3005-9810290001

MOUND

Environmental Restoration Program

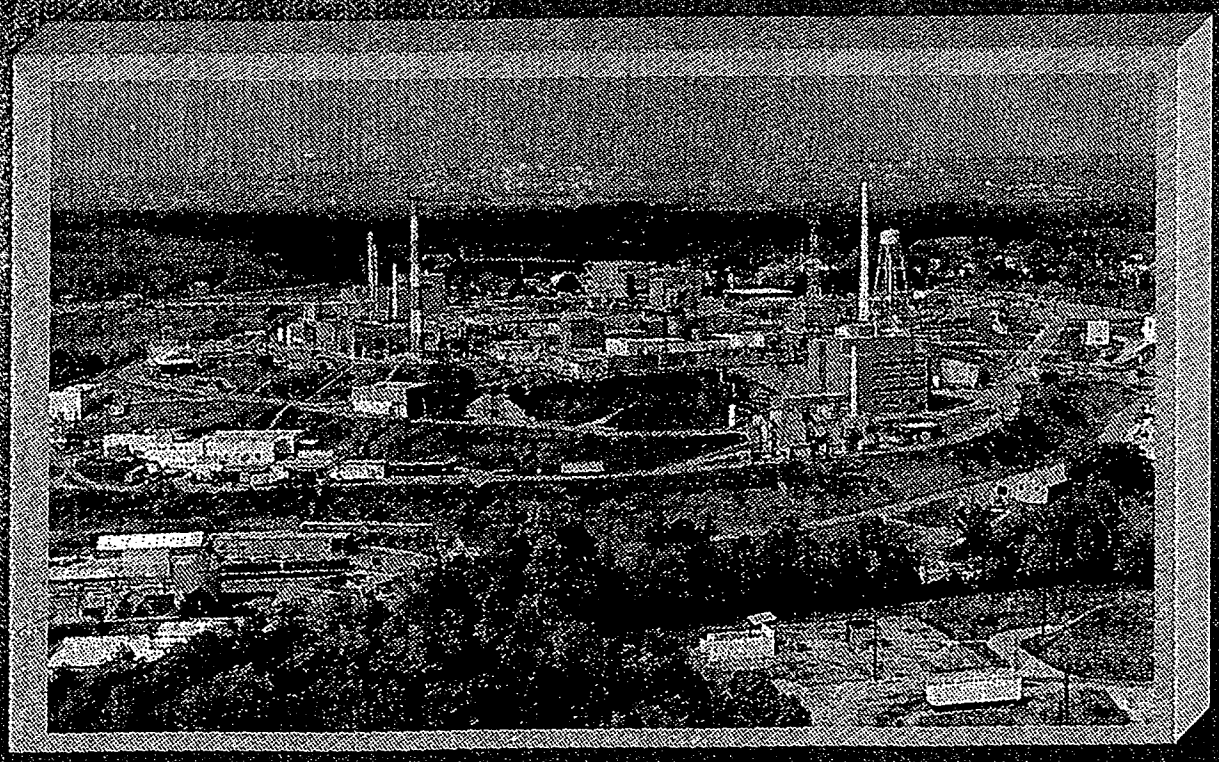
OhioEPA

# MOUND PLANT

## Building Data Package

### Building 1

### Located within Release Block C



Reading Room

3005-9810290001

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

**Babcock & Wilcox of Ohio, Inc.**
1 Mound Road
P.O. Box 3030
Miamisburg, Ohio 45343-3030
(937) 865-4020

ESC-183/98
October 26, 1998

98-TC/10-26

Mr. Robert Folker, Acting Director
Miamisburg Environmental Management Project
U.S. Department of Energy
P.O. Box 66
Miamisburg, OH 45343-0066

ATTENTION: Dewain Eckman

SUBJECT: Contract No. DE-AC24-97OH20044
**BUILDING 1: RELEASE OF BUILDING DATA PACKAGE FOR REGULATOR REVIEW**

REFERENCE: Statement of Work Requirement C 7.1e -- Regulator Reports

Dear Mr. Folker:

The attached Building Data Package for Building 1 has been authorized for release to USEPA, OEPA, and ODH by Paul Lucas of MEMP. In review of 40CFR300.415(b)(2), the demolition of this building has been determined to be a non-CERCLA event. Also attached is a copy of the newspaper ad announcing the availability of this Building Data Package at the Public Reading Room. The regulators reviewed the contents of this ad during the Core Team Meeting of October 21, 1998. BWO will distribute copies of this Building Data Package to the Public Reading Room and MMCIC before October 28, 1998.

Please advise if additional copies are required for distribution within DOE. If you require further information, please contact Dave Rakel at extension 4203.

Sincerely,

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

LRB/nmg

Enclosures as stated

cc: T. Fischer, USEPA, (1) w/attachment
J. Raines, (1) w/attachment
B. Nickel, OEPA, (1) w/attachment
K. Fox, OEPA, (1) w/attachment
R. Beaumier, OEPA, (1) w/attachment
R. Vandegrift, ODH, (1) w/attachment
O. Vincent, DOE/MEMP, (1) w/attachment
A. Kleinrath, DOE/MEMP, (1) w/attachment
J. Bartee, B&W, (1) w/attachment
G. Coons, B&W, (1) w/attachment
Public Reading Room, (5) w/attachment
D. Bird, MMCIC, (1) w/attachment
DCC, w/o attachment

MOUND

Environmental
Restoration
Program

# MOUND PLANT
# BUILDING DATA PACKAGE
## *Information Notice*

Building 1 will soon be dismantled. A Building Data Package describing Building 1 and its dismantlement is available in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio.

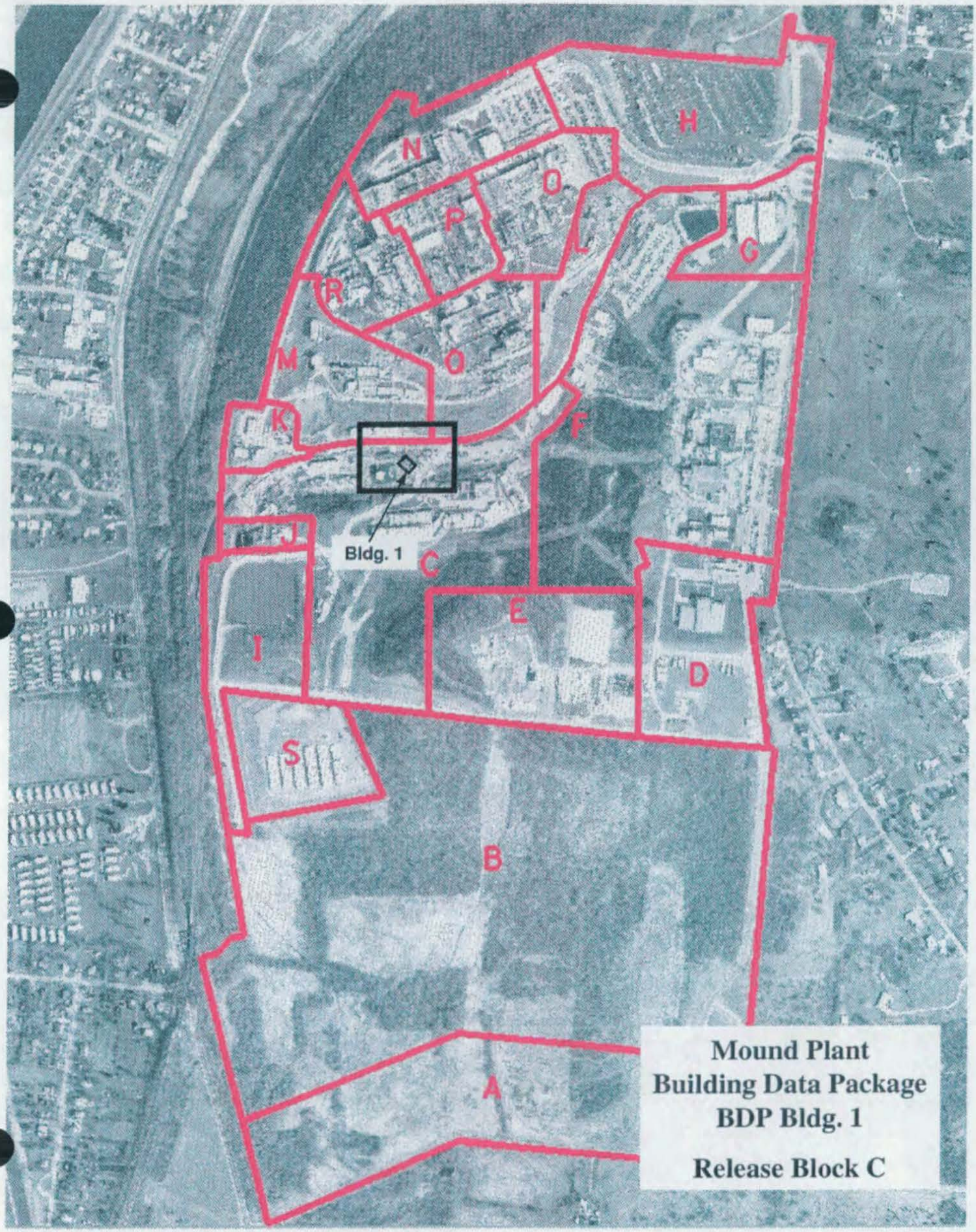
Questions can be referred to Paul Lucas at (937) 865-4578.

FINAL

# BDP Building 1

| REV | DESCRIPTION | DATE |
|---|---|---|
| DRAFT | | July 1, 1998 |
| PUBLIC INFORMATION RELEASE 0 | | Oct. 21, 1998 |
| 1 | | |
| | | |
| | | |

10/21/98
2:22 pm




**Mound Plant**
**Building Data Package**
**BDP Bldg. 1**

**Release Block C**

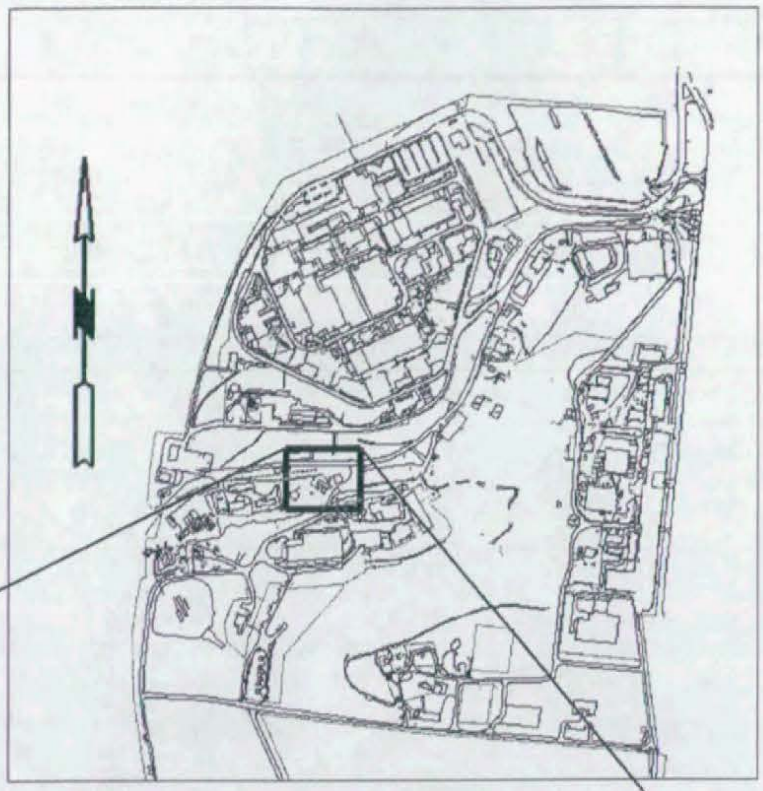
# Mound Plant

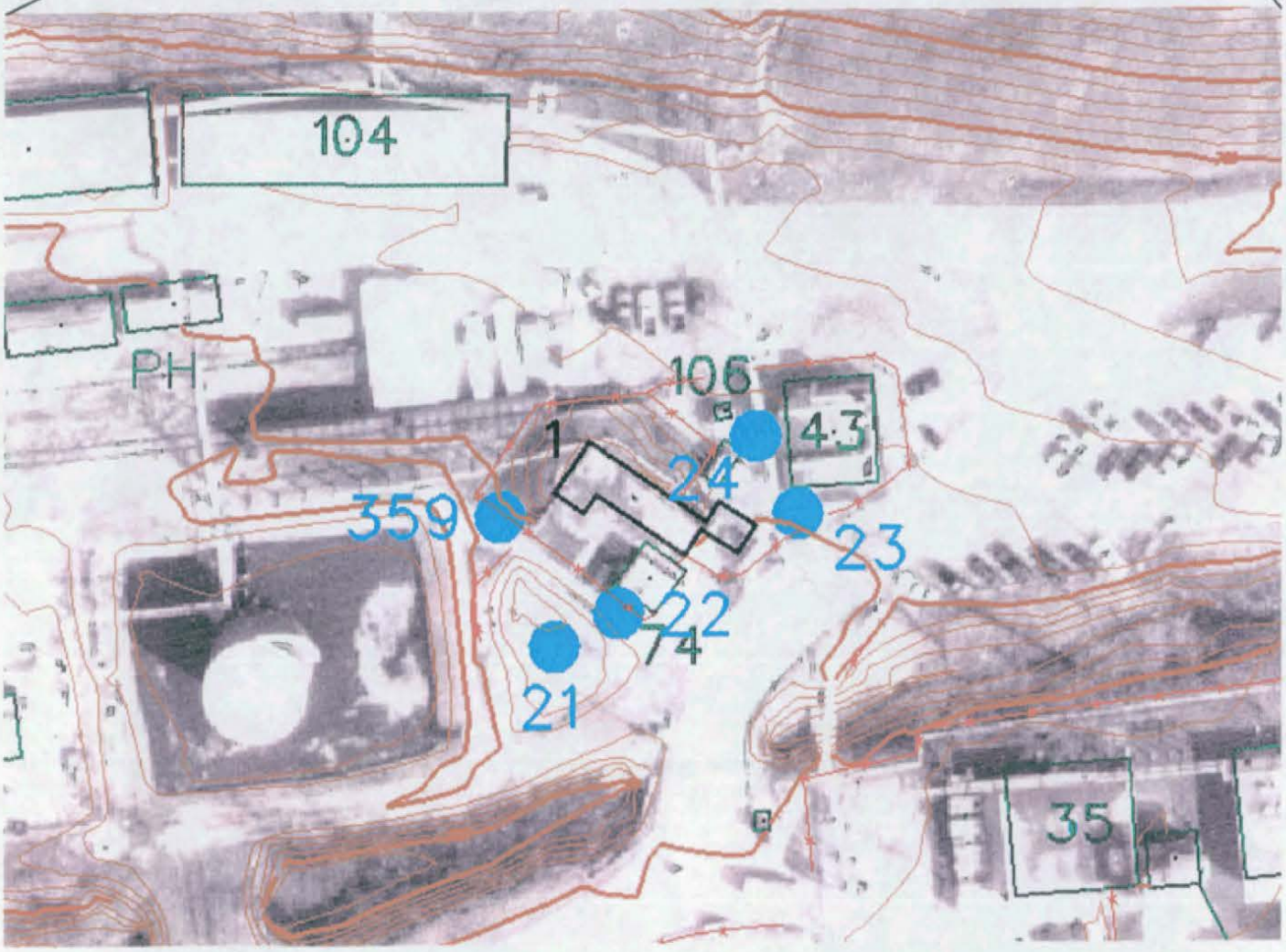
## Building 1

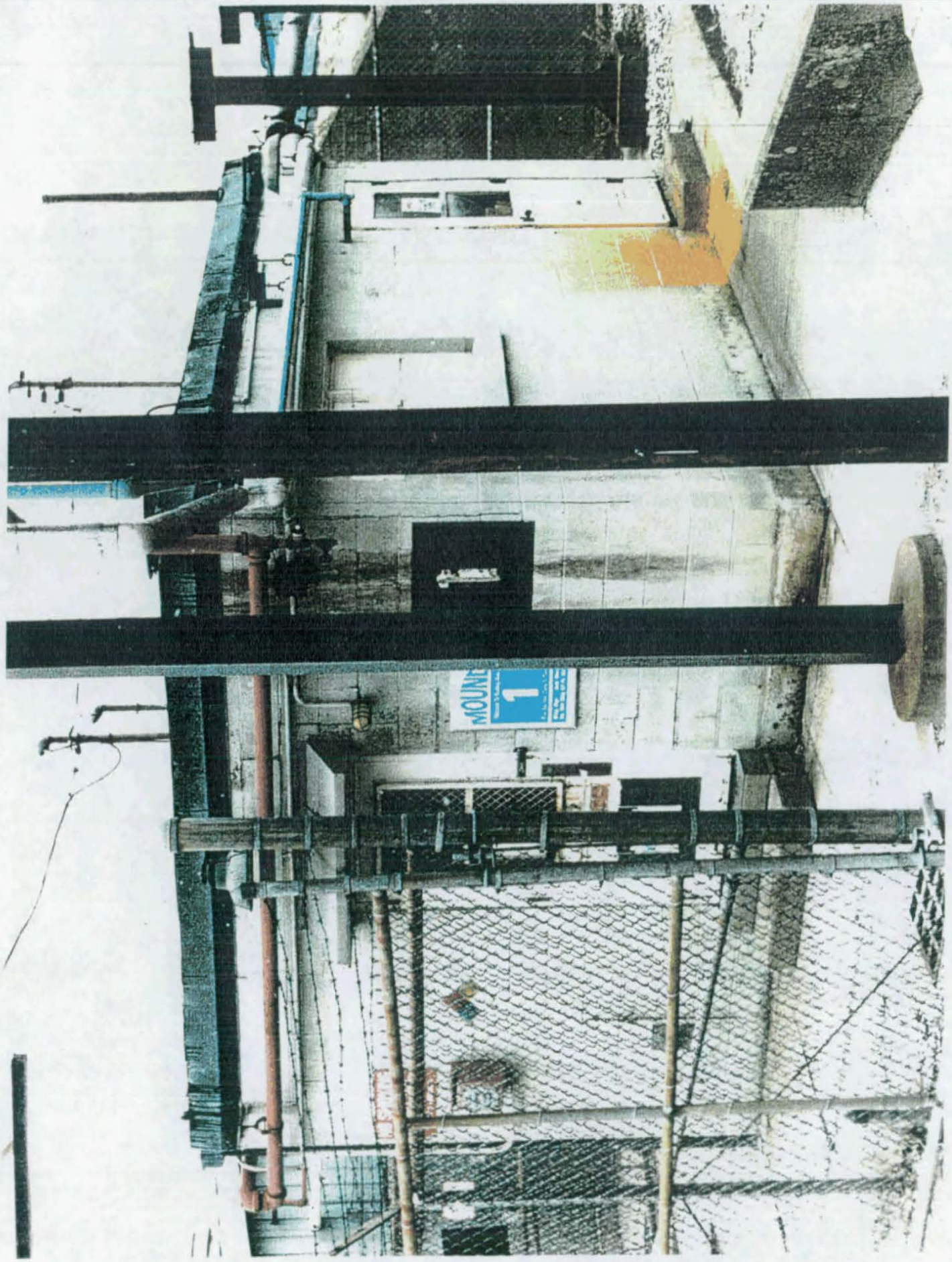
## EM Test Facility

## 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 1

9.36-65

# BUILDING DATA PACKAGE (BDP)

## BUILDING 1

## (Non-CERCLA Demolition)

## DOE MOUND PLANT

## MIAMISBURG, OHIO 45343

# TABLE OF CONTENTS


1.0 General Overview . . . . . 1
- 1.1 Introduction . . . . . 1
- 1.2 Scope . . . . . 1

2.0 Building Specific Overview . . . . . 3
- 2.1 Current Uses of Building 1 . . . . . 3
- 2.2 Past Uses of Building 1 . . . . . 3
- 2.3 Summary of Environmental Concerns and Findings . . . . . 3
- 2.4 Radiological Characterization Summary For Building 1 Structure . . . . . 4
- 2.5 Associated PRS Table for Building 1 . . . . . 4

3.0 Site Description . . . . . 5
- 3.1 Site/Vicinity Location and Characteristics . . . . . 5
- 3.2 Description of Structures, Roads, Other Improvements Related to Building 1 . . . . . 5
- 3.3 Current and Past Uses of Buildings Adjacent To Building 1 . . . . . 6

4.0 Records Review . . . . . 7
- 4.1 General/Historical CERCLA Information . . . . . 7
- 4.2 Specific Record Sources . . . . . 8
  - 4.2.1 Occurrence Reports . . . . . 8
  - 4.2.2 Spills and Releases . . . . . 8
  - 4.2.3 Associated PRS Overview . . . . . 8
- 4.3 Review of Building Prints . . . . . 9
- 4.4 Aerial Photographs . . . . . 9
- 4.5 Interviews . . . . . 9

Appendix A Acronyms
Appendix B Map of Montgomery County
Appendix C Site Plan and PRS Release Blocks
Appendix D Building Drawings
Appendix E Aerial Photographs
Appendix F Environmental Appraisal Report of the Mound Plant (Extract)
Appendix G Radiological Summary/Information
Appendix H Radon Summary/Information
Appendix I Asbestos Summary/Information
Appendix J Lead Summary/Information
Appendix K Chemical Summary/Information
Appendix L Noted Soil Sampling, Vicinity
Appendix M Occurrence Report
Appendix N Work Plan

# 1.0 General Overview

## 1.1 Introduction

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

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.

## 1.2 Scope

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 1 located at the DOE Mound Plant in Miamisburg, Ohio. This investigation was performed to support procedures as found in ASTM Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-94).

The scope of the investigation included the building, the soil beneath, and a 15-foot wide perimeter border around the building. Soil sampling results are noted in Appendix L. This perimeter includes roadways, sidewalks, pavement, and grass covered areas. The investigation of Building 1 included the following.

1) A building and perimeter inspection.
2) An examination of historical aerial photographs and maps.
3) A review of federal and state regulatory agency records.
4) Personnel interviews.
5) A review of Mound Plant records for:

    A) History of spills and releases
    B) Past sampling data
        - Radiological survey
        - Lead paint
        - Asbestos
        - Radon

The building investigation was conducted by BWO personnel on 5/4/98 .

This report used a variety of previous assessments completed by BWO 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.
- EDR Report - Radius Map
- Building Prints
- MD-222153, Mound Site Radionuclides By Location, July 1995
- Contaminant Surveys
- Environmental Appraisal of the Mound Plant, March 1996
- Appropriate Potential Release Site (PRS) Documents
- Title Search

## 2.0 Building Specific Overview

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 1, the soil beneath, and a 15-foot wide perimeter around the Building. Building 1 contains 986 square feet. It was constructed in 1957.

### 2.1 Current Uses of Building 1

Building 1 is currently inactive.

### 2.2 Past Uses of Building 1

Building 1 was used to process and blend explosives. Additionally, it served as a final packaging location for containers of explosives destined for shipment.

## 2.3 Summary of Environmental Concerns and Findings

| DESCRIPTION | COMMENT | RESOLUTION |
|---|---|---|
| Lead Paint | Due to the age of the building, lead paint is expected. No visible peeling is observed. | Leave the paint intact on the building surfaces. When structure is demolished the debris which has the lead paint will not be hazardous waste and will therefore be disposed of as construction debris at a local landfill. |
| Chemicals | Bulk explosive powder processing was performed in the building. | Removal of explosive residue and exhaust ducts will be performed prior to demolition. |
| Fluorescent Lamps | Fluorescent lamps were utilized in the building. | All fluorescent lamps will be removed prior to demolition. |
| Asbestos | The building does contain asbestos-containing materials. ACM insulations are found in Rooms 102, 103, 105 and 106. | Abatement of ACMs will be performed prior to demolition. |
| Drainage Sumps | PRS 21, Leach Pit, and PRS 22, Settling Basin North, are suspect of organic solvents. | RCRA closure will be performed by the Soils Project after the building is demolished. |
| Lead | N/A | |
| HVAC | N/A | |
| Mercury | N/A | |
| Radiological | N/A | |
| Septic Systems | N/A | |
| Waste Water | N/A | |
| Stains & Corrosion | N/A | |
| Space | N/A | |
| Storage Tanks | N/A | |
| Solid Waste Disposal | N/A | |
| Migratory Hazards | N/A | |
| Radon | N/A | |

## 2.4 Radiological Characterization Summary For Building 1 Structure

| TYPE | RSDS | LOCATION | SURVEY RESULTS (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 | 98-TF-659 | Room 105 | 4 | 20 | 211 | 20 | No Action Necessary |
| Highest Alpha Fixed Activity | All | All | <100 | 100 | Note 1 | 100 | No Action Necessary |
| Highest Beta Smearable Activity | 98-TF-659 | Room 102 | 7 | 1,000 | 9,940 | 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 | 98-TF-659 | Building | 102 | 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 are based on MD-80043, Radiological work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste," Attachment 1.

## 2.5 Associated PRS Table for Building 1

| PRS # | CERCLA or BLDG. RELATED | BINNING STATUS | COMMENTS |
|---|---|---|---|
| PRS 21 | Building Related | Requires RCRA Closure | Leach Pit |
| PRS 22 | Building Related | Requires RCRA Closure | Explosive Wastewater Settling Basin |

# 3.0 Site Description

## 3.1 Site/Vicinity Location and Characteristics

Building 1 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.

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 1 is located in the lower valley of the Mound site. 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 abut 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.

## 3.2 Description of Structures, Roads, Other Improvements Related to Building 1

The subject property consists of the Mound Plant Building 1 footprint, the soil beneath, and a 15-foot wide perimeter around the building. Building 1 contains 986 square feet. It was constructed in 1957.

There are no other structures, roads, or improvements that would impact the environmental condition of the building.

## 3.3 Current and Past Uses of Buildings Adjacent To Building 1

| Proximity to Building 1 | Building Area (Sq. Ft.) | Current Use | Past Use | Direction From Building |
|---|---|---|---|---|
| Building 43 | 1500 | Vacant | Thermite R&D | E |
| Building 74 | 400 | Vacant | Packaging | SW |
| | | | | |
| | | | | |
| | | | | |

# 4.0 Records Review

## 4.1 General/Historical CERCLA Information

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 the 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 in 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), Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. Mound Plant is currently operating a hazardous waste treatment and storage facility under a new RCRA Part B permit dated October 18, 1996. Mound Plant also maintains a 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. Mound Plant 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 1 in quantities above the regulatory thresholds.

## 4.2 Specific Record Sources

### 4.2.1 Occurrence Reports

On November 13, 1994 a fire sprinkler was activated due to a room overheat. An inoperative thermostat caused the overheat. Damage was limited to water damage. See Appendix M.

### 4.2.2 Spills and Releases

No spills or releases of the magnitude that would require an occurrence report are associated with Building 1.

### 4.2.3 Associated PRS Overview

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and BWO have tabulated all the Potential Release Sites (PRSs) identified under the various regulatory programs in effect at the site. Many additional contaminants of concern and types of operations were identified beyond the original NPL listing of site activities. Of these 416 PRSs, PRS 21 and PRS 22 are attributed to Building 1.

PRS 21 - Building 1 Leach Pit. This leach pit is located at the southwest corner of Building 1. The leach pit was used to dispense waste water from explosives processes within Building 1. Organic solvents, primarily acetone, are suspected in the leach pit soils. The leach pit was determined to be a RCRA concern and will undergo RCRA closure. See Appendix L.

PRS 22 - Building 1 Explosives Waste Water Settling Basin (Tank 200). This settling basin tank is located to the south and is adjacent to Building 1. An underground drain pipe extends from the tank to the leach pit (PRS 21). Organic solvents, primarily acetone, are suspected in the settling basin. This settling basin is also a RCRA concern and will undergo RCRA closure. See Appendix L.

## 4.3 Review of Building Prints

Building prints were reviewed and are included in Appendix D.

## 4.4 Aerial Photographs

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

## 4.5 Interviews

The Building Manager, Robert Ward, was interviewed using a building manager questionnaire. See Appendix F.

# Appendix A

## Acronyms

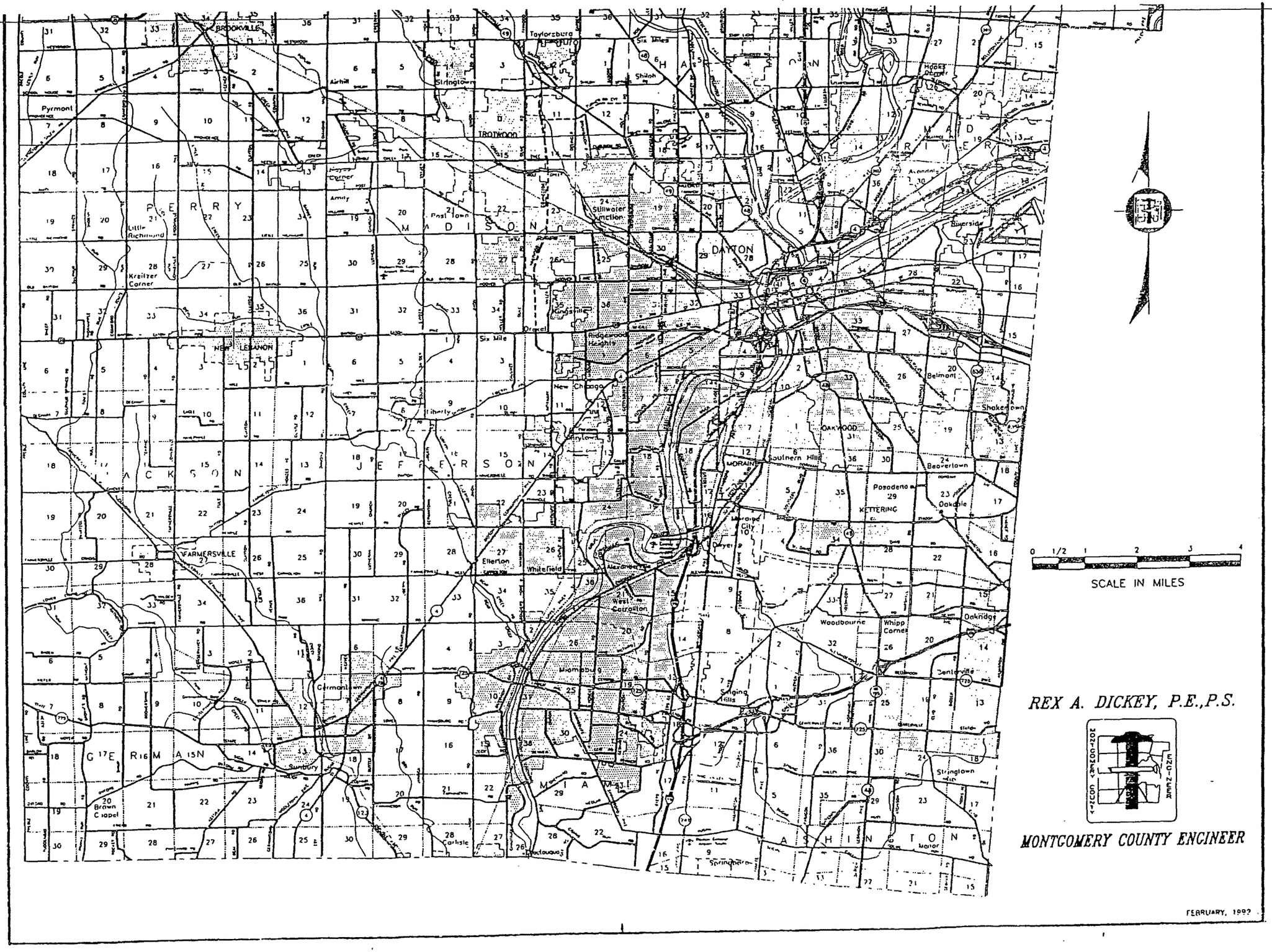
| | |
|---|---|
| AEA | Atomic Energy Act of 1954 |
| AEC | Atomic Energy Commission |
| ACM | Asbestos Containing Materials |
| AL | Action Level |
| ASTM | American Society for Testing and Materials |
| BDP | Building Data Package |
| BUSTR | Bureau of Underground Storage Tank Regulations |
| BWO | Babcock and Wilcox of Ohio |
| CAA | Clean Air Act |
| CEG | Conditionally Exempt Generator |
| CERCLA | Comprehensive Environmental Response, Compensation & Liability 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 |
| OU | Operable Unit |
| 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 |
| USEPA | United States Environmental Protection Agency |
| UST | Underground Storage Tank |
| VOC | Volatile Organic Compound |

B

Appendix B

Map of Montgomery County



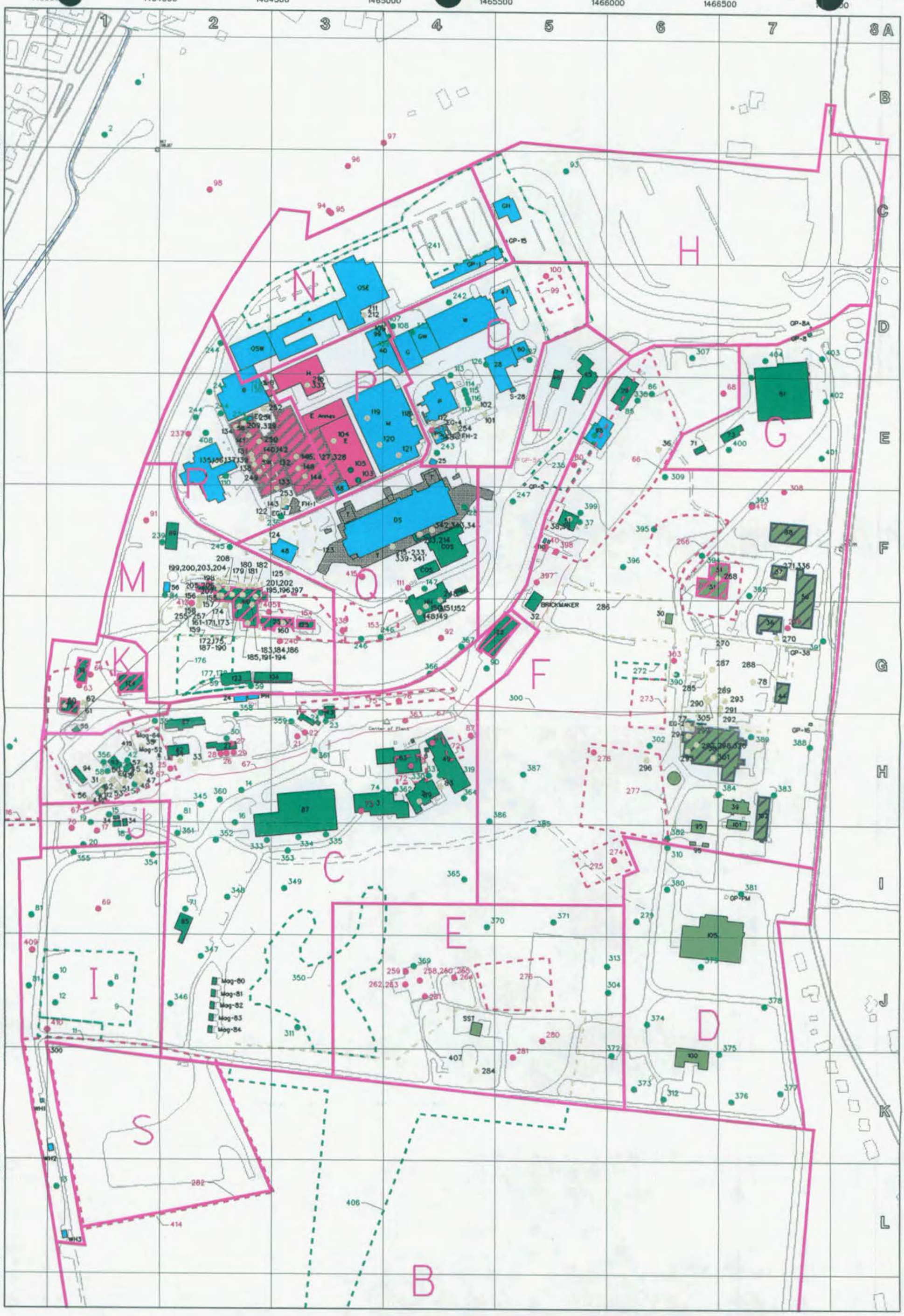

REX A. DICKEY, P.E.,P.S.

MONTGOMERY COUNTY ENGINEER

FEBRUARY, 1992

Appendix C

Site Plan and PRS Release Blocks




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

TN GN MN

0 100 200 400 600 800 1000

Scale in Feet

| | | | | | |
|---|---|---|---|---|---|
| | 06/23/98 | | DCW | | |

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

(U) TITLE CLASSIFICATION

# Building Ownership with PRS's

06/25/98

| DRAWING CLASSIFICATION | SIZE | DRAWING NUMBER | JOB NUMBER |
|---|---|---|---|
| UNCLASSIFIED | D | bwproj_prs.dgn | |

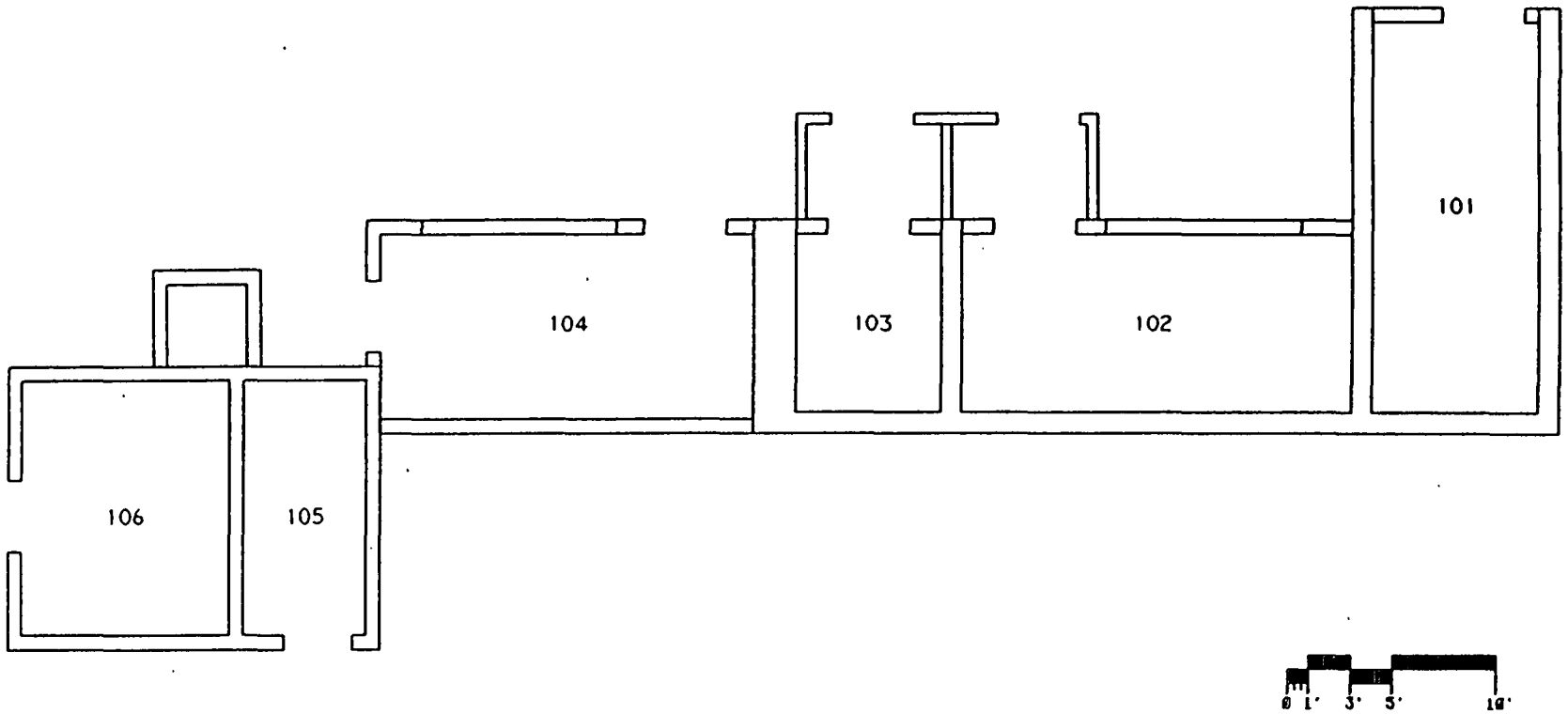
| DWG TYPE | PRMG | CADEC | SCALE | SHEET 1 OF |
|---|---|---|---|---|
| | | | | |

/er_data/ergis/certo/bwproj_prs.dgn

Appendix D

Building Drawings

| ISS | DATE | REVISION | BY | CHKR | CHD | LPKD | APVD | R |
|---|---|---|---|---|---|---|---|---|
| B | 12/12/91 | ASBUILT ISSUE | DCB | | | | DVD | |




# BLDG #1
# FIRST FLOOR
# BLDG CODE:3001

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEBOC ___TEBOC ___CHOOC
TECH. RESP. ___ ___
SR. MGR. ___ ___
TRUEBOC ___ ___
TEBOC ___ ___
CHOOC ___ ___

| | |
|---|---|
| DESIGN CHK | PROJ MGR |
| BROKE | CHG SUPV |
| LP & DC | FCCR REV |
| CHG MGR | |
| APVD | DATE |

| | | | | | | |
|---|---|---|---|---|---|---|
| SHEET | 1 | 2 | 3 | 4 | 5 | 6 |
| ISSUE | B | | | | | |

TITLE (U) TITLE CLASSIFICATION
BLDG #1
FLOOR PLANS

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED | SIZE: C | DRAWING NUMBER: FSC911226 | JOB NUMBER: 12335

CHG TYPE: SFP | FROM: BLDG #1 | CAGE: 14865 | SCALE: AS NOTED | SHEET 1 OF 1

STATUS: MD-REL-12/12/91 | ORIGIN: MD-BRJ-V3.8

UNCLASSIFIED

**E.G. & G. - MOUND**

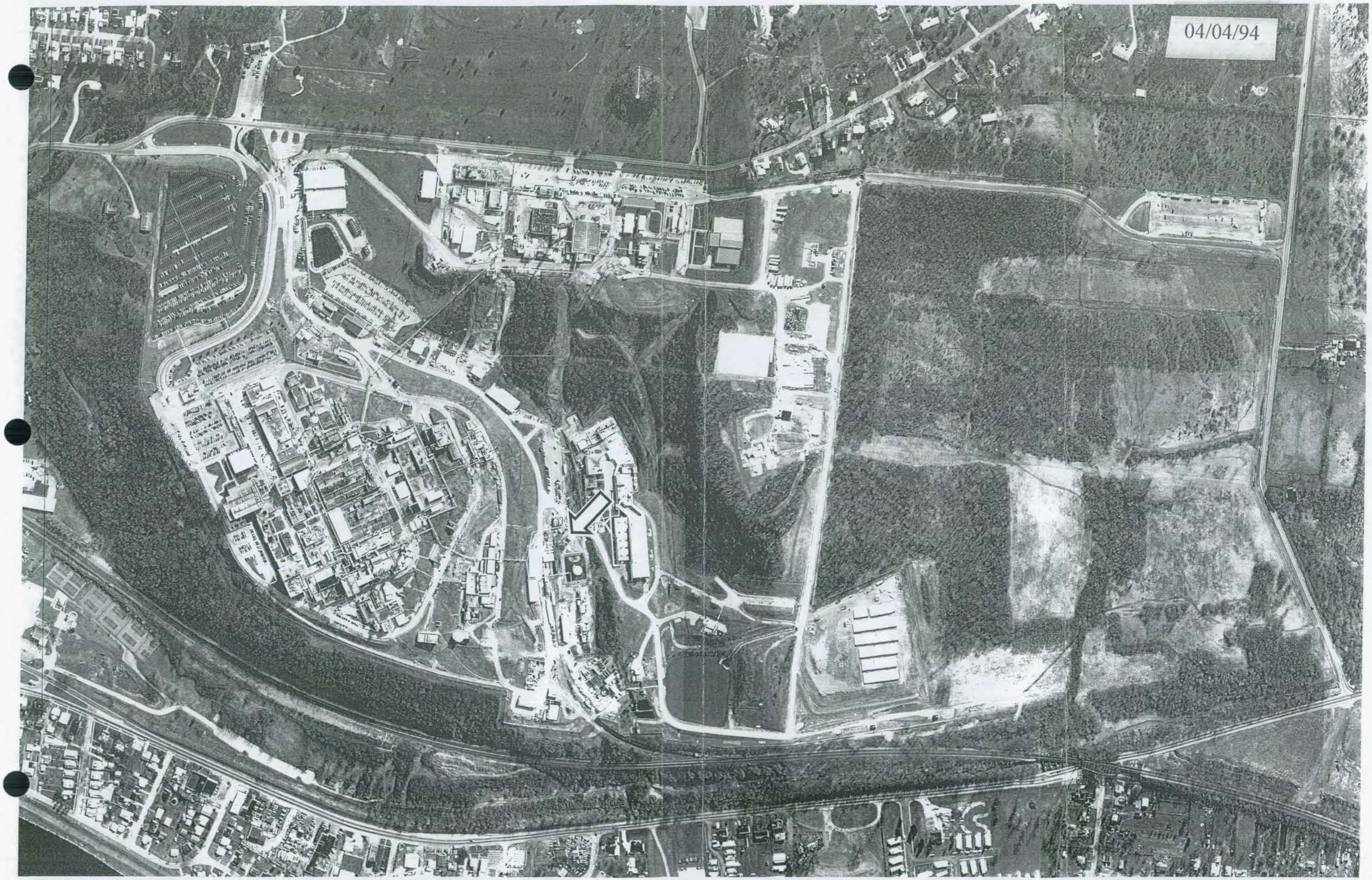
UNDERGROUND WATER & WASTE LINES
BLDG. 1

DATE: 3-4-96

9.36-61

Appendix E

Aerial Photographs


04/04/94

06/83

04/14/73

03/30/68

04/07/65

11/19/59
1955-20-20

11/08/49

Appendix F

Environmental Appraisal of the Mound Plant (Extract)

## 9.36 BUILDING 1

### 9.36.1 Scope of Building 1 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 1 on the morning of February 7,1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.36.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.36.6.2).

### 9.36.2 Description of Building 1

Building 1, is a one-story, 986-square-foot concrete block structure, with a sheet metal addition on one side. The roof is of built-up membrane coal tar and asphalt. Location is shown in Attachment 3 (Section 9.36.6.3). Building 43, on the east, and Building 74, to the southwest, are adjacent to Building 1. Floor Plans are presented as Attachment 4 (Section 9.36.6.4). The building has electrical service of 240V and central steam (*Mound Facility Physical Characterization*, 12-1-93).

Building 1 was constructed in 1958 (MD-10391, *Asbestos Program Manual*, 9-14-95). It consists of four heavy-walled rooms, plus a small office area with a window air conditioner. The facility has been used to support the same program since construction. Research and testing activities involving energetic materials have been conducted in the building. In the past, the building was used for processing and blending of explosive powders. More recently, it was used for packaging of energetic materials (*Mound Facility Physical Characterization*, 12-1-93) It is currently undergoing Safe Shutdown.

### 9.36.3 Summary of Findings

Two issues of environmental concern were identified during the walk-through and the review of reference materials.

### 9.36.4 Observations

#### 9.36.4.1 Air Emissions

There was one air emission source in the building, in Room 106. When the building was operating, ethanol and acetone were released. The process has been discontinued. This source

is documented in the Mound air emission database. An application was submitted on 3-5-92 to the Ohio Environmental Protection Agency (OPEA), but no permit was received. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

### 9.36.4.2 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.

#### 9.36.4.2.1 Sanitary Wastewater

Building 1 is serviced by a sanitary line, according to site underground utility drawings, presented in Attachment 5 (Section 9.36.6.5). It is equipped with a fire sprinkler system. Confirmation of drainage of sanitary waste and floor drains into sanitary conveyance lines was not within the scope of the effort; therefore, neither dye tests nor smoke test were conducted.

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 1 does not deviate from that expected by the sanitary treatment plant manager.

#### 9.36.4.2.2 Storm Wastewater

The building is directly serviced by storm drains according to underground utility drawings, presented in Attachment 5 (Section 9.36.6.5). Storm water from the building drains is collected in a concrete catch basin and then discharged into the storm sewer. Building runoff becomes part of the surface water and flows to the nearest storm drain inlet. The concrete catch basin outside of the building, at the time of the inspection, was completely filled with ice, which would indicate that the outfall to the storm sewer line is plugged.

#### 9.36.4.2.3 Chemicals

All chemicals have been removed from the building, as part of the Safe Shutdown process. They were transferred to Waste Management.

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. There is no evidence that chemicals entered the storm or sanitary drains.

### 9.36.4.3 Potable and Service Water

The building is equipped with potable water. A backflow prevention device was installed at all visible points of potential cross connection (mechanical room). There were no water coolers or fountains.

### 9.36.4.4 Chemical Storage and Hazardous Material

There are no chemicals stored in the building. The building is contaminated with energetic materials (*Mound Facility Physical Characterization*, 12-1-93). There is idle equipment, which has not been cleaned, nor have the contents been characterized.

There are now no aboveground storage tanks in or around the building. According to the BMQ, a 300,000-gallon No. 2 fuel oil tank was located across the road from Building 1. This aboveground tank, which was associated with Building 1 has been removed and the site decontaminated and decommissioned. Other than the storm sewer catch basin, there are no sumps or separators in or around the building. There are no underground storage tanks associated with this building.

The building was tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no evidence of friable asbestos; the Safe Shutdown process is not disturbing the asbestos.

There are no capacitors or transformers containing polychlorinated biphenyls (PCBs) located in the building (1995 PCB Annual Document Log).

### 9.36.4.5 Solid, Hazardous, and Radioactive Wastes

There are no solid, hazardous, or radioactive wastes currently generated in the building. When the building was used for blending of explosive powders, hazardous waste was generated.

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. There is no evidence that hazardous waste entered either the storm or sanitary systems.

### 9.36.4.6 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.

### 9.36.5 Findings and Recommendations

The environmental appraisal of Building 1 indicates that the following action items, in recommended priority, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

1-1. Resource Conservation and Recovery Act (RCRA) regulations require that waste be removed from idled manufacturing and waste producing equipment within 90 days. Idle is defined as occurring either from the cessation of production or idled between production runs. In the EG&G Mound Safe Shutdown Program, equipment is not addressed until funding, resources, and schedule permits, and/or ultimate disposition is known. The Safe Shutdown Program should review 40 CFR 261.4 and develop appropriate procedures for handling idle equipment.

1-2 Update Mound air emissions database. Remove source listed as B-1. As permit application information is no longer correct, notify OEPA.

# Environmental A[illegible]sal Checklist

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

## Clean Water Act (CWA) Screening Checklist

| Question | Response | Comments |
|---|---|---|
| Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system? | (Y) / N | If the answer to any of these questions is yes, proceed with the following checklist. |
| Are there sinks, toilets and floor drains in the building? | (Y) / N | |
| Are chemicals being used in the building? | Y / (N) | |
| Is there a process which discharges to the storm or sanitary system? | * (Y) / N | |

## CWA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| 40 CFR 122 Appendix D Table V | If chemicals are used/stored in the building, are they on the attached list?<br>Are they properly contained? | Y / (N)<br>Y / (N) | Chemicals have been removed, turned over to Waste Management |
| | Is the building in operation?<br>What are the processes and where do they discharge to? | Y / (N)<br>_____<br>_____ | |
| | Do the floor drains, sinks & toilets appear to be draining properly? | (Y) / N | |
| OAC 3745-33 | Do the floor drains and sinks drain to a sanitary or storm sewer? | (Sanitary)<br>Storm | |
| | Is there a sump/pit in the building?<br>If so, what does it contain?<br>How often is it pumped out?<br>Does water collect in sump?<br>Does sump have secondary containment? | Y / (N)<br>_____<br>_____<br>Y / N<br>Y / N | |
| | Are there any manholes, catch basins, drains, or fill pipes in or around the building?<br>If so, are there any unusual appearances, colors, and/or odors? Describe in comment section.<br>Can chemicals flow into the drain? | (Y) N<br>Y / N<br>Y / N | no outfall. Filled w/ ice |

* Process terminated. Building undergoing Safe Shutdown

Fire deluge system



9.36-9

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

## Clean Air Act (CAA) Screening Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms. | (Y) / N | 106 |
| OAC 3745-35 | Using the air emissions inventory reference for this building, are there any sources in the building that are not documented? | Y / (N) | |
| | Is there evidence of fugitive dust emissions inside or outside of the building | Y / (N) | |

## CAA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Are there existing air permits or applications applicable to the building? | Y / N | |
| OAC 3745-31,35 | If yes, are the terms and conditions of the permit or the information included on the application (see air emissions database) being followed? Note any differences and update the air emissions database. | Y / N | |
| OAC 3745-31 | Are there any sources that are not included in the air emissions database? If so, note the room, hood number, active or not, POC, and applicable air emission database information on Table B. | Y / N | |
| OAC 3745-31-03 | Are there sources which are lab equipment of lab fumeheads used exclusively for chemical or physical analyses and bench scale lab equipment? These sources do not require a permit. However, the air emissions database should be updated. | Y / N | |
| | Has there been any release of air contaminants from this building? | Y / N | |



9.36-10

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

CAA Checklist

Comments: Note the number of sources/hoods per room, the number that are active, and the POC on the reference document.

| TABLE A | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Process Source | Room Number | Hood Number | In Database | Active | Chemicals Used | Quantity Used | Quantity to Waste Management | Hours/Yr. Operation | Air Emissions |
| | | | Y / N | Y / N | | | | | |
| | | | Y / N | Y / N | BLANK | | | | |
| | | | Y / N | Y / N | | | | | |
| | | | Y / N | Y / N | | | | | |
| | | | Y / N | Y / N | | | | | |

Source:



9.36-11

# Environmental Appraisal Checklist

Building Name: 1 Appraisers: Team H4 Date: 2-7-96

## Hazardous Materials (HM) Screening Checklist

| Question | Response | Comments |
|---|---|---|
| Are any chemicals used or stored in this building, now or in the past? | * Y / N | If the answer is yes, proceed with the following checklist. |

## HM Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| 29 CFR 1910.1200(b,f) | All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings. | Y / N | |
| 29 CFR 1910.1200(g) | MSDS shall be available to the employees in close proximity to the work area. | Y / N | |
| 29 CFR 1910.22, 1910.106, 1910.176 | All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed. | Y / N | |
| 29 CFR 1910.106 | Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet. | Y / N | |
| 29 CFR 1910.106(d)(7) | Incompatible chemicals are not stored together. | Y / N | |
| 29 CFR 1910.106(d)(4) | Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment. | Y / N | |

* All chemicals listed on page 7 of BMQ have been removed

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

HM Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| 29 CFR 1910.106(d)(7) | All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted. | Y / N | |
| 29 CFR 1910.151 | Eyewashes/showers shall be provided within the work area. Ensure unit is operational. | Y / N | |
| CGA P-1 3.3 & 3.3.10 | All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents. | Y / N | |
| CGA P-1 3.5.3 | Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers. | Y / N | |
| CGA P-1 3.5.8 | All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured. | Y / N | |
| CGA P-1 4.2.2 | Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high. | Y / N | |
| 29 CFR 1910.104(2)(10) | Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container. | Y / N | |
| 29 CFR 1910.104 | Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES". | Y / N | |
| | Is there a sign posted in each work area regarding emergency egress and emergency response action? | Y / N | |
| | Is there an emergency response plan available? | Y / N | |

9.36-13

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

## HM Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Is there a process area? | Y / N | |
| | Does it have proper containment? | Y / N | |
| | Is there a liquid bulk transfer area? | Y / N | |
| | Is there proper containment? | Y / N | |
| | Is there an above ground storage tank? If so, complete Table B. | Y / N * | |

Blank

## Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

| Building | Capacity (Gal.) | Contents | Estimated Volume | In Service | Containment | Visual Stains/ Contamination | If Empty, Flushed |
|---|---|---|---|---|---|---|---|
| | | | | Y / N | Y / N | Y / N | Y / N |
| | | | | Y / N | Y / N | Y / N | Y / N |
| | | | | Y / N | Y / N | Y / N | Y / N |
| | | | | Y / N | Y / N | Y / N | Y / N |
| | | | | Y / N | Y / N | Y / N | Y / N |
| | | | | Y / N | Y / N | Y / N | Y / N |
| | | | | Y / N | Y / N | Y / N | Y / N |

* No. 2 fuel oil tank (300,000 gal) (reg. 68476-30-2) D+D'd.

Source: _____



9.36-14

Building Name: 1 Appraisers: Team # 4 Date: 2-7-94

Safe Drinking Water Act (SDWA) Screening Checklist

| | | |
|---|---|---|
| Does this facility have potable water? | (Y)/N | If yes, conduct the following survey. |

SDWA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| OAC 3745 95-02 (A) | Do actual or potential cross-connections exist between potable (light green) and service water (dark green)? | Y/(N) | |
| OAC 3745 95-04 (B)(C) | Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist? | Y / N NA | |
| | Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources? | Y / N NA | water marked as potable |
| | Does the facility contain any water coolers or fountains that are not lead free? Complete Table C. | Y/(N) | no water fountains |

TABLE C—Water Fountain Survey

| Building | Location | Model # | Comments / Date of Analysis for Lead |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Source: _____

9.36-15

# Environmental Appraisal Checklist

Building Name: 1 Appraisers: Team H4 Date: 2-7-96

## RCRA Screening Checklist

| | | |
|---|---|---|
| Does this facility generate waste or use chemicals? | Y (N) | If yes, conduct the following survey. |

## RCRA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| OAC 3745 52-11 | Has any material generated been characterized RCRA hazardous?<br>Was charactarization by analysis or by process knowledge?<br>Are lab results or documentation of process knowledge readily available?<br>Note any uncharacterized material in comment section.<br>Is it waste?<br><br>If yes, proceed with next section. | Y / N<br><br>analysis / process<br><br>Y / N<br><br>Y / N | |
| OAC 3745 52-11 | Are any of the materials noted RCRA hazardous waste?<br><br>If no, note and stop here.<br><br>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below. | Y / N | |

Building Name: 1 Appraisers: Team H4 Date: 2-7-96

RCRA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| **I. HAZARDOUS WASTE STORED IN CONTAINERS** | | | |
| | Is there an area in the building that could qualify as a Satellite Accumulation Area?<br>Is it treated as such? | Y / N<br>Y / N | |
| OAC 3475-52-34 (C) | Has any of the RCRA hazardous waste in this building been managed in Satellite Accumulation Areas?<br><br>If no, proceed to the next section.<br><br>If yes, answer the following. BLANK | Y / N | |
| | Are the containers marked with the words hazardous waste, or other words denoting the hazard? | Y / N | |
| | Are the containers in good condition? | Y / N | |
| | Are the waste compatible with the containers? | Y / N | |
| | Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary? | Y / N | |
| | Are containers kept closed and locked except during filling? | Y / N | |
| | Are containers moved within 3 days of being filled? | Y / N | |

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

RCRA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| OAC 3745-52-11 (A) | If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion.<br><br>If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following: | | |
| | Are the containers in good condition? | Y / N | |
| | Are the waste compatible with the containers? | Y / N | |
| | Are the containers kept closed except during filling? | Y / N | |
| | Are the containers managed in such a way, that they are not ruptured, or leaks caused? | Y / N | |
| | Is the area inspected at least once weekly? | Y / N | |
| | Is the inspection recorded?<br>Where is the log?<br>Is it properly completed, dated, and signed? | Y / N<br><br>Y / N | |
| | Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary? | Y / N | |
| | Are incompatible wastes managed in such a way that they will not react with another incompatible waste? | Y / N | |
| OAC 3745-52-34(B) | Has any of the waste (except in Building 23, Building 72 and the Burn Area) been managed in excess of 90-days? | Y / N | |
| | If no go to next section. | | |
| | If yes, note. | | |
| | For Building 23, Building 72 & Burn Area use special checklist. | | |

N/A

Building Name: L Appraisers: Team #4 Date: 2-7-96

RCRA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| II. HAZARDOUS WASTE STORED IN TANKS | | | |
| OAC 3745-52-32 (B) | Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days? | Y / N | |
| | If the answer was no, then proceed with the following: | Y / N | |
| | Has the tank or piece of equipment had an integrity assessment? | Y / N | |
| | Is there a sump? | Y / N | |
| | Is it dry? | Y / N | |
| | Does the tank or equipment have secondary containment? | Y / N | |
| | Does the tank or equipment have leak detection device(s)? | Y / N | |
| | Has spill control prevention been enacted? | Y / N | |
| | Has any hazardous waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days? | Y / N | |
| | If the answer was no, then proceed with the following: | | |
| | Has the tank or piece of equipment had an integrity assessment? | Y / N | |
| | Does the tank or equipment have secondary containment? | Y / N | |
| | Does the tank or equipment have leak detection device(s)? | Y / N | |
| | Has spill control prevention been enacted? | Y / N | |
| | Is there a closure plan? | Y / N | |
| | If yes, then note. | | |
| OAC 3745-67 | Has any of the waste been managed in a surface impoundment? If yes, then note. Go to the next section. | Y / N | |

BLANK

9.36-19

Building Name: 1 Appraisers: Team 44 Date: 2-7-96

RCRA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| OAC 3745-68 | Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section. | Y / N | |
| OAC 3745-68 | Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section. | Y / N | |
| OAC 3745-68 | Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section | Y / N | |
| OAC 3745-69 | Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then not. Go to the next section. | Y / N | |
| OAC 3745-56 | Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section. | Y / N | |

General Comments:



9-36-20

Building Name: 1 Appraisers: Team H4 Date: 2-7-96

Asbestos Screening Checklist

| | | |
|---|---|---|
| Does this facility contain ACBM? | (Y) / N | If yes, conduct the following survey. |

Asbestos Checklist

Note: Routinely, the asbestos standard for ACBM in schools has been applied to facilities for purpose of cleanup. In addition to AEHERA, there are additional standards in the NESHAPS that may be of importance.

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| ADAPTED FROM TSCA ACBM IN SCHOOLS: | | | |
| | Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos?<br><br>If no for this building or area note this conclusion in the comment section. | (Y) / N | |
| | Is there any evidence of friable asbestos? | Y / (N) | |
| | Is the asbestos removal properly managed? (See questions listed below) | Y / N<br>NA | If there is no asbestos removal, do not complete the following section. |
| NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL: | | | no removal work |
| 40 CFR 61.156 | There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal. | Y / N | |
| 40 CFR 61.152(b) (1) | ACBM is treated with water in accordance with 40 CFR 152(b)? | Y / N | |
| 40 CFR 61.154 | Is friable asbestos adequately wetted during stripping? Or, has an adequate ventilation and collection system been installed? | Y / N | |
| 40 CFR 61.152 | Is wetting continued until the waste friable asbestos is collected for disposal? | Y / N | |

Building Name: 1. Appraisers: Team H4 Date: 2-7-96

Toxic Substances and Control Act (TSCA) PCB's Screening Checklist

| | | |
|---|---|---|
| Does this facility potentially contain any PCB's or PCB contaminated equipment? | Y / N | If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey. |

TSCA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| 40 CFR 761 | Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ?<br><br>If the answer is no, note .<br><br>If the answer is yes, proceed with next section. | Y / N | |
| | Based on an inspection, are any of the materials or equipment potentially PCB contaminated?<br><br>If no, note and stop here.<br><br>If yes, note the location of the management unit, and the method of management, and proceed. | Y / N | |
| 40 CFR 761.65 (c) (5) | Are PCB articles or containers stored in this building checked for leaks at least once every 30 days? | Y / N | |
| | If yes, are auditable records maintained. | Y / N | |
| 40 CFR.30 (a) (1) (ix) | Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater? | Y / N | |
| | Are they visually inspected quarterly? If yes, are auditable records maintained? | Y / N | |



9.36-22

Building Name: 1 Appraisers: Team H 4 Date: 2-7-96

TSCA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| 40 CFR 761.30 (a) 1,viii | Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters? | Y / N | |
| 40 CFR 761.65 (b) (8) | Are all PCB articles and containers labeled with the date they were placed in storage? | Y / N | |
| | Are labeled PCB articles and containers stored so that the labels can be referenced? | Y / N | |
| 40 CFR 761.65 (a) | Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage? | Y / N | |
| 40 CFR 761.62 (b) (1) (i) | Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items? | Y / N | |
| 40 CFR 761.62 (b) (1) (iv) | Are storage are floors curbed and constructed of continuous smooth and impervious materials? | Y / N | |
| 40 CFR 761.62 (b) (1) (i) | Are the curbs at least 6 inches high? | Y / N | |
| 40 CFR 761.62 (b) (1) (iii) | No drains are allowed in storage areas. Are there drains in the storage areas? | Y / N | |

9.36-23

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

TSCA Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| 40 CFR 761.65 (c) (2) | Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement? | Y / N BLANK | |
| 40 CFR 761.45 and .65 | Are all PCB storage areas marked with a large PCB mark as described in 40 CFR 761.45 (a)? | Y / N | |
| 40 CFR 761.65 (c) (5) | Have all leaking PCB articles and containers been transferred to non-leaking containers? | Y / N | |
| 40 CFR 761.65 (c) (6) | Do all PCB storage containers for the storage of liquid and non-liquid PCB's comply with DOT shipping container specifications? | Y / N | |

**GENERAL COMMENTS:**



9.36-24

Building Name: L Appraisers: Team #4 Date: 2-7-96

Low-Level Waste and Transuranic Waste Screening Checklist

| | | |
|---|---|---|
| Does this facility contain radioactive waste ? | Y / N | If yes, conduct the following survey. |

Low-Level Waste and Transuranic Waste Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| Low-Level Waste | | | |
| DOE Order 5820.2A Chapter III | Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ?<br><br>If the answer is no, note.<br><br>If the answer is yes, proceed with next section. | Y / N | BLANK |
| DOE Order 5820.2A Chapter III. | Are any of the materials noted by inspection LLW?<br><br>If no, The audit would stop here, because there are no LLW.<br><br>If yes, note the location of the management unit, and the method of management, and proceed with the section below. | Y / N | |
| DOE Order 5820.2A Chapter III, 3.a. | Have the storage configurations in use in this area been taken into account for keeping external exposures to the general public below 25 mrem/yr? | Y / N | |
| | Is the waste stored in a configuration that protects ground-water resources? | Y / N | |
| DOE Order 5820.2A Chapter III, 3.b. | Has monitoring been conducted in this area in accordance with DOE Order 5820.2A in order to evaluate the area against the performance standard? | Y / N | |
| | Based on field data, does the monitoring conducted in this area conform to the performance standard? | Y / N | |

9.36-25

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| DOE Order 5820.2A Chapter III, 3.d. | Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal? | Y / N | |
| | Based on field data does the characterization as documented at the time of generation of the waste ensure that the actual physical and chemical characteristics, and major radionuclide content of this material are recorded and known at all stages of the waste management process? | Y / N BLANK | |
| | Do characterization data include the following: | | |
| | Physical and chemical characteristics of the waste? | Y / N | |
| | Volume of the waste (including solidification and absorbent material)? | Y / N | |
| | Weight of the waste (including solidification and absorbent material)? | Y / N | |
| | Major radionuclides and their concentrations? | Y / N | |
| | Packaging date, package weight, external volume? | Y / N | |
| | How were the concentration of radionuclides determined? Direct methods? | _____ | |
| | How were the concentrations of radionuclides determined? Indirect methods? | _____ | |
| DOE Order 5820.2A Chapter III, 3.h | Is the storage configuration in long term storage sufficient to meet the performance standard? | Y / N | |
| | Are records maintained at the facility enabling this waste to be traced from its origin? | Y / N | |

Building Name: \ Appraisers: Team H4 Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| TRU WASTE | | | |
| | Can any waste generated in, or from this building be characterized either through process knowledge or by analyses to determine if it is TRU waste?<br><br>If no, note and stop.<br><br>If yes, proceed with the next section. | Y / N | |
| | Are any of the materials noted as being TRU waste during an inspection?<br><br>If no, note and stop.<br><br>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below. | Y / N | |
| DOE Order 5820.2A, Chapter II, 3.a | Was this material evaluated as soon as possible in the generating process, to determine if it is TRU (>100nCi/g), if it is recoverable, or if it is waste?<br><br>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.) | Y / N | |
| | Did the determination of TRU radionuclide concentration include the mass of the container, including shielding? These should be included in calculating the specific activity of the waste. | Y / N | |

BLANK

9.36-27

Building Name: 1 Appraisers: Team H 4 Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| DOE Order 5820.2A, Chapter II, 3.b | Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage? | Y / N | |
| | Has the TRU waste been characterized or otherwise evaluated to determine if hazardous waste is present? | Y / N | |
| | Has classified TRU waste been treated to destroy the classified characteristics? | Y / N | |
| DOE Order 5820.2A, Chapter II 3.d | Has all newly generated TRU waste been packaged in non-combustible packaging that meets DOT requirements? | Y / N | |
| | Have all Type A TRU waste packages been equipped with a method to prevent pressure buildup? | Y / N | |
| | Have all TRU packages been marked, labeled and sealed in accordance with 40 CFR 261 Subpart C and 49 CFR 172 Subparts D, E and 49 CFR 173 Subpart I? | Y / N | |



9.36-28

## Environmental Appraisal Checklist

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

### Low-Level Waste and Transuranic Waste Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| DOE Order 5820.2A, Chapter II 3.e | Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste? | Y / N | |
| | Has the TRU waste been protected from unauthorized access? | Y / N | |
| | Has the TRU waste been monitored periodically to ensure that it is not releasing its radioactive and/or hazardous constituents? | Y / N | |
| | Has this TRU waste storage area been designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or accidental release of its radioactive and/or hazardous constituents? | Y / N | |
| | Does the facility have a contingency plan designed to minimize the adverse impacts of fire, explosion, or accidental release of its radioactive and/or hazardous constituents? | Y / N | |

GENERAL COMMENTS:

9.36-29

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

| | | |
|---|---|---|
| Does this facility generate waste or use chemicals? | Y / N | If yes, conduct the following survey. |

Waste Minimiaztion/Pollution Prevention Activities Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.).<br><br>If yes, list candidate areas in the comment section. | Y / N | |
| | Are there solvent wastes? | Y / N | |
| | Is vehicle maintenance performed? | Y / N | |
| | Are oils used ? | Y / N | |
| | Are these corrosive wastes? | Y / N | |
| | Are there sludges? | Y / N | |
| | Are there halogenated organic (nonsolvent) wastes? | Y / N | |
| | Are metals recovered from wastewater? | Y / N | |
| | Is waste sludge generated? | Y / N | |
| | Are any waste minimization practices used that reduce the generation of sludge? | Y / N | |
| | Ion exchange process? | Y / N | |
| | Lead in gasoline lowered to reduce tank sludge toxicity? | Y / N | |
| | Storage tank agitators installed? | Y / N | |
| | Corrosive resistant materials used? | Y / N | |
| | Prevention of crude oil oxidation ? | Y / N | |
| | Drying? | Y / N | |

Building Name: 1 Appraisers: Team H4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| HALOGENATED ORGANIC (NONSOLVENT) WASTES | | | |
| | Are halogenated organic wastes used as fuel in cement kilns? | Y / N | |
| | Are baghouse filters used to collect pesticides and pesticide intermediates? | Y / N | |
| | Are solid wastes generated from the collection of baghouse dust? | Y / N | |
| | Wet instead of dry grinding used? | Y / N | |
| | The output spray dried? | Y / N | |
| | Has baghouse emptying and recycling of baghouse fines been scheduled? | Y / N | |
| | Have operations been evaluated to improve procedures such as handling, storage and spill prevention for increased efficiency? | Y / N | |
| METAL WASTES | | | |
| | Are any technologies for the recovering of metals from waste rinsewater used? | Y / N | |
| | Evaporation of waste rinsewater? | Y / N | |
| | Reverse osmosis? | Y / N | |
| | Ion exchange? | Y / N | |
| | Electrolysis? | Y / N | |
| | Agglomeration? | Y / N | |
| CORROSIVE WASTES | | | |
| | Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals? | Y / N | |

BLANK

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions? | Y / N | |
| | Is crystallization used to remove corrosives from solution by cooling? | Y / N | |
| | Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution? | Y / N | |
| CYANIDE AND REACTIVE WASTES | | | |
| | Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ? | Y / N | |
| | Are any of these processes used to recycle cyanide wastes? | Y / N | |
| | Refrigeration/crystallization? | Y / N | |
| | Evaporation? | Y / N | |
| | Ion exchange? | Y / N | |
| | Membrane separation which includes reverse osmosis or electrodialysis? | Y / N | |
| VEHICLE MAINTENANCE | | | |
| | How are auto parts cleaned? | Y / N | |
| | Solvent sink? | Y / N | |
| | Solvent dunk bucket? | Y / N | |
| | Solvent dip tank? | Y / N | |
| | Are parts cleaning solvents used for anything else besides cleaning parts? | Y / N | |
| | Are spills reduced by locating sinks or dunk buckets near auto service bays? | Y / N | |

BLANK



9.36-32

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Are cleaned parts drained on the sink to minimize solvent spills? | Y / N | |
| | Are drip tanks used to capture losses? | Y / N | |
| | Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank? | Y / N | |
| | Does a waste hauler collect solvent waste for recycling or treatment? | Y / N | |
| OILS | | | |
| | What kind of oils are used? | | |
| | Hydraulic oil? | Y / N | |
| | Transformer oil? | Y / N | |
| | Metal working fluids? | Y / N | |
| | Spent lubricating oils? | Y / N | |
| | Can the process be modified or changed to use water-based fluids? | Y / N | |
| | Are these good housekeeping and operation practices used to minimize oil waste production? | | |
| | Use oils not contaminated with other liquids? | Y / N | |
| | Oil spills prevented? | Y / N | |
| | Drip pans installed? | Y / N | |
| | Oil soaked rags laundered? | Y / N | |
| | Rags and absorbants used to their limit? | Y / N | |

BLANK

Building Name: 1 Appraisers: Team #4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | Are these treatment techniques used to promote separation of oil/water wastes? | | |
| | Reclaiming process to remove water and solvents by heat? | Y / N | |
| | Gravity setting? | Y / N | |
| | Screening? | Y / N | |
| | Centrifugation? | Y / N | |
| | Filtration? | Y / N | |
| SOLVENT WASTES | | | |
| | Has there been an attempt to reduce volume or toxicity by: | | |
| | Eliminating solvents? | Y / N | |
| | Reducing the use of solvents? | Y / N | |
| | Reducing the loss of solvents? | Y / N | |
| | Increasing recyclability? | Y / N | |
| | Are solvents segregated? | Y / N | |
| | Are waste solvents free from water and garbage? | Y / N | |
| | Are recycled solvent containers labeled as such? | Y / N | |
| | Are containers kept closed? | Y / N | |
| | Free and sheltered from the elements? | Y / N | |
| | Are solvent tanks kept as free from contaminations as possible so that the waste can be recycled? | Y / N | |
| | Is a method used to minimize the use of new materials such as a countercurrent process? | Y / N | |



9.36-34

Building Name: 1 Appraisers: Team H4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

| Regulatory Guideline | Question | Response | Comments |
|---|---|---|---|
| | If there is a recycling program, what technique is used? | Y / N | |
| | Distillation? | Y / N | |
| | Solids removal? | Y / N | |
| | Dispersion breaking? | Y / N | |
| | Dissolved and emulsified organics recovery? | Y / N | |
| | Are any of these housekeeping procedures used to minimize the production of solvent wastes? | | |
| | Separators cleaned and checked? | Y / N | |
| | Parts not allowed to enter the degreaser while wet? | Y / N | |
| | Sludge from the bottom of the tank not allowed to accumulate? | Y / N | |
| | Lids kept on tanks? | Y / N | |
| | Freeboard space on tanks increased? | Y / N | |
| | Are better operating practices used to reduce waste? | Y / N | |
| | How long is solvent waste stored and where? | _____ _____ | |

N/A

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: A. KOEHLER Phone: 1886

1. What are the access requirements, training, clearance, etc.?

NONE

2. What protective equipment is required to enter the building?

NONE

3. Are there any restricted areas? Yes (No)
Where are they?

4. Provide a physical description of the building.

Building is a concrete block structure containing 986 $ft^2$. Roof is BUM (coal tar and asphalt). Building consists of four heavy-walled rooms. Although the building contains asbestos, there is no significant contamination from radiological or energetic materials.

Source: Mound Facility Physical Characterization, 12-1-93

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Packaging energetic materials.

BUILDING IS SHUTDOWN

Source: Mound Buildings, 5-9-95

7. What is the history of building use other than that described in #6?

1) PROCESSING PETN
2) BLENDING PBX - POWDERS
3) BLENDING TETRYL
4) PACKAGING H-NAB, HNS

Source: Mound Buildings, 5-9-95



9.36-39

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

8. What are ongoing operations or processes? What are the raw materials and waste streams from each process? Who is the best contact for each process?

Process(es) Housed: Packaging of explosives

How Wastes Are Generated:

Bulk explosive wastes are generated when samples of explosive powder in small vials are no longer needed and must be disposed of. The powder is poured into waste containers and sent to the burn area for destruction.

Less concentrated explosive wastes are generated during other routine operations in Building 1. Spatulas used when subdividing a large package of explosive into several small packages for storage are cleaned with paper or cloth. The paper or cloth becomes explosive waste. Empty sample vials and filters from the building's air filtering system are also explosive waste. Heads of mops used to clean out magazines are dried and put in the explosive waste containers. All of these explosive wastes are burned onsite.

Liquids containing small amounts of explosives are put in one 55-gal waste drum with a rigid polyethylene liner. The sources of liquid are a 20:80 mixture of acetone and water used to clean containers or equipment contaminated with explosives, a 50:50 mixture of ethanol and water in which PETN is shipped and stored, and water used for mopping magazines. When the waste drum is full, it is taken to Building 27 where it is run through a filter and put in a drum for pickup by Waste Management. About one drum of waste is generated each year in Building 1.

Other materials that might be of concern: Trichloroethane - used to degrease and clean new storage containers for PETN. We generally reuse old containers and have not cleaned a new one in 2 or 3 years. After trichloroethane is used, it is put in a waste can for disposal. Calcium chloride solution - used to pack PETN for shipment. Any excess solution is flushed down the drain and through the leach bed. Note that the solution is not contaminated with explosives.

Contact: *
Phone #

Source: Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, (8-15-90).

* Building is shutdown & no process waste is generated

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

9. In the last six months, have any modifications been made to the building or to processes in the building? Yes CLOSED DOWN

10. Does the building have air emission sources? (Yes) No room 100 *

| Process Source | Room Number | Hood Number | Active | Chemicals Used | Quantity Used | Quantity to Waste Management | Lbs./Yr. Operation | Air Emissions |
|---|---|---|---|---|---|---|---|---|
| Test Fire Operations | 106 | | Y | ethanol<br>acetone | 0.014<br>0.871 | | 0.336<br>20.904 | |
| | | | Y / N | | | | | |
| | | | Y / N | | | | | |
| | | | Y / N | | | | | |
| | | | Y / N | | | | | |

Source: Mound Air Emissions Databases 11/30/95

* currently inactive

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

11. Describe air pollution control equipment used to reduce emissions for each source. None Listed

| Process Source | Emissions | Control Equipment | Functioning |
|---|---|---|---|
| | | | Y / N |
| | | | Y / N |
| | | | Y / N |
| | | | Y / N |
| | | | Y / N |

Source: Air Permits 2/4/95

12. For existing permits are emissions monitored? At what frequency? Where are the records maintained? None Listed

| Process Source | Permit | Log | Permit Conditions & Frequency of Monitoring |
|---|---|---|---|
| | | Y / N | |
| | | Y / N | |
| | | Y / N | |
| | | Y / N | |
| | | Y / N | |

Source: Air Permits 2/4/95

13. Does the building have domestic water service? Yes No
Is there bottled water? Yes No

14. Does the building discharge to the storm sewer? Yes No
Where?

15. Does the building discharge to the sanitary sewer? Yes No
Where?

16. Has an asbestos survey been conducted? Yes
What are the results? Yes

Source: Technical Manual MD-10391, Issue 3 Asbestos Program Manual 9/6/95



9.36-42

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

    Source: PCB ANNUAL DOCUMENT LOG

18. Has the building been identified as containing PCBs? No

    Source: PCB ANNUAL DOCUMENT LOG

19. What chemicals are used or stored inside or outside of the building? Include compressed gasses not in large tanks.

| Chemical Name | State | Amount (MAX) |
|---|---|---|
| NONE | | |
| | | |
| | | |
| | | |
| | | |

Source: Chemical Inventory 1994



9.36-43

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

20. Has there been a reported spill, leak, or other release of any chemical? Yes No
What, how much, and what clean-up measures were followed?

| Chemical | Amount | Clean-up Measures |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Source: _____

21. Where do waste chemicals go?

NONE

22. What janitorial supplies are stored inside or outside of the building?

NONE

23. Where do excess janitorial supplies go?

NONE

Source: _____

24. Are pesticides or herbicides stored or used in or around the building? Yes No

| Chemical | Amount | Chemical | Amount |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

Source: _____



9-36-44

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

25. Does the building contain active or inactive above ground storage tanks?
Yes (No) Unknown
For each tank, list the content, quantity, last inspection, registration number.

1 REMOVED WAS ACROSS THE ROAD

| Registration Number | Content | Quantity | Last Inspection Date | Preventive Maintenance Performed | Inside Or Outside |
|---|---|---|---|---|---|
| 68476-30-2 | No.2 fuel oil | 300K Gal | | Y / N | |
| | | | | Y / N | |

Source: Emergency & Hazardous chemical inventory form - chemical storage tanks on EGG Mound Site owned & Maintained by outside contractors 8/8/94

26. Is there a sump or pit or underground tank in or around the building? (Yes) No
Is it double-walled? What does it contain? How many days per year is it filled?
Is there an emergency overflow tank? Have there been previous overflows?
SEE BACK OF PAGE #7

| Double-Walled | Contents | Days/Year in Use | Overflow Tank | Previous Overflow |
|---|---|---|---|---|
| Y / N | | | Y / N | Y / N |

Source: _____

27. Does the building generate, store, or dispose of hazardous waste? Yes (No)

| Materials | Amount |
|---|---|
| Adiprene | 1.0 |
| Antifreeze Waste | 446.6 |
| Citric Acid | 1.0 |
| Conductive Adhesive Part A | 3.6 |
| Conductive Adhesive Part B | 3.1 |
| EPON 828 | 1.0 |
| Ethanol Waste | 39.3 |
| Methyl Red | 0.1 |
| Rexarc | 5.0 |
| Silver Flake | 3.1 |
| Trichloroethane (1,1,1-) | 55.0 |
| Ultra Carbon | 1.0 |
| Zinc Metal | 0.3 |

Source: Characterization of Mounds Hazardous, Radioactive, and Mixed Wastes 08/15/90

 ¼ none present 2-7-96

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No

29. Is waste material stored in or around the building for more than 90 days?
Yes No

30. Has the building been identified as a 90 day waste accumulation area?
Yes No

31. Has any area in the building been identified as a satellite accumulation area? Yes No

32. Is mixed waste generated, stored, or disposed of from the building? Yes No
Where are logs found?

| Process | Waste | Stored | Disposed | Logs |
|---|---|---|---|---|
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |

Source: _____

## Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

33. Is TRU radioactive waste generated, stored, or disposed of from the building?
Yes No
Where are logs found?

| Process | Waste | Stored | Disposed | Logs |
|---|---|---|---|---|
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |

Source: _____

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

34. Is low-level radioactive waste generated, stored, or disposed of from the building? Yes (No)
Where are logs found?

| Process | Waste | Stored | Disposed | Logs |
|---|---|---|---|---|
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |
| | | Y / N | Y / N | Y / N |

Source: _____

35. Identify all administrative orders, temporary or permanent injunctions, civil administrative penalties, or criminal activities issued against the building.

# Building Manager's Questionnaire

Building Name: 1 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building? Yes No
Discuss your ideas about how to minimize waste.

37. Has a pollution prevention program been developed for the building? Yes No

Appendix G

Radiological Summary/Information

# RADIOLOGICAL SURVEY DATA SHEET

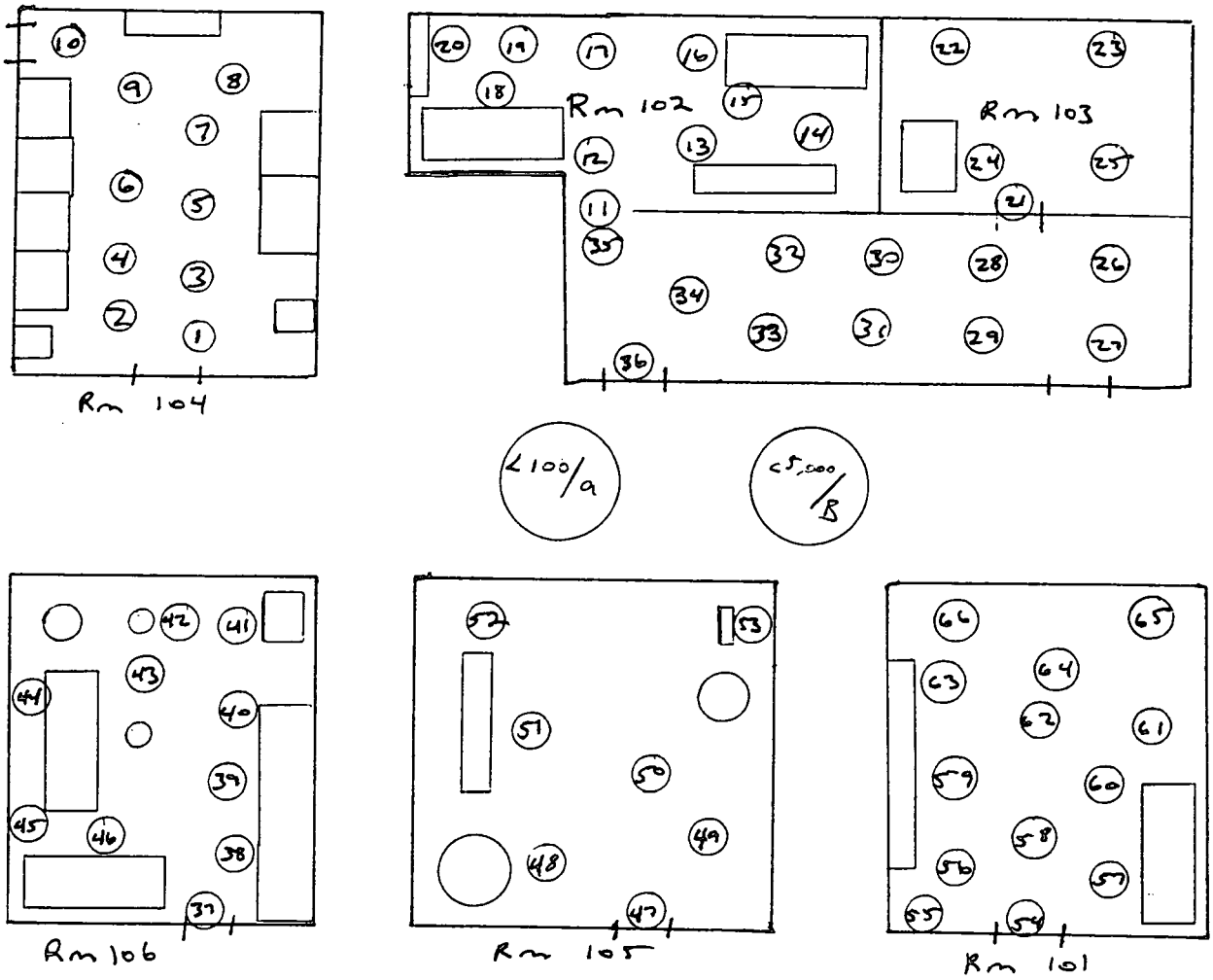
PA#2 30-10 1-66



| | |
|---|---|
| LOCATION: (BLDG/AREA/ROOM) 1 | SURVEY NO. 98-TF0659 |
| PURPOSE: Contamination Survey | RWP NO. N/A |
| | DATE: 6.9.98 |
| | TIME: 0920 |

## 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 |
|---|---|---|
| Electra | 5439/5440 | 11.27.98 |
| | | |
| | | |
| | | |
| | | |

| | | |
|---|---|---|
| Completed by: (Signature) | HP# [redacted] | Date: 6.9.98 |
| Completed by: (Print Name) Ryan J Adkins TOM KARL | | |
| Counted by: (Signature) | H [redacted] | Date: 6/9/98 |
| Counted by: (Print Name) SMITH-BROWN | | |
| Reviewed/Approved by: (Signature) | H [redacted] | Date: 6/16/98 |
| Reviewed/Approved by: (Print Name) RL JOHNSON | | |

ML-9620 (2-98)

3 of 7

# Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR040
Batch Ended: 6/9/98 13:39
Cal. Due Date: 3/9/99
Serial Number: 26966-3

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

Batch ID: T 98-TF-659 ADKINS

| Detector ID | Sample ID | Alpha Activity | | | Beta Activity | | |
|---|---|---|---|---|---|---|---|
| | | DPM | σ | flags | DPM | σ | flags |
| A1 | 1 | 0.00 | 2.04 | <MDA | 0.00 | 1.49 | <MDA |
| A2 | 2 | 1.80 | 2.13 | <AL | 0.00 | 1.51 | <MDA |
| A3 | 3 | 0.00 | 1.99 | <MDA | 1.81 | 2.32 | <MDA |
| A4 | 4 | 0.00 | 2.01 | <MDA | 0.63 | 1.94 | <MDA |
| B1 | 5 | 0.00 | 2.24 | <MDA | 4.14 | 3.21 | <AL |
| B2 | 6 | 0.00 | 2.14 | <MDA | 0.00 | 1.51 | <MDA |
| B3 | 7 | 0.00 | 2.00 | <MDA | 1.61 | 2.32 | <MDA |
| B4 | 8 | 0.00 | 2.01 | <MDA | 1.75 | 2.28 | <MDA |
| C1 | 9 | 0.00 | 2.00 | <MDA | 1.70 | 2.40 | <MDA |
| C2 | 10 | 0.00 | 2.05 | <MDA | 0.00 | 1.50 | <MDA |
| C3 | 11 | 0.00 | 2.06 | <MDA | 2.85 | 2.74 | <MDA |
| C4 | 12 | 0.00 | 2.11 | <MDA | 6.18 | 4.19 | <AL |
| D1 | 13 | 1.81 | 2.09 | <AL | 0.00 | 1.50 | <MDA |
| D2 | 14 | 0.00 | 2.06 | <MDA | 0.00 | 1.47 | <MDA |
| D3 | 15 | 0.00 | 1.90 | <MDA | 0.00 | 1.42 | <MDA |
| D4 | 16 | 1.56 | 1.95 | <AL | 2.84 | 2.56 | <MDA |
| A1 | 17 | 0.00 | 2.11 | <MDA | 7.31 | 3.62 | <AL |
| A2 | 18 | 0.00 | 2.13 | <MDA | 0.00 | 1.51 | <MDA |
| A3 | 19 | 0.00 | 1.99 | <MDA | 3.11 | 2.66 | <AL |
| A4 | 20 | 0.00 | 2.01 | <MDA | 0.63 | 1.94 | <MDA |
| B1 | 21 | 0.00 | 2.20 | <MDA | 0.00 | 1.62 | <MDA |
| B2 | 22 | 0.00 | 2.15 | <MDA | 0.23 | 2.04 | <MDA |
| B3 | 23 | 0.00 | 1.98 | <MDA | 0.00 | 1.44 | <MDA |
| B4 | 24 | 0.00 | 2.01 | <MDA | 0.47 | 1.89 | <MDA |
| C1 | 25 | 0.00 | 1.99 | <MDA | 0.37 | 2.00 | <MDA |
| C2 | 26 | 0.00 | 2.05 | <MDA | 0.00 | 1.50 | <MDA |
| C3 | 27 | 0.00 | 2.04 | <MDA | 0.21 | 2.01 | <MDA |

COPY

# Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR040
Batch Ended: 6/9/98 13:39
Cal. Due Date: 3/9/99
Serial Number: 26966-3

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

Batch ID: T 98-TF-659 ADKINS

| Detector ID | Sample ID | Alpha Activity | | | Beta Activity | | |
|---|---|---|---|---|---|---|---|
| | | DPM | σ | flags | DPM | σ | flags |
| C4 | 28 | 0.00 | 2.07 | <MDA | 1.14 | 3.34 | <MDA |
| D1 | 29 | 0.00 | 2.10 | <MDA | 1.76 | 2.40 | <MDA |
| D2 | 30 | 0.00 | 2.06 | <MDA | 0.00 | 1.47 | <MDA |
| D3 | 31 | 0.00 | 1.90 | <MDA | 0.53 | 1.91 | <MDA |
| D4 | 32 | 0.00 | 1.94 | <MDA | 1.71 | 2.24 | <MDA |
| A1 | 33 | 0.00 | 2.09 | <MDA | 4.62 | 3.08 | <AL |
| A2 | 34 | 0.00 | 2.13 | <MDA | 0.00 | 1.51 | <MDA |
| A3 | 35 | 1.73 | 1.97 | <AL | 0.00 | 1.43 | <MDA |
| A4 | 36 | 3.66 | 2.81 | <AL | 0.36 | 1.94 | <MDA |
| B1 | 37 | 0.00 | 2.20 | <MDA | 0.00 | 1.62 | <MDA |
| B2 | 38 | 0.00 | 2.14 | <MDA | 0.00 | 1.51 | <MDA |
| B3 | 39 | 0.00 | 1.99 | <MDA | 0.32 | 1.93 | <MDA |
| B4 | 40 | 0.00 | 2.00 | <MDA | 0.00 | 1.40 | <MDA |
| C1 | 41 | 0.00 | 1.98 | <MDA | 0.00 | 1.50 | <MDA |
| C2 | 42 | 0.00 | 2.05 | <MDA | 0.49 | 2.00 | <MDA |
| C3 | 43 | 0.00 | 2.05 | <MDA | 1.53 | 2.40 | <MDA |
| C4 | 44 | 0.00 | 2.10 | <MDA | 4.92 | 3.99 | <MDA |
| D1 | 45 | 0.00 | 2.09 | <MDA | 0.43 | 2.00 | <MDA |
| D2 | 46 | 0.00 | 2.07 | <MDA | 0.59 | 1.99 | <MDA |
| D3 | 47 | 0.00 | 1.91 | <MDA | 3.08 | 2.62 | <AL |
| D4 | 48 | 0.00 | 1.93 | <MDA | 0.00 | 1.40 | <MDA |
| A1 | 50 | 0.00 | 2.04 | <MDA | 0.00 | 1.49 | <MDA |
| A2 | 51 | 0.00 | 2.15 | <MDA | 2.09 | 2.46 | <MDA |
| A3 | 52 | 3.68 | 2.78 | <AL | 0.00 | 1.43 | <MDA |
| A4 | 53 | 0.00 | 2.01 | <MDA | 0.63 | 1.94 | <MDA |
| B1 | 54 | 0.00 | 2.20 | <MDA | 0.00 | 1.62 | <MDA |
| B2 | 55 | 1.64 | 2.16 | <MDA | 1.44 | 2.45 | <MDA |
| B3 | 56 | 0.00 | 1.98 | <MDA | 0.00 | 1.44 | <MDA |
| B4 | 57 | 0.00 | 2.00 | <MDA | 0.00 | 1.40 | <MDA |

COPY

7 of 7

# Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR042
Batch Ended: 6/9/98 14:08
Cal. Due Date: 3/9/99
Serial Number: 26966-3

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

Batch ID: T 98-TF-659 -ADKINS

| Detector ID | Sample ID | Alpha Activity | | | Beta Activity | | |
|---|---|---|---|---|---|---|---|
| | | DPM | σ | flags | DPM | σ | flags |
| A1 | 58 | 0.00 | 2.06 | <MDA | 1.92 | 2.42 | <MDA |
| A2 | 59 | 0.00 | 2.14 | <MDA | 0.72 | 2.04 | <MDA |
| A3 | 60 | 0.00 | 1.98 | <MDA | 0.51 | 1.93 | <MDA |
| A4 | 61 | 0.00 | 2.00 | <MDA | 0.00 | 1.44 | <MDA |
| B1 | 62 | 0.00 | 2.21 | <MDA | 0.00 | 2.13 | <MDA |
| B2 | 63 | 1.64 | 2.16 | <MDA | 1.44 | 2.45 | <MDA |
| B3 | 64 | 1.64 | 2.00 | <AL | 1.48 | 2.32 | <MDA |
| B4 | 65 | 0.00 | 2.00 | <MDA | 0.00 | 1.40 | <MDA |
| C1 | 66 | 0.00 | 2.00 | <MDA | 1.70 | 2.40 | <MDA |

COPY

09 Jun 1998 16:10 ALPHA/BETA - 1.08 ~~Page #1~~
Protocol #: 2 Pw H3 20cc #405828 User : 5268

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 | 6.46 |
| Region B: | 2.0 | - 18.6 | 0 | 0.0 | 6.24 |
| Region C: | 40.0 | - 2000 | 0 | 0.0 | 11.20 |

COPY

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
98-T-659 - ADKINS(30-10 1-66)
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT1.DAT
Count Data Filename: c:\data\SDATA2.DAT
Spectrum Data Drive & Path: c:\data

| S# | TIME | CPMA | CPMB | LUM | FLAG | tSIE | DPM1 | 2Sigma | CPMC |
|---|---|---|---|---|---|---|---|---|---|
| -1 | 10.00 | 6.46 | 6.24 | 2 | B | 618.34 | | 0.00 | 11.20 |
| 0 | 2.00 | 1653.44 | 1533.96 | 0 | | 621.83 | 3651.05 | 305.28 | 4.80 |
| 1 | 2.00 | 0.00 | 0.00 | 0 | | 559.70 | 0.00 | 0.00 | 1.30 |
| 2 | 2.00 | 0.54 | 0.76 | 0 | | 552.93 | 1.27 | 9.61 | 0.00 |
| 3 | 2.00 | 2.04 | 2.26 | 0 | | 610.19 | 4.54 | 9.88 | 0.00 |
| 4 | 2.00 | 4.04 | 4.26 | 0 | | 592.70 | 9.15 | 11.03 | 0.00 |
| 5 | 2.00 | 0.00 | 0.00 | 0 | | 612.95 | 0.00 | 0.00 | 0.00 |
| 6 | 2.00 | 3.97 | 3.41 | 0 | | 605.14 | 8.90 | 10.87 | 0.00 |
| 7 | 2.00 | 2.54 | 2.51 | 0 | | 584.86 | 5.79 | 10.37 | 0.00 |
| 8 | 2.00 | 0.00 | 0.00 | 0 | | 628.61 | 0.00 | 0.00 | 0.00 |
| 9 | 2.00 | 4.54 | 3.97 | 0 | | 610.59 | 10.12 | 11.08 | 0.00 |
| 10 | 2.00 | 0.04 | 0.26 | 0 | | 622.46 | 0.08 | 8.71 | 0.00 |
| 11 | 2.00 | 0.54 | 0.26 | 0 | | 593.58 | 1.21 | 9.22 | 0.00 |
| 12 | 2.00 | 0.00 | 0.00 | 0 | | 574.06 | 0.00 | 0.00 | 0.00 |
| 13 | 2.00 | 0.00 | 0.00 | 0 | | 625.61 | 0.00 | 0.00 | 0.00 |
| 14 | 2.00 | 2.45 | 2.67 | 0 | | 633.19 | 5.35 | 9.88 | 0.00 |
| 15 | 2.00 | 0.94 | 0.67 | 0 | | 603.39 | 2.11 | 9.36 | 0.30 |
| 16 | 2.00 | 0.00 | 0.00 | 0 | | 545.85 | 0.00 | 0.00 | 0.00 |
| 17 | 2.00 | 0.04 | 0.00 | 0 | | 563.15 | 0.09 | 9.22 | 0.00 |
| 18 | 2.00 | 0.04 | 0.26 | 0 | | 636.68 | 0.08 | 8.61 | 0.30 |
| 19 | 2.00 | 3.77 | 3.17 | 0 | | 622.50 | 8.31 | 10.61 | 0.00 |
| 20 | 2.00 | 0.00 | 0.00 | 0 | | 599.93 | 0.00 | 0.00 | 0.00 |
| 21 | 2.00 | 2.04 | 1.26 | 0 | | 533.19 | 4.90 | 10.66 | 0.00 |
| 22 | 2.00 | 0.00 | 0.00 | 0 | | 615.73 | 0.00 | 0.00 | 0.00 |
| 23 | 2.00 | 2.54 | 1.58 | 0 | | 544.87 | 6.03 | 10.80 | 0.00 |
| 24 | 2.00 | 0.00 | 0.00 | 0 | | 467.91 | 0.00 | 0.00 | 0.00 |
| 25 | 2.00 | 3.04 | 3.26 | 0 | | 639.67 | 6.60 | 10.11 | 0.00 |
| 26 | 2.00 | 2.54 | 2.05 | 0 | | 562.53 | 5.93 | 10.61 | 0.00 |
| 27 | 2.00 | 5.63 | 5.58 | 0 | | 525.33 | 13.67 | 12.60 | 0.00 |
| 28 | 2.00 | 1.04 | 1.26 | 0 | | 532.38 | 2.50 | 10.10 | 0.00 |
| 29 | 2.00 | 2.29 | 2.52 | 0 | | 624.17 | 5.05 | 9.89 | 0.00 |
| 30 | 2.00 | 2.54 | 2.48 | 0 | | 602.19 | 5.70 | 10.20 | 0.00 |
| 31 | 2.00 | 1.87 | 1.42 | 0 | | 539.11 | 4.46 | 10.50 | 0.00 |
| 32 | 2.00 | 2.54 | 2.76 | 0 | | 635.73 | 5.53 | 9.91 | 0.00 |
| 33 | 2.00 | 1.54 | 1.09 | 0 | | 634.64 | 3.36 | 9.42 | 0.00 |
| 34 | 2.00 | 0.04 | 0.26 | 0 | | 624.59 | 0.08 | 8.70 | 0.00 |

09 Jun 1998 17:48 ALPHA/BETA - 1.08 COPY ~~Page #2~~
Protocol #: 2 Pw H3 20cc #405828 User : 5268

| S# | TIME | CPMA | CPMB | LUM | FLAG | tSIE | DPM1 | 2Sigma | CPMC |
|---|---|---|---|---|---|---|---|---|---|
| 35 | 2.00 | 0.80 | 1.02 | 0 | E | 654.03 | 1.74 | 8.98 | 0.00 |
| 36 | 2.00 | 0.04 | 0.26 | 0 | | 587.38 | 0.08 | 8.99 | 0.00 |
| 37 | 2.00 | 0.80 | 1.02 | 0 | | 416.49 | 2.23 | 11.57 | 1.80 |
| 38 | 2.00 | 0.49 | 0.14 | 0 | | 607.65 | 1.10 | 9.08 | 0.00 |
| 39 | 2.00 | 0.00 | 0.00 | 0 | | 514.67 | 0.00 | 0.00 | 0.00 |
| 40 | 2.00 | 2.04 | 1.76 | 0 | | 604.44 | 4.57 | 9.93 | 0.66 |
| 41 | 2.00 | 0.00 | 0.00 | 0 | | 576.29 | 0.00 | 0.00 | 0.00 |
| 42 | 2.00 | 0.00 | 0.00 | 0 | | 571.87 | 0.00 | 0.00 | 0.00 |
| 43 | 2.00 | 0.00 | 0.00 | 0 | | 565.60 | 0.00 | 0.00 | 0.00 |
| 44 | 2.00 | 1.54 | 1.76 | 0 | | 571.96 | 3.56 | 9.98 | 0.00 |
| 45 | 2.00 | 0.00 | 0.00 | 0 | | 564.72 | 0.00 | 0.00 | 0.00 |
| 46 | 2.00 | 4.46 | 3.84 | 0 | | 633.81 | 9.74 | 10.83 | 0.00 |
| 47 | 2.00 | 0.54 | 0.76 | 0 | | 619.37 | 1.19 | 9.01 | 0.00 |
| 48 | 2.00 | 1.67 | 1.89 | 0 | | 586.88 | 3.79 | 9.89 | 0.00 |
| 49 | 2.00 | 0.00 | 0.00 | 0 | | 598.43 | 0.00 | 0.00 | 0.00 |
| 50 | 2.00 | 2.54 | 2.76 | 0 | | 620.57 | 5.61 | 10.04 | 1.80 |
| 51 | 2.00 | 0.00 | 0.00 | 0 | | 604.04 | 0.00 | 0.00 | 0.00 |
| 52 | 2.00 | 2.54 | 2.76 | 0 | | 583.96 | 5.80 | 10.38 | 0.00 |
| 53 | 2.00 | 1.54 | 1.25 | 0 | | 542.09 | 3.66 | 10.28 | 0.00 |
| 54 | 2.00 | 5.04 | 5.26 | 0 | | 606.33 | 11.27 | 11.36 | 0.30 |
| 55 | 2.00 | 0.00 | 0.00 | 0 | | 569.05 | 0.00 | 0.00 | 0.00 |
| 56 | 2.00 | 5.04 | 4.99 | 0 | | 596.58 | 11.37 | 11.45 | 0.00 |
| 57 | 2.00 | 0.00 | 0.00 | 0 | | 533.37 | 0.00 | 0.00 | 0.30 |
| 58 | 2.00 | 0.13 | 0.15 | 0 | | 542.81 | 0.32 | 9.47 | 0.80 |
| 59 | 2.00 | 1.38 | 1.60 | 0 | | 599.68 | 3.11 | 9.63 | 0.00 |
| 60 | 2.00 | 1.04 | 1.26 | 0 | | 466.99 | 2.67 | 10.78 | 0.00 |
| 61 | 2.00 | 3.04 | 2.76 | 0 | | 646.73 | 6.60 | 10.11 | 0.00 |
| 62 | 2.00 | 2.54 | 2.46 | 0 | | 614.03 | 5.64 | 10.10 | 0.00 |
| 63 | 2.00 | 2.81 | 2.53 | 0 | | 446.66 | 7.44 | 12.19 | 0.00 |
| 64 | 2.00 | 2.54 | 2.48 | 0 | | 604.71 | 5.69 | 10.18 | 0.00 |
| 65 | 2.00 | 3.04 | 2.76 | 0 | | 558.15 | 7.13 | 10.92 | 0.00 |
| 66 | 2.00 | 0.00 | 0.00 | 0 | | 586.03 | 0.00 | 0.00 | 0.30 |

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H

Appendix H

Radon Survey/Information

(None)

Appendix I

Asbestos Summary/Information

# ASBESTOS SURVEY REQUEST COPY

## A. PROJECT ENGINEER COMPLETES THIS SECTION

**PROJECT TITLE:** Building 1 Data Package

**CHARGE NO.:** B09260

**LOCATION (CRAWL SPACE, PENTHOUSE, ETC.) AND TYPE OF MATERIAL TO BE SAMPLED:**
Provide synopsis of existing building data on asbestos and lead.

**KNOWN HISTORICAL ASBESTOS INFORMATION (Review the drawings for this project, if asbestos is identified briefly indicate the location, quantity, and identity.)**
Review of Past Survey(S): PEI 1989
BWSTC 1993
EG&G 1996

| PROJECT ENGINEER: | PHONE: | DATE SUBMITTED: |
|---|---|---|
| Dean Buchner | x3407 | 8/21/97 |

## B. INDUSTRIAL HYGIENE COMPLETES THIS SECTION

**FINDINGS:**
- FLOOR TILE + MASTIC ASSUMED TO CONTAIN ASBESTOS.
- ROOF MATERIALS ASSUMED TO CONTAIN ASBESTOS.
- Condensate tape located in Room 106 POSITIVELY CONTAINS ASBESTOS.
- THERMAL SYSTEM INSULATION LOCATED IN ROOM 105 POSITIVE FOR ASBESTOS CONTENT.
- CONDENSATE TAPE LOCATED IN ROOM 105 POSITIVE FOR ASBESTOS CONTENT.
- TRANSITE WALLBOARD LOCATED OUTSIDE ROOMS 102 + 103 POSITIVE FOR ASBESTOS.
- Due to the BUILDINGS AGE & DATE OF CONSTRUCTION ALL PAINTED SURFACES SHALL BE CONSIDERED TO CONTAIN LEAD.

**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:**
- NO MATERIALS TO BE DISTURBED PRIOR TO INDUSTRIAL HYGIENE BEING NOTIFIED.
- MATERIALS ARE IN GOOD CONDITION AND POSE NO EXPOSURE POTENTIAL TO PLANT PERSONNEL AT PRESENT. (DAMAGED SECTIONS HAVE BEEN REPAIRED SINCE 1996 SURVEY)

| DATE: | APPROVED: |
|---|---|
| 8-27-97 | Evan T. Kirk AHAS, AHES, INDUSTRIAL HYGIENE REP. |

ML-8682 (3-94)

# ASBESTOS INSPECTION FORM

COPY

## A. PRE-SURVEY DATA:

| | |
|---|---|
| BUILDING: 1 | SURVEY DATE: 5/96 |
| RESPONSE AREA DESIGNATION: A | RESPONSE AREA DESCRIPTION: ROOM 105 - THERMAL SYSTEM INSULATION |
| ROOMS INCLUDED: 105 | |
| MATERIAL INCLUDED: PIPE JOINT INSULATION - HARD w/FIBERGLASS RUNS<br>PIPE INSULATION - AIRCELL<br>PIPE JOINT INSULATION - AIRCELL | |
| MATERIAL PREVIOUSLY INSPECTED? (CHECK ONE RESPONSE): [ X ] YES [ ] NO [ ] N/A | PREVIOUS HAZARD RANKING: [ ] 5 / PREVIOUS PRIORITY LEVEL: [ ] ASAP |

## B. INSPECTION DATA:

| | |
|---|---|
| IS MATERIAL FRIABLE? (CHECK ONE RESPONSE): [ X ] YES [ ] NO | ARE ASBESTOS LABELS PRESENT & IN GOOD CONDITION? (CHECK ONE): [ X ] YES [ ] NO [ ] N/A |
| WHAT IS THE PHYSICAL CONDITION? (CHECK ONE): [ ] GOOD [ X ] DAMAGED [ ] SIGNIFICANTLY DAMAGED | |
| SAMPLING OF MATERIAL REQUIRED? (CHECK ONE): [ ] YES [ X ] NO | |
| SAMPLE NUMBERS: [ X ] N/A | |
| WHAT IS THE POTENTIAL FOR DAMAGE? (CHECK ONE): [ ] LOW POTENTIAL [ X ] POTENTIAL FOR DAMAGE [ ] POTENTIAL FOR SIGNIFICANT DAMAGE | |
| CURRENT HAZARD RANKING: 3 | CURRENT PRIORITY LEVEL: 5 |
| RESPONSE OPTIONS (CHECK OPTIONS THAT APPLY): [ ] REMOVE [ ] ENCAPSULATE [ X ] REPAIR [ ] ENCLOSE [ X ] MANAGE IN PLACE | |
| COMMENTS (NOTE LOCATION OF ANY DAMAGED MATERIAL IN THIS SECTION): Most areas since previous surveys have been adressed and repaired. The building has been unnoccupied for quite some time. | |
| NAME OF INSPECTOR: Evan T. Kirk | HP NUMBER [redacted] |

# ASBESTOS INSPECTION FORM

COPY

## A. PRE-SURVEY DATA:

| | |
|---|---|
| BUILDING: 1 | SURVEY DATE: 5/96 |

| | |
|---|---|
| RESPONSE AREA DESIGNATION: B | RESPONSE AREA DESCRIPTION: ROOM 106<br>PIPE WRAP; CONDENSATE TAPE |
| ROOMS INCLUDED: 106 | |
| MATERIAL INCLUDED:<br>PIPE WRAP<br>CONDENSATE TAPE | |

| | | |
|---|---|---|
| MATERIAL PREVIOUSLY INSPECTED? (CHECK ONE RESPONSE):<br>[ X ] YES [ ] NO [ ] N/A | PREVIOUS HAZARD RANKING:<br>[ ] 2 | PREVIOUS PRIORITY LEVEL:<br>[ ] PLANNED |

## B. INSPECTION DATA:

| | |
|---|---|
| IS MATERIAL FRIABLE? (CHECK ONE RESPONSE):<br>[ ] YES [ X ] NO | ARE ASBESTOS LABELS PRESENT & IN GOOD CONDITION? (CHECK ONE):<br>[ X ] YES [ ] NO [ ] N/A |
| WHAT IS THE PHYSICAL CONDITION? (CHECK ONE):<br>[ X ] GOOD [ ] DAMAGED [ ] SIGNIFICANTLY DAMAGED | |
| SAMPLING OF MATERIAL REQUIRED? (CHECK ONE): [ ] YES [ X ] NO | |
| SAMPLE NUMBERS: [ X ] N/A | |
| WHAT IS THE POTENTIAL FOR DAMAGE? (CHECK ONE):<br>[ X ] LOW POTENTIAL [ ] POTENTIAL FOR DAMAGE<br>[ ] POTENTIAL FOR SIGNIFICANT DAMAGE | |
| CURRENT HAZARD RANKING: 2 | CURRENT PRIORITY LEVEL: 6 |
| RESPONSE OPTIONS (CHECK OPTIONS THAT APPLY):<br>[ ] REMOVE [ ] ENCAPSULATE<br>[ ] REPAIR [ ] ENCLOSE<br>[ X ] MANAGE IN PLACE | |
| COMMENTS (NOTE LOCATION OF ANY DAMAGED MATERIAL IN THIS SECTION): | |
| NAME OF INSPECTOR: Evan T. Kirk | HP NUMBER: [redacted] |

T.Eilers\\b:inspect.frm

# ASBESTOS INSPECTION FORM

## A. PRE-SURVEY DATA:

| BUILDING: 1 | SURVEY DATE: 5/96 |
|---|---|

| RESPONSE AREA DESIGNATION: C | RESPONSE AREA DESCRIPTION: TRANSITE WALLBOARD |
|---|---|

ROOMS INCLUDED: EXTERIOR STORAGE SHED

MATERIAL INCLUDED:
TRANSITE WALLBOARD

| MATERIAL PREVIOUSLY INSPECTED? (CHECK ONE RESPONSE): | PREVIOUS HAZARD RANKING: | PREVIOUS PRIORITY LEVEL: |
|---|---|---|
| [ X ] YES [ ] NO [ ] N/A | [ ] 2 | [ ] PLANNED |

## B. INSPECTION DATA:

| IS MATERIAL FRIABLE? (CHECK ONE RESPONSE): | ARE ASBESTOS LABELS PRESENT & IN GOOD CONDITION? (CHECK ONE): |
|---|---|
| [ ] YES [ X ] NO | [ ] YES [ X ] NO [ ] N/A |

WHAT IS THE PHYSICAL CONDITION? (CHECK ONE):
[ X ] GOOD [ ] DAMAGED [ ] SIGNIFICANTLY DAMAGED

SAMPLING OF MATERIAL REQUIRED? (CHECK ONE): [ ] YES [ X ] NO

SAMPLE NUMBERS: [ X ] N/A

WHAT IS THE POTENTIAL FOR DAMAGE? (CHECK ONE):
[ X ] LOW POTENTIAL [ ] POTENTIAL FOR DAMAGE
[ ] POTENTIAL FOR SIGNIFICANT DAMAGE

| CURRENT HAZARD RANKING: 2 | CURRENT PRIORITY LEVEL: 6 |
|---|---|

RESPONSE OPTIONS (CHECK OPTIONS THAT APPLY):
[ ] REMOVE [ ] ENCAPSULATE
[ ] REPAIR [ ] ENCLOSE
[ X ] MANAGE IN PLACE

COMMENTS (NOTE LOCATION OF ANY DAMAGED MATERIAL IN THIS SECTION):
Material is part of a "dormer" covering the entrances to rooms 102 & 103. The materials resemble 1/2" plywood sheeting sections.

| NAME OF INSPECTOR: Evan T. Kirk | HP NUMBER: [redacted] |
|---|---|

T.Eilers\\b:inspect.frm

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# ASBESTOS INSPECTION FORM

## A. PRE-SURVEY DATA:

| | |
|---|---|
| BUILDING: 1 | SURVEY DATE: 5/96 |
| RESPONSE AREA DESIGNATION: D | RESPONSE AREA DESCRIPTION: FLOORING |
| ROOMS INCLUDED: 103; 104 | |
| MATERIAL INCLUDED: FLOOR TILE<br>MASTIC | |

| | | |
|---|---|---|
| MATERIAL PREVIOUSLY INSPECTED? (CHECK ONE RESPONSE): [ X ] YES [ ] NO [ ] N/A | PREVIOUS HAZARD RANKING: [ ] 1 | PREVIOUS PRIORITY LEVEL: [ ] PLANNED |

## B. INSPECTION DATA:

| | |
|---|---|
| IS MATERIAL FRIABLE? (CHECK ONE RESPONSE): [ ] YES [ X ] NO | ARE ASBESTOS LABELS PRESENT & IN GOOD CONDITION? (CHECK ONE): [ ] YES [ X ] NO [ ] N/A |
| WHAT IS THE PHYSICAL CONDITION? (CHECK ONE): [ X ] GOOD [ ] DAMAGED [ ] SIGNIFICANTLY DAMAGED | |
| SAMPLING OF MATERIAL REQUIRED? (CHECK ONE): [ X ] YES [ ] NO | |
| SAMPLE NUMBERS: [ X ] N/A | |
| WHAT IS THE POTENTIAL FOR DAMAGE? (CHECK ONE): [ X ] LOW POTENTIAL [ ] POTENTIAL FOR DAMAGE [ ] POTENTIAL FOR SIGNIFICANT DAMAGE | |
| CURRENT HAZARD RANKING: 2 | CURRENT PRIORITY LEVEL: 6 |
| RESPONSE OPTIONS (CHECK OPTIONS THAT APPLY): [ ] REMOVE [ ] ENCAPSULATE [ ] REPAIR [ ] ENCLOSE [ X ] MANAGE IN PLACE | |
| COMMENTS (NOTE LOCATION OF ANY DAMAGED MATERIAL IN THIS SECTION): All flooring materials were assumed to contain asbestos and should be sampled prior to any disturbance of the materials. | |
| NAME OF INSPECTOR: Evan T. Kirk | HP NUMBER: [redacted] |

T.Eilers\\b:inspect.frm

Appendix J

Lead Summary/Information

# ASBESTOS SURVEY REQUEST COPY

## A. PROJECT ENGINEER COMPLETES THIS SECTION

**PROJECT TITLE:** Building 1 Data Package

**CHARGE NO.:** 809260

**LOCATION (CRAWL SPACE, PENTHOUSE, ETC.) AND TYPE OF MATERIAL TO BE SAMPLED:**
Provide synopsis of existing building data on asbestos and lead.

**KNOWN HISTORICAL ASBESTOS INFORMATION (Review the drawings for this project, if asbestos is identified briefly indicate the location, quantity, and identity.)**
Review of Past Survey(S): PEI 1989
BWSTC 1993
EG+G 1996

| PROJECT ENGINEER: | PHONE: | DATE SUBMITTED: |
|---|---|---|
| Dean Buchner | x 3407 | 8/21/97 |

## B. INDUSTRIAL HYGIENE COMPLETES THIS SECTION

**FINDINGS:**
- Floor Tile + Mastic Assumed to contain asbestos.
- Roof Materials Assumed to contain asbestos.
- Condensate tape located in Room 106 positively contains asbestos.
- Thermal System insulation located in Room 105 positive for asbestos content.
- Condensate tape located in Room 105 positive for asbestos content.
- Transite wallboard located outside Rooms 102 + 103 positive for asbestos.
- Due to the buildings age & date of construction all painted surfaces shall be considered to contain lead.

**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:**
- No materials to be disturbed prior to industrial hygiene being notified.
- Materials are in good condition and pose no exposure potential to plant personnel at present. (Damaged sections have been repaired since 1996 survey)

| DATE: | APPROVED: |
|---|---|
| 8-27-97 | Evan T. Kirk AHAS, AHES, INDUSTRIAL HYGIENE REP. |

ML-8682 (3-94)

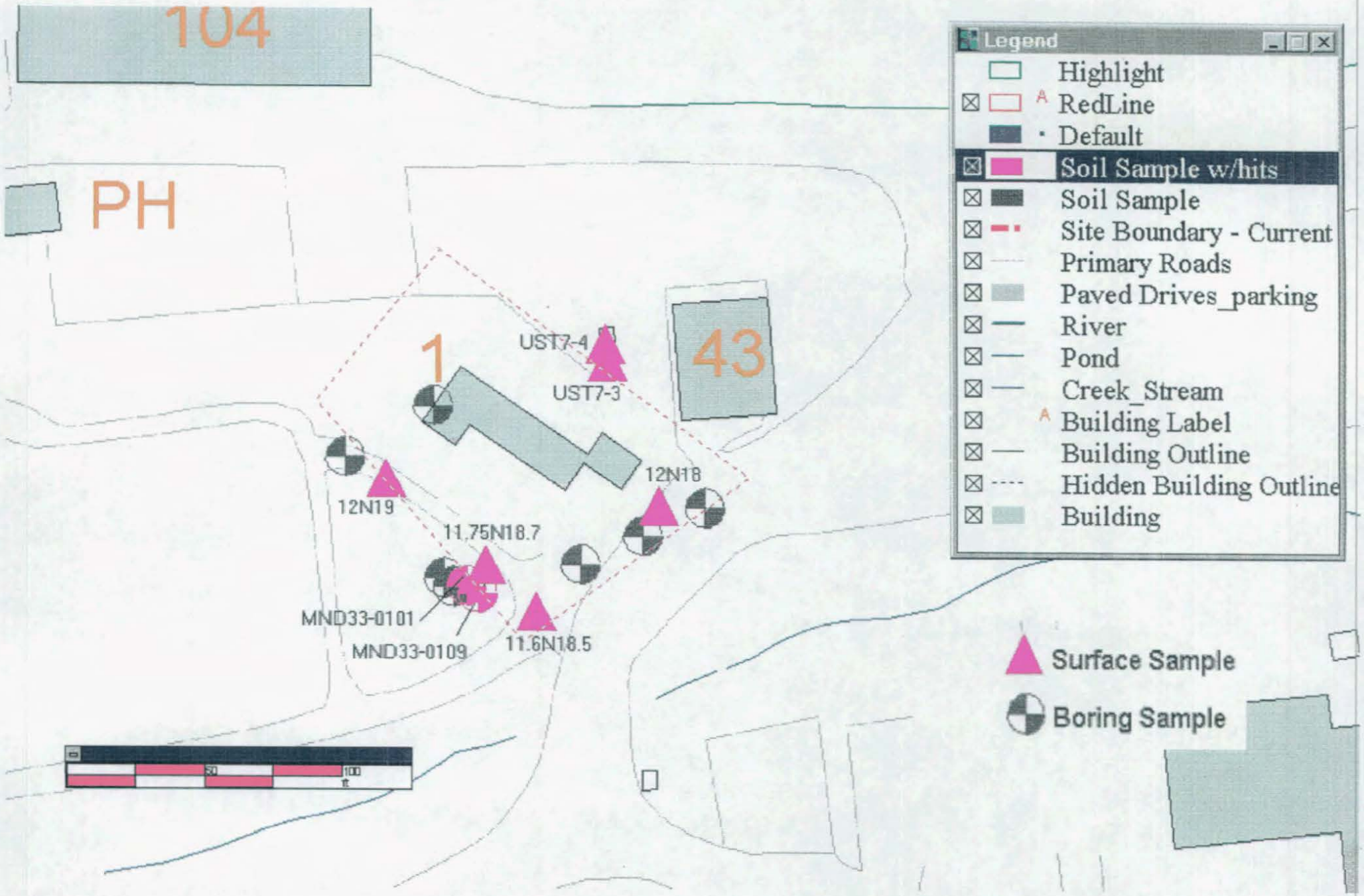
Appendix K

Chemical Summary/Information

# Associated Chemicals

## Building 1

Adiprene
Antifreeze Waste
Citric Acid
Conductive Adhesive Part A
Conductive Adhesive Part B
EPON 828
Ethanol Waste
Methyl Red
Rexarc
Silver Flake
Trichloroethane (1,1,1-)
Ultra Carbon
Zinc Metal
Acetone
Carbon Blacks
Alcohol
HMX Powder Solution


104
PH
1
43
UST7-4
UST7-3
12N18
12N19
11.75N18.7
MND33-0101
MND33-0109
11.6N18.5
Legend
Highlight
RedLine
Default
Soil Sample w/hits
Soil Sample
Site Boundary - Current
Primary Roads
Paved Drives_parking
River
Pond
Creek_Stream
Building Label
Building Outline
Hidden Building Outline
Building
Surface Sample
Boring Sample
0
50
100
ft

| Location_nam | Location_ | Collection_d | Media | Value_name | Measured_v | Value_ur | Detection_ | Chem_cla | Start | End_d | Depth_u | Cas_number | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MND33-0101 | Borehole | 19920117 | Soil | Cyanide | **0.28** | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 57-12-5 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Aluminum | 6850 | MG/KG | 6 | INORG | 8 | 11.5 | FT | 7429-90-5 | |
| MND33-0101 | Borehole | 19920117 | Soil | Iron | 16200 | MG/KG | 1 | INORG | 8 | 11.5 | FT | 7439-89-6 | |
| MND33-0101 | Borehole | 19920117 | Soil | Lead | 17.2 | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 7439-92-1 | |
| MND33-0101 | Borehole | 19920117 | Soil | Magnesium | 10500 | MG/KG | 5 | INORG | 8 | 11.5 | FT | 7439-95-4 | |
| MND33-0101 | Borehole | 19920117 | Soil | Manganese | 776 | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 7439-96-5 | |
| MND33-0101 | Borehole | 19920117 | Soil | Nickel | 19 | MG/KG | 2 | INORG | 8 | 11.5 | FT | 7440-02-0 | |
| MND33-0101 | Borehole | 19920117 | Soil | Potassium | 850 | MG/KG | 10 | INORG | 8 | 11.5 | FT | 7440-09-7 | |
| MND33-0101 | Borehole | 19920117 | Soil | Silver | **14.8** | MG/KG | 1 | INORG | 8 | 11.5 | FT | 7440-22-4 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Sodium | **282** | MG/KG | 10 | INORG | 8 | 11.5 | FT | 7440-23-5 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Antimony | 12 | MG/KG | 3 | INORG | 8 | 11.5 | FT | 7440-36-0 | |
| MND33-0101 | Borehole | 19920117 | Soil | Arsenic | 2.4 | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 7440-38-2 | |
| MND33-0101 | Borehole | 19920117 | Soil | Barium | 54.6 | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 7440-39-3 | |
| MND33-0101 | Borehole | 19920117 | Soil | Beryllium | **0.75** | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 7440-41-7 | Exceeds soil 10-6 GV. |
| MND33-0101 | Borehole | 19920117 | Soil | Cadmium | 1.5 | MG/KG | 0.2 | INORG | 8 | 11.5 | FT | 7440-43-9 | |
| MND33-0101 | Borehole | 19920117 | Soil | Chromium | **26.3** | MG/KG | 1 | INORG | 8 | 11.5 | FT | 7440-47-3 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Cobalt | 10.6 | MG/KG | 1 | INORG | 8 | 11.5 | FT | 7440-48-4 | |
| MND33-0101 | Borehole | 19920117 | Soil | Copper | 18.8 | MG/KG | 1 | INORG | 8 | 11.5 | FT | 7440-50-8 | |
| MND33-0101 | Borehole | 19920117 | Soil | Vanadium | 24.2 | MG/KG | 1 | INORG | 8 | 11.5 | FT | 7440-62-2 | |
| MND33-0101 | Borehole | 19920117 | Soil | Zinc | 38.7 | MG/KG | 0.5 | INORG | 8 | 11.5 | FT | 7440-66-6 | |
| MND33-0101 | Borehole | 19920117 | Soil | Calcium | 76800 | MG/KG | 2 | INORG | 8 | 11.5 | FT | 7440-70-2 | |
| MND33-0101 | Borehole | 19920117 | Soil | Acenaphthene | 110 | UG/KG | 840 | ORSVO | 8 | 11.5 | FT | 83-32-9 | |
| MND33-0101 | Borehole | 19920117 | Soil | 1,2-Dichloroethene | 36 | UG/KG | 6 | ORVOA | 13 | 15 | FT | 540-59-0 | |
| MND33-0101 | Borehole | 19920117 | Soil | Bis(2-ethylhexyl)phthalate | 1300 | UG/KG | 870 | ORSVO | 0 | 3 | FT | 117-81-7 | |
| MND33-0101 | Borehole | 19920117 | Soil | Cyanide | **0.31** | MG/KG | 0.2 | INORG | 0 | 3 | FT | 57-12-5 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Aluminum | 2830 | MG/KG | 6 | INORG | 0 | 3 | FT | 7429-90-5 | |
| MND33-0101 | Borehole | 19920117 | Soil | Iron | 8400 | MG/KG | 1 | INORG | 0 | 3 | FT | 7439-89-6 | |
| MND33-0101 | Borehole | 19920117 | Soil | Lead | 18.5 | MG/KG | 0.2 | INORG | 0 | 3 | FT | 7439-92-1 | |
| MND33-0101 | Borehole | 19920117 | Soil | Magnesium | **62900** | MG/KG | 5 | INORG | 0 | 3 | FT | 7439-95-4 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Manganese | 276 | MG/KG | 0.2 | INORG | 0 | 3 | FT | 7439-96-5 | |
| MND33-0101 | Borehole | 19920117 | Soil | Mercury | **1.2** | MG/KG | 0.02 | INORG | 0 | 3 | FT | 7439-97-6 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Nickel | 22 | MG/KG | 2 | INORG | 0 | 3 | FT | 7440-02-0 | |
| MND33-0101 | Borehole | 19920117 | Soil | Potassium | 523 | MG/KG | 10 | INORG | 0 | 3 | FT | 7440-09-7 | |
| MND33-0101 | Borehole | 19920117 | Soil | Silver | **21.5** | MG/KG | 1 | INORG | 0 | 3 | FT | 7440-22-4 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Sodium | **877** | MG/KG | 10 | INORG | 0 | 3 | FT | 7440-23-5 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Pyrene | 6100 | UG/KG | 870 | ORSVO | 0 | 3 | FT | 129-00-0 | |
| MND33-0101 | Borehole | 19920117 | Soil | Antimony | 42.8 | MG/KG | 3 | INORG | 0 | 3 | FT | 7440-36-0 | |
| MND33-0101 | Borehole | 19920117 | Soil | Arsenic | 1.6 | MG/KG | 0.2 | INORG | 0 | 3 | FT | 7440-38-2 | |
| MND33-0101 | Borehole | 19920117 | Soil | Barium | 20.5 | MG/KG | 0.2 | INORG | 0 | 3 | FT | 7440-39-3 | |
| MND33-0101 | Borehole | 19920117 | Soil | Beryllium | **0.71** | MG/KG | 0.2 | INORG | 0 | 3 | FT | 7440-41-7 | Exceeds soil 10-6 GV. |
| MND33-0101 | Borehole | 19920117 | Soil | Cadmium | **8.3** | MG/KG | 0.2 | INORG | 0 | 3 | FT | 7440-43-9 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Chromium | **32.2** | MG/KG | 1 | INORG | 0 | 3 | FT | 7440-47-3 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Cobalt | 7.7 | MG/KG | 1 | INORG | 0 | 3 | FT | 7440-48-4 | |
| MND33-0101 | Borehole | 19920117 | Soil | Copper | **31** | MG/KG | 1 | INORG | 0 | 3 | FT | 7440-50-8 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Vanadium | **25.1** | MG/KG | 1 | INORG | 0 | 3 | FT | 7440-62-2 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Zinc | **150** | MG/KG | 0.5 | INORG | 0 | 3 | FT | 7440-66-6 | Exceeds background value. |
| MND33-0101 | Borehole | 19920117 | Soil | Calcium | 153000 | MG/KG | 2 | INORG | 0 | 3 | FT | 7440-70-2 | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MND33-0101 | Borehole | 19920117 | Soil | Acenaphthene | 1300 | UG/KG | 870 | ORSVO | 0 | 3 | FT | 83-32-9 | |
| MND33-0101 | Borehole | 19920117 | Soil | 2-Methylnaphthalene | 170 | UG/KG | 870 | ORSVO | 0 | 3 | FT | 91-57-6 | |
| MND33-0101 | Borehole | 19920115 | Soil | Cyanide | **0.19** | MG/KG | 0.1 | INORG | 3 | 7 | FT | 57-12-5 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Aluminum | 9170 | MG/KG | 6 | INORG | 3 | 7 | FT | 7429-90-5 | |
| MND33-0101 | Borehole | 19920115 | Soil | Iron | 19300 | MG/KG | 1 | INORG | 3 | 7 | FT | 7439-89-6 | |
| MND33-0101 | Borehole | 19920115 | Soil | Lead | 4.5 | MG/KG | 0.2 | INORG | 3 | 7 | FT | 7439-92-1 | |
| MND33-0101 | Borehole | 19920115 | Soil | Magnesium | 12800 | MG/KG | 5 | INORG | 3 | 7 | FT | 7439-95-4 | |
| MND33-0101 | Borehole | 19920115 | Soil | Manganese | 443 | MG/KG | 0.2 | INORG | 3 | 7 | FT | 7439-96-5 | |
| MND33-0101 | Borehole | 19920115 | Soil | Nickel | 24.4 | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-02-0 | |
| MND33-0101 | Borehole | 19920115 | Soil | Potassium | 1650 | MG/KG | 10 | INORG | 3 | 7 | FT | 7440-09-7 | |
| MND33-0101 | Borehole | 19920115 | Soil | Silver | **16** | MG/KG | 1 | INORG | 3 | 7 | FT | 7440-22-4 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Sodium | **707** | MG/KG | 10 | INORG | 3 | 7 | FT | 7440-23-5 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Thallium | **0.5** | MG/KG | 0.5 | INORG | 3 | 7 | FT | 7440-28-0 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Chrysene | 990 | UG/KG | 840 | ORSVO | 3 | 7 | FT | 218-01-9 | |
| MND33-0101 | Borehole | 19920115 | Soil | Pyrene | 1500 | UG/KG | 840 | ORSVO | 3 | 7 | FT | 129-00-0 | |
| MND33-0101 | Borehole | 19920115 | Soil | Antimony | 13.5 | MG/KG | 3 | INORG | 3 | 7 | FT | 7440-36-0 | |
| MND33-0101 | Borehole | 19920115 | Soil | Arsenic | 1.7 | MG/KG | 0.2 | INORG | 3 | 7 | FT | 7440-38-2 | |
| MND33-0101 | Borehole | 19920115 | Soil | Barium | 18.7 | MG/KG | 0.2 | INORG | 3 | 7 | FT | 7440-39-3 | |
| MND33-0101 | Borehole | 19920115 | Soil | Beryllium | **0.75** | MG/KG | 0.2 | INORG | 3 | 7 | FT | 7440-41-7 | Exceeds soil 10-6 GV. |
| MND33-0101 | Borehole | 19920115 | Soil | Cadmium | 1.9 | MG/KG | 0.2 | INORG | 3 | 7 | FT | 7440-43-9 | |
| MND33-0101 | Borehole | 19920115 | Soil | Chromium | **30.7** | MG/KG | 1 | INORG | 3 | 7 | FT | 7440-47-3 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Cobalt | 12.6 | MG/KG | 1 | INORG | 3 | 7 | FT | 7440-48-4 | |
| MND33-0101 | Borehole | 19920115 | Soil | Copper | **31.3** | MG/KG | 1 | INORG | 3 | 7 | FT | 7440-50-8 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Vanadium | 23.4 | MG/KG | 1 | INORG | 3 | 7 | FT | 7440-62-2 | |
| MND33-0101 | Borehole | 19920115 | Soil | Zinc | 58.3 | MG/KG | 0.5 | INORG | 3 | 7 | FT | 7440-66-6 | |
| MND33-0101 | Borehole | 19920115 | Soil | Calcium | 91900 | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-70-2 | |
| MND33-0101 | Borehole | 19920115 | Soil | Selenium | **0.75** | MG/KG | 0.75 | INORG | 3 | 7 | FT | 7782-49-2 | Exceeds background value. |
| MND33-0101 | Borehole | 19920115 | Soil | Phenanthrene | 1200 | UG/KG | 840 | ORSVO | 3 | 7 | FT | 85-01-8 | |
| MND33-0101 | Borehole | 19920115 | Soil | Acetone | 230 | UG/KG | 14 | ORVOA | 8 | 11.5 | FT | 67-64-1 | |
| MND33-0101 | Borehole | 19920115 | Soil | 2-Butanone | 34 | UG/KG | 14 | ORVOA | 8 | 11.5 | FT | 78-93-3 | |
| MND33-0109 | Borehole | 19920120 | Soil | Bis(2-ethylhexyl)phthalate | 110 | UG/KG | 840 | ORSVO | 3 | 7 | FT | 117-81-7 | |
| MND33-0109 | Borehole | 19920120 | Soil | Cyanide | **0.21** | MG/KG | 0.4 | INORG | 3 | 7 | FT | 57-12-5 | Exceeds background value. |
| MND33-0109 | Borehole | 19920120 | Soil | Aluminum | 8780 | MG/KG | 12 | INORG | 3 | 7 | FT | 7429-90-5 | |
| MND33-0109 | Borehole | 19920120 | Soil | Iron | 18900 | MG/KG | 2 | INORG | 3 | 7 | FT | 7439-89-6 | |
| MND33-0109 | Borehole | 19920120 | Soil | Lead | 6.9 | MG/KG | 0.4 | INORG | 3 | 7 | FT | 7439-92-1 | |
| MND33-0109 | Borehole | 19920120 | Soil | Magnesium | 16300 | MG/KG | 10 | INORG | 3 | 7 | FT | 7439-95-4 | |
| MND33-0109 | Borehole | 19920120 | Soil | Manganese | 454 | MG/KG | 0.4 | INORG | 3 | 7 | FT | 7439-96-5 | |
| MND33-0109 | Borehole | 19920120 | Soil | Mercury | **0.12** | MG/KG | 0.12 | INORG | 3 | 7 | FT | 7439-97-6 | Exceeds background value. |
| MND33-0109 | Borehole | 19920120 | Soil | Nickel | 24.3 | MG/KG | 4 | INORG | 3 | 7 | FT | 7440-02-0 | |
| MND33-0109 | Borehole | 19920120 | Soil | Potassium | 1440 | MG/KG | 20 | INORG | 3 | 7 | FT | 7440-09-7 | |
| MND33-0109 | Borehole | 19920120 | Soil | Silver | **17.2** | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-22-4 | Exceeds background value. |
| MND33-0109 | Borehole | 19920120 | Soil | Sodium | **278** | MG/KG | 20 | INORG | 3 | 7 | FT | 7440-23-5 | Exceeds background value. |
| MND33-0109 | Borehole | 19920120 | Soil | Antimony | 13 | MG/KG | 6 | INORG | 3 | 7 | FT | 7440-36-0 | |
| MND33-0109 | Borehole | 19920120 | Soil | Arsenic | 1.9 | MG/KG | 0.4 | INORG | 3 | 7 | FT | 7440-38-2 | |
| MND33-0109 | Borehole | 19920120 | Soil | Barium | 24.9 | MG/KG | 0.4 | INORG | 3 | 7 | FT | 7440-39-3 | |
| MND33-0109 | Borehole | 19920120 | Soil | Beryllium | **0.8** | MG/KG | 0.4 | INORG | 3 | 7 | FT | 7440-41-7 | Exceeds soil 10-6 GV. |
| MND33-0109 | Borehole | 19920120 | Soil | Cadmium | **3.7** | MG/KG | 0.4 | INORG | 3 | 7 | FT | 7440-43-9 | Exceeds background value. |
| MND33-0109 | Borehole | 19920120 | Soil | Chromium | **33.5** | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-47-3 | Exceeds background value. |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MND33-0109 | Borehole | 19920120 | Soil | Cobalt | 13.2 | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-48-4 | |
| MND33-0109 | Borehole | 19920120 | Soil | Copper | 19.2 | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-50-8 | |
| MND33-0109 | Borehole | 19920120 | Soil | Vanadium | 24.8 | MG/KG | 2 | INORG | 3 | 7 | FT | 7440-62-2 | |
| MND33-0109 | Borehole | 19920120 | Soil | Zinc | 42 | MG/KG | 1 | INORG | 3 | 7 | FT | 7440-66-6 | |
| MND33-0109 | Borehole | 19920120 | Soil | Calcium | 116000 | MG/KG | 4 | INORG | 3 | 7 | FT | 7440-70-2 | |
| MND33-0109 | Borehole | 19920120 | Soil | 2-Butanone | 3 | UG/KG | 12 | ORVOA | 3 | 7 | FT | 78-93-3 | |
| 12N18 | Surface lo | 19941004 | Soil | Total Aromatic Hydrocarbons | 130944 | IC | | GENERA | 0 | 1.5 | FT | AHYD | |
| 12N18 | Surface lo | 19941004 | Soil | Total C5 TO C11 Petrolium Hydrocarbons | 265177 | IC | | GENERA | 0 | 1.5 | FT | TOGRHY | |
| 12N18 | Surface lo | 19941004 | Soil | Total Halogenated Hydrocarbons | 313351 | IC | | GENERA | 0 | 1.5 | FT | THAHYC | |
| 12N19 | Surface lo | 19941004 | Soil | Total Aromatic Hydrocarbons | 8682028 | IC | | GENERA | 0 | 1.5 | FT | AHYD | |
| 12N19 | Surface lo | 19941004 | Soil | Total Semivolatile Hydrocarbons | 859 | IC | | GENERA | 0 | 1.5 | FT | TSVHYC | |
| 12N19 | Surface lo | 19941004 | Soil | Total C5 TO C11 Petrolium Hydrocarbons | 15211532 | IC | | GENERA | 0 | 1.5 | FT | TOGRHY | |
| 11.6N18.5 | Surface lo | 19941011 | Soil | Total Aromatic Hydrocarbons | 28610 | IC | | GENERA | 0 | 1.5 | FT | AHYD | |
| 11.6N18.5 | Surface lo | 19941011 | Soil | Total C5 TO C11 Petrolium Hydrocarbons | 66209 | IC | | GENERA | 0 | 1.5 | FT | TOGRHY | |
| 11.6N18.5 | Surface lo | 19941011 | Soil | Total Halogenated Hydrocarbons | 8451 | IC | | GENERA | 0 | 1.5 | FT | THAHYC | |
| 11.75N18.7 | Surface lo | 19941011 | Soil | Total Aromatic Hydrocarbons | 64076 | IC | | GENERA | 0 | 1.5 | FT | AHYD | |
| 11.75N18.7 | Surface lo | 19941011 | Soil | Total Semivolatile Hydrocarbons | 1562 | IC | | GENERA | 0 | 1.5 | FT | TSVHYC | |
| 11.75N18.7 | Surface lo | 19941011 | Soil | Total C5 TO C11 Petrolium Hydrocarbons | 234446 | IC | | GENERA | 0 | 1.5 | FT | TOGRHY | |
| 11.75N18.7 | Surface lo | 19941011 | Soil | Total Halogenated Hydrocarbons | 8137 | IC | | GENERA | 0 | 1.5 | FT | THAHYC | |
| UST7-3 | Excavatio | 19901130 | Soil | Iron | 4400 | MG/KG | | INORG | | | | 7439-89-6 | |
| UST7-3 | Excavatio | 19901130 | Soil | Manganese | 160 | MG/KG | | INORG | | | | 7439-96-5 | |
| UST7-3 | Excavatio | 19901130 | Soil | Mercury | **0.03** | MG/KG | | INORG | | | | 7439-97-6 | Exceeds background value. |
| UST7-3 | Excavatio | 19901130 | Soil | Sodium | 87 | MG/KG | | INORG | | | | 7440-23-5 | |
| UST7-3 | Excavatio | 19901130 | Soil | Barium | 12 | MG/KG | | INORG | | | | 7440-39-3 | |
| UST7-3 | Excavatio | 19901130 | Soil | Chromium | 5.1 | MG/KG | | INORG | | | | 7440-47-3 | |
| UST7-3 | Excavatio | 19901130 | Soil | pH | 7.5 | STD UNIT | | GENERA | | | | 1006 | |
| UST7-3 | Excavatio | 19901130 | Soil | Total C5 TO C11 Petroleum Hydrocarbons | 30 | MG/KG | | GENERA | | | | TOGRHY | |
| UST7-4 | Excavatio | 19901130 | Soil | Chloroform | 18 | UG/KG | | ORVOA | | | | 67-66-3 | |
| UST7-4 | Excavatio | 19901130 | Soil | Iron | 2600 | MG/KG | | INORG | | | | 7439-89-6 | |
| UST7-4 | Excavatio | 19901130 | Soil | Manganese | 71 | MG/KG | | INORG | | | | 7439-96-5 | |
| UST7-4 | Excavatio | 19901130 | Soil | Sodium | 64 | MG/KG | | INORG | | | | 7440-23-5 | |
| UST7-4 | Excavatio | 19901130 | Soil | Arsenic | 1.6 | MG/KG | | INORG | | | | 7440-38-2 | |
| UST7-4 | Excavatio | 19901130 | Soil | Barium | 5 | MG/KG | | INORG | | | | 7440-39-3 | |
| UST7-4 | Excavatio | 19901130 | Soil | Chromium | 2.4 | MG/KG | | INORG | | | | 7440-47-3 | |
| UST7-4 | Excavatio | 19901130 | Soil | pH | 7.8 | STD UNIT | | GENERA | | | | 1006 | |
| UST7-4 | Excavatio | 19901130 | Soil | Total C5 TO C11 Petroleum Hydrocarbons | 17 | MG/KG | | GENERA | | | | TOGRHY | |

| comp_no | par_code | parameter name | comparison value | units |
|---|---|---|---|---|
| 1 | 7440-41-7 | Beryllium | 7.00E-01 | MG/KG |
| 1 | 7440-43-9 | Cadmium | 5.00E+04 | MG/KG |
| 1 | 7440-47-3 | Chromium | 7.50E+03 | MG/KG |
| 1 | 121-82-4 | RDX | 2.70E+01 | UG/KG |
| 1 | 72-55-9 | 4,4'-DDE | 9.00E+00 | MG/KG |
| 1 | 50-29-3 | 4,4'-DDT | 9.00E+00 | MG/KG |
| 1 | 12672-29-6 | Aroclor-1248 | 3.85E-01 | MG/KG |
| 1 | 11096-82-5 | Aroclor-1260 | 3.85E-01 | MG/KG |
| 1 | 319-85-7 | Beta-BHC | 1.65E+00 | MG/KG |
| 1 | 60-57-1 | Dieldrin | 1.85E-01 | MG/KG |
| 1 | 56-55-3 | Benzo(a)anthracene | 4.10E+00 | MG/KG |
| 1 | 50-32-8 | Benzo(a)pyrene | 4.10E-01 | MG/KG |
| 1 | 205-99-2 | Benzo(b)fluoranthene | 4.10E+00 | MG/KG |
| 1 | 207-08-9 | Benzo(k)fluoranthene | 4.10E+01 | MG/KG |
| 1 | 117-81-7 | Bis(2-ethylhexyl)phthalate | 2.15E+02 | MG/KG |
| 1 | 218-01-9 | Chrysene | 4.10E+02 | MG/KG |
| 1 | 53-70-3 | Dibenz(a,h)anthracene | 4.10E-01 | MG/KG |
| 1 | 193-39-5 | Indeno(1,2,3-cd)pyrene | 4.10E+00 | MG/KG |
| 1 | 78-59-1 | Isophorone | 3.15E+03 | MG/KG |
| 1 | 86-30-6 | N-Nitrosodiphenylamine | 6.00E+02 | MG/KG |
| 1 | 87-86-5 | Pentachlorophenol | 2.50E+01 | MG/KG |
| 1 | 107-06-2 | 1,2-Dichloroethane | 1.10E+01 | MG/KG |
| 1 | 71-43-2 | Benzene | 3.20E+01 | MG/KG |
| 1 | 75-27-4 | Bromodichloromethane | 4.80E+01 | MG/KG |
| 1 | 75-25-2 | Bromoform | 3.75E+02 | MG/KG |
| 1 | 56-23-5 | Carbon Tetrachloride | 1.20E+01 | MG/KG |
| 1 | 67-66-3 | Chloroform | 1.55E+01 | MG/KG |
| 1 | 124-48-1 | Dibromochloromethane | 3.55E+01 | MG/KG |
| 1 | 75-09-2 | Dichloromethane | 3.95E+02 | MG/KG |
| 1 | 79-01-6 | Trichloroethene | 1.25E+02 | MG/KG |
| 1 | AC-227 | Actinium-227 | 1.00E+00 | PCI/G |
| 1 | 14596-10-2 | Americium-241 | 4.95E+00 | PCI/G |
| 1 | 13982-38-2 | Bismuth-207 | 1.75E-01 | PCI/G |
| 1 | BI-207 | Bismuth-207 | 1.75E-01 | PCI/G |
| 1 | 10045-97-3 | Cesium-137 | 4.60E-01 | PCI/G |
| 1 | 10198-40-0 | Cobalt-60 | 1.00E-01 | PCI/G |
| 1 | 13981-16-3 | Plutonium-238 | 5.50E+00 | PCI/G |
| 1 | 15117-48-3 | Plutonium-239 | 5.50E+00 | PCI/G |
| 1 | PU239/240 | Plutonium-240 | 5.50E+00 | PCI/G |
| 1 | 13982-63-3 | Radium-226 | 1.40E-01 | PCI/G |
| 1 | 10098-97-2 | Strontium-90 | 3.00E+00 | PCI/G |
| 1 | 14274-82-9 | Thorium-228 | 8.50E-01 | PCI/G |
| 1 | 14269-63-7 | Thorium-230 | 4.40E+01 | PCI/G |
| 1 | 7440-29-1 | Thorium-232 | 5.00E+01 | PCI/G |
| 1 | 10028-17-8 | Tritium | 2.35E+04 | PCI/G |
| 1 | U-233 | Uranium-233 | 3.70E+01 | PCI/G |
| 1 | 13966-29-5 | Uranium-234 | 3.75E+01 | PCI/G |
| 1 | 15117-96-1 | Uranium-235 | 3.35E+00 | PCI/G |
| 1 | 24678-82-8 | Uranium-238 | 1.10E+01 | PCI/G |
| 2 | 7429-90-5 | Aluminum | 19000 | MG/KG |

| comp_no | par_code | parameter name | comparison value | units |
|---|---|---|---|---|
| 2 | 7440-38-2 | Arsenic | 8.6 | MG/KG |
| 2 | 7440-39-3 | Barium | 180 | MG/KG |
| 2 | 7440-69-9 | Bismuth | ND | MG/KG |
| 2 | 7440-41-7 | Beryllium | 1.3 | MG/KG |
| 2 | 7440-43-9 | Cadmium | 2.1 | MG/KG |
| 2 | 7440-70-2 | Calcium | 310000 | MG/KG |
| 2 | 7440-47-3 | Chromium | 20 | MG/KG |
| 2 | 7440-48-4 | Cobalt | 19 | MG/KG |
| 2 | 7440-50-8 | Copper | 26 | MG/KG |
| 2 | 57-12-5 | Cyanide | ND | MG/KG |
| 2 | 7439-89-6 | Iron | 35000 | MG/KG |
| 2 | 7439-92-1 | Lead | 48 | MG/KG |
| 2 | 7439-93-2 | Lithium | 26 | MG/KG |
| 2 | 7439-95-4 | Magnesium | 40000 | MG/KG |
| 2 | 7439-96-5 | Manganese | 1400 | MG/KG |
| 2 | 7439-97-6 | Mercury | ND | MG/KG |
| 2 | 7439-98-7 | Molybdenum | 27 | MG/KG |
| 2 | 7440-02-0 | Nickel | 32 | MG/KG |
| 2 | 7440-09-7 | Potassium | 1900 | MG/KG |
| 2 | 7440-22-4 | Silver | 1.7 | MG/KG |
| 2 | 7782-49-2 | Selenium | ND | MG/KG |
| 2 | 7440-23-5 | Sodium | 240 | MG/KG |
| 2 | 7440-28-0 | Thallium | 0.46 | MG/KG |
| 2 | 7440-31-5 | Tin | 20 | MG/KG |
| 2 | 7440-62-2 | Vanadium | 25 | MG/KG |
| 2 | 7440-66-6 | Zinc | 140 | MG/KG |
| 2 | 72-54-8 | 4,4'-DDD | 4.2 | MG/KG |
| 2 | 72-55-9 | 4,4'-DDE | 4.3 | MG/KG |
| 2 | 50-29-3 | 4,4'-DDT | 13 | MG/KG |
| 2 | 309-00-2 | Aldrin | ND | MG/KG |
| 2 | 5103-71-9 | Alpha Chlordane | ND | MG/KG |
| 2 | 319-84-6 | Alpha-BHC | ND | MG/KG |
| 2 | 12672-29-6 | Aroclor-1248 | ND | MG/KG |
| 2 | 11097-69-1 | Aroclor-1254 | 58 | MG/KG |
| 2 | 11096-82-5 | Aroclor-1260 | ND | MG/KG |
| 2 | 319-85-7 | Beta-BHC | ND | MG/KG |
| 2 | 60-57-1 | Dieldrin | ND | MG/KG |
| 2 | 959-98-8 | Endosulfan I | ND | MG/KG |
| 2 | 1031-07-8 | Endosulfan Sulfate | ND | MG/KG |
| 2 | 72-20-8 | Endrin | ND | MG/KG |
| 2 | 7421-93-4 | Endrin Aldehyde | ND | MG/KG |
| 2 | 53494-70-5 | Endrin Ketone | ND | MG/KG |
| 2 | 5103-74-2 | Gamma Chlordane | ND | MG/KG |
| 2 | 58-89-9 | Gamma-BHC (Lindane) | ND | MG/KG |
| 2 | 76-44-8 | Heptachlor | ND | MG/KG |
| 2 | 1024-57-3 | Heptachlor Epoxide | ND | MG/KG |
| 2 | 72-43-5 | Methoxychlor | 30 | MG/KG |
| 2 | 77-47-4 | Hexachlorocyclopentadiene | ND | MG/KG |
| 2 | 14596-10-2 | Americium-241 | ND | MG/KG |
| 2 | 13982-38-2 | Bismuth-207 | ND | MG/KG |

| comp_no | par_code | parameter name | comparison value | units |
|---|---|---|---|---|
| 2 | BI-207 | Bismuth-207 | ND | MG/KG |
| 2 | BI-210M | Bismuth-210m | ND | MG/KG |
| 2 | 10045-97-3 | Cesium-137 | 0.42 | PCI/G |
| 2 | 13981-16-3 | Plutonium-238 | 0.13 | PCI/G |
| 2 | 13966-00-2 | Potassium-40 | 37 | PCI/G |
| 2 | 13982-63-3 | Radium-226 | 2 | PCI/G |
| 2 | 10098-97-2 | Strontium-90 | 0.72 | PCI/G |
| 2 | 14274-82-9 | Thorium-228 | 1.5 | PCI/G |
| 2 | 14269-63-7 | Thorium-230 | 1.9 | PCI/G |
| 2 | 7440-29-1 | Thorium-232 | 1.4 | PCI/G |
| 2 | 10028-17-8 | Tritium | 1.6 | PCI/G |
| 2 | 13966-29-5 | Uranium-234 | 1.1 | PCI/G |
| 2 | 15117-96-1 | Uranium-235 | 0.11 | PCI/G |
| 2 | 24678-82-8 | Uranium-238 | 1.2 | PCI/G |
| 3 | 7439-92-1 | Lead | 400 | MG/KG |
| 3 | 13982-63-3 | Radium-226 | 5 | PCI/G |
| 3 | 13981-16-3 | Plutonium-238 | 25 | PCI/G |
| 3 | 7440-29-1 | Thorium-232 | 5 | PCI/G |
| 5 | 7440-36-0 | Antimony | 0.0006 | MG/L |
| 5 | 7440-38-2 | Arsenic | 0.05 | MG/L |
| 5 | 7440-39-3 | Barium | 2 | MG/L |
| 5 | 7440-41-7 | Beryllium | 0.004 | MG/L |
| 5 | 7440-43-9 | Cadmium | 0.005 | MG/L |
| 5 | 7440-47-3 | Chromium | 0.1 | MG/L |
| 5 | 7440-50-8 | Copper | 1.3 | MG/L |
| 5 | 57-12-5 | Cyanide | 0.2 | MG/L |
| 5 | 7439-92-1 | Lead | 0.015 | MG/L |
| 5 | 7439-97-6 | Mercury | 0.002 | MG/L |
| 5 | 7440-02-0 | Nickel | 0.1 | MG/L |
| 5 | 7782-49-2 | Selenium | 0.05 | MG/L |
| 5 | 7440-28-0 | Thallium | 0.002 | MG/L |
| 5 | 16984-48-8 | Flouride | 4 | MG/L |
| 5 | NO3 | Nitrate | 10 | MG/L |
| 5 | NO2 | Nitrite | 1 | MG/L |
| 5 | 57-74-9 | Chlordane | 0.002 | MG/L |
| 5 | 72-20-8 | Endrin | 0.002 | MG/L |
| 5 | 76-44-8 | Heptachlor | 0.0004 | MG/L |
| 5 | 1024-57-3 | Heptachlor Epoxide | 0.0002 | MG/L |
| 5 | 72-43-5 | Methoxychlor | 0.04 | MG/L |
| 5 | 8001-35-2 | Toxaphene | 0.003 | MG/L |
| 5 | 120-82-1 | 1,2,4-Trichlorobenzene | 0.07 | MG/L |
| 5 | 95-95-4 | 2,4,5-Trichlorophenol | 0.05 | MG/L |
| 5 | 50-32-8 | Benzo(a)pyrene | 0.002 | MG/L |
| 5 | 118-74-1 | Hexachlorobenzene | 0.001 | MG/L |
| 5 | 77-47-4 | Hexachlorocyclopentadiene | 0.05 | MG/L |
| 5 | 87-86-5 | Pentachlorophenol | 0.001 | MG/L |
| 5 | 71-55-6 | 1,1,1-Trichloroethane | 0.2 | MG/L |
| 5 | 79-00-5 | 1,1,2-Trichloroethane | 0.005 | MG/L |
| 5 | 75-35-4 | 1,1-Dichloroethene | 0.007 | MG/L |
| 5 | 156-59-2 | 1,2-cis-Dichloroethene | 0.07 | MG/L |

| comp_no | par_code | parameter name | comparison value | units |
|---|---|---|---|---|
| 5 | 107-06-2 | 1,2-Dichloroethane | 0.005 | MG/L |
| 5 | 78-87-5 | 1,2-Dichloropropane | 0.005 | MG/L |
| 5 | 106-46-7 | 1,4-Dichlorobenzene | 0.075 | MG/L |
| 5 | 108-90-7 | Chlorobenzene | 0.1 | MG/L |
| 5 | 96-12-8 | Dibromochloropropane | 0.0002 | MG/L |
| 5 | 106-93-4 | 1,2-Dibromoethane | 0.00005 | MG/L |
| 5 | 95-50-1 | 1,2-Dichlorobenzene | 0.6 | MG/L |
| 5 | 75-09-2 | Dichloromethane (Methylene Chloride) | 0.005 | MG/L |
| 5 | 88-85-7 | Dinoseb | 0.007 | MG/L |
| 5 | 1746-01-6 | Dioxin | 0.00000003 | MG/L |
| 5 | 94-75-7 | 2,4-D | 0.07 | MG/L |
| 5 | 156-60-5 | 1,2-trans-Dichloroethene | 0.01 | MG/L |
| 5 | 71-43-2 | Benzene | 0.005 | MG/L |
| 5 | 75-27-4 | Bromodichloromethane | 0.008 | MG/L |
| 5 | 75-25-2 | Bromoform | 0.008 | MG/L |
| 5 | 56-23-5 | Carbon Tetrachloride | 0.005 | MG/L |
| 5 | 67-66-3 | Chloroform | 0.008 | MG/L |
| 5 | 100-41-4 | Ethylbenzene | 0.07 | MG/L |
| 5 | 58-89-9 | Gamma-BHC (Lindane) | 0.0002 | MG/L |
| 5 | 117-81-7 | bis(2-ethylhexyl)phthalate | 0.006 | MG/L |
| 5 | 100-42-5 | Styrene | 0.1 | MG/L |
| 5 | 127-18-4 | Tetrachloroethene | 0.005 | MG/L |
| 5 | 108-88-3 | Toluene | 1 | MG/L |
| 5 | 79-01-6 | Trichloroethene | 0.005 | MG/L |
| 5 | 75-01-4 | Vinyl Chloride | 0.002 | MG/L |
| 5 | 1330-20-7 | Xylenes, Total | 10 | MG/L |
| 5 | AC-227 | Actinium-227 | 0.4 | PCI/L |
| 5 | 14596-10-2 | Americium-241 | 1.2 | PCI/L |
| 5 | 13982-38-2 | Bismuth-207 | 1200 | PCI/L |
| 5 | 10045-97-3 | Cesium-137 | 120 | PCI/L |
| 5 | 10198-40-0 | Cobalt-60 | 400 | PCI/L |
| 5 | 13981-16-3 | Plutonium-238 | 1.6 | PCI/L |
| 5 | 13982-63-3 | Radium-226 | 4 | PCI/L |
| 5 | 10098-97-2 | Strontium-90 | 40 | PCI/L |
| 5 | 14274-82-9 | Thorium-228 | 16 | PCI/L |
| 5 | 14269-63-7 | Thorium-230 | 12 | PCI/L |
| 5 | 7440-29-1 | Thorium-232 | 2 | PCI/L |
| 5 | 10028-17-8 | Tritium | 20000 | PCI/L |
| 5 | U-233 | Uranium-233 | 20 | PCI/L |
| 5 | 13966-29-5 | Uranium-234 | 20 | PCI/L |
| 5 | 15117-96-1 | Uranium-235 | 24 | PCI/L |
| 5 | 24678-82-8 | Uranium-238 | 24 | PCI/L |
| 6 | 7440-47-3 | Chromium | 1.10E+03 | MG/KG |
| 6 | 7440-36-0 | Antimony | 8.50E+01 | MG/KG |
| 6 | 7440-38-2 | Arsenic | 6.40E+01 | MG/KG |
| 6 | 7440-39-3 | Barium | 1.50E+04 | MG/KG |
| 6 | 7440-41-7 | Beryllium | 1.10E+03 | MG/KG |
| 6 | 7440-43-9 | Cadmium | 2.10E+02 | MG/KG |
| 6 | 57-12-5 | Cyanide | 4.30E+03 | MG/KG |
| 6 | 7439-96-5 | Manganese | 2.70E+04 | MG/KG |

| comp_no | par_code | parameter name | comparison value | units |
|---|---|---|---|---|
| 6 | 7439-97-6 | Mercury | 6.40E+01 | MG/KG |
| 6 | 7440-02-0 | Nickel | 4.30E+03 | MG/KG |
| 6 | 7440-22-4 | Silver | 1.10E+03 | MG/KG |
| 6 | 7440-62-2 | Vanadium | 1.50E+03 | MG/KG |
| 6 | 7440-66-6 | Zinc | 6.40E+04 | MG/KG |
| 6 | 2691-41-0 | HMX | 1.10E+04 | UG/KG |
| 6 | 121-82-4 | RDX | 6.40E+04 | UG/KG |
| 6 | 50-29-3 | 4,4'-DDT | 1.10E+02 | MG/KG |
| 6 | 11097-69-1 | Aroclor-1254 | 4.30E+00 | MG/KG |
| 6 | 60-57-1 | Dieldrin | 1.10E+01 | MG/KG |
| 6 | 106-44-5 | 4-Methylphenol | 1.10E+03 | MG/KG |
| 6 | 120-12-7 | Anthracene | 6.40E+04 | MG/KG |
| 6 | 65-85-0 | Benzoic Acid | 8.50E+05 | MG/KG |
| 6 | 117-81-7 | Bis(2-ethylhexyl)phthalate | 4.30E+03 | MG/KG |
| 6 | 85-68-7 | Butyl Benzyl Phthalate | 4.30E+04 | MG/KG |
| 6 | 84-74-2 | Di-n-butyl Phthalate | 2.10E+04 | MG/KG |
| 6 | 117-84-0 | Di-n-octyl Phthalate | 4.30E+03 | MG/KG |
| 6 | 206-44-0 | Fluoranthene | 8.50E+03 | MG/KG |
| 6 | 78-59-1 | Isophorone | 4.30E+04 | MG/KG |
| 6 | 87-86-5 | Pentachlorophenol | 6.40E+03 | MG/KG |
| 6 | 108-95-2 | Phenol | 1.30E+05 | MG/KG |
| 6 | 129-00-0 | Pyrene | 6.40E+03 | MG/KG |
| 6 | 75-34-3 | 1,1-Dichloroethane | 7.80E+00 | MG/KG |
| 6 | 156-60-5 | 1,2-trans-Dichloroethene | 4.30E+03 | MG/KG |
| 6 | 108-10-1 | 2-Methyl-4-pentanone | 7.00E+02 | MG/KG |
| 6 | 67-64-1 | Acetone | 2.10E+04 | MG/KG |
| 6 | 75-27-4 | Bromodichloromethane | 4.30E+03 | MG/KG |
| 6 | 75-25-2 | Bromoform | 4.30E+03 | MG/KG |
| 6 | 75-15-0 | Carbon Disulfide | 2.80E+02 | MG/KG |
| 6 | 56-23-5 | Carbon Tetrachloride | 1.50E+02 | MG/KG |
| 6 | 75-00-3 | Chloroethane | 1.60E+02 | MG/KG |
| 6 | 67-66-3 | Chloroform | 2.10E+03 | MG/KG |
| 6 | 124-48-1 | Dibromochloromethane | 4.30E+03 | MG/KG |
| 6 | 75-09-2 | Dichloromethane | 1.00E+03 | MG/KG |
| 6 | 100-41-4 | Ethylbenzene | 4.80E-01 | MG/KG |
| 6 | 110-54-3 | Hexane | 9.10E+01 | MG/KG |
| 6 | 127-18-4 | Tetrachloroethene | 2.10E+03 | MG/KG |
| 6 | 108-88-3 | Toluene | 2.50E+02 | MG/KG |
| 6 | 75-69-4 | Trichlorofluoromethane | 7.30E+02 | MG/KG |
| 6 | 1330-20-7 | Xylenes, Total | 4.30E+05 | MG/KG |
| 6 | 78-93-3 | 2-Butanone | 9.30E+03 | MG/KG |

1 Value is 10-6 Risk-Based Guide Value
2 Value is OU9 Soil Background Value
3 Value is other criteria, I.e. 5 pCi/g for certain radionuclides
25 pCi/g plutonium
5 Value is MCL
6 Value is the Guide Value based on the hazard index

M

Appendix M

Occurrence Reports

OH-MB-EGGM-EGGMAT03-1994-0017 Off-Normal Final 11/13/94 12/01/94
Explosive Facilities 1
TITLE: Actuation of a Safety System - Sprinkler

Description of Occurrence (1st 10 Lines):
On Sunday, November 13, 1994, at approximately 1437 hours (ETZ), a sprinkler head in Building 1 (Explosives Packaging Facility) actuated. The Mound Fire Department responded to the water flow alarm and found water coming out around the door to Room 102. With the assistance of Security, the Fire Department entered the room finding high levels of heat and steam. One 165 degrees fahrenheit sprinkler head had gone off just inside the door. No evidence of fire was found.

This Occurrence Report was reviewed by an Authorized

Description of Cause (1st 10 Lines):
The direct and root causes of this occurrence was the stuck thermostat which allowed the temperature at ceiling level to reach a point where a sprinkler head actuated. The sprinkler which actuated was located approximmately two feet from the output vent of the Air Handling Unit.

~~For BWO internal use only.~~

Hierarchy For: Building Data Package for Building 1.

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

| | |
|---|---|
| LEVEL 1<br>LAWS/REGULATIONS<br>(Imposed by Outside Authority) | |
| LEVEL 2<br>AGREEMENTS | Building Data Package |
| LEVEL 3<br>MOUND SITE-WIDE DOCUMENTS<br>(POLICY & GUIDANCE FROM BWO) | |
| LEVEL 4<br>ORGANIZATIONAL/OPERATIONS DOCUMENTS | |
| LEVEL 5<br>PROCEDURAL/INSTRUCTIONAL DOCUMENTS | |
| LEVEL 6<br>REPORTS AND PERFORMANCE INDICATORS | |

CONFIRMED UNCLASSIFIED/NON-SENSITIVE
REVIEWED BY: JANET NESHEIM/EMCBC
DATE: 06-09-10