3005-0203260002

MOUND

Environmental Restoration Program

OhioEPA

MOUND PLANT
Building Data Package
Building 3

Public Review Draft
March 2002

BDP Building 3

REV	DESCRIPTION	DATE
WORKING DRAFT (to DOE)		**December 2001**
DRAFT (to Core Team)	Lead paint info was added per USEPA comment. OEPA additions included adding specific energetics used and update Appendix L figure and data to include TFV results. Other non-agency changes: updated county map in App B, updated GV table in App L, added lead screening info to App J.	**December 2001**
DRAFT PROPOSED FINAL (Core Team comments incorporated)	Response to comments summarized and ok'd at 20 February 2002 Core Team. This version sent via email to CoreTeam for ok before publication of PRD. OEPA comment: give chemical names for listed explosives.	**February 2002 (email)**
PUBLIC REVIEW DRAFT	Incorporates Core Team comments and includes signed recommendation page.	**March 2002**
FINAL (Public Review comments incorporated)		

MOUND PLANT RECOMMENDATION

Building 3

Background:

Building 3 was built to serve as an energetic materials destructive test fire and environmental testing laboratory. It was constructed in 1966. It included four test firing cells with two surge tanks, 17 environmental chambers for thermal testing, six systems for mechanical testing, two vibration testing systems, one centrifuge testing system, and three shock testing systems. It also had one photographic dark room. Safe Shutdown was concluded in 1995. Building 3 is currently leased and similar operations are being performed.

Recommendation:

After thorough review of the environmental data and the Building Data Package, the Core Team agrees that all existing environmental issues associated with Building 3 have been resolved. Future use of Building 3 will be restricted to commercial/industrial use. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA for final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

DOE/MEMP: _____
Robert S. Rothman, Remedial Project Manager

USEPA: _____
Timothy J. Fischer, Remedial Project Manager

OEPA: _____
Brian K. Nickel, Project Manager

BUILDING DATA PACKAGE (BDP)

Building 3

(Transition)

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

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1.0 General Overview

1.1 Introduction

The purpose of this Building Data Package (BDP) is to prepare for the transfer of Building 3 to the Miamisburg Mound Community Improvement Corporation (MMCIC) and to identify, if possible, any recognized environmental conditions (defined below) that may affect the subject property and building.

Recognized Environmental Condition (REC) ▯ 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 air, ground, groundwater, or surface water near the building.

1.2 Scope

This document has been prepared in accordance with the agreements and requirements as specified in the *Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach*. This document is a BDP for Building 3 located at the Department of Energy (DOE) Mound Plant in Miamisburg, Ohio. This investigation was performed to support procedures as found in American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-97).

The scope of the investigation included the building, the soil beneath, and a 15-foot wide perimeter border around the building. This perimeter includes roadways, sidewalks, pavement, and grass covered areas. The investigation of Building 3 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) Previous sampling data (see appendices)
      - Radiological survey
      - Soil sampling
      - Lead paint
      - Asbestos
      - Radon

Building investigations were conducted by BWXT of Ohio (BWXTO) personnel.

Information used to compile Building Data Packages (BDPs) includes the following:

- Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, August 1990
- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Tank Plan, November 1994
- OU-9 Hydrological Investigation, Bedrock Report, January 1994
- OU-9 Hydrological Investigation, Buried Valley Aquifer Report, March 1994
- Environmental Appraisal Report of the Mound Plant, March 1996
- Title Search
- Lease Information
- EDR Report - Radius Map
- Building Prints
- Potential Release Site (PRS) Information
- Mound Manual MD-222153, Mound Site Radionuclides By Location, July 1995 Contaminant Surveys
- Mound Document MLM-3791, Mound Facility Physical Characterization, December 1993

2.0 Building Specific Overview

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The subject property consists of Mound Plant Building 3, the soil beneath, and a 15-foot wide perimeter around the building. Building 3 contains 12,391 square feet of floor space (floor plan in Appendix D). It was constructed in 1966. Waste currently stored in Building 3 is dependent upon the operations of the lessee, Perkin-Elmer.

2.1 Current Uses of Building 3

Building 3 is currently leased to the Miamisburg Mound Community Improvement Corporation (MMCIC) who subsequently leases it to Perkin-Elmer. Safe Shutdown was concluded in 1995 at which time the lease agreement was signed. Perkin-Elmer fabricates components containing energetic materials. Building 3 is used for testing of the components. This is similar to operations performed when DOE used the facility.

2.2 Past Uses of Building 3

Building 3 was built to serve as an energetic materials destructive test fire and environmental testing laboratory. It included four test firing cells with two surge tanks,

17 environmental chambers for thermal testing, six systems for mechanical testing, two vibration testing systems, one centrifuge testing system, and three shock testing systems. It also had one photographic dark room.

According to Brady Barnhart (Mound employee who supervised the Safe Shutdown activities in Building 2 and worked with the materials at the site), energetic materials tested included PETN, TATB, HMX, RDX, and HNS*. Jerry Allison (previous manager of fabrication and testing of energetic components in the test fire valley) reported that only components were tested and loose materials were not handled within or outside of the building. Since the testing process destroys the energetic materials, none would have been exhausted to be deposited onto the ground

2.3 Summary of Environmental Concerns and Findings - Building 3

DESCRIPTION	COMMENT	RESOLUTION
Lead Paint	Interior peeling paint<HUD levels. Exterior building peeling paint <HUD levels. Some of the exterior dust system peeling paint >HUD levels.	Reuse is industrial/commercial. HUD levels based on residential children occupancy. No similar industrial limit exists. No problem unless material disturbed. No action to be taken.
Chemicals	Unknown due to being leased.	
Fluorescent Lamps and PCBs	Fluorescent lamps were utilized in the building. Ballasts may contain PCBs.	No problem if intact.
Asbestos	The building contains asbestos insulation, but is in good condition	No problem if not damaged.
Drainage Sumps	N/A	
Lead	N/A	
HVAC	N/A	
Mercury	N/A	
Radiological	N/A	
Septic System	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	
Energetic Material*	Energetic materials were tested in this facility and it is assumed the lessee continues to test them.	Lessee is approved for this activity.

N/A: Not a contaminant of concern during 1995 Safe Shutdown.
PCB: polychlorinated biphenyl
* PETN pentaerythritol; TATB triamino-trinitrobenzene; HMX cyclotetramethylenetetranitramine
RDX cyclotrimethylenetrinitramine; HNS hexanitrostibene

2.4 Radiological Characterization Summary for Building 3

An assessment of Building 3, which was used for destructive and environmental testing of energetic materials, was performed reviewing operational history and radiological survey data. According to a 1996 site assessment of Mound (*Environmental Appraisal of the Mound Plant*), Building 3 was not contaminated with radioactive materials. However, a reference was discovered which asserted that an environmental test of nuclear device(s) in Room 316 and adjacent areas may have been performed in the late 1960s. The reference stated that the test was monitored by radiological controls. Although no pertinent radiological survey data was found from the time of the test, subsequent surveys of the area, equipment, and the remainder of the building, showed no levels of radioactivity above surface contamination guidelines.

Additional confirmatory surveys were performed on 10 October 2001 using large area gas proportional detector(s) and following guidance in "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination". All radiological readings were less than applicable limits. Therefore, the review team concludes that the building is radiologically non-impacted and no further radiological surveys are warranted. Supporting documentation is contained in Appendix G.

TYPE	RSDS	LOCATION	SURVEY RESULTS (dpm/100 cm^2)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm^2) (Note 1)	COMMENTS
Highest Alpha Smearable Activity	99-TF-1134	Building Surfaces & Equipment	9.24	20	
Highest Alpha Fixed Activity	99-TF-1134 01-OSA-059	Building Surfaces & Equipment	< 100	100	Note 2
Highest Beta Smearable Activity	99-TF-1134	Building Surfaces & Equipment	11.03	1,000	
Highest Beta Fixed Activity	99-TF-1134 01-OSA-059	Building Surfaces & Equipment	< 5000	5,000	Note 2
Highest Tritium Smearable Activity	99-TF-1145	Building Surfaces & Equipment	14.84	10,000	

Note 1: per DOE Order 5400.5
Note 2: All radiological surveys indicated < 100 dpm/100cm^2 alpha and < 5000 dpm/100cm^2 beta
Note 3: RSDS-Radiological Safety Data Sheet

2.5 Associated PRS Table for Building 3

PRSs closest to Building 3 are listed in the following table along with their current status. See Appendix N and Paragraph 4.2.3 for additional information.

PRS #	CERCLA or BLDG. RELATED	BINNING STATUS	COMMENTS
PRS 73	CERCLA	NFA 1/16/02	Evaporator storage area
PRS 74	CERCLA	NFA 2/19/97	Former Quonset hut
PRS 362	CERCLA	NFA 11/20/96	Soil Contamination
Notes- FA: Further Assessment NFA: No Further Assessment			

3.0 Site Description

3.1 Site/Vicinity Location and Characteristics

Building 3 is located at the U.S. Department of Energy facility known as Mound Plant. Mound Plant is situated in the City of Miamisburg, Miami Township, Montgomery County, State of Ohio. See Appendix B.

The Mound facility at its peak was situated on approximately 300 acres of land and contained 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 Engineer District in 1946, consisted of two hills and an intervening valley that runs approximately east and west. Building 3 is located in the lower valley of the plant 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. See figures in Appendix C.

To the west lies a railroad line and the north south trending Miami-Erie Canal. The northern boundaries of the site abut the 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 3

The subject property consists of the Mound Plant Building 3 footprint, the soil beneath, and a 15-foot wide perimeter around the building. Building 3 is a one story, 12,391 square foot structure. It is a slab-on grade, reinforced concrete and concrete block structure, with a built-up membrane (coal tar) roof. It was constructed in 1966.

To the west lies Building 87, which was involved in the destructive and environmental testing of energetic materials containing components. To the east lies Building 2, which was involved in the destructive testing of energetic materials containing components. Building 63 with east and west additions lies to the north, and is currently leased. The east addition was used for test systems design and fabrication. The west addition was used for spin testing and environmental storage and conditioning of components.

Building 3 is heated by steam and air conditioned by central chiller systems. Potable water and sanitary services are provided by the Mound Plant facility.

3.3 Current and Past Uses of Buildings In Proximity To Building 3

Building 3 is a part of the former Test Fire complex, which includes Buildings 2, 63E, 63W, and 87. Building 3 was used for destructive testing of energetic materials, similar to Building 2 and for environmental testing. Building 63E was used as offices and as a tester fabrication facility. Building 63W was used as a spin test facility. Building 87 was a more modern version of Building 3 and was designed to perform destructive testing of energetic materials.

Building	**Building Area** square feet	**Current Use**	**Direction from Building 3**
2	6,291	Currently vacant	East
63 E/W	16,461	Leased MMCIC Sub-leased to Perkin-Elmer	North
87	38,882	Currently vacant	West

4.0 Records Review

4.1 General/Historical CERCLA Information

In compliance with permit requirements under the Resource Conservation and Recovery Act (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 storage facility under a RCRA Part B Permit dated October 18, 1996. Mound Plant also maintains a National Pollutant Discharge Elimination System (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 Ohio Environmental Protection Agency (OEPA), pursuant to Superfund Amendments and Reauthorization Act (SARA), Title III, the

Emergency Planning and Community Right-to-Know Act. The 2000 version of this report indicated that no chemicals are stored in Building 3 in quantities above the regulatory thresholds.

The Mound Plant was identified as a contaminated site on the National Priorities List under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Superfund) in 1989. The Mound Plant site was originally listed as a consequence of volatile organic compound (VOC) contamination in the western end of the lower valley area. The cleanup 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 cleanup areas. As the cleanup effort went forward, it became apparent that the Mound Site did not fit the profile for a cleanup strategy based on the operable units. The DOE, the United States Environmental Protection Agency (USEPA), and the OEPA designed a new decision making process for the cleanup of Mound. The new process is known formally as a "removal site evaluation process" and informally as the "Mound 2000 Process". The Mound 2000 Process system divided Mound into geographical parcels containing over 400 PRSs with approximately 200 concerned with potentially contaminated soils, and the balance with potential contamination in or associated primarily with building operations. For a more detailed description, refer to the *Work Plan for Environmental Restoration of the DOE Mound Site, the Mound 2000 Approach.*

4.2 Specific Record Sources

4.2.1 Occurrence Reports

A search of the occurrence reporting system revealed three reports, all of which were minor (see Appendix M):

- (2) Smoke detector false alarm
- Humidity alarm

4.2.2 Spills and Releases

None.

4.2.3 Associated PRS Overview

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and BWXTO have tabulated all the PRSs identified under the various regulatory programs in effect at the site. Of these 440 PRSs, PRS 73, 74, and 362 are related to Building 3 due to proximity of location. Supporting documentation is summarized in Section 2.5 of this document and copies of binning recommendations are included in Appendix N.

4.2.4 Sampling Data

4.2.4.1 Radiological Surveys

Radiological survey data indicated no elevated readings in the building. Supporting documentation is summarized in Section 2.4 of this document and copies of survey data sheets are included in Appendix G.

4.2.4.2 Soil Sampling Data

Soil sample results within a 15 foot perimeter of Building 3 are depicted on a graphic and presented on a table in Appendix L. All data are below applicable screening levels.

4.2.4.3 Chemical History/Removal

The building housed processes, which used energetic materials and photographic processing chemicals. All chemicals were removed as part of the safe shutdown process before the building was leased. The lessee likely uses similar chemicals.

4.2.4.4 Lead Paint

Interior and exterior paint coatings were found to exhibit minor peeling throughout. Interior and exterior building peeling paint were tested with a Niton meter and all results were less than Housing and Urban Development (HUD) levels.

A portion of the grey paint coating the exterior dust collection units is peeling as shown in the photos in Appendix J but was found only sparsely on the ground. Peeling paint on the dust units was tested with a Niton meter and results of four out of nine samples were above HUD levels.

The letter report discussing the Niton sampling event is included in Appendix J.

4.2.4.5 Asbestos

Previous surveys as well as a walk-through assessment of readily accessible areas of Building 3 indicated the presence of asbestos-containing materials (ACM) and materials suspect for containing asbestos.

Previous surveys found that asbestos pipe insulations existed in Rooms 303 - 305, 307, 307A, 309 – 314, 316, 318, 326, 327, 328, 328A, 329, 333, 336, and Corridors 1 and 2. Asbestos heat exchanger insulation was identified in Room 327. Explosion-proof light fixture gaskets in Rooms 312, 314, 317 - 322, 326, 337, and 339 were found to contain asbestos. Asbestos ceiling tiles (12"x12") were identified in Rooms 318 -321. Analysis indicated that plaster, drywall, and other ceiling tiles did not contain asbestos.

In addition to what was indicted in the previous surveys, the walk-through assessment

found asbestos pipe insulation on the roof. In addition, the built-up roofing and associated mastics were assumed to contain asbestos. Floor tiles, laboratory fume hood linings (transite type), and laboratory counter tops located throughout the facility were assumed to contain asbestos. Ceiling tiles in Rooms 320 and 321 as well as counter tops in Rooms 312 and 314 were damaged. All other observed suspect materials were seen to be intact. See supporting documentation in Appendix I.

4.2.4.6 Radon

The results of a 1989-90 Mound Indoor Radon study indicated an average radon concentration of 0.4 picoCuries/liter (pCi/L) in Building 3. The EPA recommended standard for radon is 4.0 pCi/L. See supporting documentation in Appendix H.

4.3 Review of Building Prints

Building prints were reviewed and are included in Appendix D.

4.4 Photographs

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

4.5 Interviews

No interviews were conducted. The current Building Manager is Gary Weidenbach. No significant items other than the energetic materials testing performed in the building are known to exist.

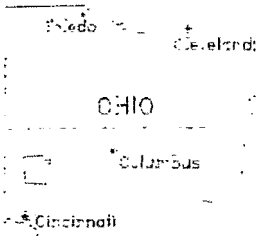
Appendix A

General Listing of Acronyms

ASTM	American Society for Testing and Materials
BDP	Building Data Package
BWXTO	BWXT of Ohio, Inc.
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
cm^2	centimeters squared
CWA	Clean Water Act
DOE	United States Department of Energy
DPM	disintegrations per minute
EPA	United States Environmental Protection Agency
ER	Environmental Restoration (Program)
FFA	Federal Facility Agreement
HAZMAT	hazardous materials
MARSSIM	Multi-Agency Radiological Survey and Site Investigation Manual
MEMP	Miamisburg Environmental Management Project
N/A	not applicable
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
OU	Operable Unit
PCB	polychlorinated biphenyl
pCi/L	picoCuries per liter
PRS	Potential Release Site
RI/FS	Remedial Investigation/Feasibility Study
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

Appendix B

Map of Montgomery County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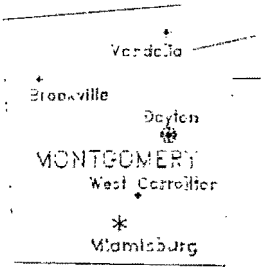
OHIO
Columbus
Cincinnati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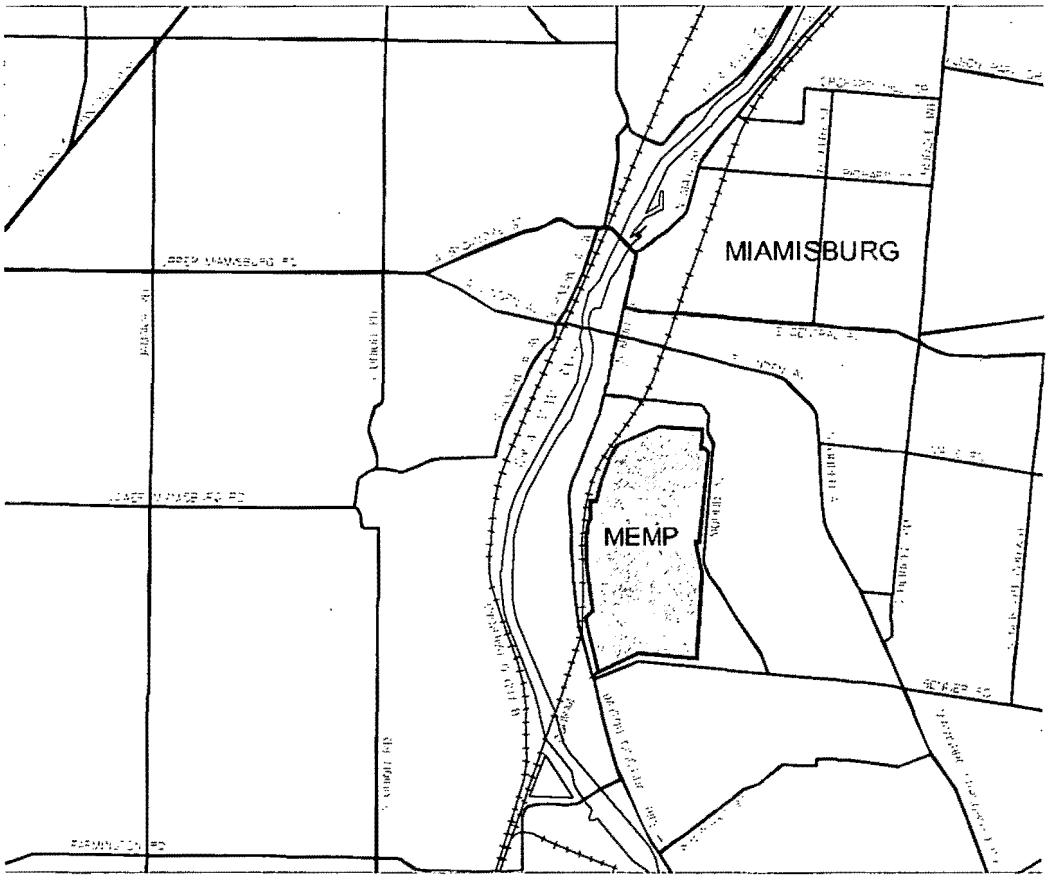
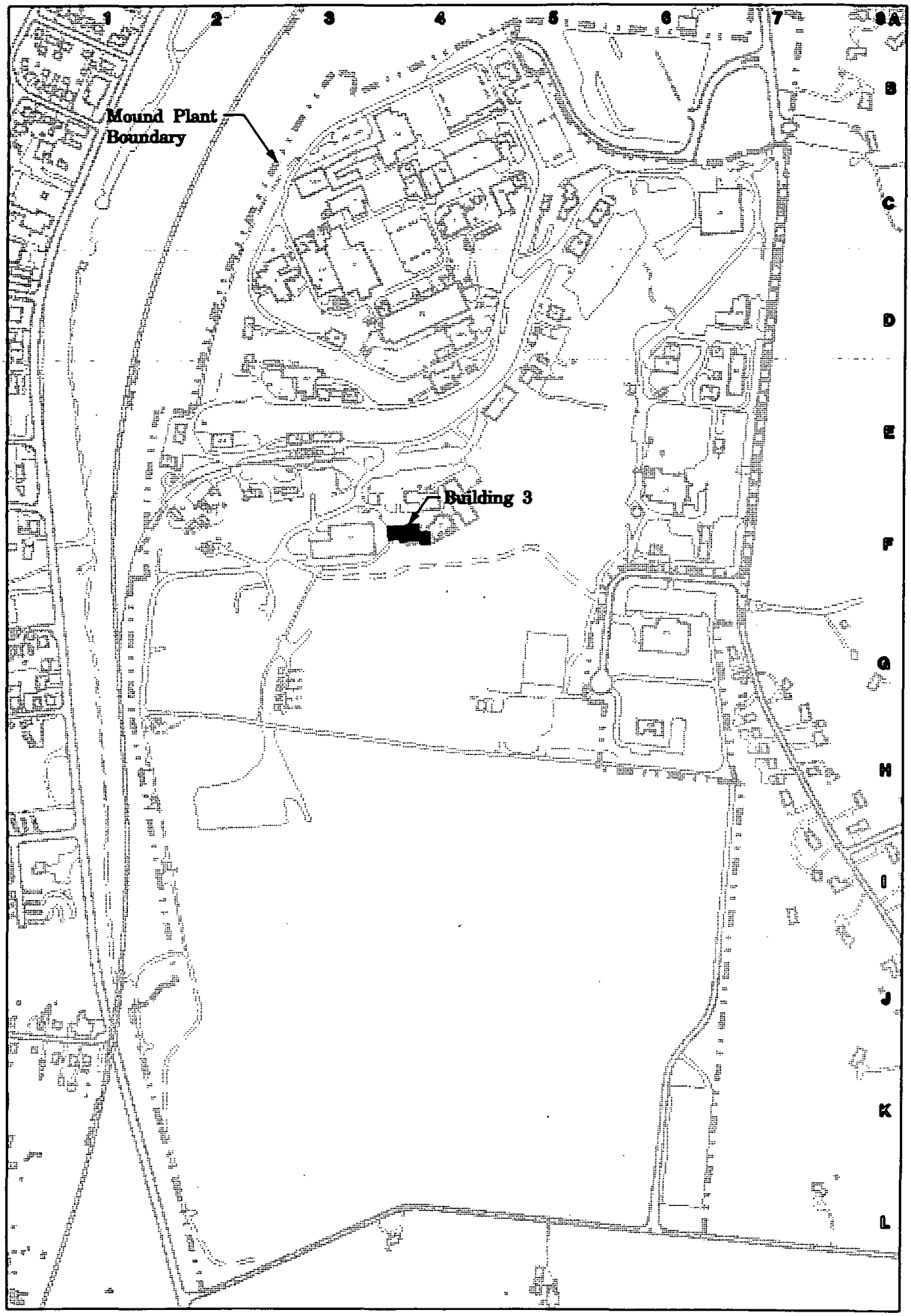
Brookville
Dayton
MONTGOMERY
West Carrollton
Miamisburg


MIAMISBURG
MEMP

Appendix C

Figures



Legend

- Structures
- Paved roadway
- Unpaved roadway
- Railroad
- Water course
- Fence
- Mound Plant boundary
- Contour line

0 100 200 400 600 800 1000
Scale In Feet

	12/10/01	ISSUE FOR GENERAL USE	SSP			
ISS	DATE	REVISION	BY	DESR	DKD	R

MOUND
Environmental Restoration Geographic Information System

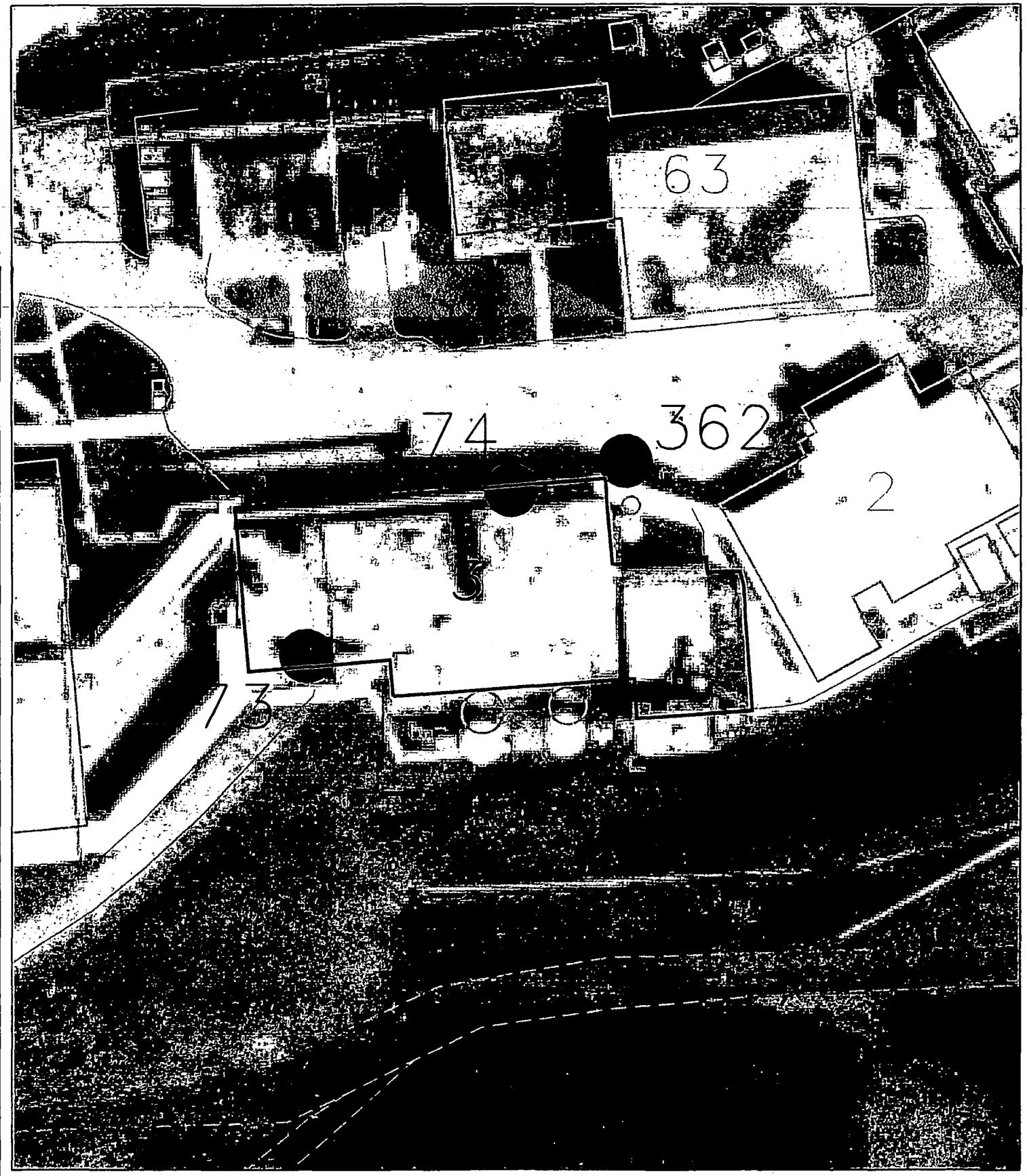
SHEET 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ISSUE
SHEET 1 2 3 4 5 6
ISSUE A
PART CLASSIFICATION

( ) TITLE CLASSIFICATION

Figure 1
Location of Building 3

MINIMUM CLASSIFICATION: UNCLASSIFIED
SIZE: D
MINIMUM NUMBER: gen_site_plan.dgn
JOB NUMBER
DWG TYPE: SITE
DWNG
CHECK
SCALE: Graphic
SHEET 1 OF
STATUS: MD-REL-09/14/99
ORIGIN: NSTATION / J

gen_site_plan.dgn



● PRS Point

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	2
ISSUE																					

SHEET	1	2	3	4	5	6
ISSUE	*					

PART CLASSIFICATION

Figure 2
PRS's in Vicinity of Building 3

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE | DRAWING NUMBER: vicinity.dgn | JOB NUMBER

DGN TYPE: STE | PROJ: ER-GIS | DATE | SCALE | SHEET 1 OF

STATUS: MD-REL-**/**/** | ORIGIN: MSTATION / J

ISS	DATE	REVISION	BY	CHKR	ENG	LPROC	APVD	B
	12/06/01		SSF					

MOUND SITE MAP

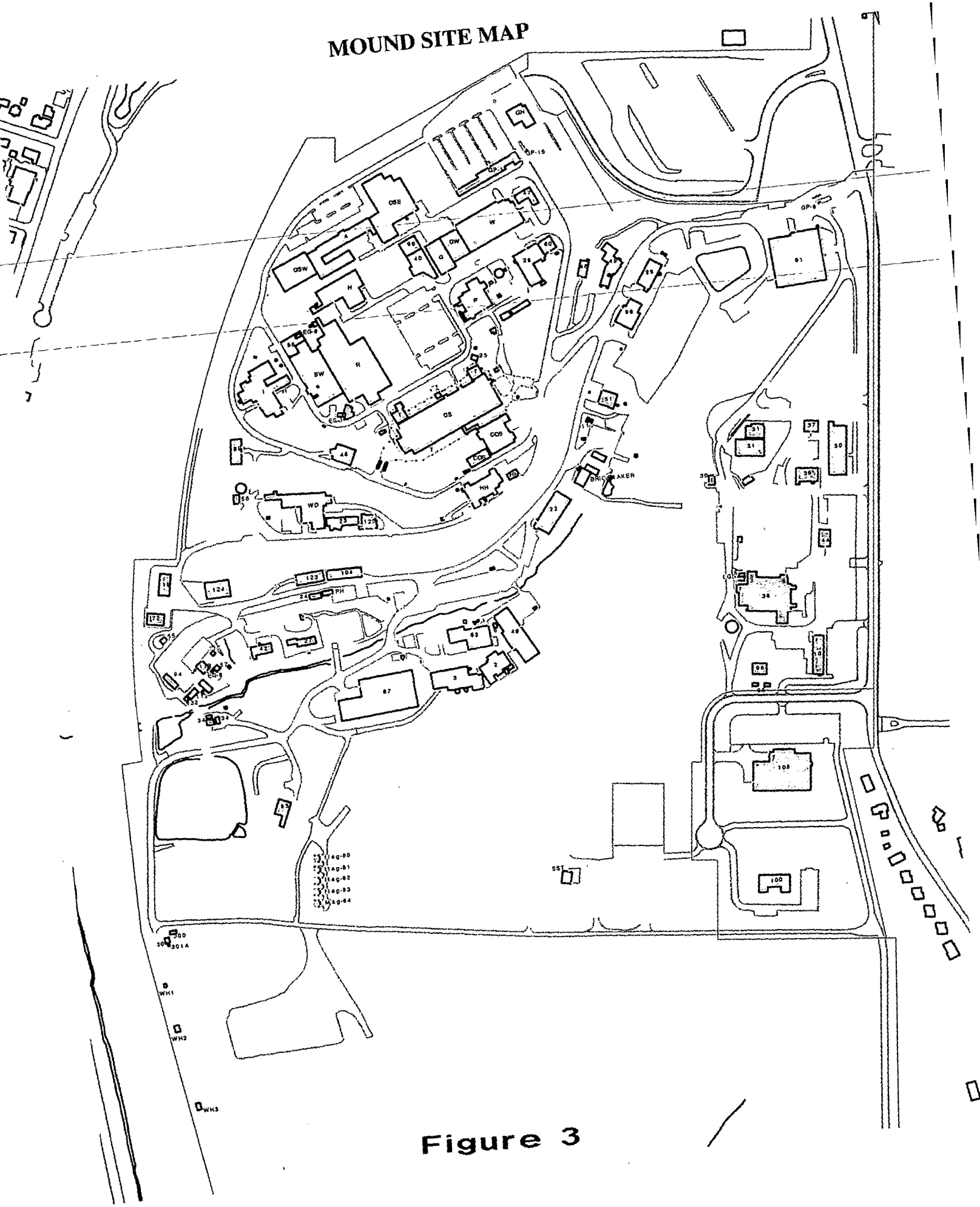


Figure 3

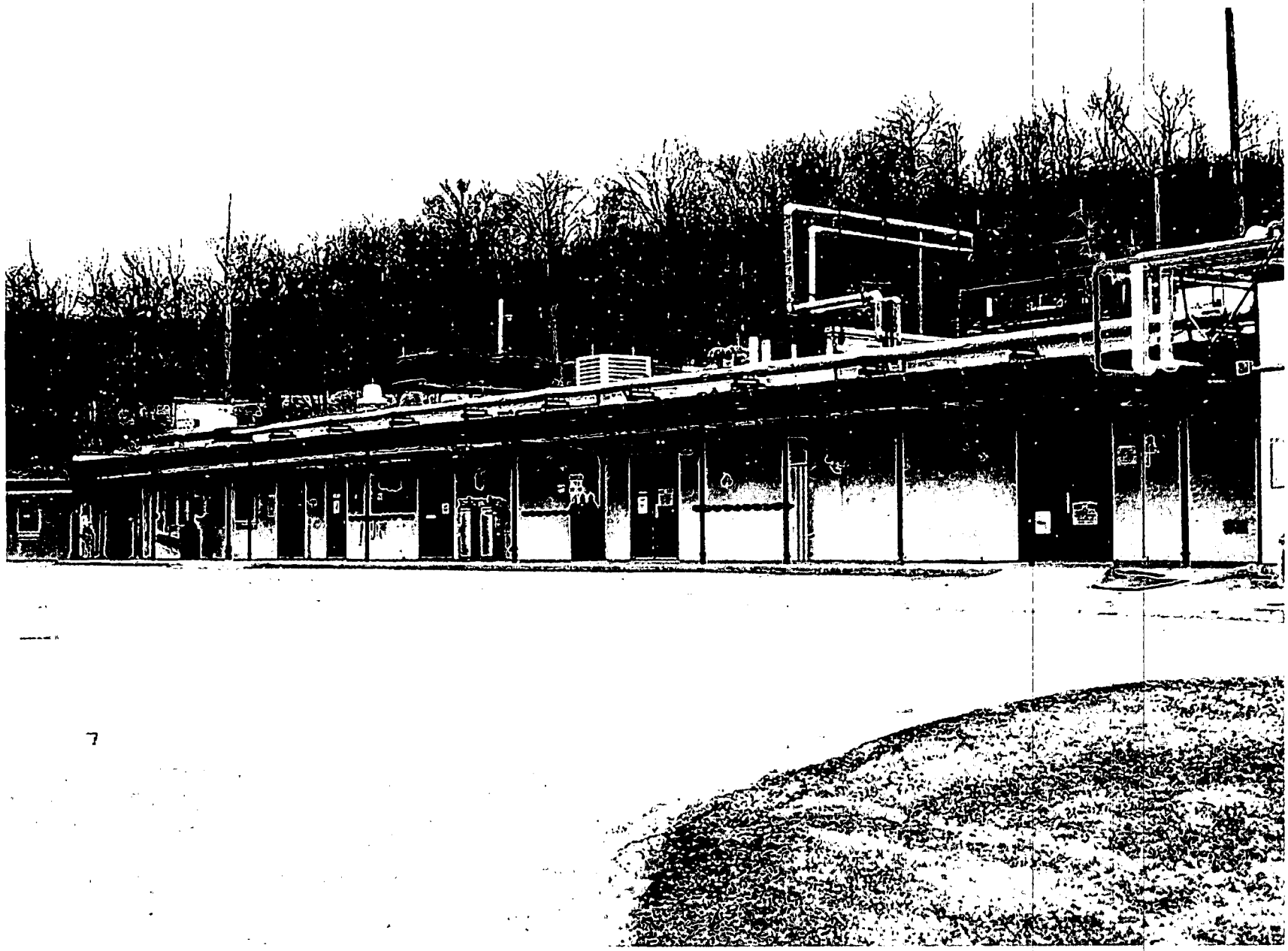
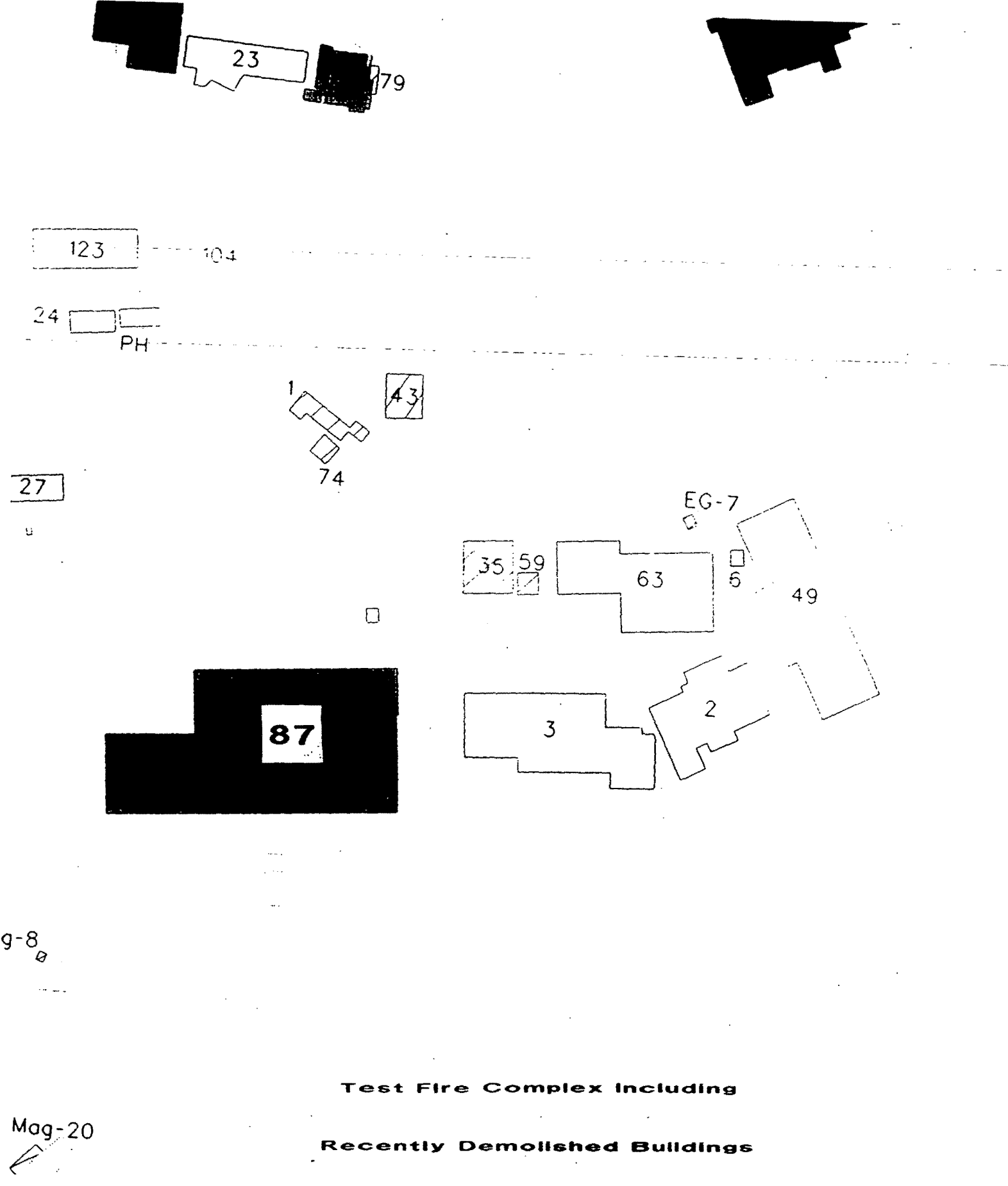


Figure 4



Test Fire Complex Including

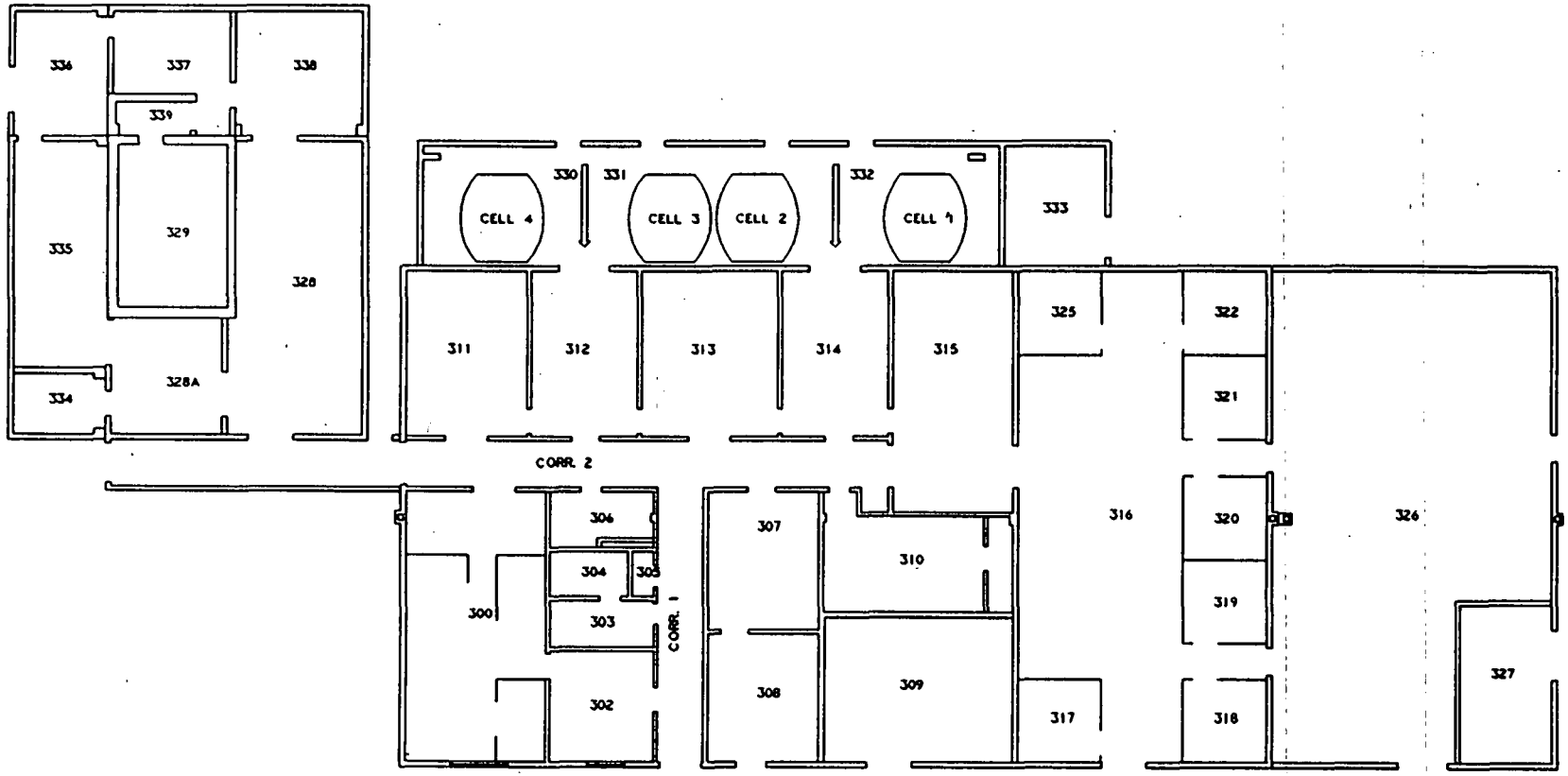
Recently Demolished Buildings

FIGURE 5

Appendix D

Building Drawing

ISS	DATE	REVISION	BY	CHKR	DES	LPMED	APVD	N
0	12/12/91	ASBUILT ISSUE	DCW				DVD	



BLDG #3
FIRST FLOOR
BLDG CODE:3003

DOES NOT CONTAIN
UNCLASSIFIED CONTROLLED
NUCLEAR INFORMATION
Reviewing Official: ADMIN. SERVICES - DOCU. CONTROL
(name/organization)

Date: 10-9-01

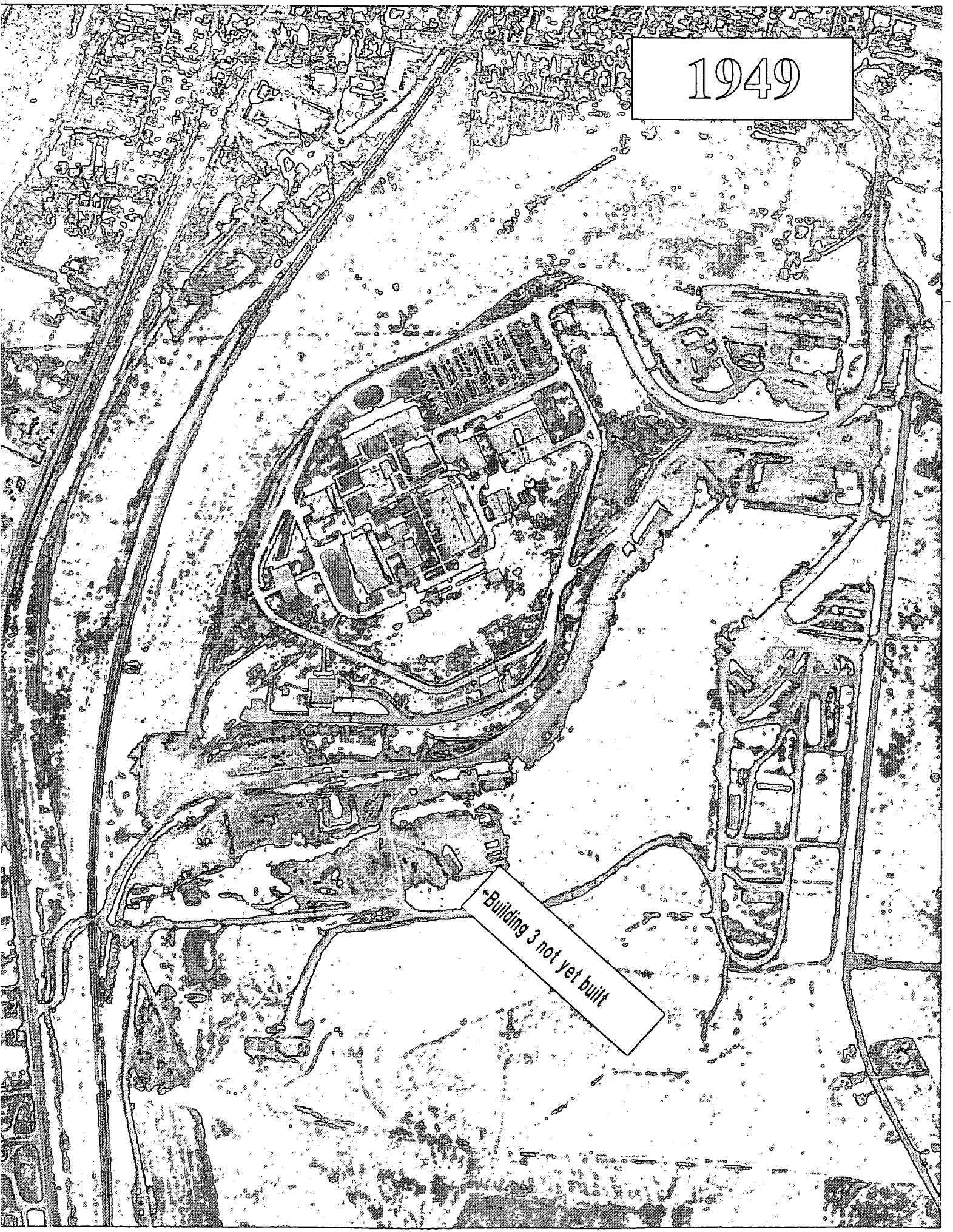
APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED: ___ NONE ___ TRUEDOC ___ TEDOC ___ EHDOC	
TECH. REP.	
BR. MGR.	
TRUEDOC	
TEDOC	
EHDOC	

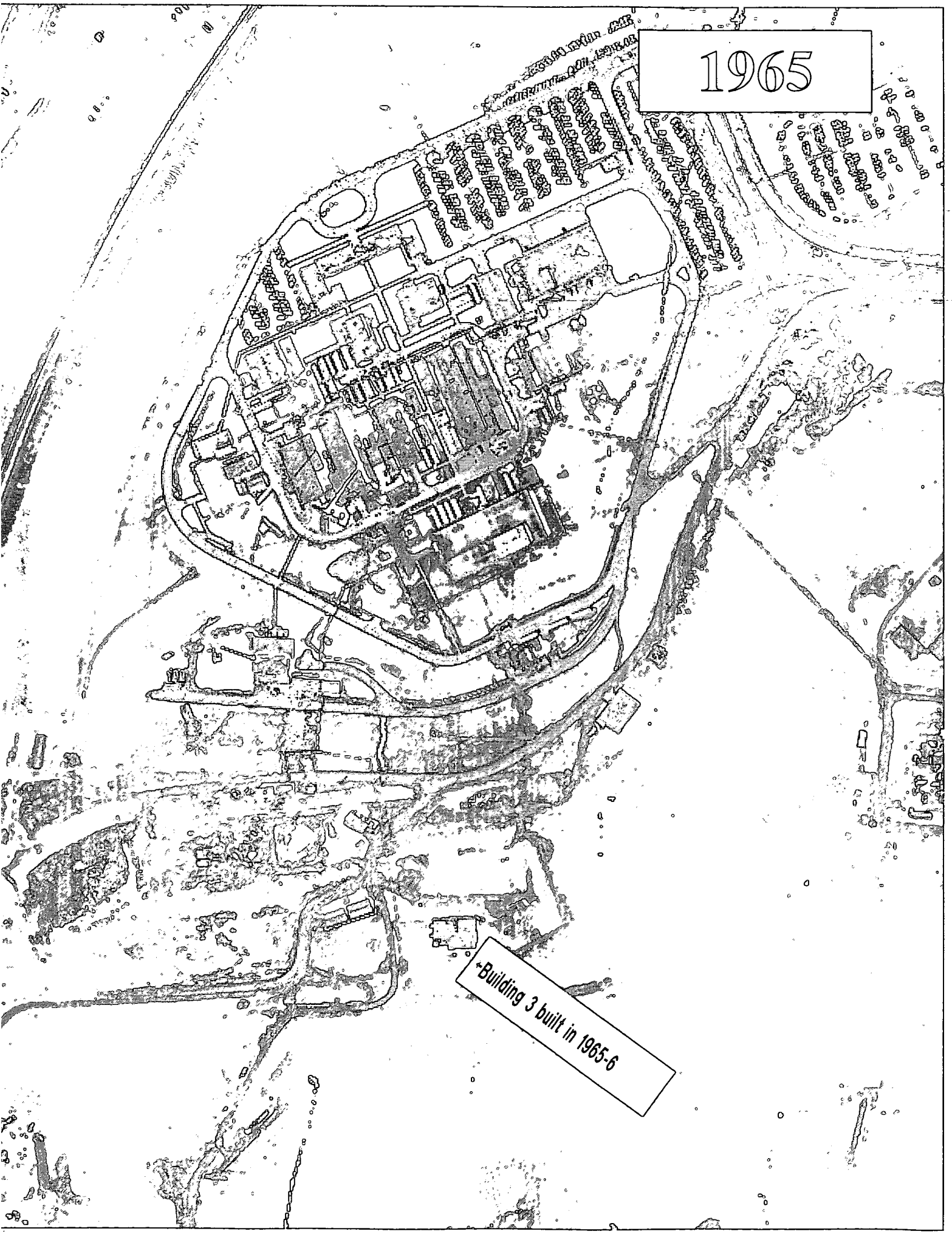
DESIGN ENG	PROJ MGR
SPONS	ENG SUPV
UP & CC	PROD REV
CHG MGR	
APVD	DATE

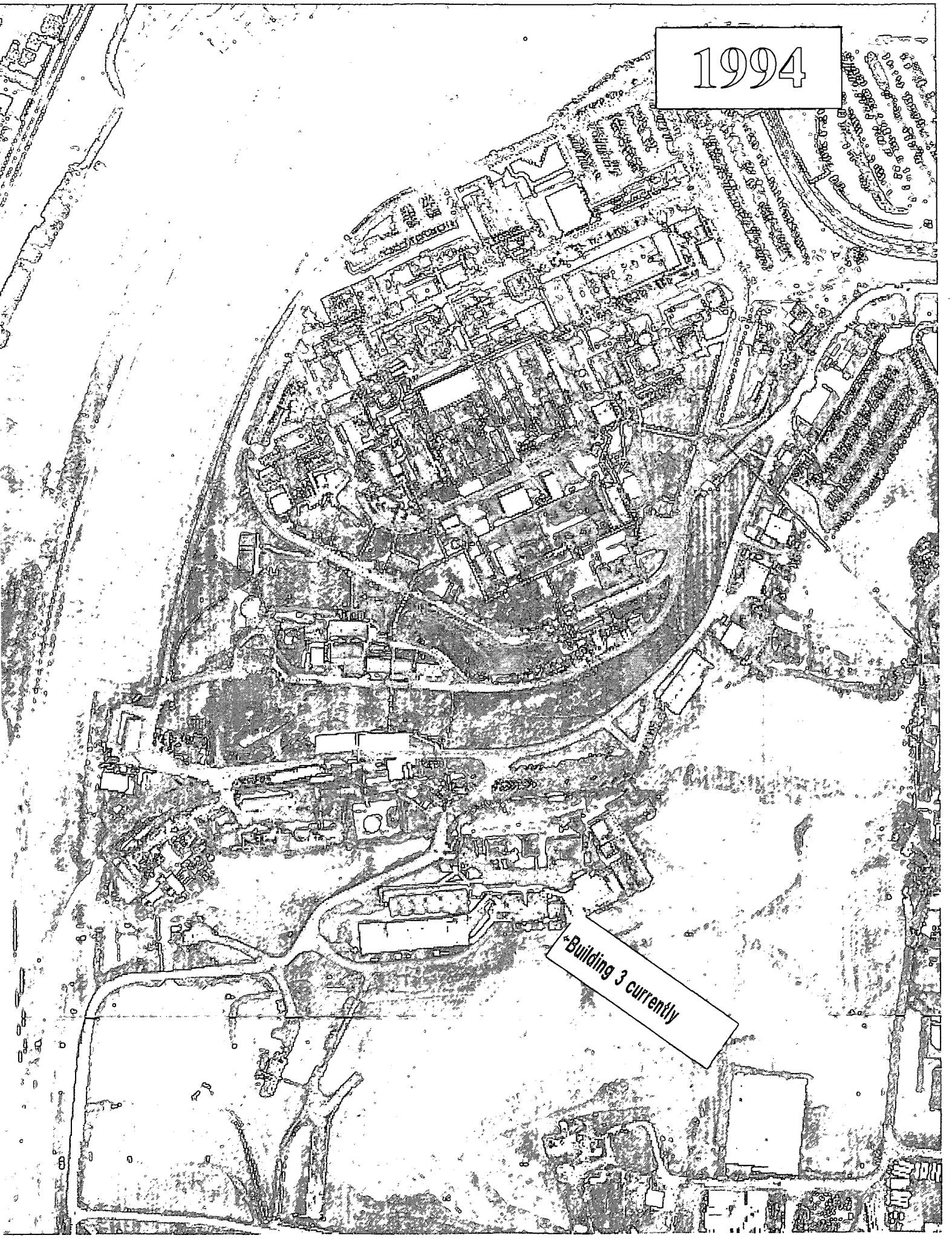
SHEET	1	2	3	4	5	6	TITLE (U) TITLE CLASSIFICATION
ISSUE	0						BLDG #3 FLOOR PLANS
PART CLASSIFICATION							
DRAWING CLASSIFICATION: ~~UCNI~~ UNCL	SIZE: C	DRAWING NUMBER: FSC911228	JOB NUMBER: 12335				
DWG TYPE: SFP	PROJ: BLDG #3	CODE: 14865	SCALE: AS NOTED	SHEET 1 OF 1			
STATUS: MD-REL-12/12/91	DESIGN: MD-BR3-V3.0						

Appendix E

Aerial Photographs


1949
←Building 3 not yet built


1965
Building 3 built in 1965-6


1994
*Building 3 currently

Appendix F

Environmental Appraisal Report of the Mound Plant (Excerpt)

9.38 BUILDING 3

9.38.1 Scope of Building 3 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 prepared to perform a walk-through of Building 3 on the morning of January 29, 1996; however, it was confirmed by the building manager that the building had been leased to the City of Miamisburg. Therefore, an environmental appraisal was not conducted. No Building Manager's Questionnaire (BMQ) was available and the Environmental Appraisal Checklist (EAC) was not completed since the building was leased.

9.38.2 Description of Building 3

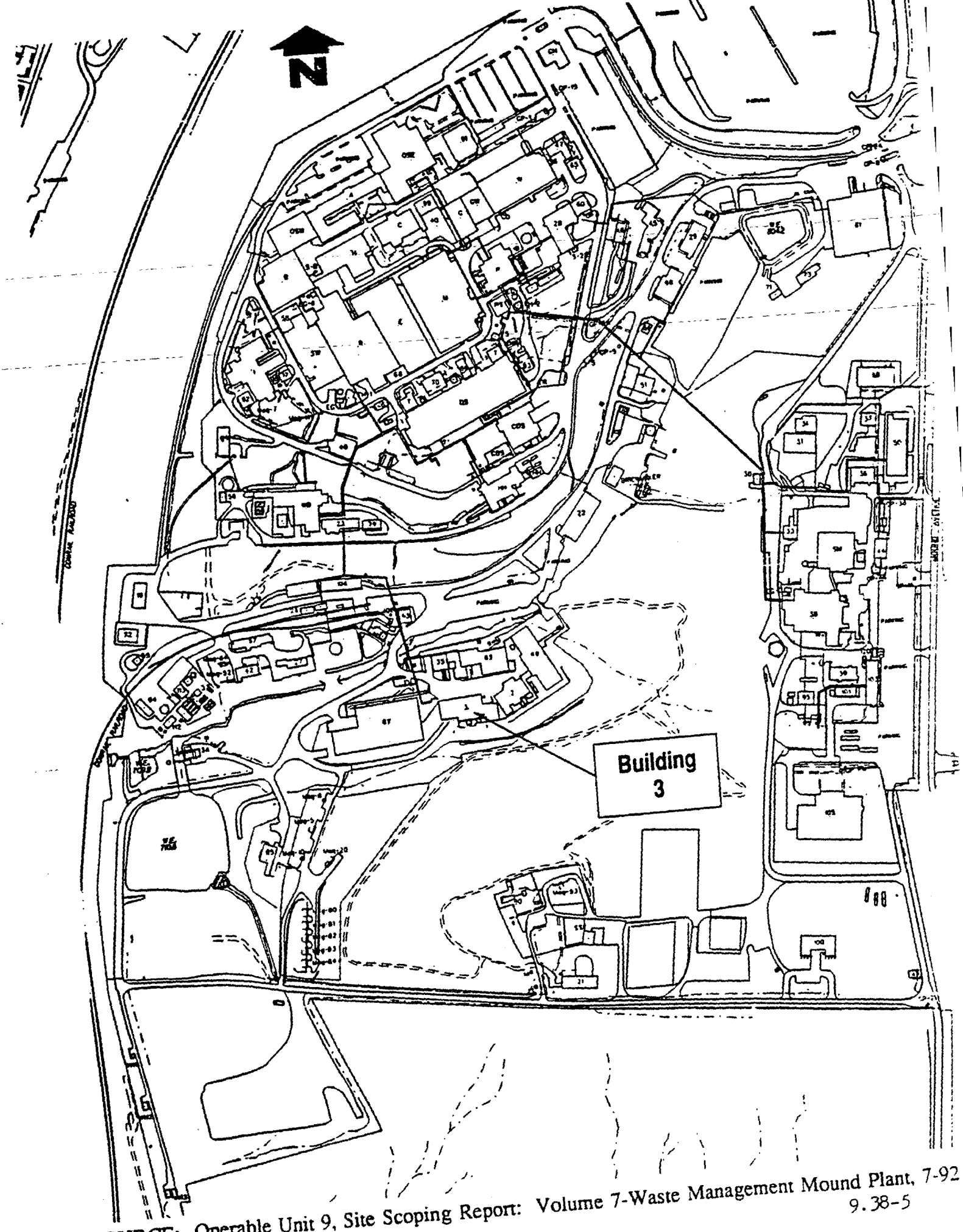
Building 3, the destructive and environmental testing laboratory, is a one-story, 12,400-square-foot reinforced concrete and concrete block, slab-on-grade structure with a built-up membrane (coal tar) roof. Its location is shown in Attachment 1 (Section 9.38.4.1). The building is bounded by a roadway to the north; Building 2 to the east, an open gravel area to the south, and Building 87 to the west. The structure contains offices, lavatories, testing rooms, storage, and a fabrication/assembly room. The building is serviced by sanitary and storm water service lines, Heating and air conditioning is by central steam and chilled water, and electric service of 480V is provided (*Mound Facility Physical Characterization*, 12-1-93).

Building 3 was constructed in 1966 (*Capital Assets Management Process, CAMP Report, FY96*). The building has been used for the same purpose since construction. Research and testing activities using energetic materials have occurred in the building. Research, development and testing activities using radioactive materials have not occurred. (*Mound Facility Physical Characterization*, 12-1-93).

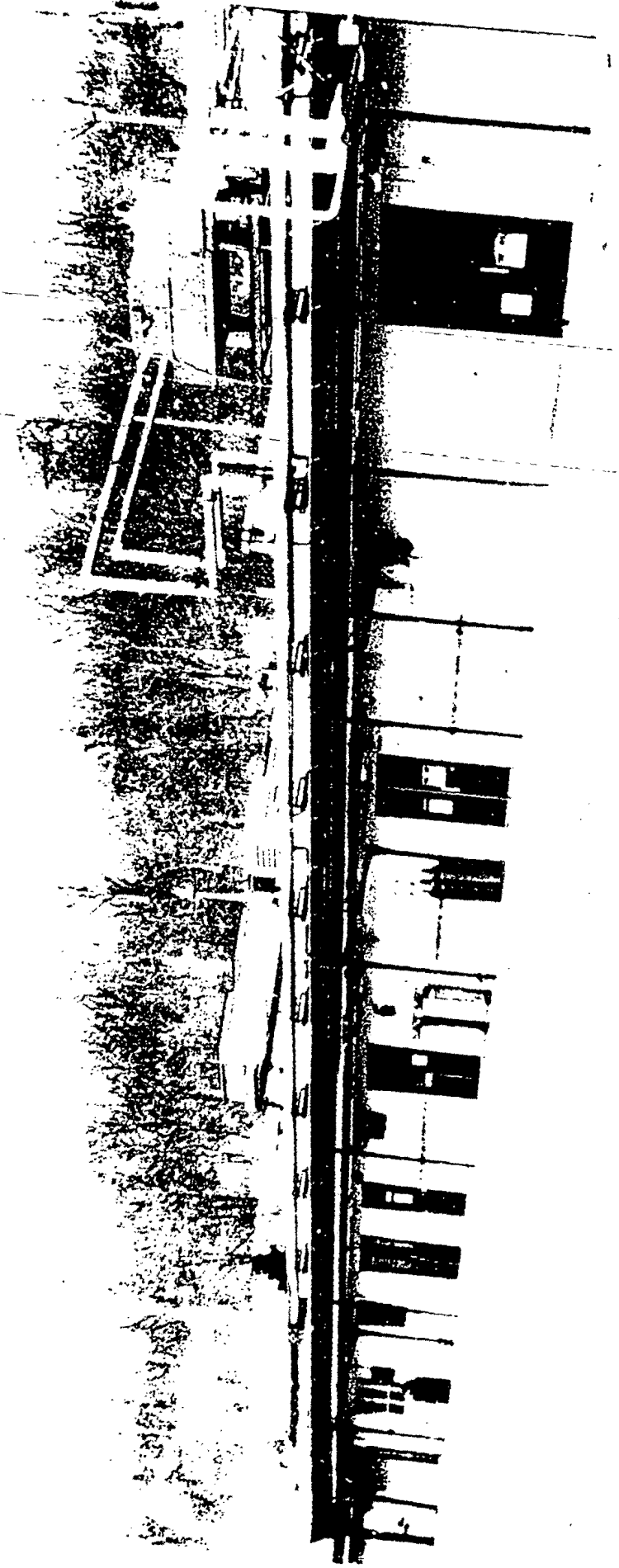
9.38.3 Summary of Findings

Building 3 has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A health physics safety determination and a liabilities assessment were made. An Environmental Site Assessment (ASTM E 1527-94 or ASTM E 1528-93) was not conducted. The building has been leased by the Department of Energy (DOE) to the City of Miamisburg which accepted the liabilities assessment. The General Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.38.4.2). Since the building has been leased, an EAC was not prepared and no further action was taken concerning this building.



SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92



Mound Plant Building 3

Appendix G

Radiological Summary/Information

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) Building 3	SURVEY NO. 01-OSA-059
PURPOSE: Confirmatory Survey	RWP NO. N/A
	DATE: 10-10-01
	TIME: 10:20

MAP / DRAWING

COPY

1. Surveys performed using the guidance contained in "Generic Process for the Disposition of Buildings..."
2. Floor plans and direct measurements listed on page 2.
3. Direct measurements using N.E. Electra are: $\alpha < 100$ dpm/100 cm^2, $\beta^- < 5000$ dpm/100 cm^2 unless otherwise noted. Direct measurements using Ludlum 2350 and 43-37 detector are listed on pages 4 and 5.
4. (Fxx) Denotes floor measurement locations

   (Dxx) Denotes floor drain measurement locations

   (Wxx) Denotes wall measurement locations
5. Large area wipes (> 1ft^2) taken in all rooms with direct measurements: $\alpha < 100$ dpm, $\beta^- < 5000$ dpm per swipe.

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr ($\beta+\eta+\gamma$) extremity on contact
K = factor of 1000
— · — · · = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Ludlum 2350	5673/5676	11-10-01
N.E. Electra	5393/5407	7-17-02
		A
N		

[redacted]	HP# 6178 6196	Date: 10-16-01
Completed by: (Print Na[redacted]		
~~Counted by: (Signature)~~	HP#	Date: A
Counted by: (Print Name) N		
R[redacted]	HP# 8405	Date: 10/18/01
R[redacted]		

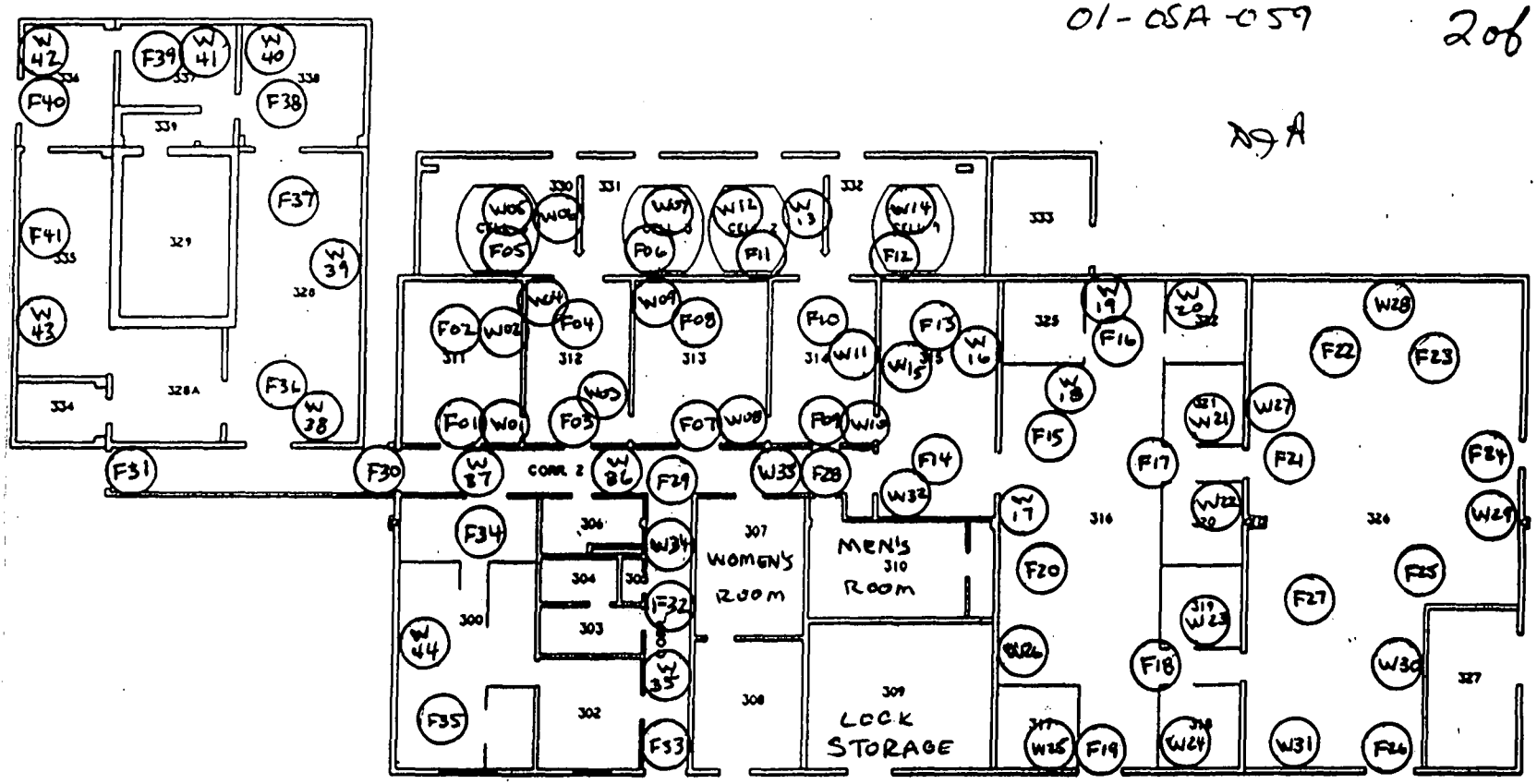
ML-9620 (2-98) Computer Generated

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

01-OSA-059

2 of 5

A9 A



(Fxx) DENOTES DIRECT MEASUREMENTS TAKEN ON FLOOR WITH LUDLUM 2350 W/43-37 DETECTOR

(Dxx) DENOTES DIRECT MEASUREMENTS TAKEN ON FLOOR DRAINS WITH LUDLUM 2350 W/43-47 DETECTOR

(Wxx) DENOTES DIRECT MEASUREMENTS ON WALL SURFACES WITH NE ELECTRA α < 100 dpm/100 cm² β < 5K dpm/100 cm²

– LARGE AREA WIPES (>1 ft²) TAKEN IN ALL ROOMS WITH DIRECT MEASUREMENTS

α < 100 dpm

β < 5K dpm

BLDG #3
FIRST FLOOR
BLDG CODE:3003

DOES NOT CONTAIN
UNCLASSIFIED CONTROLLED
NUCLEAR INFORMATION
Reviewing Official: ADMN. SERVICES – DOCUMENT CONTROL
(name/organization)

Date: 10-9-01

SHEET	1	2	3	4	5	6
ISSUE	B					

TITLE: BLDG #3 FLOOR PLANS

(U) TITLE CLASSIFICATION

SECURITY CLASSIFICATION: ~~SECRET~~ UNCL

FILE: C

DRAWING NUMBER: FSC911228

JOB NUMBER: 12333

DWG TYPE: OPP

FROM: BLDG #3

CHKD: 4/8/15

SCALE: 1/8"

SHEET 1 OF 1

DRAWN: MD-REL-12/12/91

CHKD: MD-DRS-V3.0

CONTAMINATION PROBE INTEGRATED COUNT MDA

<SELECT> Probe Type		584	Model 43-37 cm2	Active Probe Area
<ENTER> Isotopic Efficiency Listed on Probe	EI	[illegible]	c/d	Instrument Efficiency (Listed on Probe)
<SELECT> Contamination Type (Alpha Or Beta)	Es		0.5	Surface Efficiency (1 for beta/0.5 for alpha)
	E	0.083		Total Efficiency (CALCULATED =EI * Es)
<ENTER> Background Count Rate	Rb	64	CPM	Background Count Rate
<ENTER> Background Count Time (minutes)	Tb	5	min.	

Enter the above information in the 'gray areas'. Then adjust sample intergrated count time to obtain desired MDA.

Sample Integrated Count Time (sec.)		18	sec.
Sample Count Time (minutes) (Tsb)		0.30	min.
*	MDA	50	dpm/100 cm2

Minimum Activity Detected Per Probe Area (dpm/Probe)

294

Performed by: [redacted]

HP#: 7707

Date: 10/10/01

* MDA Equation Source: NUREG 1507, Eq. 3-11 (Strom & Stansbury 1992), where K = E*A/100

01-OSA-059 3 of 5

DJH

BLDG 3 M-2350 SURVEY

RSDS# 01-05A-059 RCT: DGH RCT: MOL

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
SCRBKG	5673	7707	5676	3	0	10/10/01	7:40	27	300	10
SCRCHECK	5673	7707	5676	3	1	10/10/01	7:42	2248	60	4325
SCRCHECK	5673	7707	5676	3	2	10/10/01	7:44	2227	60	4285
SCRCHECK	5673	7707	5676	3	3	10/10/01	7:45	2258	60	4344
SCRCHECK	5673	7707	5676	3	4	10/10/01	7:47	2281	60	4389
SCRCHECK	5673	7707	5676	3	5	10/10/01	7:48	2265	60	4358
SCRCHECK	5673	7707	5676	3	6	10/10/01	7:50	2184	60	4202
BLD3F01	5673	7707	5676	3	36	10/10/01	10:22	6	18	38
BLD3F02	5673	7707	5676	3	37	10/10/01	10:23	1	18	6
BLD3F03	5673	7707	5676	3	38	10/10/01	10:23	3	18	19
BLD3F04	5673	7707	5676	3	39	10/10/01	10:24	3	18	19
BLD3F05	5673	7707	5676	3	40	10/10/01	10:25	1	18	6
BLD3F06	5673	7707	5676	3	41	10/10/01	10:26	7	18	45
BLD3F07	5673	7707	5676	3	42	10/10/01	10:26	7	18	45
BLD3F08	5673	7707	5676	3	43	10/10/01	10:27	6	18	38
BLD3F09	5673	7707	5676	3	44	10/10/01	10:28	6	18	38
BLD3F10	5673	7707	5676	3	45	10/10/01	10:29	3	18	19
BLD3F11	5673	7707	5676	3	46	10/10/01	10:29	2	18	13
BLD3F12	5673	7707	5676	3	47	10/10/01	10:30	7	18	45
BLD3F13	5673	7707	5676	3	48	10/10/01	10:32	2	18	13
BLD3F14	5673	7707	5676	3	49	10/10/01	10:32	4	18	26
BLD3F15	5673	7707	5676	3	50	10/10/01	10:33	6	18	38
BLD3F16	5673	7707	5676	3	51	10/10/01	10:34	4	18	26
BLD3F17	5673	7707	5676	3	52	10/10/01	10:35	3	18	19
BLD3F18	5673	7707	5676	3	53	10/10/01	10:35	4	18	26
BLD3F19	5673	7707	5676	3	54	10/10/01	10:36	3	18	19
BLD3F20	5673	7707	5676	3	55	10/10/01	10:37	4	18	26
BLD3F21	5673	7707	5676	3	56	10/10/01	10:38	6	18	38
BLD3F22	5673	7707	5676	3	57	10/10/01	10:39	9	18	58
BLD3F23	5673	7707	5676	3	58	10/10/01	10:40	2	18	13
BLD3F24	5673	7707	5676	3	59	10/10/01	10:40	8	18	51
BLD3F25	5673	7707	5676	3	60	10/10/01	10:41	10	18	64
BLD3F26	5673	7707	5676	3	61	10/10/01	10:42	9	18	58
BLD3F27	5673	7707	5676	3	62	10/10/01	10:43	6	18	38
BLD3F29	5673	7707	5676	3	63	10/10/01	10:48	0	18	0
BLD3F29	5673	7707	5676	3	64	10/10/01	10:49	6	18	38
BLD3F30	5673	7707	5676	3	65	10/10/01	10:50	2	18	13
BLD3F31	5673	7707	5676	3	66	10/10/01	10:51	6	18	38
BLD3F32	5673	7707	5676	3	67	10/10/01	10:51	6	18	38

BLDG 3 M-2350 SURVEY

RSDS# 01-05A-059 RCT: DJH RCT: MA

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
BLD3F33	5673	7707	5676	3	68	10/10/01	10:52	7	18	45
BLD3F34	5673	7707	5676	3	72	10/10/01	12:46	5	18	32
BLD3F35	5673	7707	5676	3	73	10/10/01	12:47	2	18	13
BLD3F36	5673	7707	5676	3	74	10/10/01	12:50	1	18	6
BLD3F37	5673	7707	5676	3	75	10/10/01	12:51	3	18	19
BLD3F38	5673	7707	5676	3	76	10/10/01	12:52	4	18	26
BLD3F39	5673	7707	5676	3	77	10/10/01	12:53	2	18	13
BLD3F40	5673	7707	5676	3	78	10/10/01	12:54	6	18	38
BLD3F41	5673	7707	5676	3	79	10/10/01	12:54	2	18	13

'Sheily J

No.

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

To be filled out by Submitter

Name: [redacted]	**HP #:** 2748	**RWP #:**
Isotope: all	**Analysis Required:** ☒ Alpha ☒ Beta ☒ H^3	

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

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

Time and Date Sample Was Taken: 2-24-95 **Pre-screened:** ☐ Yes ☒ No **No. of Samples:** 124

Remarks: Bldg 3 N/D-non detectable
electret # 5271/5287 used to monitor Beta Readings

WIPE AREA: ☒ 100 cm² ☐

Fidler Check	#3175/3413	3041/3434	
Next Cal. Due	2-24-95	5-3-95	

CHANNEL		One	Out	Two
	Bkg	150	6K	N/A
	Pu	22K		
Field Inst. Res.	Th	2.5K		N/A

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 CM² #5266	PAC DPM/100 CM² #5281		
Background	Background									
[redacted]	Check Standard						(A)	(B)		
3-H-1	floor			N/D	N/D	N/A	N/D	N/D		
3-H-2	floor									
3-H-3	Door									
3-312-1	floor									
3-312-2	Door									
3-312-3	Counter									
3-312-4	Floor									
3-312-5	floor									
3-330-1-1	floor									
3-cell 4-1	floor									
3-cell 4-2	floor									
3-330-2	floor									
3-331-1-1	floor									
3-331-1-2	floor									
3-313-1	floor									
3-313-2	floor									
3-313-3	Counter									
3-313-4	Equipment									
3-314-1	floor									
3-314-2	floor									
3-314-3	floor									
3-331-10-1	floor									
3-331-10-2	floor									
3-331-10-3	Door			N/D	N/D	N/A	N/D	N/D		

Counting Facility Technician's Signature: [redacted] **HP #** 2272

Radiological Control Technician's Signature: Cindy P Collins **HP #** _____

Date Submitted: [redacted] **Date Completed:** 3-3-95

Reviewed By: [redacted] **HP #** 4955 **Date:** 3/6/95

fidler #3175/3413 used to monitor out channel fidler # 3041/3434 used to monitor channel 1

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

2 of 4

N/D - non Detectable

electra #5271/5287 used to monitor for beta readings

CHANNEL		One	Out	Two
	Bkg	150	6K	N/A
	Pu	22K		
Field Inst. Res.	Th	25K		N/A

WIPE AREA: ☒ 100 cm² ☐

Fidler Check #3175/3613 3041/3134

Next Cal. Due 2-24-95 5-3-95

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 CM² #5266 (A)	PAC DPM/100 CM² #5281 (B)		
Background	Background									
	Check Standard									
3-332-1-1	Floor			N/D	N/D	N/A	N/D	N/D		
3-332-1-2	Drain									
3-332-1-3	Desk									
3-315-1	Floor									
3-315-2	Floor									
3-315-3	Equipment									
3-315-4	Counter									
3-316-1	Floor									
3-316-2	Floor									
3-316-3	Equipment									
3-316-4	Counter									
3-316-5	Equipment									
3-316-6	Floor									
3-316-7	Hall									
3-317-1	Floor									
3-317-2	Equipment									
3-325-1	Floor									
3-325-2	Equipment									
3-325-3	Counter									
3-322-1	Floor									
3-322-2	Equipment									
3-319-1	Floor									
3-319-2	Door									
3-319-3	Equipment									
3-318-1	Floor									
3-318-2	Equipment									
3-318-3	Door									
3-326-1	Floor									
3-326-2	Floor									
3-326-3	Floor									
3-326-4	Drain									
3-326-5	Equipment									
3-326-6	Equipment									
3-320-1	Floor									
3-320-2	Equipment									
3-321-1	Floor									
3-321-2	Counter			N/D	N/D	N/A	N/D	N/D		

Counting Facility Technician's Signature: [redacted] HP # 2572

Radiological Control Technician's Signature: _____ HP # _____

Date Submitted: 2-25-95 Date Completed: 3-3-95

Reviewed By: [redacted] HP # 4959 Date: 3/6/95

ML-9380 (6-94) G AREA SPECIFIC

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

N/D - non detectable

eberline #5271/5287 used to monitor for Beta Readings

CHANNEL		One	Out	Two
	Bkg	150	6K	N/A
	Pu	22K		
Field Inst. Res.	Th	2.5K		N/A

WIPE AREA:		Fidler Check	#3175/3613	3041/3454
☒ 100 cm² ☐		Next Cal. Due	2-24-95	5-3-95

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 CM² #5266	PAC DPM/100 CM² 5287		
Background	Background									
	Check Standard						(A)	(B)		
3-321-3	Center			N/D	N/D	N/A	N/D	N/D		
3-H-1	Floor									
3-H-2	floor									
3-H-3	floor									
3-307-1	floor									
3-307-2	counter									
3-307-3	floor									
3-308-1	floor									
3-308-2	counter									
3-310-1	Drain									
3-310-2	floor									
3-310-3	Door									
3-310-4	Bathroom									
3-305-1	floor									
3-305-2	Door									
3-303-1	floor									
3-303-2	Counter									
3-304-1	floor									
3-304-2	Equipment									
3-306-1	floor									
3-306-2	Drain									
3-301-1	floor									
3-301-2	Counter									
3-301-3	Equipment									
3-329-1	WALL									
3-329-2	WALL									
3-329-3	floor									
3-329-4	floor									
3-329-5	WALL									
3-335-1	Counter									
3-335-2	floor									
3-335-3	floor									
3-336-1	floor									
3-336-2	counter									
3-336-3	WALL									
3-337-1	floor									
3-337-2	Center			N/D	N/D	N/A	N/D	N/D		

Counting Facility Technician's Signature: [redacted] HP # 2272

Radiological Control Technician's Signature: _____ HP # _____

Date Submitted: 2-25-95 Date Completed: 3-3-95

Reviewed By: [redacted] HP # 4957 Date: 3/16/95

ML-9380 (6-94) G AREA SPECIFIC

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

N/D - non detectable

electra #5271/5287 used to monitor Beta readings

WIPE AREA:		Fidler Check	# 3175/3613	3041/3404
☑ 100 cm² ☐		Next Cal. Due	2-24-95	5-3-95

CHANNEL		One	Out	Two
	Bkg	150	6K	N/A
	Pu	22K		
Field Inst. Res.	Th	2.5K		N/A

Sample ID #	Sample Description	Alpha/Beta DPM/CPM Results	Alpha/Beta Inst. ID	Fidler/CPM One	Fidler/CPM Out	Fidler/CPM Two	PAC DPM/100 CM² #5266	PAC DPM/100 CM² #5287		
Background	Background									
[redacted]	Check Standard						(A)	(B)		
3-337-3	Floor			N/D	N/D	N/A	N/D	N/D		
3-337-4	Vent									
3-338-1	Floor									
3-338-2	Counter									
3-338-3	Vent									
3-338-4	Floor									
3-328E-1	Floor									
3-328E-2	Counter									
3-328E-3	Counter									
3-328E-4	Floor									
3-328E-5	Equipment									
3-328A-1	Floor									
3-328A-2	Floor									
3-328-3	Equipment									
3-335-1	Counter									
3-335-2	Floor									
3-335-3	Floor									
3-334-1	Floor									
3-334-2	Counter									
3-302-1	Floor									
3-302-2	Equipment									
3-309-1	Floor									
3-309-2	Equipment									
3-309-3	Drain			N/D	N/D	N/A	N/D	N/D		
3-326-1	Filters in use			N/D	N/D	N/A	345	3730		
3-326-2	Filters in use			N/D	N/D	N/A	194	2845		

Counting Facility Technician's Signature: [redacted] HP # 2272

Radiological Control Technician's Signature: _____ HP # _____

Date Submitted: 2-25-95 Date Completed: 3-3-95

Reviewed By: [redacted] HP # 4959 Date: 3/16/95

ML-9380 (6-94) G AREA SPECIFIC

Health Physics Counting Lab – Wipe Analysis

Date: 03/3/95
Counting Unit Id: 2
Data file name: C:\LBXL\UNIT2\WIP2B000.XLD
Batch Ended: 03/3/95 12:38
Crosstalk Correction: Applied

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

Batch ID: COLLAS BLDG. 3 WIPES (124) 2-24-95 FMK

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
11	1	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 8:31
67	2	0.000	1.96	<MDA	4.96	3.93	<AL	1.50	03/3/95 8:33
94	3	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 8:35
27	4	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 8:37
12	5	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 8:39
15	6	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 8:41
68	7	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 8:43
72	8	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 8:45
28	9	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 8:47
44	10	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 8:49
33	11	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 8:51
63	12	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 8:53
64	13	1.436	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 8:54
24	14	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 8:56
2	15	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 8:59
3	16	1.432	1.95	<MDA	2.96	3.52	<MDA	1.50	03/3/95 9:01
85	17	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 9:03
31	18	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:04
62	19	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 9:06
78	20	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:08
31	21	1.435	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:10
1	22	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:12
29	23	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 9:14
56	24	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:16
52	25	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:18
60	26	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:20
34	27	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 9:22
91	28	1.434	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 9:24
28	29	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:26

Health Physics Counting Lab -- Wipe Analysis

Date: 03/3/95
Counting Unit Id: 2
Data file name: C:\LBXL\UNIT2\WIP2B000.XLD
Batch Ended: 03/3/95 12:38
Crosstalk Correction: Applied

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

Batch ID: COLLAS BLDG. 3 WIPES (124) 2-24-95 FMK

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
87	30	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 9:28
16	31	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:30
2	32	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 9:32
16	33	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:34
123	34	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 9:36
126	35	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 9:38
124	36	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 9:40
120	37	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:42
25	38	1.434	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 9:44
21	39	1.436	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:46
93	40	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 9:48
98	41	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:50
77	42	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 9:52
26	43	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 9:54
131	44	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 9:56
26	45	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 9:58
60	46	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:00
63	47	1.436	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:02
75	48	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:04
39	49	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:06
13	50	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:08
101	51	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:10
44	52	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:12
71	53	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:14
97	54	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:16
119	55	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:18
58	56	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 10:20
57	57	1.435	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:22
124	58	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 10:24

Health Physics Counting Lab -- Wipe Analysis

Date: 03/3/95
Counting Unit id: 2
Data file name: C:\LBXL\UNIT2\WIP2B000.XLD
Batch Ended: 03/3/95 12:38
Crosstalk Correction: Applied

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

Batch ID: COLLAS BLDG. 3 WIPES (124) 2-24-95 FMK

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
77	59	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:26
90	60	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:28
22	61	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:30
57	62	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:32
3	63	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:34
32	64	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:36
97	65	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:38
46	66	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:40
47	67	1.435	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:42
38	68	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 10:44
59	69	1.433	1.93	<MDA	1.20	3.04	<MDA	1.50	03/3/95 10:46
15	70	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:48
53	71	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:50
29	72	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:52
33	73	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:54
59	74	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 10:56
59	74	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 10:58
57	75	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:00
72	76	1.434	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 11:02
7	77	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:04
84	78	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:06
14	79	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:08
23	80	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:10
122	81	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 11:12
100	82	1.433	1.93	<MDA	1.20	3.04	<MDA	1.50	03/3/95 11:14
66	83	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:16
49	84	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:18
48	85	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:20
28	86	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:22

Health Physics Counting Lab – Wipe Analysis

Date: 03/3/95
Counting Unit Id: 2
Data file name: C:\LBXL\UNIT2\WIP2B000.XLD
Batch Ended: 03/3/95 12:38
Crosstalk Correction: Applied

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

Batch ID: COLLAS BLDG. 3 WIPES (124) 2-24-95 FMK

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
44	87	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:24
6	88	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 11:26
122	89	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 11:28
47	90	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:30
86	91	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 11:32
61	92	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 11:34
45	93	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:36
42	94	1.434	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 11:38
26	95	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:40
21	96	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 11:42
119	97	0.000	1.95	<MDA	3.20	3.52	<MDA	1.50	03/3/95 11:44
35	98	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:46
17	99	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 11:48
36	100	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 11:50
42	101	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 11:52
38	102	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 11:54
103	103	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 11:56
109	104	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 11:58
76	105	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:00
73	106	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 12:02
58	107	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:04
67	108	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:06
6	109	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:08
52	110	1.435	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:10
121	111	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 12:12
55	112	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 12:14
109	113	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:16
36	114	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:18
68	115	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 12:20

Health Physics Counting Lab -- Wipe Analysis

Date: 03/3/95
Counting Unit Id: 2
Data file name: C:\LBXL\UNIT2\WIP2B000.XLD
Batch Ended: 03/3/95 12:38
Crosstalk Correction: Applied

Alpha activity action level (DPM): 20.00
Beta activity action level (DPM): 200.00

Batch ID: COLLAS BLDG. 3 WIPES (124) 2-24-95 FMK

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
40	116	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 12:22
88	117	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:24
43	118	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:26
34	119	0.000	1.92	<MDA	0.00	2.49	<MDA	1.50	03/3/95 12:28
34	119	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:30
7	120	0.000	1.93	<MDA	1.45	3.04	<MDA	1.50	03/3/95 12:32
39	121	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:34
32	122	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:36
72	123	0.000	1.91	<MDA	0.00	1.76	<MDA	1.50	03/3/95 12:38

Protocol #: 2 Name:H3 Wipe 2Cpm BG 08-Mar-93 17:06
Region A: LL-UL= 0.0-18.6 Ler= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-18.6 Ler= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Ler= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
COLLAS BLDG-#3 WIPES 3 THRU 126
Conventional DPM
Nuclide 1 = 374
Luminescence Correction On

S#	TIME	CPMA	LUM	Photo%	FLAG	tSIE	DPM1
1	10.00	9.60	2	96.88	B	865.	
2	2.00	423.40	1	95.47		564.	743.46
3	2.00	0.00	0	0.00		652.	0.00
4	2.00	0.00	14	0.00		650.	0.00
5	2.00	0.00	6	0.00		687.	0.00
6	2.00	3.40	4	79.41		638.	5.78
7	2.00	0.40	5	175.0		687.	0.67
8	2.00	0.00	6	0.00		589.	0.00
9	2.00	0.00	0	0.00		604.	0.00
10	2.00	0.00	23	0.00		641.	0.00
11	2.00	0.00	5	0.00		634.	0.00
12	2.00	0.00	22	0.00		594.	0.00
13	2.00	0.00	11	0.00		587.	0.00
14	2.00	0.90	0	77.78		610.	1.55
15	2.00	1.90	0	63.16		619.	3.28
16	2.00	1.90	5	89.47		625.	3.25
17	2.00	0.00	11	0.00		637.	0.00
18	2.00	0.00	30	0.00		606.	0.00
19	2.00	0.00	21	0.00		652.	0.00
20	2.00	0.00	6	0.00		633.	0.00
21	2.00	0.00	5	0.00		637.	0.00
22	2.00	0.00	0	0.00		609.	0.00
23	2.00	0.00	0	0.00		608.	0.00
24	2.00	0.00	8	0.00		645.	0.00
25	2.00	0.00	18	0.00		637.	0.00
26	2.00	3.80	4	68.28		677.	9.52
27	2.00	2.40	0	112.5		684.	4.08
28	2.00	0.00	0	0.00		617.	0.00
29	2.00	0.00	5	0.00		664.	0.00
30	2.00	0.00	6	0.00		645.	0.00
31	2.00	0.00	11	0.00		646.	0.00
32	2.00	0.00	8	0.00		623.	0.00
33	2.00	1.90	0	63.16		677.	3.18
34	2.00	0.00	5	0.00		687.	0.00
35	2.00	0.00	14	0.00		681.	0.00
36	2.00	0.00	0	0.00		657.	0.00
37	2.00	0.90	0	133.3		681.	1.50
38	2.00	0.00	0	0.00		646.	0.00
39	2.00	0.00	7	0.00		658.	0.00
40	2.00	1.90	5	89.47		663.	3.17
41	2.00	0.00	8	0.00		659.	0.00
42	2.00	0.00	0	0.00		637.	0.00
43	2.00	0.00	6	0.00		635.	0.00
44	2.00	0.40	5	50.00		640.	0.68
45	2.00	1.90	9	142.1		673.	3.16
46	2.00	2.40	8	91.67		639.	4.08

SP	TIME	CFMA	LUMP	hot%	FLAG	[illegible]	CFM1
103	2.00	0.00	0	0.00		633.	0.00
104	2.00	0.00	11	0.00		639.	0.00
105	2.00	0.00	8	0.00		664.	0.00
106	2.00	0.00	0	0.00		637.	0.00
107	2.00	0.00	13	0.00		661.	[illegible]
108	2.00	0.00	12	0.00		650.	[illegible]
109	2.00	[illegible]	[illegible]	[illegible]		645.	0.00
110	2.00	1.40	0	85.71		662.	2.08
111	2.00	0.00	11	0.00		621.	0.00
112	2.00	1.40	0	85.71		647.	1.37
113	2.00	0.40	0	0.00		634.	0.68
114	2.00	0.00	14	0.00		629.	0.00
115	2.00	0.00	6	0.00		635.	0.00
116	2.00	0.00	0	0.00		633.	0.00
117	2.00	0.00	11	0.00		656.	0.00
118	2.00	0.00	9	0.00		643.	0.00
119	2.00	2.30	0	110.3		654.	4.80
120	2.00	0.00	6	0.00		653.	0.00
121	2.00	0.40	14	175.0		664.	0.67
122	2.00	0.00	11	0.00		588.	0.00
123	2.00	0.00	24	0.00		607.	0.00
124	2.00	0.40	0	0.00		547.	0.71
125	2.00	0.00	30	0.00		633.	0.00
126	2.00	0.00	14	0.00		588.	0.00

PROPERTY/WASTE RELEASE EVALUATION

PRE Number: ~~013196 (JH)~~ M 2/1/96 013196-3-01

PART I Sender/Custodian

Description of Property/Waste to be Released/Transferred:

ALL EQUIPMENT - BLDG 3

Property's Current Location: BLDG 3

Property's Destination: BLDG 3 — MMCIC

Property's New Recipient/Custodian: MMCIC

Property's History/Process Knowledge: BUILDING 3 IS NOT A RAD BUILDING. IN THE LATE 1960's AN ENVIRONMENTAL TEST WAS RUN ON NUCLEAR DEVICES IN ROOM 316 AND ATTACHED CELLS (ROOMS). THE AREA WAS MONITORED BY HP. THE EQUIPMENT USED HAS BEEN REPLACED SINCE THAT TIME.

Has Property/Waste ever been in an RBA, Contamination Area, Airborne Radioactivity Area or contacted radioactive materials? ☐ Yes ☒ No ☐ Unknown

ACKNOWLEDGEMENT: By signing below, the sender/custodian verifies the above information to be true and correct.

Sender/Custodian: (Print Name) [redacted]

(Signature) [redacted] **H.P. No.** 3116

Date: 1/9/96 **Pager:** _____ **Ext.:** 3116

PART II Area Health Physicist

Check any of the following that applies:

Type of Evaluation: ☑ Specific ☐ Extended (Expires: _____)

☐ No radiological survey is required due to the property's location, history, and/or characteristics.

☑ Radiological survey for both removable and fixed contamination: ☑ Alpha ☑ Beta/gamma

☐ Radiological survey via spectral analysis

☑ Radiological survey for removable tritium

Specific requirements and/or comments:

This P/WRE is for the release (unrestricted) of MATERIAL only identified on the ATTACH computer printout. Blue Highlighted items are to recieve 100% survey for fix and removable α, β/γ and tritium removable in accordance with release criteria MD-80036, Operation 90014. Purple Highlighted item are to recieve External fixed and removable contamination for α, βγ and External removable tritium. If contamination is found in excess of Operation 90014 release criteria a 100% survey of all items is required. The release of Low Value MATERIAL not LISTED on the ATTACHED computer printout requires evaluation by RCT per Operation 90014 and an ADDITIONAL P/WRE for any MATERIAL the RCT cannot release by STAR met

EVALUATED BY:

Area HP (Printed/Signature) [redacted] **HP No.** 6015 **Date** 2/1/96

ML-9594

NOTE: A 99% confidence level was not achievable and would require a survey of All MATERIAL. At 95% confidence level [illegible]

Appendix H

Radon Summary/Information

UNC Geotech

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

April 12, 1990

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

Dear Mr. Murphy:

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

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

Sincerely yours,

Mark D. Pearson

Mark D. Pearson
Project Manager
UNC Geotech

cc: DOE Points of Contact

			pCi/l	pCi/l	Manid	Dupid	Date	Date	Comments
21		ABOVE AIR SAMPLER	161.1	125.8	1670055	1666782	12/14/89	2/16/90	WET - OLD THORIUM STORAGE
21		ABOVE AIR SAMPLERS	116.7		1668508		12/14/89	2/16/90	WET - OLD THORIUM STORAGE
	SW	19 NIO EAST WALL	4.0		1661547		12/12/89	2/19/90	HISTORY OF ELEVATED READINGS
48		114 B CLOSET ON SPRINKLER PIPE	3.2		1671292		12/12/89	2/19/90	
19		ROOM 1	2.8		1670051		12/13/89	2/19/90	
	OLD SO BLDG	BASEMENT RIGHT CABINET	2.4		1661595		12/14/89	2/19/90	
55		1 BELOW THEMOSTAT ON E WALL	2.1		1661515		12/18/89	2/19/90	
57		ROOM 1	1.8		1661565		12/12/89	2/19/90	
87		143	1.5		1661563		12/13/89	2/19/90	
898	FIRE STATION	ROOM 802 EQUIPMENT ROOM WITH SUMP	1.4		1654458		12/12/89	2/19/90	
24		ROOM 1 PLANT NORTH WALL	1.3		1672087		12/12/89	2/19/90	
	PAINT SHOP	PS 4	1.2		1661516		12/12/89	2/16/90	
30		ROOM 3 EAST	1.1		1671262		12/12/89	2/16/90	
100		103 MIDDLE OF NORTH WALL	1.0		1670060		12/12/89	2/19/90	
37		6 NORTH WALL	1.0		1670046		12/12/89	2/19/90	
34		34 A WEST WALL	.9	.6	1672062	1672042	12/12/89	2/19/90	WET
102		128	.9		1661577		12/14/89	2/19/90	
61		RM 221 MIDDLE OF NORTH WALL	.9		1661585		12/13/89	2/19/90	
67		101 N	.9		1670029		12/12/89	2/19/90	
G-12	LOG	G-514 WEST WALL	.9		1661544		12/12/89	2/16/90	
	T	CORRIDOR 28	.9		1670039		1/15/90	2/19/90	
	T	153	.9		1670067		1/15/90	2/19/90	
	T	70	.9		1670077		1/15/90	2/19/90	
	T	30	.8		1661586		1/15/90	2/19/90	
105	PARTS MACHINING BUILDING	STAIRWELL NEXT TO ROOM 127	.8		1661564		12/12/89	2/19/90	
25	ARAC	3 ON BOOK CASE MIDDLE	.8		1671316		12/16/89	2/19/90	
60		1 ON DOOR TO ROOM 3	.8		1670049		12/12/89	2/19/90	
	A	153C CENTER CUBICLE WEST WALL	.8		1672056		12/14/89	2/16/90	
	C BUILDING OLD CAFETERIA	NORTHEAST SECTION INTERNAL WALL RM2	.8		1672052		12/12/89	2/16/90	
	R BUILDING	68 NORTH WALL	.8		1670058		12/13/89	2/16/90	
	SW	8 WEST WALL AT OLD RECOVERY	.8		1672057		12/11/89	2/16/90	
	WO BLDG	WO 8	.8		1670045		12/18/89	2/16/90	
87		124	.8		1670032		12/12/89	2/19/90	
88		ROOM 116 ON NORHT WALL RIGHT OF CEN	.7	.6	1661524	1661635	12/12/89	2/19/90	
89		101 NEAR BACK CORNER BY ROOF DRAIN	.7	.5	1666783	1666532	12/15/89	2/19/90	
22		RM 1 EAST CORRIDOR ON STORAGE RACK	.7		1670070		12/13/89	2/19/90	
56	FIRE PUMP HOUSE	ROOM 1 THERE IS ONLY 1 ROOM	.7		1670066		12/12/89	2/19/90	
	E ANNEX	E 225 EAST WALL	.7		1661552		12/18/89	2/16/90	
	POWER HOUSE PH-1	REPAIR SHOP NORTH EAST CORNER	.7		1670040		12/12/89	2/19/90	
	W BLDG	W-135	.7		1661553		12/12/89	2/16/90	
26		ROOM 84 SOUTH WEST WALL	.6	.5	1672048	1667159	12/13/89	2/16/90	
69		RM 7 ON NORTH WALL	.6	.4	1672044	1672077	12/12/89	2/19/90	
26		ROOM 84 SOUTH WEST WALL	.6		1671279		12/13/89	2/16/90	
35		RM 7	.6		1654459		12/14/89	2/19/90	
38	PP BLDG	PP CORR 136	.6		1670016		12/14/89	2/19/90	
72		ON OVERHEAD DOOR BEAM	.6		1672069		1/03/90	2/19/90	
93		HALLWAY 107 (MIDWAY)	.6		1661628		12/13/89	2/20/90	
98	FIRE STATION	ROOM 114 DORM	.6		1661587		12/12/89	2/19/90	
	COS	NW STAIRWELL AT BASEMENT LEVEL	.6		1672086		12/14/89	2/19/90	
	OSM	120 C	.6		1661573		12/12/89	2/16/90	
	SW	150 WEST END GAS BOX	.6		1670043		12/11/89	2/16/90	
	A	34 EAST WALL	.5	.7	1672075	1672051	12/14/89	2/16/90	
47		102 MIDDLE OF EAST WALL	.5	.5	1658118	1666819	12/12/89	2/16/90	

Area	Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	45		WORK STATION AREA	.4		1681568		12/14/89	2/19/90	
	46		81 EAST HALL	.4		1672078		12/12/89	2/19/90	
	49		HALL OUTSIDE RM 125	.4		1678028		12/14/89	2/19/90	
	51		107 TOP OF FUME HOOD	.4		1681575		12/12/89	2/19/90	
	63		ROOM 134	.4		1672059		12/13/89	2/20/90	
	63N		RM 4	.4		1678078		12/14/89	2/19/90	
	65		ROOM 10 CONFERANCE ROOM	.4		1671284		12/14/89	2/19/90	
	66		OFFICE AREA	.4		1681554		12/12/89	2/19/90	
	68		EAST HALL CENTER BEAM	.4		1681555		12/14/89	2/19/90	
	69		RM 18A	.4		1681576		12/12/89	2/19/90	
	70		17D MEETING ROOM CENTER HALL	.4		1678041		12/12/89	2/19/90	
	88		ROOM 116	.4		1671285		12/12/89	2/19/90	
	95	SH/PP	95- BLD-ROOM#1	.4		1661531		12/12/89	2/20/90	
		DS BUILDING	CORRIDOR 2 - 6 FT. ABOVE FLOOR	.4		1678071		12/13/89	2/19/90	
		I	I HALLWAY	.4		1667184		12/12/89	2/19/90	
		N BUILDING	N 21 WEST HALL	.4		1678057		12/15/89	2/20/90	
		POWER HOUSE PH-1	OFFICE SUPERVISOR	.4		1678036		12/12/89	2/19/90	
		R BUILDING	12 SOUTH HALL	.4		1681566		12/13/89	2/19/90	
	34		BURN ROOM			1654481		12/12/89		BURNT (NOT AVAILABLE)
	61		RM 151			1681567		12/13/89		MISSING

Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	R BUILDING	143 NEXT TO NORTH WALL	.5	.5	1668533	1668816	12/12/89	2/16/90	
101		ROOM 5 ON SOUTH WEST WALL IN OFFSET	.5		1671288		12/12/89	2/19/90	
	"B" 175	175 WEST WALL	.5		1678048		12/12/89	2/16/90	
26		ELECTRICAL PANEL RM IN ELECTRONICS	.5		1678062		12/12/89	2/19/90	
40		104	.5		1654480		12/12/89	2/16/90	
43		1 EAST WALL OVER WATER DISPENSER	.5		1678076		12/12/89	2/20/90	
44		ON BULLETTIN BOARD	.5		1678047		12/12/89	2/16/90	
47		102 MIDDLE OF EAST WALL	.5		1678058		12/12/89	2/16/90	
50		CELL 113	.5		1681582		12/12/89	2/19/90	
78		CENTRAL HALLWAY WEST OF DOOR TO RM7	.5		1681605		12/18/89	2/16/90	
89		101 NEAR BACK CORNER BY ROOF DRAIN	.5		1678079		12/15/89	2/19/90	
91		1ST FLOOR	.5		1661525		12/15/89	2/16/90	
91		2ND FLOOR OUTSIDE RM215	.5		1681593		12/15/89	2/16/90	
92		HALLWAY RIGHT OFF ROOM 8	.5		1661509		12/12/89	2/19/90	
94		BAY 2 NORTH WALL	.5		1654477		12/12/89	2/19/90	
	A	215 WEST WALL	.5		1681572		12/14/89	2/16/90	
	A	1680 WEST WALL	.5		1681580		12/14/89	2/16/90	
	COS	119 W WALL NEAR PUNCH PRESS	.5		1654456		12/12/89	2/19/90	
	COS	319 WALL CABINET TO RIGHT OF SINK	.5		1681590		12/12/89	2/19/90	
	E BUILDING	150 WEST WALL	.5		1678033		12/14/89	2/16/90	
	E BUILDING	103 WEST WALL	.5		1678072		12/14/89	2/16/90	
	E ANNEX	E 212 NORTH WALL	.5		1681587		12/18/89	2/16/90	
	GH BUILDING	ROOM 2	.5		1678065		12/12/89	2/16/90	
	GP 81	1A MIDDLE OF WEST WALL	.5		1678054		12/12/89	2/19/90	
	H BLDG	ROOM 127	.5		1681571		12/12/89	2/16/90	
	HH	HH-6	.5		1671269		12/18/89	2/19/90	
	I BUILDING	BASEMENT LEFT CRAWL SPACE DOOR	.5		1671260		12/12/89	2/19/90	
	N BUILDING	N 108	.5		1678056		12/15/89	2/19/90	
	OSE	CORRIDOR 437	.5		1661536		12/15/89	2/16/90	
	OSE	CORRIDOR 301 ACROSS FROM WATER FOUN	.5		1672084		12/15/89	2/16/90	
	OSM	4HT FLOOR	.5		1678020		12/12/89	2/16/90	
	OSE	CORR 212 SOUTH WALL NEAR 210 DOOR	.5		1678036		12/15/89	2/16/90	
	OSM	319	.5		1678069		12/13/89	2/16/90	
	OSM	2ND FLOOR	.5		1681611		12/12/89	2/16/90	
	POWER HOUSE PH-1	STATIONARY BOARD CORNER	.5		1678073		12/12/89	2/19/90	
	R BUILDING	145 WEST WALL ABOVE BALANCE	.5		1654530		12/14/89	2/16/90	
	SM/R TRITIUM COMPLEX	128 OVER LARGE METAL FLOOR DISC	.5		1678019		12/12/89	2/16/90	
	W BLDG	W135 WEST CENTRAL WALL	.5		1671293		12/12/89	2/16/90	
	WO BLDG	WOA 110	.5		1671301		12/18/89	2/16/90	
	"B" 124	EAST WALL	.5		1667189		12/12/89	2/16/90	
	OSE	113 BULLETIN BOARD OPPOSITE ELEVATO	.5		1678027		12/15/89	2/16/90	
TF-2		114 EAST WALL CENTER OF ROOM	.4		1678064		12/12/89	2/19/90	
	HH	HH-24	.4		1667187		12/14/89	2/19/90	
	DS BUILDING	CORRIDOR 7 NEXT TO ROOM 216	.4		1661614		12/13/89	2/19/90	
	GP 81	1A MIDDLE OF WEST WALL	.4	.5	1672135	1661542	12/12/89	2/19/90	
105	PARTS MACHINING BUILDING	136 QC OFFICE	.4		1678017		12/12/89	2/19/90	
27		CELL 8 - WALL	.4		1681583		12/12/89	2/19/90	
28	CERAMIC PRODUCTION	101	.4		1672061		12/12/89	2/19/90	
29		HALLWAY	.4		1672105		12/14/89	2/19/90	
	TEST FIRE BUILDING 3	3-315	.4		1672036		12/12/89	2/19/90	
30	PP BLDG	PP CORR 16/BAY 2 WALL	.4		1681570		12/14/89	2/19/90	
39		BREAK RM	.4		1678050		12/14/89	2/19/90	
42		101 B EAST WALL	.4		1678031		12/13/89	2/19/90	

Appendix I

Asbestos Summary/Information

MOUND ASBESTOS SURVEY
BUILDING SUMMARY

BUILDING 3

FLOORS:	One	PIPE CHASES:	Yes
DATE BUILT:	1964	PENTHOUSE:	Yes
CRAWLSPACE:	Yes	GROSS AREA, SQ. FT.:	2,391
SUSPENDED CEILING:	Yes	ADDITIONS:	1967, 1969

Asbestos was found to be present in Thermal System Insulation and/or other material in Building 3. The homogeneous areas for the suspect Asbestos Containing Materials are shown below. Refer to the Mound Asbestos Survey Sample Data Report for specific information on sample constituents, estimated amounts of the material, assessments, and percentages of each constituent in the sample.

HOMOGENEOUS AREAS
Sample Numbers: 0.875-0.913
Unused Sample Numbers: 0.884

No.	Description	Result
1	Pipe Insulation, Type II, Hard	Positive
2	Pipe Joint Insulation, Type II, Hard	Positive
3	Pipe Joint Insulation, Type I, Hard Joints w/Fiberglass Runs	Positive
4	Pipe Insulation, Type III, Paper	Negative
5	Explosion-Proof Light Gaskets	Positive
6	Ceiling Tile, CT1-H, (1'x1'), Holes	Positive
7	Ceiling Tile, CT1-B, (1'x1'), Fissured w/Pinholes	Negative
8	Ceiling Tile, CT3-N, (2'x4'), Smooth	Negative
9	Ceiling Tile, CT3-B, (2'x4'), Fissured w/Pinholes	Negative
10	Plaster	Negative
11	Drywall	Negative
12	Drywall Joint Compound	Negative
13	Condensate Tape (White)	Positive
14	Ductwork Flex Connector	Negative
15	Heat Exchanger Insulation	Positive

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

Drawing Reference: P3

* Floor tile quantities not included in scope.
** Carpet quantities not included in scope.

4.33 Building 3

The following asbestos-containing materials were identified in Building 3:

- Preformed-block pipe insulation
- Floor tile

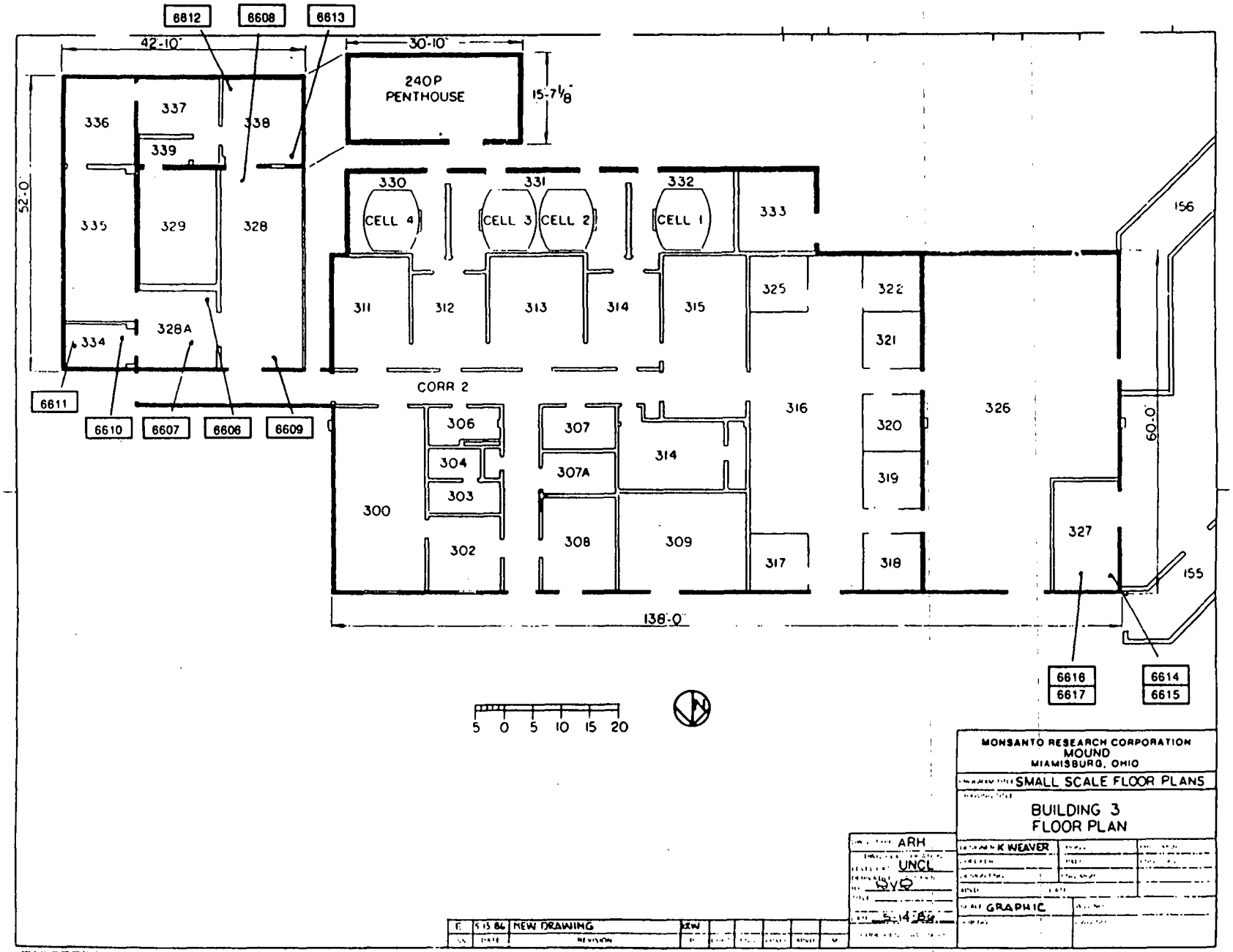
The preformed-block pipe insulation is in generally good condition. This material is currently nonfriable and nonhazardous. It is recommended that this material be managed and reevaluated periodically in accordance with an O&M program.

TABLE 1. HOMOGENEOUS AREAS OF SUSPECT ASBESTOS-CONTAINING MATERIALS
BUILDING 3, EG&G MOUND APPLIED TECHNOLOGIES, INC.
(Inspected October 31, 1988)

Homogeneous area No.	Type of material	Description of homogeneous area	Does homogeneous material contain asbestos? (assumed/sampled)
1	Thermal system insulation	Cementitious fittings on fiberglass lines throughout selected areas of building	No/sampled
2	Thermal system insulation	Preformed-block insulation on steam lines in Rooms 327 and 328	Yes/sampled
3	Miscellaneous	Vinyl floor tiles in selected areas throughout the building	Yes/assumed
4	Miscellaneous	1-ft by 1-ft ceiling tile in Room 328	No/sampled
5	Miscellaneous	2-ft by 4-ft textured ceiling tile in Room 328 and entrance to Room 338	No/sampled
6	Miscellaneous	2-ft by 4-ft ceiling tile in Room 334	No/sampled

TABLE 2. DATA SUMMARY FOR BULK SAMPLES OF SUSPECT ASBESTOS-CONTAINING MATERIALS IN BUILDING 3, EG&G MOUND APPLIED TECHNOLOGIES, INC.

Homo-geneous area No.	Field sample No.	Sample date (1988)	PEI Laboratory requisition No.	Floor/room No.	Sample location	Asbestos fiber content
2	MRC-6615	10/31	T8-11-002-026A	1/Room 327	Northwest corner of Room, 7 ft above floor	30% amosite
1	MRC-6616	10/31	T8-11-002-027A	1/Room 327	Directly above electric junction box	None detected
1	MRC-6617	10/31	T8-11-002-028A	1/Room 327	Duplicate of MRC-6617	None detected
2	MRC-6614	10/31	T8-11-002-025A	1/Room 328	Condensate return line in northwest corner of room	20% chrysotile
4	MRC-6606	10/31	T8-11-002-017A	1/Room 328	Along east wall to right of door entering Room 328A	None detected
4	MRC-6607	10/31	T8-11-002-018A	1/Room 328	6 feet directly in front of doorway	None detected
5	MRC-6608	10/31	T8-11-002-019A	1/Room 328	2 feet directly in front of doorway entering Room 338	None detected
5	MRC-6609	10/31	T8-11-002-020A	1/Room 328	2 feet in front of hallway entrance next to 440 AC electric unit	None detected
5	MRC-6612	10/31	T8-11-002-023A	1/Room 338	Southeast corner of room	None detected
5	MRC-6613	10/31	T8-11-002-024A	1/Room 338	Northwest corner of room	None detected
6	MRC-6610	10/31	T8-11-002-021A	1/Room 334	West end of room	None detected
6	MRC-6611	10/31	T8-11-002-022A	1/Room 334	East end of room	None detected


6612
6608
6613
42-10"
30-10"
240P
PENTHOUSE
15-7 1/8"
52-0"
336
337
338
339
335
329
328
328A
334
330
331
332
CELL 4
CELL 3
CELL 2
CELL 1
333
156
311
312
313
314
315
325
322
321
CORR 2
6611
6610
6607
6606
6609
306
307
304
307A
303
314
316
320
326
319
60-0"
300
302
308
309
317
318
327
155
138-0"
6616
6617
6614
6615
5 0 5 10 15 20
MONSANTO RESEARCH CORPORATION
MOUND
MIAMISBURG, OHIO
SMALL SCALE FLOOR PLANS
BUILDING 3
FLOOR PLAN
ARH
UNCL
K WEAVER
GRAPHIC
NEW DRAWING
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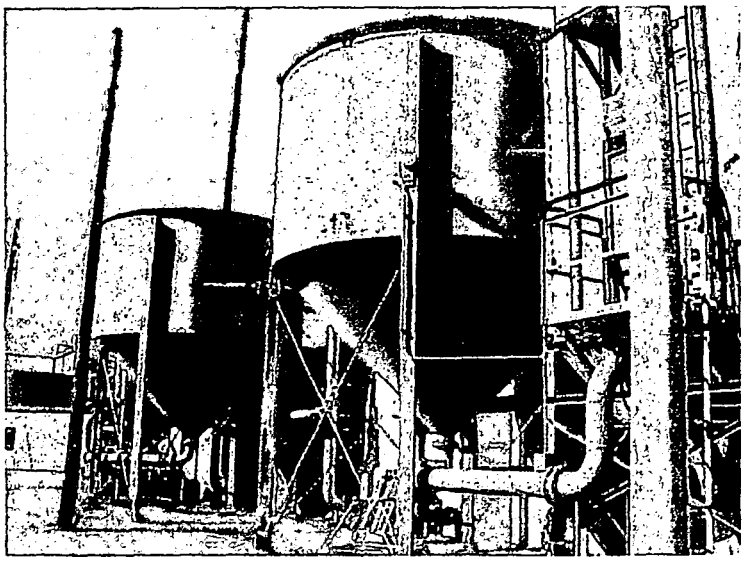
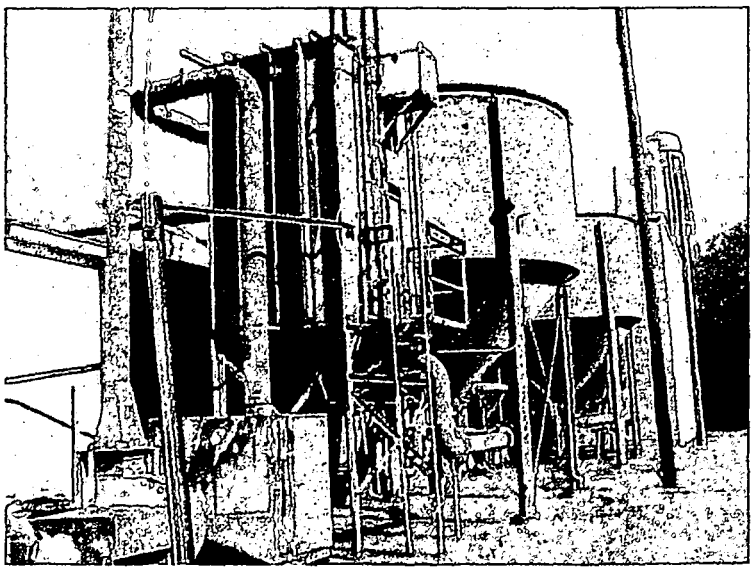
Appendix J

Lead Summary/Information

BUILDING 3 EXTERIOR DUST COLLECTION SYSTEM





APP. J

Date: January 29, 2002

From: Christopher Ahlquist
SMPP/TFV Project Team
Health & Safety

To: Robert Ransbottom
SMPP/TFV Project Team
Project Engineering

Re: Buildings 3 and 49 – Lead Paint Screen

In response to your request, a screen for lead-based paint was conducted on January 25, 2002 within and on selected areas of Mound Buildings 3 and 49, currently occupied by Perkin Elmer personnel. The screen was targeted toward determining the approximate lead content of damaged and/or deteriorated paint coatings noted in conjunction with the referenced buildings. Approximate lead concentrations were determined in the field using a Niton Model XL-309 XRF lead detector which yields results expressed as milligrams of lead per square centimeter (mg/cm^2) of surface sampled. The US Department of Housing and Urban Development (HUD) and the Ohio Department of Health (ODH) have established a level of concern for lead in paint of 1.0 mg/cm^2 for private and public housing as well as daycare facilities. This level of lead in paint is generally accepted as representing the "standard of care" for determining lead-based paint hazards, with respect to paint coatings, during risk assessment investigations.

Building 3

None of the fifteen (15) readings collected from mostly damaged and/or deteriorated paint coatings noted on surfaces within Building 3 were found to contain lead above the HUD/ODH level. These interior readings were found to contain lead in concentrations ranging from 0.00 mg/cm^2 to 0.47 mg/cm^2 (with a range of precision between +/- 0.00 mg/cm^2 and 0.14 mg/cm^2).

Neither of the two (2) readings collected from deteriorated paint on the exterior wall of the building was found to contain lead. These readings indicated 0.00 mg/cm^2 (+/- 0.03 and 0.06 mg/cm^2).

Four (4) of the readings collected from deteriorated paint on various components of the dust collection system located outside to the rear of the building were found to contain lead above the HUD/ODH level. These interior readings were found to contain lead in concentrations ranging from 0.98 mg/cm^2 to 7.59 mg/cm^2. Three (3) additional readings collected from components of this system were relatively close to the HUD/ODH level (between 0.78 mg/cm^2 and 0.89 mg/cm^2), and two (2) were well below the level of concern 0.02 mg/cm^2 and 0.09 mg/cm^2). In sum, the paint on the dust collection system can be considered to be in excess of the level of concern.

Building 49

None of the six (6) readings collected from damaged and/or deteriorated paint coatings noted on surfaces within Building 49 were found to contain lead above the HUD/ODH level. These interior readings were found to contain lead in concentrations ranging from 0.00 mg/cm^2 to 0.11 mg/cm^2 (with a range of precision between +/- 0.01 mg/cm^2 and 0.18 mg/cm^2).

APP. J

Summary and Conclusion

The only damaged or deteriorated paint coatings noted in connection with Buildings 3 and 49 which were found to contain lead at or above the HUD/ODH level of concern were those applied to the dust collection system located to the rear of Building 3. These paint coatings were found to be generally weathered and peeling. No excessive amounts of resultant paint chips or debris was seen at the time of the paint screen survey. The noted dust collection paint coatings were located entirely outdoors and would not currently present a hazard to building occupants unless disturbed.

The lead paint screen accomplished during the course of this survey was not a complete or formal lead-based paint inspection or risk assessment. Only those specific paint coatings referenced on the Niton lead reading log were actually screened.

Enclosed with this summary report is a copy of the readout generated by the Niton XRF for the lead readings accomplished.

Please call with any questions or concerns.

Respectfully,

Christopher Ahlquist
Industrial Hygienist

Appendix K

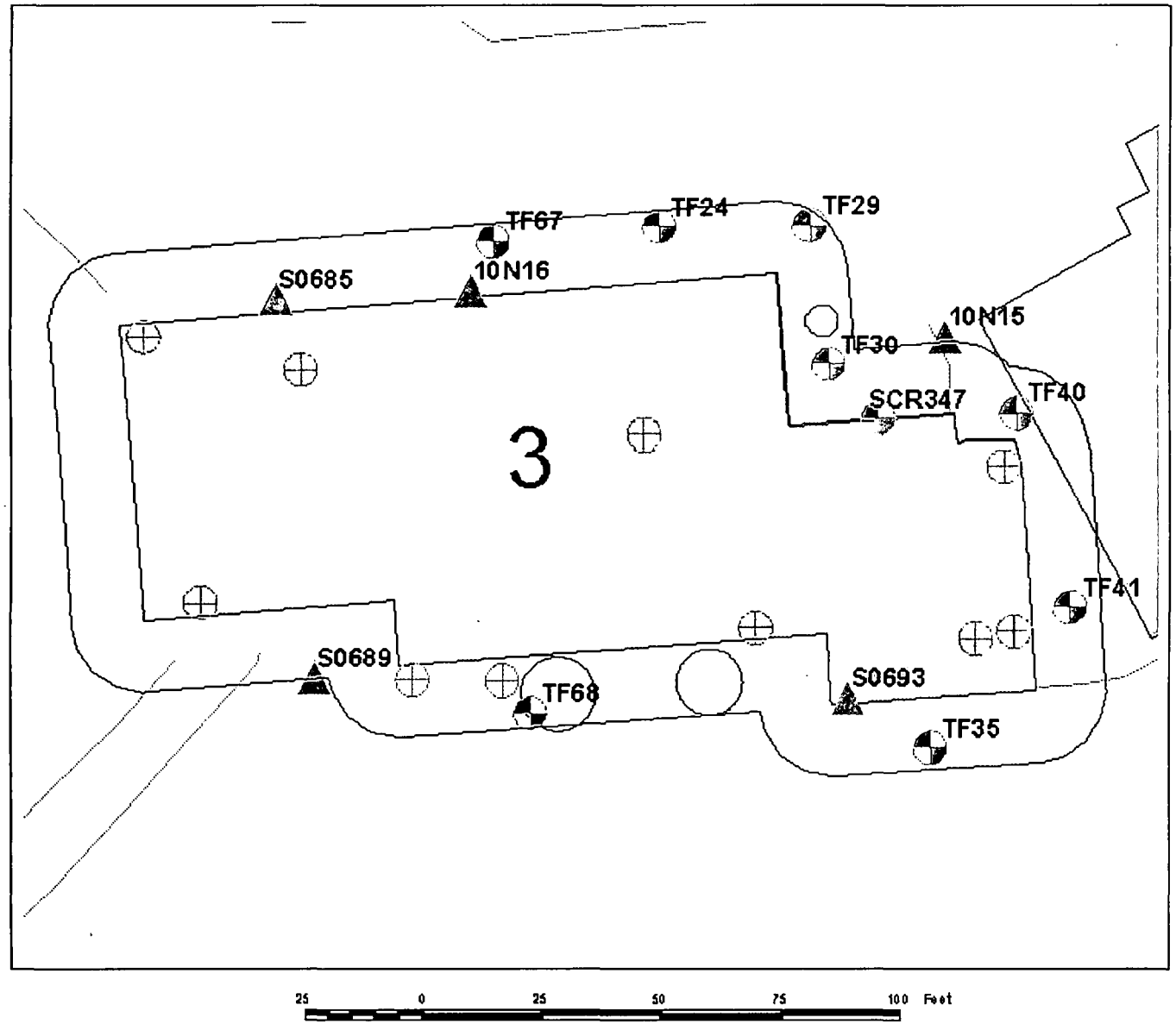
Chemical Summary/Information

There is no existing information for this section.

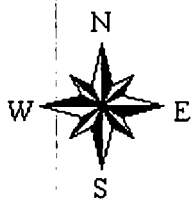
Appendix L

Soil Sampling, Vicinity

Bldg. 3 Sample Locations



Bldg 3 Sample Hits
Bldg 3 Sample Hits Outline
Bldg 3 Sample Locations Outline
Soil Boring Outline
Surface Sample Outline
Building Label
Text Bldg ID
Building Outline
Building Outline
Building
Color Fill
Roads
Paved Drives/Parking
Unpaved Drives/Parking



APP. L

Location_nar	Sample_id	Location_type	Collection_d	Value_name	Measured_value	Value_u	Detection_	Chem_(	Start_d	End_d	CAS_number	Lab	Dat	Project_d	Media	Collection_method	Comments
TF68	000039	Borehole	20010709	Radium-228	0.5880	PCI/G	0.4340	RAD	0.0	4.0	15262-20-1			TF2001	Soil	Auger, hollow stem	
TF68	000039	Borehole	20010709	Lead-210	1.1200	PCI/G	1.0900	RAD	0.0	4.0	14255-04-0			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF68	000039	Borehole	20010709	Thorium-232	0.5112	PCI/G	0.1719	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF68	000039	Borehole	20010709	Radium-226	1.2720	PCI/G	1.1520	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF68	000039	Borehole	20010709	Radium-226	0.8280	PCI/G	0.2690	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF68	000039	Borehole	20010709	Potassium-40	12.6000	PCI/G	0.6660	RAD	0.0	4.0	13966-00-2			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF67	000006	Borehole	20010705	Thorium-232	0.8807	PCI/G	0.2119	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF41	000030	Borehole	20010706	Thorium-232	0.4666	PCI/G	0.1649	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF41	000030	Borehole	20010706	Radium-226	1.9800	PCI/G	0.8487	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF40	000015	Borehole	20010706	Thorium-232	0.6254	PCI/G	0.1293	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF40	000015	Borehole	20010706	Radium-226	1.2410	PCI/G	0.7895	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF35	000032	Borehole	20010706	Lead-210	1.1510	PCI/G	0.7989	RAD	0.0	4.0	14255-04-0			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF35	000032	Borehole	20010706	Radium-226	1.3840	PCI/G	1.1070	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF30	000014	Borehole	20010705	Thorium-232	0.4652	PCI/G	0.2356	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF30	000014	Borehole	20010705	Radium-226	1.3500	PCI/G	0.9334	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF29	000010	Borehole	20010705	Radium-226	2.0500	PCI/G	1.3110	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
TF24	000008	Borehole	20010705	Thorium-232	0.5828	PCI/G	0.2130	RAD	0.0	4.0	7440-29-1			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
TF24	000008	Borehole	20010705	Radium-226	1.2400	PCI/G	0.9014	RAD	0.0	4.0	13982-63-3			TF2001	Soil	Auger, hollow stem	1-Exceeds soil 10-6 GV.
S0689	7119	Surface locatic	19840901	Plutonium-238	0.2100	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
S0685	4035	Surface locatic	19831001	Plutonium-238	0.6000	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
S0693	4037	Surface locatic	19831001	Plutonium-238	0.9600	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicable	2-Exceeds background value.
S0693	4037	Surface locatic	19831001	Tritium	0.4000	PCI/ML		RAD	0.0	0.0	10028-17-8			RSS	Soil	Not Applicable	
10N16	10N16	Surface locatic	19941004	Total Aromatic Hydrocarbo	678469.0000	IC		GENER	0.0	1.5	AHYD			2680	Soil	Auger, hand	
10N16	10N16	Surface locatic	19941004	Total C5 TO C11 Petroleur	1033700.0000	IC		GENER	0.0	1.5	TOGRHY			2680	Soil	Auger, hand	
10N15	10N15	Surface locatic	19941004	Total Aromatic Hydrocarbo	12436663.0000	IC		GENER	0.0	1.5	AHYD			2680	Soil	Auger, hand	
10N15	10N15	Surface locatic	19941004	Total Semivolatile Hydroca	10089.0000	IC		GENER	0.0	1.5	TSVHYC			2680	Soil	Auger, hand	
10N15	10N15	Surface locatic	19941004	Total C5 TO C11 Petroleur	20643468.0000	IC		GENER	0.0	1.5	TOGRHY			2680	Soil	Auger, hand	
10N15	10N15	Surface locatic	19941004	Total Halogenated Hydroc	6304.0000	IC		GENER	0.0	1.5	THAHYC			2680	Soil	Auger, hand	
SCR347	92040611	Borehole	19920406	Plutonium-238	30.0000	PCI/G		RAD	0.0	0.0	13981-16-3			SCRDAT	Soil	Unknown	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
SCR347	92040610	Borehole	19920406	Plutonium-238	25.0000	PCI/G		RAD	0.0	0.0	13981-16-3			SCRDAT	Soil	Unknown	1-Exceeds soil 10-6 GV. 2-Exceeds background value.

APP. L

1	107-06-2	1,2-Dichloroethane	3.20E+00	MG/KG
1	118-96-7	2,4,6-Trinitrotoluene	1.91E+02	MG/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	309-00-2	Aldrin	1.80E-01	MG/KG
1	5103-71-9	Alpha Chlordane	8.50E+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	7440-38-2	Arsenic	1.20E+03	MG/KG
1	71-43-2	Benzene	8.90E+00	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	7440-41-7	Beryllium	7.00E-01	MG/KG
1	319-85-7	Beta-BHC	1.65E+00	MG/KG
1	117-81-7	Bis(2-ethylhexyl)phthalate	2.15E+02	MG/KG
1	75-27-4	Bromodichloromethane	4.80E+01	MG/KG
1	75-25-2	Bromoform	3.75E+02	MG/KG
1	7440-43-9	Cadmium	1.00E+04	MG/KG
1	56-23-5	Carbon Tetrachloride	4.60E+00	MG/KG
1	67-66-3	Chloroform	3.10E+00	MG/KG
1	7440-47-3	Chromium	1.50E+03	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	124-48-1	Dibromochloromethane	3.55E+01	MG/KG
1	75-09-2	Dichloromethane	3.95E+02	MG/KG
1	60-57-1	Dieldrin	1.85E-01	MG/KG
1	5103-74-2	Gamma Chlordane	8.50E+00	MG/KG
1	58-89-9	Gamma-BHC (Lindane)	2.30E+00	MG/KG
1	76-44-8	Heptachlor	0.66	MG/KG
1	1024-57-3	Heptachlor Epoxide	0.33	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	121-82-4	RDX	2.70E+01	MG/KG
1	79-01-6	Trichloroethene	4.10E+01	MG/KG
1	7440-41-7	1,1,1,2-Tetrachloroethane	1.10E-02	MG/L
1	7440-38-2	1,1,2,2-Tetrachloroethane	1.40E-03	MG/L
1	7440-34-8	Actinium-227	4.50E-01	PCI/G
1	14596-10-2	Americium-241	6.30E+00	PCI/G
1	13982-38-2	Bismuth-207	1.60E-01	PCI/G
1	10045-97-3	Cesium-137	3.40E-01	PCI/G
1	10198-40-0	Cobalt-60	7.00E-02	PCI/G
1	14255-04-0	Lead-210	6.20E-01	PCI/G
1	13981-16-3	Plutonium-238	6.10E+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	13966-00-2	Potassium-40	1.42E+00	PCI/G

APP. L

1	14331-85-2	Protactinium-231	3.90E-01	PCI/G
1	13982-63-3	Radium-226	9.00E-02	PCI/G
1	10098-97-2	Strontium-90	3.00E+00	PCI/G
1	14274-82-9	Thorium-228	1.40E-01	PCI/G
1	14269-63-7	Thorium-230	9.00E-02	PCI/G
1	7440-29-1	Thorium-232	7.00E-02	PCI/G
1	10028-17-8	Tritium	2.35E+04	PCI/G
1	13968-55-3	Uranium-233	9.68E-01	PCI/G
1	13966-29-5	Uranium-234	1.05E+01	PCI/G
1	15117-96-1	Uranium-235	1.60E+00	PCI/G
1	24678-82-8	Uranium-238	1.00E-01	PCI/G
1	14596-10-2	Americium-241	4.90E-01	PCI/L
1	14331-79-4	Bismuth-210	2.20E+01	PCI/L
1	15262-20-1	Radium-228	3.30E-01	PCI/L
1	13967-73-2	Strontium-85	1.10E+02	PCI/L
1	10098-97-2	Strontium-90	3.90E+00	PCI/L
1	15623-47-9	Thorium-227	4.00E+00	PCI/L
1	14274-82-9	Thorium-228	6.90E-01	PCI/L
1	14269-63-7	Thorium-230	1.20E-01	PCI/L
1	7440-29-1	Thorium-232	3.10E-01	PCI/L
1	24678-82-8	Uranium-238	1.10E-01	PCI/L
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	7429-90-5	Aluminum	19000	MG/KG
2	14596-10-2	Americium-241	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	7440-38-2	Arsenic	8.6	MG/KG
2	7440-39-3	Barium	180	MG/KG
2	7440-41-7	Beryllium	1.3	MG/KG
2	319-85-7	Beta-BHC	ND	MG/KG
2	7440-69-9	Bismuth	ND	MG/KG
2	13982-38-2	Bismuth-207	ND	MG/KG
2	13982-38-2	Bismuth-207	ND	MG/KG
2	14331-79-4	Bismuth-210m	ND	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	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	77-47-4	Hexachlorocyclopentadiene	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	72-43-5	Methoxychlor	30	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	7782-49-2	Selenium	ND	MG/KG
2	7440-22-4	Silver	1.7	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	7440-34-8	Actinium-227	1.10E-01	PCI/G
2	10045-97-3	Cesium-137	0.42	PCI/G
2	14255-04-0	Lead-210	1.20E+00	PCI/G
2	13981-16-3	Plutonium-238	0.13	PCI/G
2	15117-48-3	Plutonium-239	1.80E-01	PCI/G
2	PU239/240	Plutonium-240	1.80E-01	PCI/G
2	13966-00-2	Potassium-40	37	PCI/G
2	14331-85-2	Protactinium-231	1.10E-01	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	7440-34-8	Actinium-227	5.60E-01	PCI/G
3	14596-10-2	Americium-241	6.3	PCI/G
3	10045-97-3	Cesium-137	0.76	PCI/G
3	10198-40-0	Cobalt-60	7.00E-02	PCI/G
3	14255-04-0	Lead-210	1.80E+00	PCI/G
3	13981-16-3	Plutonium-238	55	PCI/G
3	14331-85-2	Protactinium-231	4.00E+00	PCI/G
3	13982-63-3	Radium-226	2.1	PCI/G

3	14274-82-9	Thorium-228	3	PCI/G
3	14269-63-7	Thorium-230	3	PCI/G
3	7440-29-1	Thorium-232	1.47	PCI/G
3	15117-96-1	Uranium-235	1.7	PCI/G
3	24678-82-8	Uranium-238	1.3	PCI/G
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	120-82-1	1,2,4-Trichlorobenzene	0.07	MG/L
5	156-59-2	1,2-cis-Dichloroethene	0.07	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	107-06-2	1,2-Dichloroethane	0.005	MG/L
5	78-87-5	1,2-Dichloropropane	0.005	MG/L
5	156-60-5	1,2-trans-Dichloroethene	0.01	MG/L
5	106-46-7	1,4-Dichlorobenzene	0.075	MG/L
5	95-95-4	2,4,5-Trichlorophenol	0.05	MG/L
5	94-75-7	2,4-D	0.07	MG/L
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	71-43-2	Benzene	0.005	MG/L
5	50-32-8	Benzo(a)pyrene	0.002	MG/L
5	7440-41-7	Beryllium	0.004	MG/L
5	117-81-7	bis(2-ethylhexyl)phthalate	0.006	MG/L
5	75-27-4	Bromodichloromethane	0.008	MG/L
5	75-25-2	Bromoform	0.008	MG/L
5	7440-43-9	Cadmium	0.005	MG/L
5	56-23-5	Carbon Tetrachloride	0.005	MG/L
5	57-74-9	Chlordane	0.002	MG/L
5	108-90-7	Chlorobenzene	0.1	MG/L
5	67-66-3	Chloroform	0.008	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	96-12-8	Dibromochloropropane	0.0002	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	72-20-8	Endrin	0.002	MG/L
5	100-41-4	Ethylbenzene	0.07	MG/L
5	16984-48-8	Flouride	4	MG/L
5	58-89-9	Gamma-BHC (Lindane)	0.0002	MG/L
5	76-44-8	Heptachlor	0.0004	MG/L
5	1024-57-3	Heptachlor Epoxide	0.0002	MG/L
5	118-74-1	Hexachlorobenzene	0.001	MG/L
5	77-47-4	Hexachlorocyclopentadiene	0.05	MG/L
5	7439-92-1	Lead	0.015	MG/L
5	7439-97-6	Mercury	0.002	MG/L
5	72-43-5	Methoxychlor	0.04	MG/L

5	7440-02-0	Nickel	0.1	MG/L
5	NO3	Nitrate	10	MG/L
5	14797-65-0	Nitrite	1	MG/L
5	87-86-5	Pentachlorophenol	0.001	MG/L
5	7782-49-2	Selenium	0.05	MG/L
5	100-42-5	Styrene	0.1	MG/L
5	127-18-4	Tetrachloroethene	0.005	MG/L
5	7440-28-0	Thallium	0.002	MG/L
5	108-88-3	Toluene	1	MG/L
5	8001-35-2	Toxaphene	0.003	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	7440-34-8	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	13968-55-3	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	76-13-1	1,1,2-Trichloro-1,2,2triflouroethane	7.00E+04	MG/KG
6	75-34-3	1,1-Dichloroethane	7.80E+00	MG/KG
6	120-82-1	1,2,4-Trichlorobenzene	2.04E+04	MG/KG
6	156-59-2	1,2-cis-Dichloroethene	2.13E+03	MG/KG
6	156-60-5	1,2-trans-Dichloroethene	4.30E+03	MG/KG
6	99-65-0	1,3-Dinitrobenzene	2.00E+02	MG/KG
6	118-96-7	2,4,6-Trinitrotoluene	1.00E+03	MG/KG
6	78-93-3	2-Butanone	9.30E+03	MG/KG
6	95-57-8	2-Chlorophenol	1.06E+03	MG/KG
6	108-10-1	2-Methyl-4-pentanone	7.00E+02	MG/KG
6	50-29-3	4,4'-DDT	1.10E+02	MG/KG
6	106-44-5	4-Methylphenol	1.10E+03	MG/KG
6	67-64-1	Acetone	2.10E+04	MG/KG
6	309-00-2	Aldrin	6.4	MG/KG
6	5103-71-9	Alpha Chlordane	110	MG/KG
6	7429-90-5	Aluminum	210000	MG/KG
6	120-12-7	Anthracene	6.40E+04	MG/KG
6	7440-36-0	Antimony	8.50E+01	MG/KG
6	11097-69-1	Aroclor-1254	4.30E+00	MG/KG
6	7440-38-2	Arsenic	6.40E+01	MG/KG
6	7440-39-3	Barium	1.50E+04	MG/KG

6	65-85-0	Benzoic Acid	8.50E+05	MG/KG
6	7440-41-7	Beryllium	1.10E+03	MG/KG
6	117-81-7	Bis(2-ethylhexyl)phthalate	4.30E+03	MG/KG
6	75-27-4	Bromodichloromethane	4.30E+03	MG/KG
6	75-25-2	Bromoform	4.30E+03	MG/KG
6	85-68-7	Butyl Benzyl Phthalate	4.30E+04	MG/KG
6	7440-43-9	Cadmium	2.10E+02	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	7440-47-3	Chromium	1.10E+03	MG/KG
6	18540-29-9	Chromium-VI	6.39E+02	MG/KG
6	7440-50-8	Copper	7.90E+03	MG/KG
6	57-12-5	Cyanide	4.30E+03	MG/KG
6	53-70-3	Dibenz(a,h)anthracene	4.08E-02	MG/KG
6	124-48-1	Dibromochloromethane	4.30E+03	MG/KG
6	75-09-2	Dichloromethane	1.00E+03	MG/KG
6	60-57-1	Dieldrin	1.10E+01	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	959-98-8	Endosulfan I	1300	MG/KG
6	33213-65-9	Endosulfan II	1300	MG/KG
6	100-41-4	Ethylbenzene	4.80E-01	MG/KG
6	86-73-7	Flourene	8.50E+03	MG/KG
6	206-44-0	Fluoranthene	8.50E+03	MG/KG
6	5103-74-2	Gamma Chlordane	110	MG/KG
6	58-89-9	Gamma-BHC (Lindane)	64	MG/KG
6	76-44-8	Heptachlor	110	MG/KG
6	1024-57-3	Heptachlor Epoxide	2.8	MG/KG
6	110-54-3	Hexane	9.10E+01	MG/KG
6	193-39-5	Indeno(1,2,3-cd)pyrene	4.08E-01	MG/KG
6	78-59-1	Isophorone	4.30E+04	MG/KG
6	7439-96-5	Manganese	2.70E+04	MG/KG
6	7439-97-6	Mercury	6.40E+01	MG/KG
6	72-43-5	Methoxychlor	1100	MG/KG
6	7440-02-0	Nickel	4.30E+03	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	7782-49-2	Selenium	1100	MG/KG
6	7440-22-4	Silver	1.10E+03	MG/KG
6	127-18-4	Tetrachloroethene	2.10E+03	MG/KG
6	7440-28-0	Thallium	17	MG/KG
6	7440-31-5	Tin	130000	MG/KG
6	108-88-3	Toluene	2.50E+02	MG/KG
6	75-69-4	Trichlorofluoromethane	7.30E+02	MG/KG
6	7440-62-2	Vanadium	1.50E+03	MG/KG
6	1330-20-7	Xylenes, Total	4.30E+05	MG/KG
6	7440-66-6	Zinc	6.40E+04	MG/KG

6	7440-41-7	1,1,1,2-Tetrachloroethane	2.90E-01	MG/L
6	7440-38-2	1,1,2,2-Tetrachloroethane	2.50E-01	MG/L
6	71-55-6	1,1,1-Trichloroethane	1.80E+00	MG/L
6	76-13-1	1,1,2-Trichloro-1,2,2triflouroethane	2.50E+03	MG/L
6	7429-90-5	Aluminum	100	MG/L
6	7440-42-8	Boron	9.00E+00	MG/L
6	18540-29-9	Chromium-VI	3.00E-01	MG/L
6	7440-48-4	Cobalt	6	MG/L
6	7440-50-8	Copper	4.00E+00	MG/L
6	7439-98-7	Molybdenum	0.5	MG/L
6	7782-49-2	Selenium	0.5	MG/L
6	7440-28-0	Thallium	0.008	MG/L
6	7440-31-5	Tin	60	MG/L
6	2691-41-0	HMX	1.10E+04	UG/KG
6	121-82-4	RDX	6.40E+04	UG/KG
1	Value is 10-6 Risk-Based Guide Value			
2	Value is OU9 Soil Background Value			
3	Value is screening level			
5	Value is MCL			
6	Value is the Guide Value based on the hazard index			
Note:				
Edited on 10/08/01				
01/29/02 Removed all color				

Appendix M

Occurrence Reports

ALO-DA-EGGM-EGGMAT03-1992-0008 Final Report

Occurrence Report

Main Hill Facilities

(Name of Facility)

Explosive

(Facility Function)

Mound Plant EG&G Mound Applied Technologies

(Laboratory, Site, or Organization)

Name: Hill, Edgar D.
Title: Manager, Manufacturing **Telephone No.:** (513) 865-3909

(Facility Manager/Designee)

Name: Gary D. Miller
Title: Inorganic Materials & Compatibility **Telephone No.:** (513) 865-3574

(Originator/Transmitter)

Name: **Date:**

(Authorized Classifier (AC))

1. **Occurrence Report Number:** ALO-DA-EGGM-EGGMAT03-1992-0008

   Smoke Alarm, Building 3

2. **Report Type and Date:** Final

	Date	Time
Notification:	08/13/1992	11:32 (MTZ)
Initial Update:	08/25/1992	09:45 (MTZ)
Latest Update:	08/25/1992	09:45 (MTZ)
Final:	12/23/1992	08:10 (MTZ)

3. **Occurrence Category:** Off-Normal

4. **Number of Occurrences:** 1 **Original OR:**

5. **Division or Project:** EG&G Mound Applied Technologies

6. **Secretarial Office:** DP - Defense Programs

7. **System, Bldg., or Equipment:** Bldg. 3, TF, Rm 315

8. **UCNI?:** No

9. **Plant Area:** Lower Area

10. **Date and Time Discovered:** 08/13/1992 08:05 (ETZ)

11. Date and Time Categorized: 08/13/1992 10:00 (ETZ)

12. DOE Notification:

Date	Time	Person Notified	Organization
08/13/1992	11:00 (ETZ)	D. J. Porco	DOE/DAO

13. Other Notifications:

14. Subject or Title of Occurrence:

Smoke Alarm, Building 3

15. Nature of Occurrence:

01) Facility Condition
H. Operations

16. Description of Occurrence:

At approximately 08:05 (ETZ) on Thursday, August 13, 1992, the smoke alarm activated in Building 3, Room 315. The Mound Fire Department responded and checked the area for the source of the problem. They found no cause for the smoke alarm to activate. Because the alarm condition would not reset, the smoke detector was replaced. After the smoke detector was replaced, the alarm condition reset and normal conditions returned.

This occurrence report was reviewed by an Authorized Derivative Classifier (E. Donald Hill), on 12/22/92 at 0300 PM) and contains no Classified or UCNI Information.

17. Operating Conditions of Facility at Time of Occurrence:

No operations were taking place in Building 3, Room 315, at the time of the alarm.

18. Activity Category:

03 - Normal Operations

19. Immediate Actions Taken and Results:

The smoke detector was replaced and normal

conditions returned.

20. Direct Cause:

1) Equipment/Material Problem
   A. Defective or Failed Part

21. Contributing Cause(s):

7) External Phenomena
   A. Weather or Ambient Condition

22. Root Cause:

1) Equipment/Material Problem
   A. Defective or Failed Part

23. Description of Cause:

The smoke detector in Building 3, Room 315, was determined to be defective when it would not reset from the alarm position. Dust and moisture had accumulated in the smoke detector due to the high humidity condition which existed in the area. This caused the detector to produce an unwanted alarm.

24. Evaluation (by Facility Manager/Designee):

Given that dust and moisture were found inside the smoke detector head, it is believed that these were the cause of the head's failure. Although high relative humidity is often present in Ohio and cannot be avoided, there are measures that can be taken to reduce dust and other measures to reduce unwanted alarms when creation of dust is anticipated. These measures are described under "Item 25 - Corrective actions".

25. Is Further Evaluation Required?: No

26. Corrective Actions
(* = Date added/revised since final report was approved.)

1.	Replace smoke detector	
	Target Completion Date: 08/13/1992	**Completion Date:** 08/13/1992
2.	A multi-disciplinary team has completed a study of smoke alarms at Mound during 1991 and 1992.	
	Target Completion Date: 11/15/1992	**Completion Date:** 11/16/1992

3.	Re-emphasize the practice of annual "wipe down" cleaning of explosive facilities by incorporating a chapter on this subject into the Mound Explosive Safety Manual, MD-10363.	
	Target Completion Date: 03/31/1993	***Completion Date:** 04/19/1993
4.	Implement training program for maintenance and construction personnel to improve knowledge and awareness of measures to take when the potential exists for creation of dust.	
	Target Completion Date: 06/30/1993	***Completion Date:** 01/07/1993

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

Dust from a variety of sources can cause unwanted smoke alarms. The presence of moisture due to high relative humidity can exacerbate the problem. Planned measures to mitigate dust such as the re-emphasis of the annual "wipe down" cleaning and the dust awareness training for maintenance and construction personnel should help. Also re-emphasis to maintenance and construction personnel to toggle out smoke detection systems when performing dust producing operations will reduce unwanted alarms.

31. Similar Occurrence Report Numbers:

1. ALO-DA-EGGM-EGGMAT03-1992-0001
2. ALO-DA-EGGM-EGGMAT03-1992-0002
3. ALO-DA-EGGM-EGGMAT03-1992-0003
4. ALO-DA-EGGM-EGGMAT03-1992-0004
5. ALO-DA-EGGM-EGGMAT03-1992-0005
6. ALO-DA-EGGM-EGGMAT03-1992-0006

32. User-defined Field #1:

33. User-defined Field #2:

34. DOE Facility Representative Input:

35. DOE Program Manager Input:

36. Approvals:

Approved by: Hill, Edgar D., Facility Manager/Designee
Date: 12/22/1992
Telephone No.: (513) 865-3909

Approved by: HOLBROOK, FRED B., Facility Representative/Designee
Date: 12/22/1992
Telephone No.:

Approved by: KUMAR, RAMENDRA, Program Manager/Designee
Date: 12/23/1992
Telephone No.: (301) 903-2865

ALO-DA-EGGM-EGGMAT03-1993-0009 Final Report

Occurrence Report

Main Hill Facilities

(Name of Facility)

Explosive

(Facility Function)

Mound Plant EG&G Mound Applied Technologies

(Laboratory, Site, or Organization)

Name: Allison, Jerry L.
Title: Destructive Testing Manager **Telephone No.:** (513) 865-4533

(Facility Manager/Designee)

Name: Jerry L. Allison
Title: Building Manager **Telephone No.:** (513) 865-4533

(Originator/Transmitter)

Name: Gary L. Morris **Date:** 09/15/1993

(Authorized Classifier (AC))

1. Occurrence Report Number: ALO-DA-EGGM-EGGMAT03-1993-0009

Evacuation of Buildings 2 and 3

2. Report Type and Date: Final

	Date	Time
Notification:	09/02/1993	13:52 (MTZ)
Initial Update:	09/16/1993	14:49 (MTZ)
Latest Update:	09/16/1993	14:49 (MTZ)
Final:	09/17/1993	05:52 (MTZ)

3. Occurrence Category: Off-Normal

4. Number of Occurrences: 1 **Original OR:**

5. Division or Project: EG&G Mound Applied Technology

6. Secretarial Office: DP - Defense Programs

7. System, Bldg., or Equipment: Building 3

8. UCNI?: No

9. Plant Area: Lower Plant Area

10. Date and Time Discovered: 09/02/1993 10:22 (ETZ)

11. Date and Time Categorized: 09/02/1993 11:00 (ETZ)

12. DOE Notification:

Date	Time	Person Notified	Organization
09/02/1993	11:40 (ETZ)	Paul Matthews	DOE/DAO

13. Other Notifications:

14. Subject or Title of Occurrence:

Evacuation of Buildings 2 and 3

15. Nature of Occurrence:

01) Facility Condition
H. Operations

16. Description of Occurrence:

On 9/02/93 at approximately 1022 hours (ETZ) the evacuation bells in Building 3 sounded and a Public Address (PA) announcement was made to evacuate Buildings 2 and 3, at that time the occupants of the buildings evacuated. The smoke detector located in Room 336 was indicating an alarm condition. The Fire Department responded and no smoke or other condition was found that could have set off the alarm.

This Occurrence Report was reviewed by an Authorized Derivative Classifier (G. L. Morris, Manager Energetic Material Technology) on 9/15/93 at 1245 hours (ETZ) and contains no Classified or UCNI Information.

17. Operating Conditions of Facility at Time of Occurrence:

Normal first shift operating conditions at the time of the occurrence.Construction workers digging a hole in front of Building 3.

18. Activity Category:

03 - Normal Operations

19. Immediate Actions Taken and Results:

The occupants of Buildings 2 and 3 were evacuated as a precautionary measure. The smoke detector was reset and it restored. Electronic Maintenance was called and checked out the system.

20. Direct Cause:

1) Equipment/Material Problem
A. Defective or Failed Part

21. Contributing Cause(s):

1) Equipment/Material Problem
F. Contaminant

22. Root Cause:

1) Equipment/Material Problem
A. Defective or Failed Part

23. Description of Cause:

Smoke detector head in Building 3, Room 336 transmitted an erroneous signal which triggered the evacuation alarm system. Fire Department personnel also suspected that dust from the air ducts might have contributed to the erroneous signal.

24. Evaluation (by Facility Manager/Designee):

The defective smoke detector head was producing an intermittent erroneous signal which may have been contributed to by dirt in the detector head. Since the reliability of the smoke detector became questionable, a replacement of the unit was recommended.

25. Is Further Evaluation Required?: No

26. Corrective Actions
(* = Date added/revised since final report was approved.)

1.

Replaced smoke detector head and rechecked system.	
Target Completion Date: 09/09/1993	**Completion Date:** 09/09/1993

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

Spurious alarms caused by defective equipment can be expected occasionally, but are not a safety problem. The fact that personnel evacuated quickly, following established plant procedures without questioning the authenticity of the alarm is a positive indication that safety training has been effective and a safety culture has been instilled.

31. Similar Occurrence Report Numbers:

1. None

32. User-defined Field #1:

33. User-defined Field #2:

34. DOE Facility Representative Input:

35. DOE Program Manager Input:

36. Approvals:

Approved by: Allison, Jerry L., Facility Manager/Designee
Date: 09/16/1993
Telephone No.: (513) 865-4533

Approved by: HOLBROOK, FRED B., Facility Representative/Designee
Date: 09/16/1993
Telephone No.:

Approved by: KUMAR, RAMENDRA, Program Manager/Designee
Date: 09/17/1993
Telephone No.: (301) 903-2865

ALO-DA-EGGM-EGGMAT03-1994-0009 Final Report

Occurrence Report

Main Hill Facilities

(Name of Facility)

Explosive

(Facility Function)

Mound Plant EG&G Mound Applied Technologies

(Laboratory, Site, or Organization)

Name: ALLISON, JERRY L
Title: DESTRUCTIVE TESTING MANAGER **Telephone No.:** (513) 865-4533

(Facility Manager/Designee)

Name: Jerry L. Allison
Title: Explosive Facilities Manager **Telephone No.:** (513) 865-4533

(Originator/Transmitter)

Name: D. A. Homan **Date:** 08/02/1994

(Authorized Classifier (AC))

1. **Occurrence Report Number:** ALO-DA-EGGM-EGGMAT03-1994-0009

   Performance Degradation of Class B Equipment

2. **Report Type and Date:** Final

	Date	Time
Notification:	06/20/1994	14:58 (MTZ)
Initial Update:	06/27/1994	14:32 (MTZ)
Latest Update:	06/27/1994	14:32 (MTZ)
Final:	08/15/1994	05:07 (MTZ)

3. **Occurrence Category:** Off-Normal

4. **Number of Occurrences:** 1 **Original OR:**

5. **Division or Project:** EG&G Mound Applied Technologies

6. **Secretarial Office:** DP - Defense Programs

7. **System, Bldg., or Equipment:** Building 87 & Building 3

8. **UCNI?:** No

9. **Plant Area:** Lower Plant Area

10. **Date and Time Discovered:** 06/18/1994 23:14 (ETZ)

11. Date and Time Categorized: 06/18/1994 23:30 (ETZ)

12. DOE Notification:

Date	Time	Person Notified	Organization
06/20/1994	08:10 (ETZ)	Fred B. Holbrook	DOE/MB

13. Other Notifications:

Date	Time	Person Notified	Organization
06/27/1994	08:00 (ETZ)	Fred B. Holbrook	DOE/MB

14. Subject or Title of Occurrence:

Performance Degradation of Class B Equipment

15. Nature of Occurrence:

01) Facility Condition
E. Safety Structure/System/Component Degradation

16. Description of Occurrence:

On June 18, 1994, at approximately 2314 hours (ETZ), a smoke detector activation signal from Building 87, room 143 was received at the Mound Fire Department. Upon entry into the building, the Fire Department personnel found the entire building very humid. The building manager arrived at 2340 hours (ETZ) to access the area where the alarm had activated. Room 143 was so humid there was water running down the walls.

On June 26, 1994, at approximately 2136 hours (ETZ), another occurrence of a smoke detector activation occurred. The second occurrence was from a signal in Building 3, Room 336. When the Fire Department personnel entered the building they did not smell any smoke or see a fire. Since room 336 is security locked, a Testing Technician was called to let the Fire Department into that room. The smoke detector appeared to have been activated by humidity as a result of the air handling unit being down on June 18, 1994.

This Occurrence Report was reviewed by an Authorized Derivative Classifier (D. A. Homan, Manager) on 08/02/94 at 0830 hours (ETZ) and contains no Classified or UCNI Information

17. Operating Conditions of Facility at Time of Occurrence:

Normal off-hours operations existed during occurrence

18. Activity Category:

03 - Normal Operations

19. Immediate Actions Taken and Results:

During the first occurrence, an electrician was called to disable the smoke detector alarm which was activated by the humidity. Maintenance personnel were called in to repair the building cooling system. The high humidity was caused by the loss of cooling due to an electrical storm which disabled the air handler controls.

During the second occurrence, the humidity in the room may have caused the smoke detector to activate when the air handling unit was out of service due to an electrical storm on June 18, 1994. An electrician was called in to replace the smoke detector head. After the smoke detector head was replaced the system was returned to service.

20. Direct Cause:

1) Equipment/Material Problem
   A. Defective or Failed Part

21. Contributing Cause(s):

7) External Phenomena
   A. Weather or Ambient Condition

22. Root Cause:

7) External Phenomena
   A. Weather or Ambient Condition

23. Description of Cause:

The direct cause of the occurrences were the failure of the smoke detectors due to the build up of humidity. The root cause of both occurrences was the power failure of the air cooling systems due to an electrical storm. This allowed the humidity to build up in the room. Very high humidity conditions at the time of the occurrences also contributed to the activation of the smoke detectors.

24. Evaluation (by Facility Manager/Designee):

The electrical storms and hot, humid weather conditions after the failure of the cooling systems caused the rooms in which the smoke detectors were located to become extremely humid to the point where water was running down the walls. This type of humidity causes water to build up inside the smoke detector and fail the unit.

25. Is Further Evaluation Required?: No

26. Corrective Actions
(* = Date added/revised since final report was approved.)

1.	Replace smoke detector head in Building 87.	
	Target Completion Date: 06/18/1994	**Completion Date:** 06/18/1994
2.	Reset air handler unit in Building 87.	
	Target Completion Date: 06/18/1994	**Completion Date:** 06/18/1994
3.	Replace smoke detector head in Building 3.	
	Target Completion Date: 06/26/1994	**Completion Date:** 06/26/1994

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

While the ionization type smoke detectors are sensitive to dirt and humidity failures, they still afford a good degree of protection in explosive facilities. Besides providing fire detection, the smoke detectors also act as high humidity detectors. In the past the smoke detectors have alarmed when conditions inside facilities have reached elevated levels of humidity due to failure of an air handler unit. These high levels of humidity could have caused a good deal of damage to electronic equipment if the smoke detectors had not detected the humidity problem. Likewise, the smoke detectors have also picked up water leaks coming through the ceilings in cases where a broken pipe or other source of water has caused a leak. In these cases, the smoke detectors have also provided protection against potential water damage.

31. Similar Occurrence Report Numbers:

1. ALO-DA-EGGM-EGGMAT03-1994-0012

32. User-defined Field #1:

33. User-defined Field #2:

34. DOE Facility Representative Input:

35. DOE Program Manager Input:

36. Approvals:

Approved by: ALLISON, JERRY L, Facility Manager/Designee
Date: 08/03/1994
Telephone No.: (513) 865-4533

Approved by: HOLBROOK, FRED B., Facility Representative/Designee
Date: 08/06/1994
Telephone No.:

Approved by: HAGAN, RALPH A., Program Manager/Designee
Date: 08/15/1994
Telephone No.:

Appendix N

PRS Information

MOUND PLANT

PRS 73

Evaporator Storage Area

RECOMMENDATION:

Potential Release Site (PRS) 73 is an historical equipment storage area located in the lower valley (Test Fire) and was binned Further Assessment (FA) by the Core Team in February of 1997. Further Assessment sampling was completed in July of 2001 per the Sampling and Analysis Plan (SAP) approved by the Core Team. The additional sampling events conducted in July did not identify levels of concern.

Therefore, PRS 73 requires NO FURTHER ASSESSMENT.

DOE/MEMP: _____
Robert S. Rothman, Remedial Project Manager

USEPA: _____
Timothy J. Fischer, Remedial Project Manager

OEPA: _____
Brian K. Nickel, Project Manager

APP. N

MOUND PLANT
PRS 074
FORMER WASTE STORAGE SITE - QUONSET HUT

RECOMMENDATION:

PRS 74 was identified as a Quonset Hut moved to Mound from Dayton Unit III in 1949. The Quonset Hut was placed over a high-density concrete floor. The flooring may have been contaminated from storage of radioactively contaminated containers. There is no indication that the shell of the hut was ever contaminated. The potentially contaminated concrete floor was removed in 1963. Therefore, NO FURTHER ASSESSMENT is recommended for PRS 74.

CONCURRENCE:

DOE/MEMP: Arthur Kleinrath 2/19/97
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 2/19/97
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 2/19/97
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 4/3/97 to 5/8/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

MOUND PLANT
PRS 351/352/353/357/359/360/361/362/385/386/387
SOIL CONTAMINATION

RECOMMENDATION:

PRSs 351, 352, 353, 357, 359, 360, 361, 362, 385, 386, and 387 are located in the western sector of the original Mound plant. These soil locations were identified as PRSs due to qualitative hydrocarbon detections found during the PETREX soil gas portion of the *OU5, Non Area of Concern* investigation. No radioactive or hazardous waste generating processes or activities are known to have occurred at these PRSs.

In 1996, the Soil Gas Confirmation sampling effort sampled the locations with the highest ion counts (confirmation sample locations 7, 11, and 18) in the western sector and discovered no contamination above the 10^{-6} risk range. PRSs 351, 352, 353, 357, 359, 360, 361, 362, 385, 386, and 387 were not sampled as part of the *Soil Gas Confirmation Sampling* but the PRSs had lower ion counts than confirmation sample locations 7, 11, and 18. This implies that these PRSs will have similar or lower health risk.

All radiological samples collected near these PRSs indicate that radionuclides are below their applicable 10^{-6} Risk Based Guideline Criteria, ALARA, regulatory, or background levels. Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath 11/20/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 11/20/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 11/26/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 12/19/96 to 1/23/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

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