. 1 of 1

BUILDING/LOCATION: Bldg 59

SURVEY DATE: May 7, 1997

SAMPLED BY: [redacted]

HP NU[redacted]

HOMO AREA #	SAMPLE NUMBER	AMT.	SAMPLE LOCATION	MATERIAL DESCRIPTION	FRIABLE/ NONFRI.	COND.	SAMPLE RESULTS	COMMENTS
1	97050701		Roof Ridge	Black felt	Non Fri.	Good	Trace (<1% Asbestos)	
1	97050702		Roof Edge	Black felt.	Non Fri.	Good	Trace (<1% Asbestos)	

ADDITIONAL COMMENTS:

ML-9706

FORE
Testing Laboratories Inc.

6015 Manning Road
Miamisburg, Ohio 45342

513 866-5908 Tel
800 YOUR LAB or 800 968-7522
513 866-9505 Fax

Amended
May 29,1997

Mr. Tim Eilers
EG&G MOUND APPLIED TECHNOLOGIES
PO. Box 3000 B-157
Miamisburg, OH 45343-3000

Subject: FTL Task Number: 97050120
FTL Sample Number(s): 9703360 – 9703361

Dear Mr. Eilers:

Thank you for choosing FORE Testing Laboratories for your environmental or industrial hygiene laboratory needs. We are pleased to present this analytical report for the sample(s) you submitted to our laboratory May 16,1997.

If you have any questions regarding the results or if you need additional information pertaining to the analyses, please contact one of the persons listed below at (937)866-5908. We can provide additional report copies, method summaries or quality control data reports that you may require for full documentation of your samples.

We hope to continue to provide you with quality analytical services and support. If you have any comments on the services we have provided, we would appreciate hearing from you.

Sincerely,

FORE TESTING LABORATORIES, INC.

Randy Weaver
Quality Control Manager

Deanna M. Fourman
Client Service Representative

cc: Client File

LABORATORY ANALYSIS REPORT

Mr. Tim Eilers
EG&G MOUND APPLIED TECHNOLOGIES
PO. Box 3000 B-157
Miamisburg, OH 45343-3000

Report Date : 5/29/97
Fore Task # : 97050120

FTL Sample # : 9703360 **Sample Date:** **5/7/97**
Client Sample ID : 97050701

Parameter	Method	Results	Units	Quantation Limits	Date Analyzed	Analyst	Comments
% Actinolite	EPA 600/R-93-116	-			5/19/97	sub	
% Amosite	EPA 600/R-93-116	-					
% Anthophyllite	EPA 600/R-93-116	-					
% Cellulose	EPA 600/R-93-116	>20<30					
% Chrysotile	EPA 600/R-93-116	Trace					
% Crocidolite	EPA 600/R-93-116	-					
% Fibrous Glass	EPA 600/R-93-116	-					
% Other Fibers	EPA 600/R-93-116	-					
% Other Non-Fibrous	EPA 600/R-93-116	-					
% Resin/Binder	EPA 600/R-93-116	>70<30					
% Total Asbestos	EPA 600/R-93-116	Trace					
% Tremolite	EPA 600/R-93-116	-					
Analysis	EPA 600/R-93-116	PLM					
Color	EPA 600/R-93-116	Black					
Homogeneity	EPA 600/R-93-116	Homog.					
Sample Description	EPA 600/R-93-116	Material					
Texture	EPA 600/R-93-116	Resin					

LABORATORY ANALYSIS REPORT

Mr. Tim Eilers
EG&G MOUND APPLIED TECHNOLOGIES
PO. Box 3000 B-157
Miamisburg, OH 45343-3000

Report Date : 5/29/97
Fore Task # : 97050120

FTL Sample # : 9703361 **Sample Date:** **5/7/97**
Client Sample ID : 97050702

Parameter	Method	Results	Units	Quantation Limits	Date Analyzed	Analyst	Comments
% Actinolite	EPA 600/R-93-116	-			5/19/97	sub	
% Amosite	EPA 600/R-93-116	-					
% Anthophyllite	EPA 600/R-93-116	-					
% Cellulose	EPA 600/R-93-116	>20<30					
% Chrysotile	EPA 600/R-93-116	-					
% Crocidolite	EPA 600/R-93-116	-					
% Fibrous Glass	EPA 600/R-93-116	-					
% Other Fibers	EPA 600/R-93-116	-					
% Other Non-Fibrous	EPA 600/R-93-116	-					
% Resin/Binder	EPA 600/R-93-116	>70<80					
% Total Asbestos	EPA 600/R-93-116	ND					
% Tremolite	EPA 600/R-93-116	-					
Analysis	EPA 600/R-93-116	PLM					
Color	EPA 600/R-93-116	Black					
Homogeneity	EPA 600/R-93-116	Layered					
Sample Description	EPA 600/R-93-116	Material					
Texture	EPA 600/R-93-116	Resin.					
% Actinolite	EPA 600/R-93-116	-			5/19/97	sub	
% Amosite	EPA 600/R-93-116	-					
% Anthophyllite	EPA 600/R-93-116	-					
% Cellulose	EPA 600/R-93-116	>1<3					
% Chrysotile	EPA 600/R-93-116	ND					
% Crocidolite	EPA 600/R-93-116	-					
% Fibrous Glass	EPA 600/R-93-116	-					
% Other Fibers	EPA 600/R-93-116	-					
% Other Non-Fibrous	EPA 600/R-93-116	>10<20					
% Resin/Binder	EPA 600/R-93-116	>80<90					
% Total Asbestos	EPA 600/R-93-116	ND					
% Tremolite	EPA 600/R-93-116	-					
Analysis	EPA 600/R-93-116	PLM					
Color	EPA 600/R-93-116	Silver					
Homogeneity	EPA 600/R-93-116	Layered					
Sample Description	EPA 600/R-93-116	Material					
Texture	EPA 600/R-93-116	Resin.					

NOTE: Trace <1%

F.O.R.E
Testing Laboratories Inc.

EG&G MOUND APPLIED TECHNOLOGIES

REQUEST FOR LABORATORY ANALYTICAL SERVICES AND CHAIN-OF-CUSTODY

REPORT RESULTS TO

Name: Timothy Eiler Title: Ind. Hygienist
EG&G Mound Applied Technologies
P.O. Box 3000 Bldg. B-157
Miamisburg, Ohio 45343-3000
Telephone No. (513) 865-5592 FAX No. (513) 865-4615

Date Results Required: Rush Phone Results: ☒

Special Instructions: (method, limit of detection, etc.)
EPA/600-93/116

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request. Enter a 'P' if preservative added.)

SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Asbestos Bulk										FOR LAB USE ONLY (task #, QC #, etc.)
97050701	5/7/97	Bulk	NA	X										
97050702	5/7/97	Bulk	NA	X										

CHAIN OF CUSTODY

Relinquished by: Timothy J Eiler Date/Time 5/16/97 1200
Received by: Date/Time
Relinquished by: Date/Time
Received by: Date/Time
Method of Shipment: Hand Delivered

Preservation Method: None
Analyzed by: Date:
Received at Lab By: Virginia Kiehler Date/Time 5/16/97 1200
Name of Lab: Fire Testing

ASBESTOS SURVEY REQUEST

A. PROJECT ENGINEER COMPLETES THIS SECTION

PROJECT TITLE: CFX DEACTIVATION (BLDG 59)

CHARGE NO.: B04961

LOCATION (CRAWL SPACE, PENTHOUSE, ETC.) AND TYPE OF MATERIAL TO BE SAMPLED:

Room 1 & 101 (BLDG 59 HAS ONLY 2 ROOMS)

KNOWN HISTORICAL ASBESTOS INFORMATION (Review the drawings for this project, if asbestos is identified briefly indicate the location, quantity, and identity.)

NONE

PROJECT ENGINEER:	PHONE:	DATE SUBMITTED:
LARRY LAMSA	4182	07/03/96

B. INDUSTRIAL HYGIENE COMPLETES THIS SECTION

FINDINGS:

No asbestos materials will be disturbed by project deactivation activities within building 59.

Before the building is demolished, the roofing materials must be sampled to determine if asbestos containing and an Ohio EPA Notification of demolition must be submitted to Mound Ind. Hygiene for submittal to DOE and Ohio EPA. Ohio EPA notification is required 10 working days prior to project activities for proper submittal.

IF HIDDEN ASBESTOS IS ENCOUNTERED DURING THIS PROJECT, STOP WORK AND CALL INDUSTRIAL HYGIENE.

IS ALL ASBESTOS ACCOUNTED FOR ACCORDING TO PAST SURVEYS? ☐ YES ☒ NO

ABATEMENT ACTION REQUIRED:

None at this time. Roofing materials must be sampled at later date.

DATE:	APPROVED:
7/9/96	Timothy J. Ellen INDUSTRIAL HYGIENE REP.

ML-8682 (3-94)

Revised 6/9/97 T. Eilers

INDUSTRIAL HYGIENE SURVEILLANCE REPORT

The purpose of this form is to document daily Industrial Hygiene surveillance of the Mound work place. Use this form to describe areas surveyed for hazards and abatement actions taken. Additionally, daily activities or problems encountered by the individual Industrial Hygienist may be documented on this form.

RAC: N/a	STANDARD: N/a	DATE: 5-15-97
INDUSTRIAL HYGIENIST: Tim Eilers/Chris Weber	LOCATION: Building 59 (CFX Deactivation)	MSR NO. N/a

DESCRIPTION:

Follow-up asbestos survey of Building 59 (CFX facility) to determine material condition, bulk sample the materials, and regulatory requirements for removal of the building roof. The roof removal will involve separating the roof via cutting the roof materials, drilling holes thru the roof, and inserting lifting bolts. The roofing sections will be lifted by crane. Each roof section will be disposed of per Waste Management guidelines.

The findings enclosed in this surveillance report augment the information provided in the completed Asbestos Survey Request titled CFX Deactivation completed 7/9/96. The survey and bulk samples were performed by Tim Eilers (ODH certified AHAS, AHES, AHAPD) with the assistance of Chris Weber.

CORRECTIVE ACTION:

Samples of the roofing materials have been submitted to an outside laboratory for analysis. Analytical results are pending. Until results are received the roofing materials are assumed to be asbestos-containing.

The survey classified the roofing materials as assumed Category I nonfriable asbestos in good condition. Additionally, the amount of the material to be disturbed is less than 160 ft^2, with less than 5580 ft^2 of roofing material to be removed.

Attached are guidelines for the roof removal section of this project. These guidelines outline the requirements set forth by OSHA, EPA, Ohio EPA, and RAPCA.

The demolition of the building will require the submittal of a Ohio EPA Notification of Demolition and Renovation 20 working days prior to the start of work. This notification is completed with the assistance of Industrial hygiene and is submitted to DOE for approval. I recommend this notification be submitted to incorporate to the roof removal activity. (This requirement has changed from the previous survey findings.)

ADDITIONAL INFORMATION:

Suggested work practice would be to have asbestos-trained Mound remove the roofing materials present where the concrete roofing deck needs cut. Then have outside the contractor perform the remaining work.

JOB SAFETY & HEALTH ANALYSIS

JSHA MASTER DOCUMENT CONTROL NO:

DATE: 5/7/97	X **NEW** ___ **REV**	**BUILDING:** Building 59.	**JOB:** Survey roof materials to determine if asbestos-containing thru sampling, condition of the roof materials, and quantify the square footage of affected materials.
DEPARTMENT: ES&H Industrial hygiene			**SECTION:** Industrial safety and hygiene
OCCUPATIONS: Industrial hygiene & safety personnel			

SIGNATURES

ORIGINATOR:	
REVIEW/REV:	
REVIEW/REV:	
APPROVED:	
APPROVED:	

REQUIRED PERSONAL PROTECTIVE EQUIPMENT:
Hard hats, Safety boots, Safety glasses, Full body harness, and two Shock-absorbing lanyards.

MSDS(s)/CHEMICALS ASSOCIATED WITH THE JOB: Asbestos

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES	SAFE JOB PROCEDURES
Break the job down into basic steps that tell what is done first, what is done next, and so on. Record the job steps in their normal order of occurrence. Describe what is done, not the details of how it is done. Usually, three or four words are sufficient to describe each job step. For example, the job of "replacing a light bulb" may break down into basic steps as follows: 1. Bring and set up ladder 2. Ascend ladder 3. Remove light globe & bulb 4. Replace light bulb 5. Replace light globe 6. Descend ladder 7. Remove and store ladder	Ask yourself for each job what accidents/illnesses could occur to the employee doing the job. Record potential accidents/illnesses by combining one of the abbreviations below with the agent of contact. For example, "struck by a crane hook" is recorded "SB-crane hook." Number each potential accident. SB - Struck by CB - Contacted by SA - Struck against CW - Contact with CI - Caught in CO - Caught on 1B - Caught between F - Fall SO - Strain-overexertion* E - Exposure (occ. illness) *Show ergonomic stresses as SO (repetitive trauma, single event strain, or awkward position)	For each potential accident/illness, ask yourself what exactly what the employee should do or not do to avoid the accident/illness. Describe specific precautions in detail. Give each precaution the same number as was given in the potential accident (center column) to which it applies. Avoid generalities like "Be alert," "Be careful," and "Take caution." Use simple do or don't statements; e.g., "Lock out main power switch," "Stand clear of lift before signaling," or "Check wrench grip before exerting full force." If necessary, explain how, as well as what, to do. Amount of detail is a matter of judgment. Describe ergonomic solutions (job redesign, new tools, worker lift assistance, etc.)
1) Access building. Pre-job Conference. Review task and JSHA.	1) None	1) None
2) Inspect condition of PPE. Don PPE.	2) None	2) None
3) Survey roof materials	3a) F - from roof access ladder and roof 3b) F - from high wind conditions, wet roof surface, or adverse weather conditions.	3a) Use three-point contact climbing the ladder. Use roof lift lugs and ladder for tie-off points, two lanyards, and full-body body harness for continuous tie-off. Use buddy system for notification of emergency assistance, if needed. 3b) No work on roof surface.
Data End		

COPY

o u n d Electronic Message/AOS

From :Sandra Geibel
GEIBSL
Dept. :Industrial Hygiene
Tel. No :
Date :23-Sep-1996 09:10am EST
Subject :Buildings 59 and 35, Lead Based Paint Sampling.

TO :Dean Buckner (BUCKDA)

CC :Randall Wood (WOODRL)

Dean,

On September 19, 1996 I conducted sampling of the paint in buildings 59 and 35 for lead. "Instant Lead Testing, Lead Check Swabs" (BGI Incorporated) Lot Number 94009 was used to conduct the sampling. The BGI Inc. Lead Check Swabs have a detection limit of 0.5%. Sampling was conducted on all layers of paint down to substrate or bare metal material. The following is a list of results:

Building 59

Room	Item	Description (layer, color, etc)	Results
1	East Wall,near door	beige	Negative
101	North Wall	beige	Negative
N/A	Brown rail, outside	brown, top layer	Negative
N/A	Brown rail, outside	green, second layer	Negative
N/A	Brown rail, outside	orange, bottom layer	Negative
N/A	Outside door to stairway	green	Negative
N/A	Outside building	beige top layer	Negative
N/A	Outside building	green bottom layer	Negative

Building 35

Room	Item	Description	Results
1	South wall	beige top layer	Negative
1	South wall	green bottom layer	Negative
10	East wall	beige top layer	Negative
10	East wall	green bottom layer	Negative
3	West wall	light blue paint	Negative
3	Door	dark blue	Negative
6	Door	orange	Positive
6	Bathroom partitions	orange	Positive
6	North wall	blue/white	Negative
10	Cabinets	rust color	Negative

All other rooms in building 35 which have the same type of paint as listed above should be considered homogeneous areas.

If you have any questions or need further assistance please do not hesitate to call me at extension 3358 or Randall Wood at extension 3923.

Radiological Characterization
Summary
Building 35

Type	RSDS	Location	Amount (dpm/100 cm2)	5400.5 Guidelines for Groups 1,3,4 (fixed + loose) (dpm/100 cm2)	NUREG 1500 Guidelines (loose) (dpm/100 cm2)	Attachment 1 Limit (fixed + loose) (See Note 2) (dpm/100 cm2)	Comments
Highest Alpha Smearable Activity	97-35-008-SC	Room 3 Overhead Vent	6	20	211	20	No Action Necessary
Highest Alpha Fixed Activity	All	All	< 100	100	Note 1	100	No Action Necessary
Highest Beta Smearable Activity	97-35-009-SC	Room 8	7	1,000	9940	1,000	No Action Necessary
Highest Beta Fixed Activity	All	All	< 5,000	5,000	Note 1	5,000	No Action Necessary
Highest Tritium Smearable Activity	97-35-006-SC	Room 1	183	1,000	Note 1	1,000	No Action Necessary

Note 1 NUREG-1500 gives guidelines for loose beta and alpha only.
Note 2 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

Appendix 7.6.3 Lead

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

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

COPY

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GEIBSL
Dept. :Industrial Hygiene
Tel. No :
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TO :Dean Buckner (BUCKDA)

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[illegible]01	North Wall	beige	Negative
[illegible]A	Brown rail, outside	brown, top layer	Negative
N/A	Brown rail, outside	green, second layer	Negative
N/A	Brown rail, outside	orange, bottom layer	Negative
N/A	Outside door to stairway	green	Negative
N/A	Outside building	beige top layer	Negative
N/A	Outside building	green bottom layer	Negative

Building 35

Room	Item	Description	Results
1	South wall	beige top layer	Negative
1	South wall	green bottom layer	Negative
10	East wall	beige top layer	Negative
10	East wall	green bottom layer	Negative
3	West wall	light blue paint	Negative
3	Door	dark blue	Negative
6	Door	orange	Positive
6	Bathroom partitions	orange	Positive
6	North wall	blue/white	Negative
10	Cabinets	rust color	Negative

All other rooms in building 35 which have the same type of paint as listed above should be considered homogeneous areas.

If you have any questions or need further assistance please do not hesitate to call me at extension 3358 or Randall Wood at extension 3923.

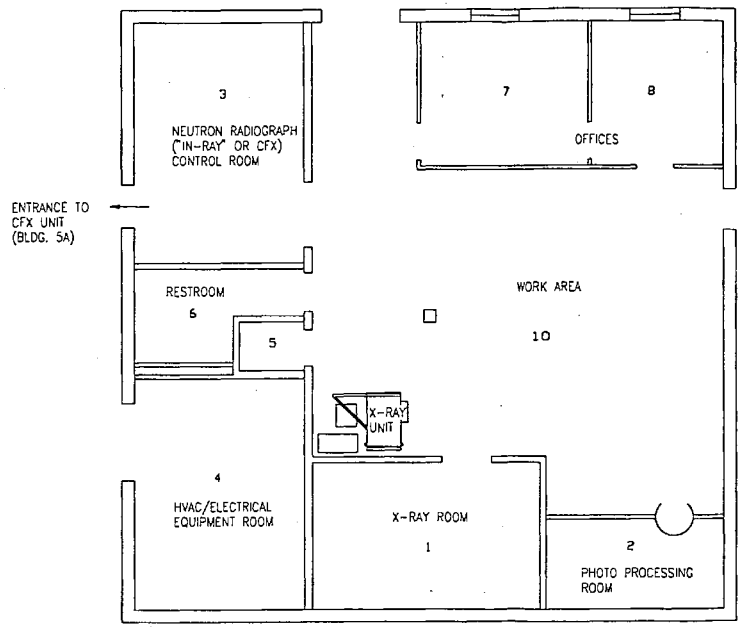
Appendix 7.6.4 Chemical History

CHEMICAL INVENTORY TOTALS ON BUILDING

BY CHEMICAL STATE

BUILDING: 59

ROOM	CONTAINER ID	CHEMICAL NAME	SOLID QTY (LBS)	LIQUID QTY (GAL)	GAS QTY (CYL)	LABEL DATE	LAST TRANACT DATE	LAST TRANSACTION
1	WM002606	OIL 3-IN-1	.000			17-JAN-96	29-MAY-96	DISPOSED
101	WM002607	FLORCO ABSORBENT	50.000			17-JAN-96	29-MAY-96	DISPOSED
101	WM002608	WD-40	.000			16-JAN-96	29-MAY-96	DISPOSED
101	WM002609	ETHYL ALCOHOL	.000			17-JAN-96	29-MAY-96	DISPOSED
			50.000	.000	.000			



PLANT NORTH

BUILDING 35 SITE PLAN - FIGURE 2

SCALE FEET 0 5 10 15 20 25

BUILDING 35 SITE PLAN	
BUILDING 35 DOE MOUND MIAMISBURG, OHIO	
HOK/K Industrial 2490 TECHNICAL DR. MIAMISBURG, OHIO 45342 TELEPHONE: 513-866-4211	DWG. NO.: Fig. 2

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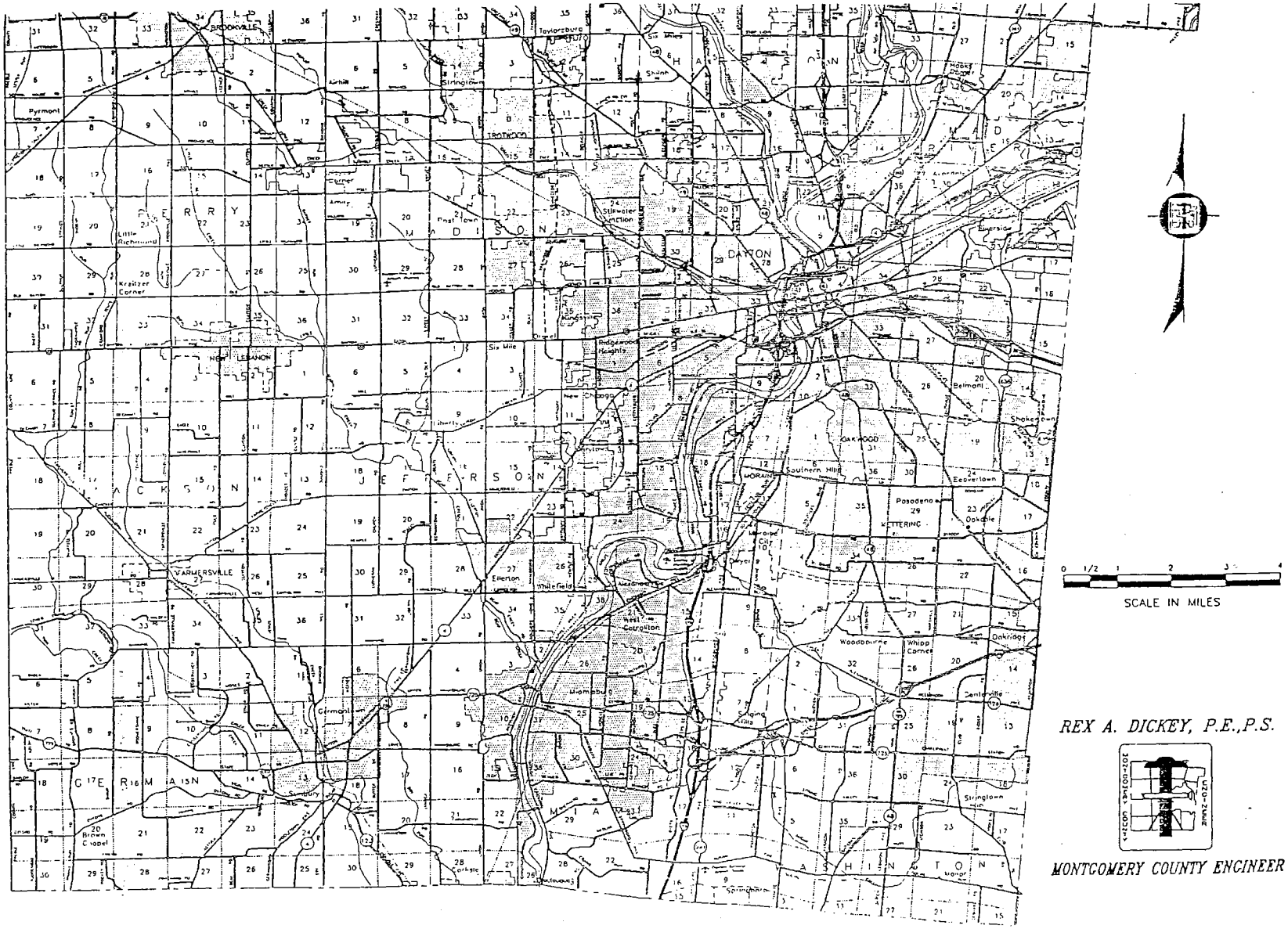

BROOKVILLE
Taylorsburg
Pyrmont
Stringtown
TROTWOOD
Little Richmond
Kratzer Corner
Stillwater Junction
DAYTON
Riverside
Ridgewood Heights
Six Mile
LEBANON
Belmont
Shakertown
OAKWOOD
Soulnern Hills
MORAINE
Eastertown
Pasadena
Oakdale
KETTERING
Ellerton
Whitefield
FARMERSVILLE
West Carrollton
Woodbourne
Whipp Corner
Oakridge
Miamisburg
Centerville
Germantown
Sunbury
Brown Chapel
Carlisle
Stringtown
Springboro
SCALE IN MILES
REX A. DICKEY, P.E.,P.S.
MONTGOMERY COUNTY ENGINEER
FEBRUARY, 1992

FSD*

Legend

PROJECTS

- Test Fire Valley
- SM/PP Hill
- Main Hill Non-RAD
- Waste Management
- Main Hill Tritium
- Main Hill RAD
- Isotope Power

PRS STATUS

- D & D PRS's
- NFA PRS's
- NFAPS PRS's
- RA,FA,UB PRS's

0 100 200 400 600 800 1000

Scale in Feet

ISS	DATE	REVISION	BY	CHKR	ENG	M
*	**/**/**	*	*	*	*	

MOUND

Environmental Restoration Geographic Information System

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 CLASSIFICATION

Building Ownership with PRS's

DRAWING CLASSIFICATION: **UNCLASSIFIED**

SIZE: D

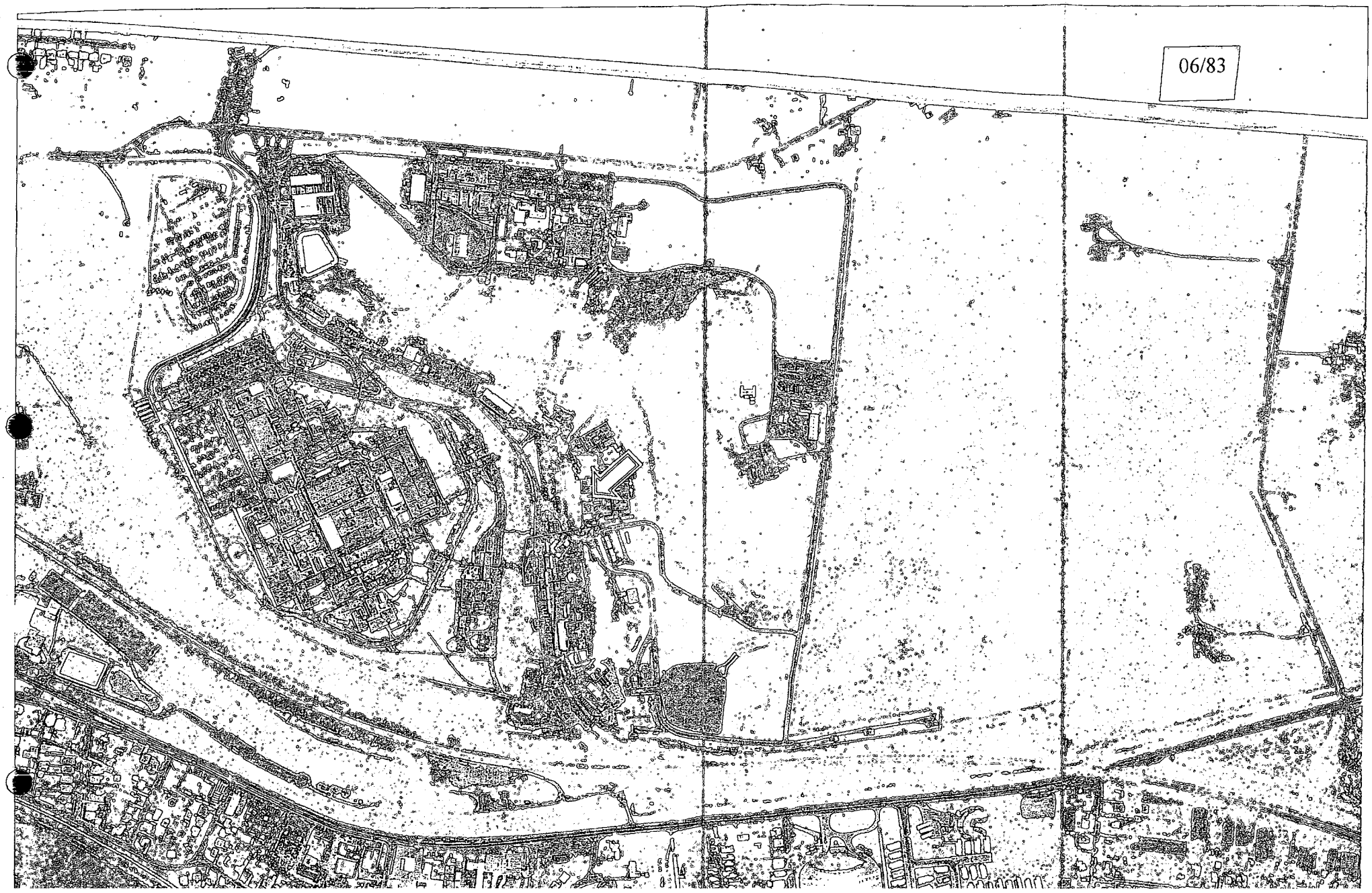
DRAWING NUMBER: FSD*

JOB NUMBER: *

DWG TYPE: * | PRMG | CAGEC: * | SCALE: * | SHEET 1 OF *

STATUS: MD-RFI ~**/**/** | ORIGIN: MSTATION 5.0

04/04/94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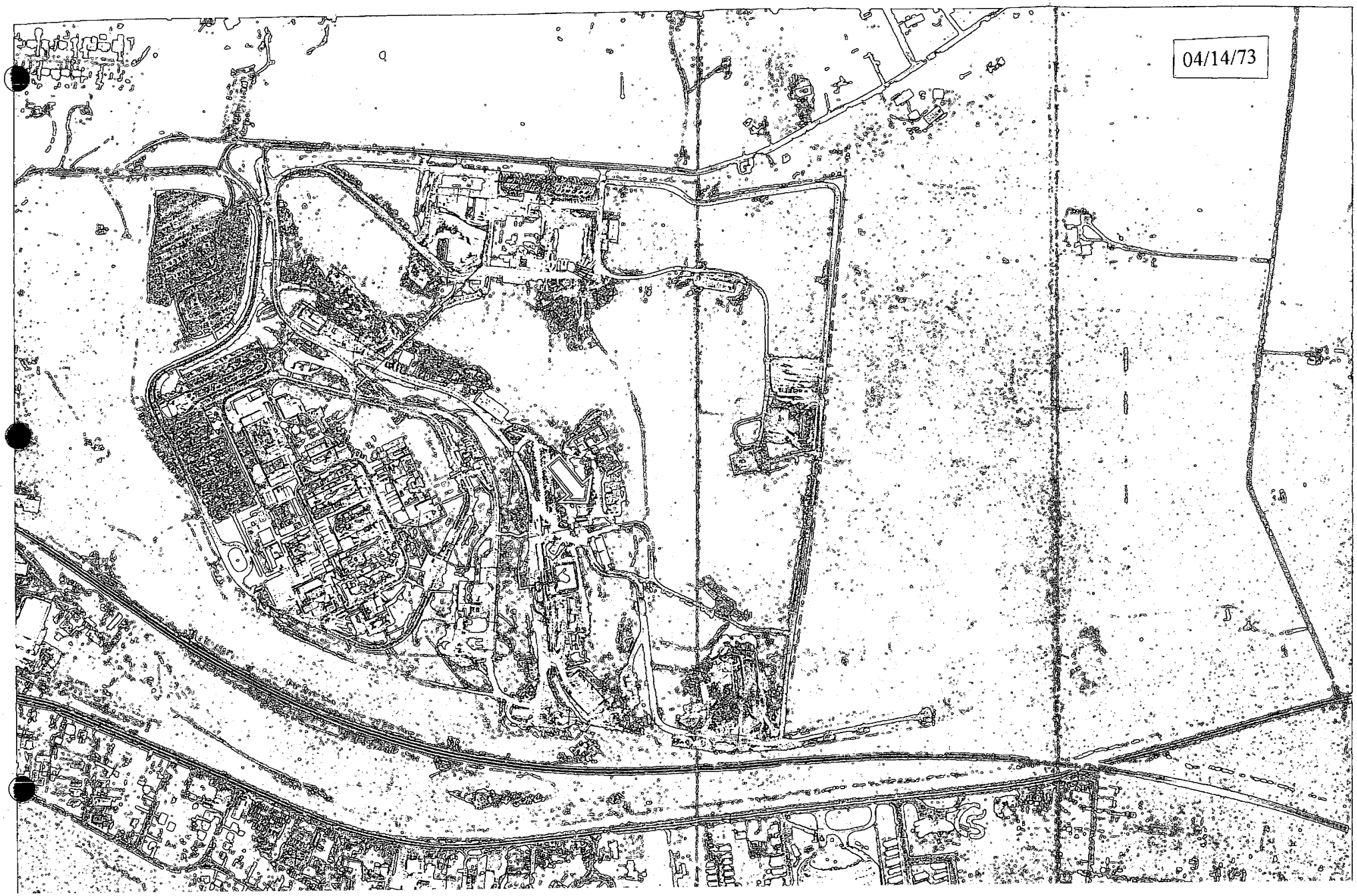
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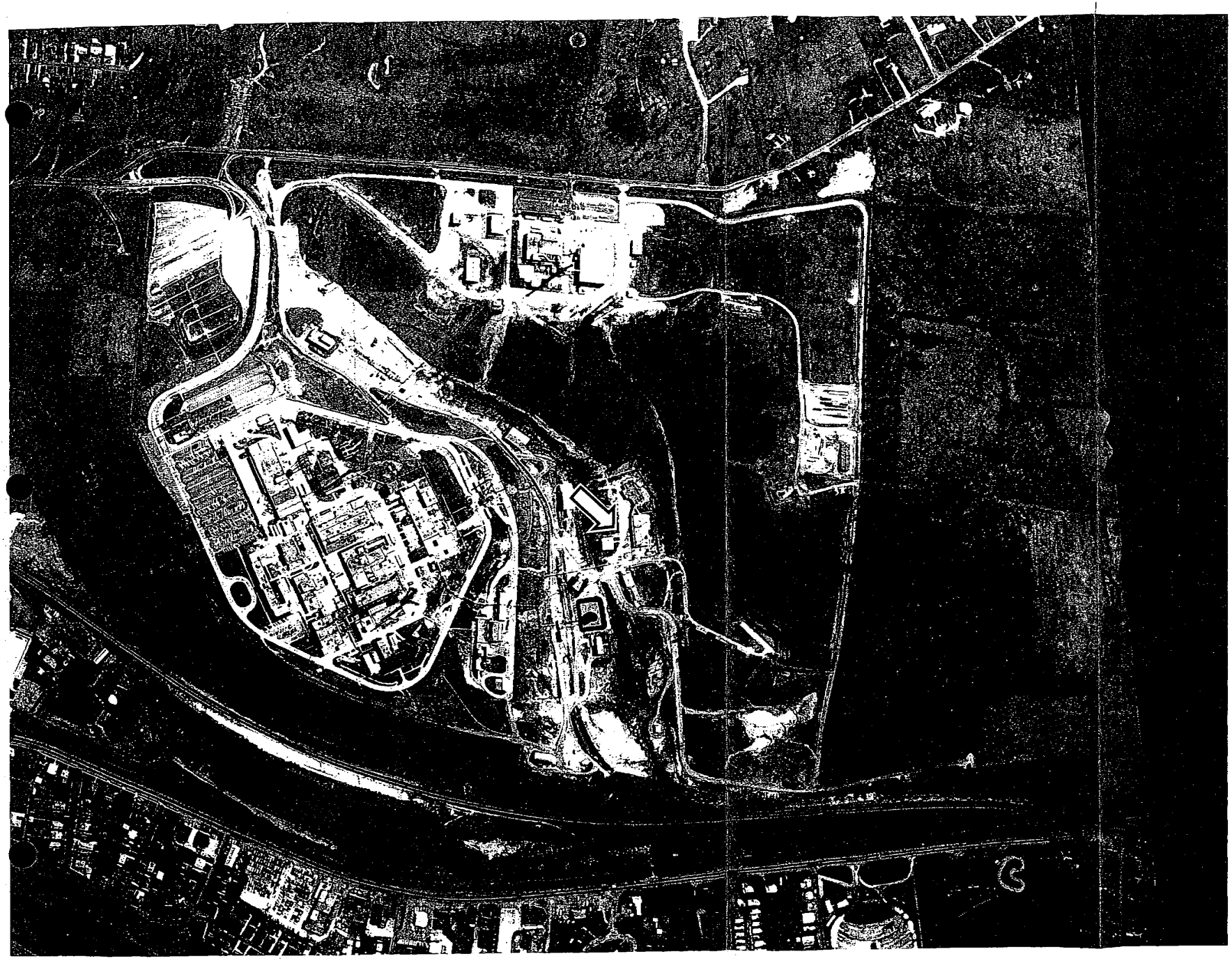
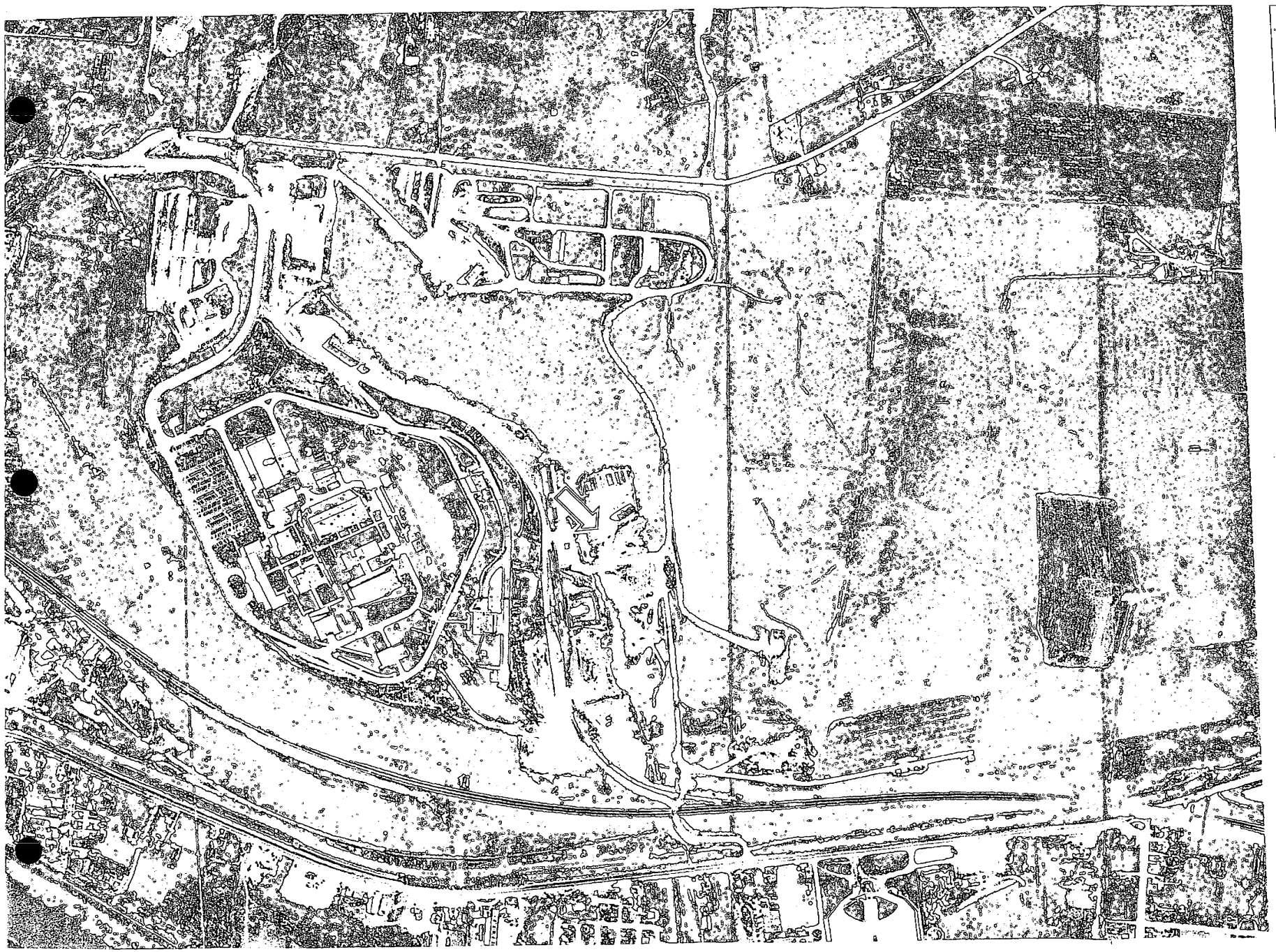


03/30/68

04/07/65

11/19/59



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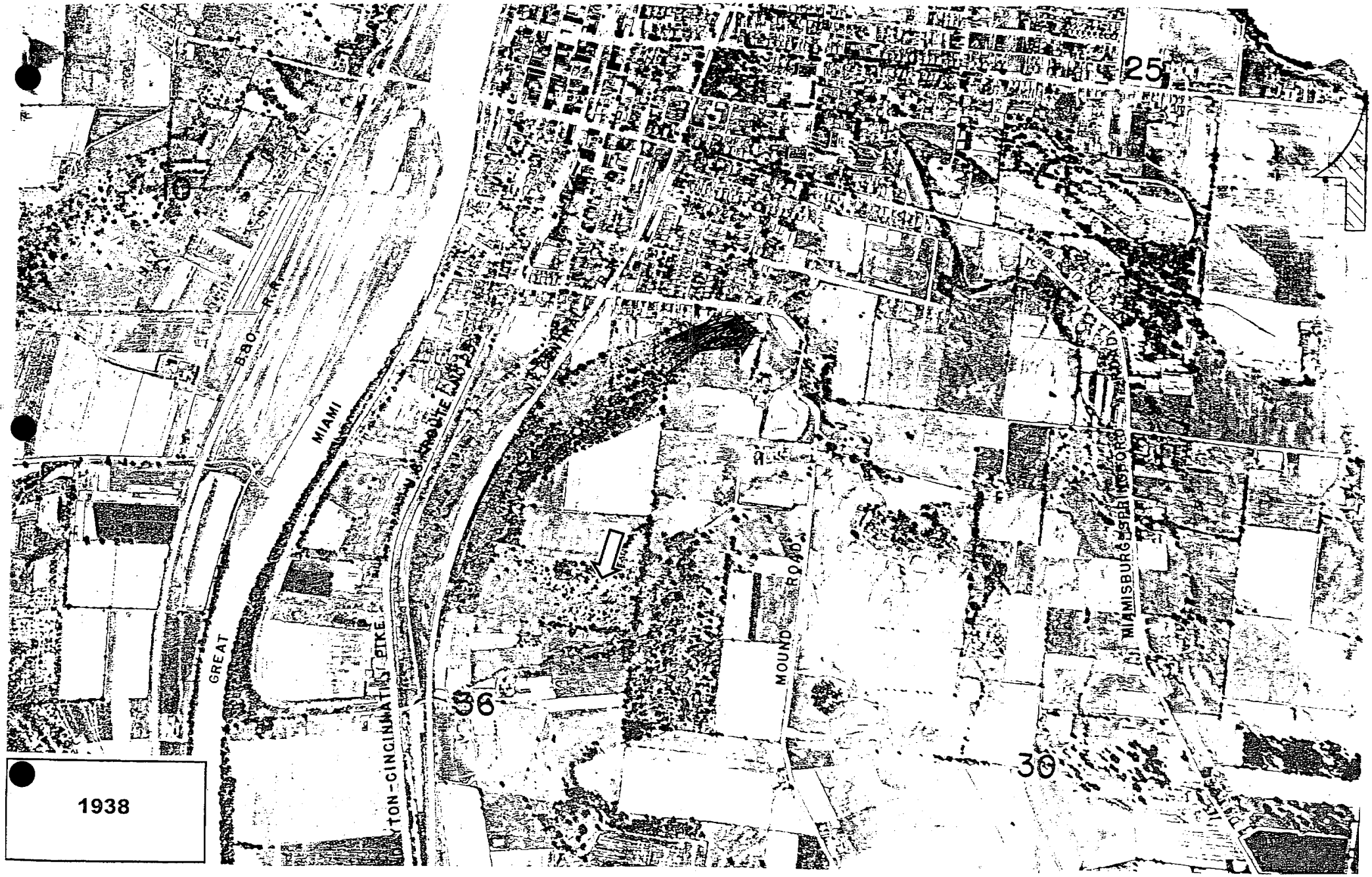
25
16
B&O R.R.
MIAMI
GREAT
DAYTON-CINCINNATI PIKE
ROUTE
MOUND ROAD
MIAMISBURG-SPRINGBORO ROAD
36
30

1938