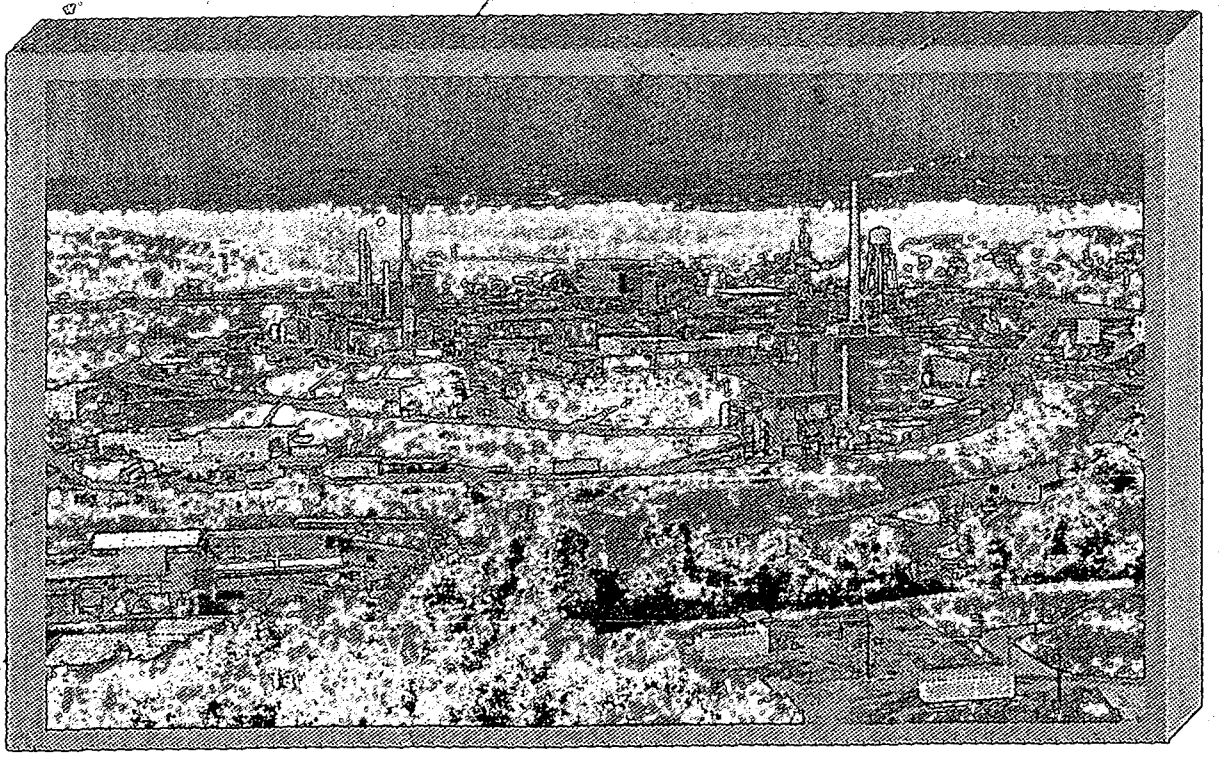
MOUND

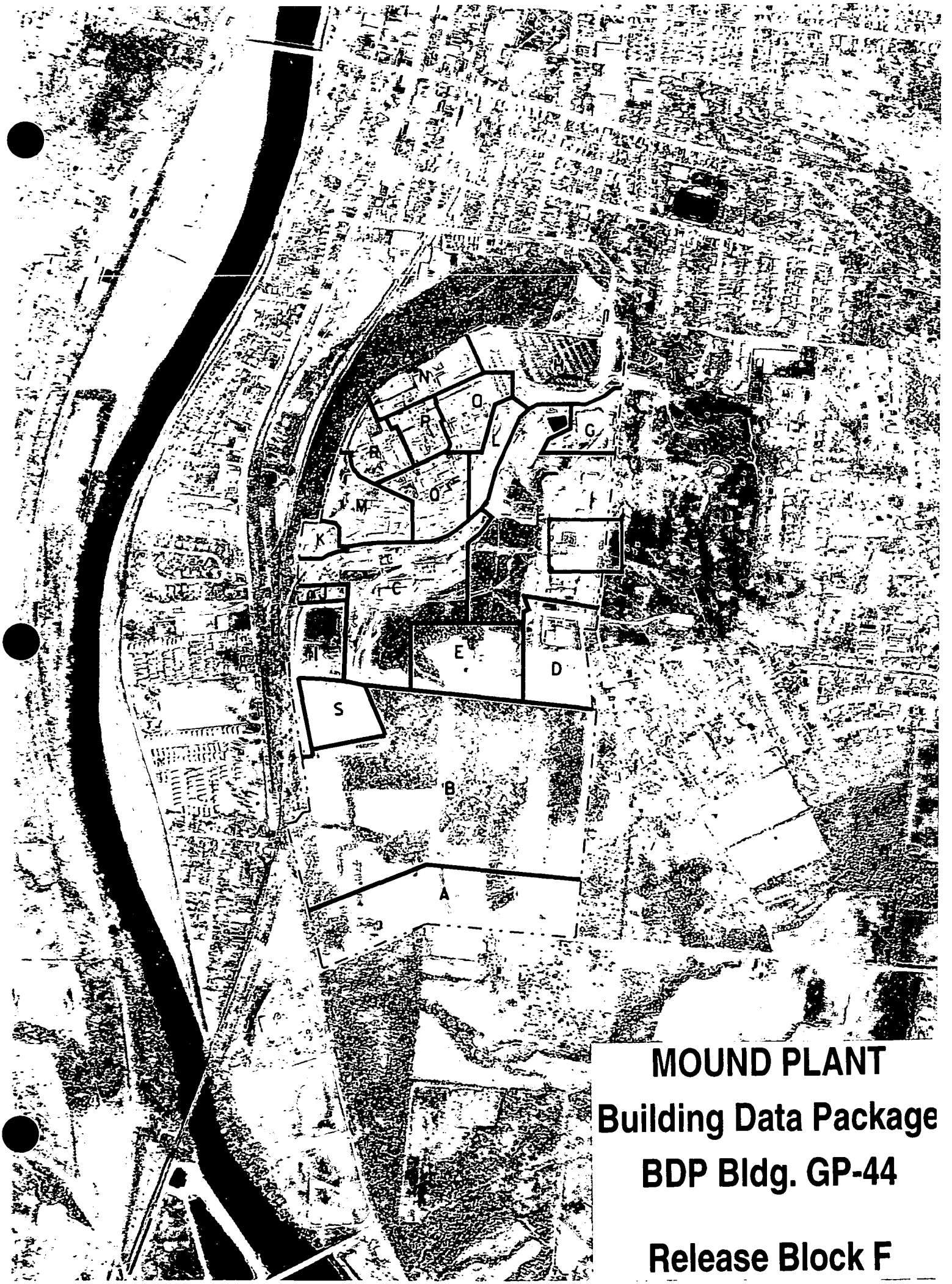
Environmental Restoration Program

MOUND PLANT
Building Data Package
Building GP-44
Located within Release Block F



BDP GP-44

REV	DESCRIPTION	DATE
RELEASE 0	Available for Reading Room and Administrative Record.	**Feb. 13, 1998**
1		



MOUND PLANT

Building Data Package

BDP Bldg. GP-44

Release Block F

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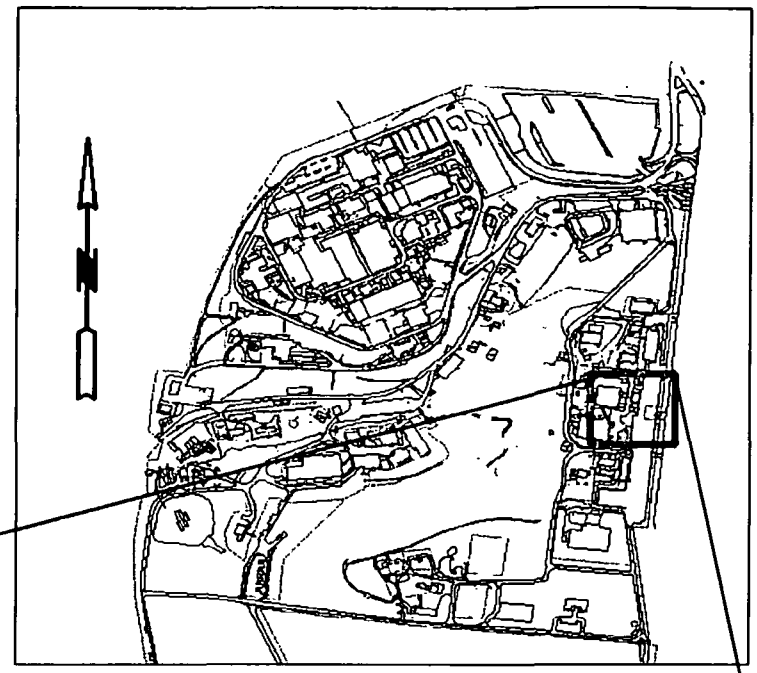
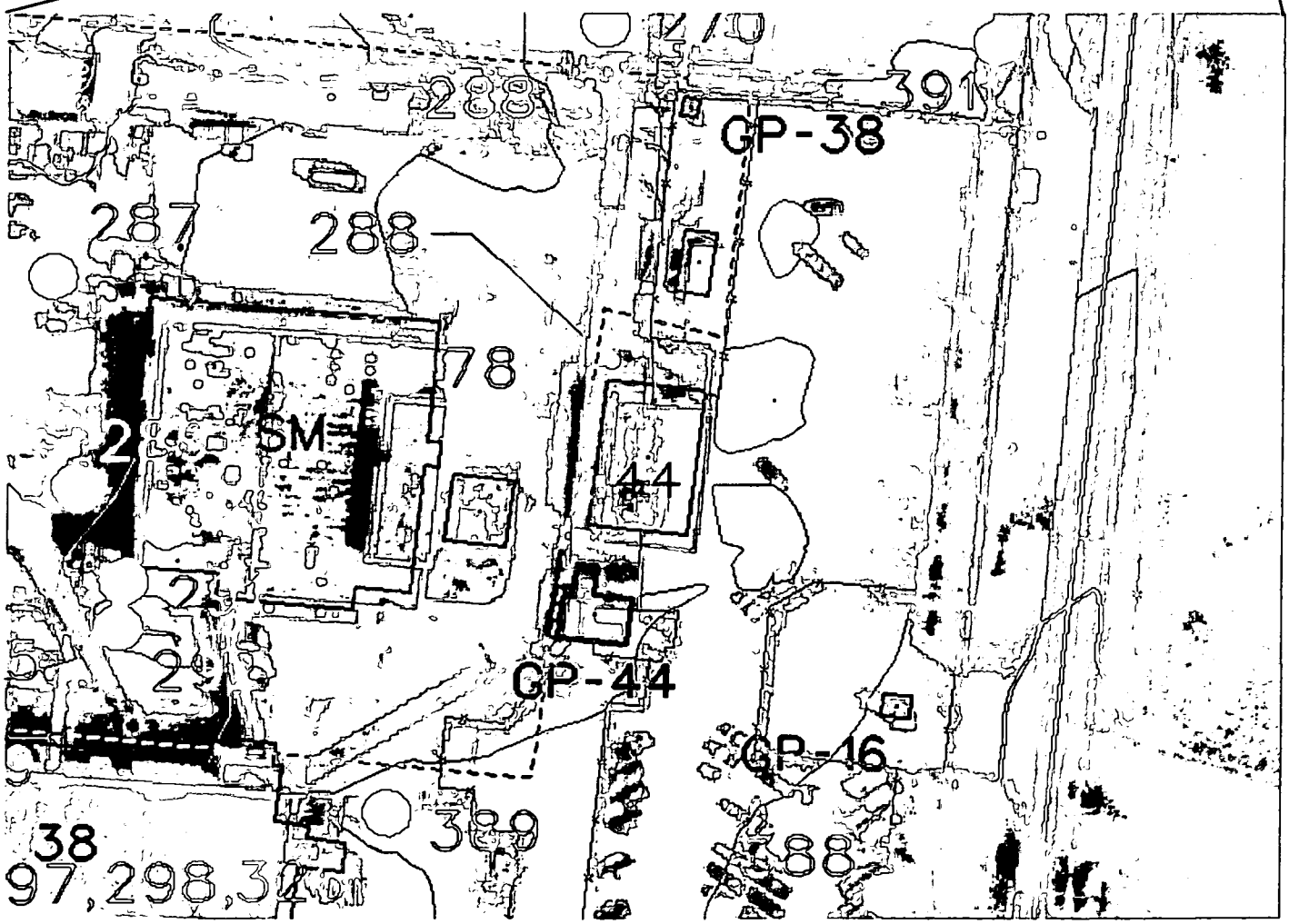
Mound Plant

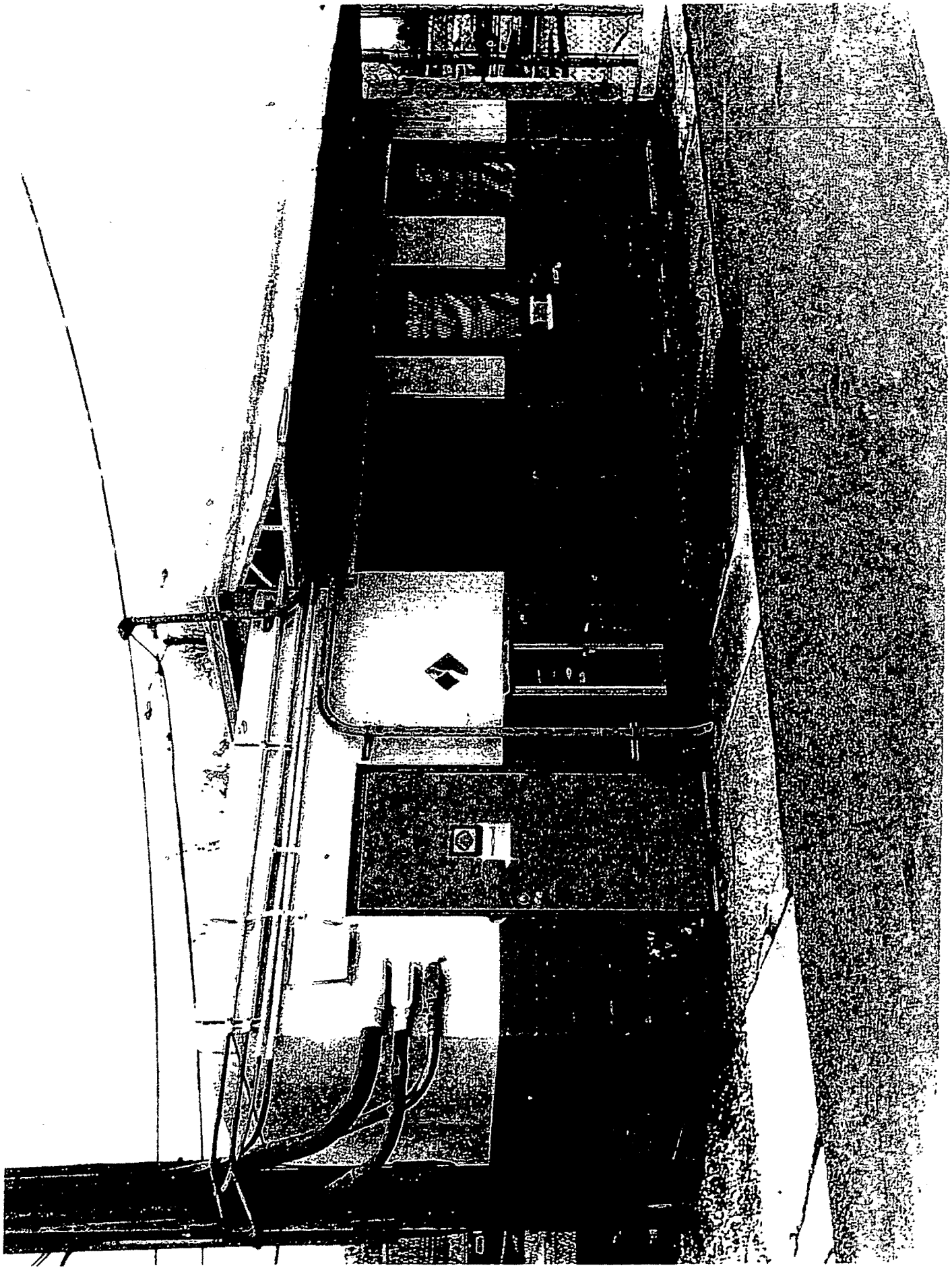
Building GP-44
Old Guard House at SM/PP

Release Block F

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







Mound Plant Building GP-44

BUILDING DATA PACKAGE (BDP)

BUILDING GP-44

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

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1.0 General Overview

1.1 Introduction

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

Recognized Environmental Condition – The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum into structures or into the ground, ground water, or surface water near the building.

1.2 Scope

This document has been prepared in response to an agreement between the Department of Energy (DOE), the U.S. Environmental Protection Agency, and the Ohio Environmental Protection Agency. It is a Building Data Package of Building GP-44 located at the DOE Mound Plant in Miamisburg, Ohio. This investigation was performed to support procedures as found in ASTM Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-94).

The scope of the investigation included the building and a 15-foot wide perimeter border around the building. This perimeter includes roadways, sidewalks, pavement, and grass covered areas. The investigation of Building GP-44 included the following.

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

B) Past sampling data
- Radiological survey
- Chemical history
- Lead paint
- Asbestos
- Radon

The building investigation was conducted by BWO personnel on 12/9/97.

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

- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Plan, November 1994.
- EDR Report - Radius Map
- Building Prints
- MD-222153, Mound Site Radionuclides By Location, July 1995
- Contaminant Surveys
- Environmental Appraisal of the Mound Plant, March 1996
- Appropriate Potential Release Site (PRS) Documents
- Title Search
- OU-6, SM East Asphalt Final Verification Report

2.0 Building Specific Overview

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The entire Mound Plant facility is situated on 305 acres of land and contains more than 132 buildings. The subject property consists of Mound Plant Building GP-44 footprint, and a 15-foot wide perimeter around the building. Appendix K denotes soil contamination around Building GP-44. Building GP-44 contains 265 square feet. It was constructed in 1964. No waste was generated or stored in Building GP-44.

2.1 Current Uses of Building GP-44

Since 1988 the building has been used for non-hazardous storage such as tools and clothing.

2.2 Past Uses of Building GP-44

Building GP-44 was used from 1964 to 1988 as a Security Entrance (Guard Post) to the SM/PP Area.

2.3 Summary of Environmental Concerns and Findings

DESCRIPTION	PROBLEM (YES, NO)	COMMENT	RESOLUTION
Asbestos	NO	Ceiling Tile Floor Tile (Non-friable)	Being sampled. Remove with building demolition.
Lead	NO	Used on cast iron drain fittings.	Will be segregated after demolition.
Lead Paint	N/A		
HVAC	NO	Window type units	To be removed prior to demolition.
Mercury	N/A		
Chemicals	NO	Janitorial cleaning liquid	To be removed prior to demolition.
Radiological	NO	Sampling within release limits	Demolition debris to landfill.
Radon	N/A		
Fluorescent Lamps	NO	PCBs in ballists	Will be removed prior to demolition.
Septic Systems	N/A		
Drains & Sumps	NO	Floor drain to storm sewer	All run-off collected.
Waste Water	NO	Storm water sewer	All run-off collected.
Stains & Corrosion	NO	None observed.	
Space	N/A		
Storage Tanks	N/A		
Solid Waste Disposal	NO	Building debris	Will be monitored prior to disposal.
Migratory Hazards	NO	Run-off water	See waste water.

YES = Mitigation/Removal does not adequately address structure concerns.

ENTRIES = Mitigation/Removal does adequately address structure concerns.

NO = Not structure related.

2.4 Radiological Characterization Summary For Building GP-44

TYPE	RSDS	LOCATION	SURVEY RESULTS (dpm/100 cm2)	5400.5 Guidelines for Groups 1, 3, 4 (fixed + loose) (dpm/100 cm2)	NUREG 1500 Guidelines (loose) (dpm/100 cm2)	Attachment 1 Limit (fixed + loose) (See Note 2.) (dpm/100 cm2)	COMMENTS
Highest Alpha Smearable Activity	98-SM-036	Room 5	7.499	20	211	20	<AL
Highest Alpha Fixed Activity	98-SM-043 98-SM-032	Same location as all swipes.	<100	100	Note 1	100	<AL
Highest Beta Smearable Activity	98-SM-036	Room 3	7.74	1,000	9940	1,000	<AL
Highest Beta Fixed Activity	98-SM-043 98-SM-032	Same location as all swipes.	<5,000	5,000	Note 1	5,000	<AL
Highest Tritium Smearable Activity	98-SM-043	North Wall Room 3	23.07	1,000	Note 1	1,000	<AL

Note 1: NUREG-1500 gives guidelines for loose beta and alpha only.
Note 2: The limits referenced above are based on MD-80043, Radiological work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste," Attachment 1.
Note 3: ND=Non-Detectable Swipe
Note 4: ND FIDLER=Non-Detectable Using FIDLER
Note 5: AL = Action Level
Note 6: MDA=Minimum Detectable Activity

3.0 Site Description

3.1 Site/Vicinity Location and Characteristics

Building GP-44 is located at the U.S. Department of Energy Facility known as Mound Plant. Mound is situated in the city of Miamisburg, Miami Township, Montgomery County, state of Ohio.

The Mound facility is situated on 305 acres of land and contains approximately 130 buildings with a total of approximately 1.4 million square feet of floor space (the number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished). The original 182-acre site, purchased by the Manhattan Engineering District in 1946, consists of two hills and an intervening valley that runs approximately east and west. Building GP-44 is located on the Main Hill. The 124-acre tract, acquired in 1981, is an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working on-site.

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

3.2 Description of Structures, Roads, Other Improvements Related to Building GP-44

Building GP-44 is a single story concrete building which was constructed in 1964 as a security entrance (Guard Post) to the SM/PP area. In 1976 the structure was "hardened" with the addition of armor plate steel on the exterior walls and with the instillation of bullet proof glass.

Potable water was provided to a drinking fountain and discharged to a storm drain. HVAC was provided by portable wall mounted units that currently remain installed in the building. There are no other structures, roads, or improvements that would impact the environmental condition of the building.

3.3 Current and Past Uses of Buildings Adjacent To Building GP-44

Proximity to GP-44	Building Area (Sq. Ft.)	Current Use	Past Use	Direction From Building
SM	Demolished	N/A	Pu238 Production	West
Building 44	2480	Storage	Cafeteria	North

4.0 Records Review

4.1 General/Historical CERCLA Information

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

In compliance with permit requirements under RCRA, the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. Mound Plant is currently operating a hazardous waste treatment and storage facility under a new RCRA Part B permit dated October 18, 1996. Mound Plant also maintains a NPDES surface water discharge permit with Facility I.D. number OH 009857. Permits for the open burning of wastes involving explosives and other fuels have been issued by the Regional Air Pollution Control Agency (RAPCA). Other operations that produce particulate or vaporous emissions are registered with RAPCA and OEPA. Mound Plant also submits annual Emergency and Hazardous Chemical Inventory forms to the OEPA, pursuant to SARA, Title III, the Emergency Planning and Community Right-to-Know Act. The 1995 version of this report indicated that no chemicals are stored in Building GP-44.

4.2 Specific Record Sources

4.2.1 Occurrence Reports

There are no occurrence reports associated with Building GP-44.

4.2.2 Spills and Releases

No spills or releases are associated with Building GP-44.

4.2.1 Associated PRS Overview

As a result of the investigations and documentation conducted to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and EG&G Mound Applied Technologies have tabulated all the Potential Release Sites (PRSs) identified under the various regulatory program in effect at the site. Many additional contaminants of concern and types of operations were identified beyond the original NPL listing of site activities. Of these 413 PRSs, none are attributed to operations in the building. Building GP-44 is bordered by PRS 288 to the West. PRS 288 focuses on elevated levels of Pu238. However, the east side of PRS 288 was remediated. (See: OU-6, SM East Asphalt Final Verification Report.)

4.3 Review of Building Prints

Building prints were reviewed and are included in Appendix D.

4.4 Aerial Photographs

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

Building GP-44 is visible in the photograph dated 1965.

4.5 Interviews

Discussions were conducted with the Building Manager during the walkthrough inspection on 12/9/97. Information gained is reflected in Section 2.3.

Appendix B

Map of Montgomery County

Appendix C

Site Plan and PRS Release Blocks

Appendix D

Building Drawings

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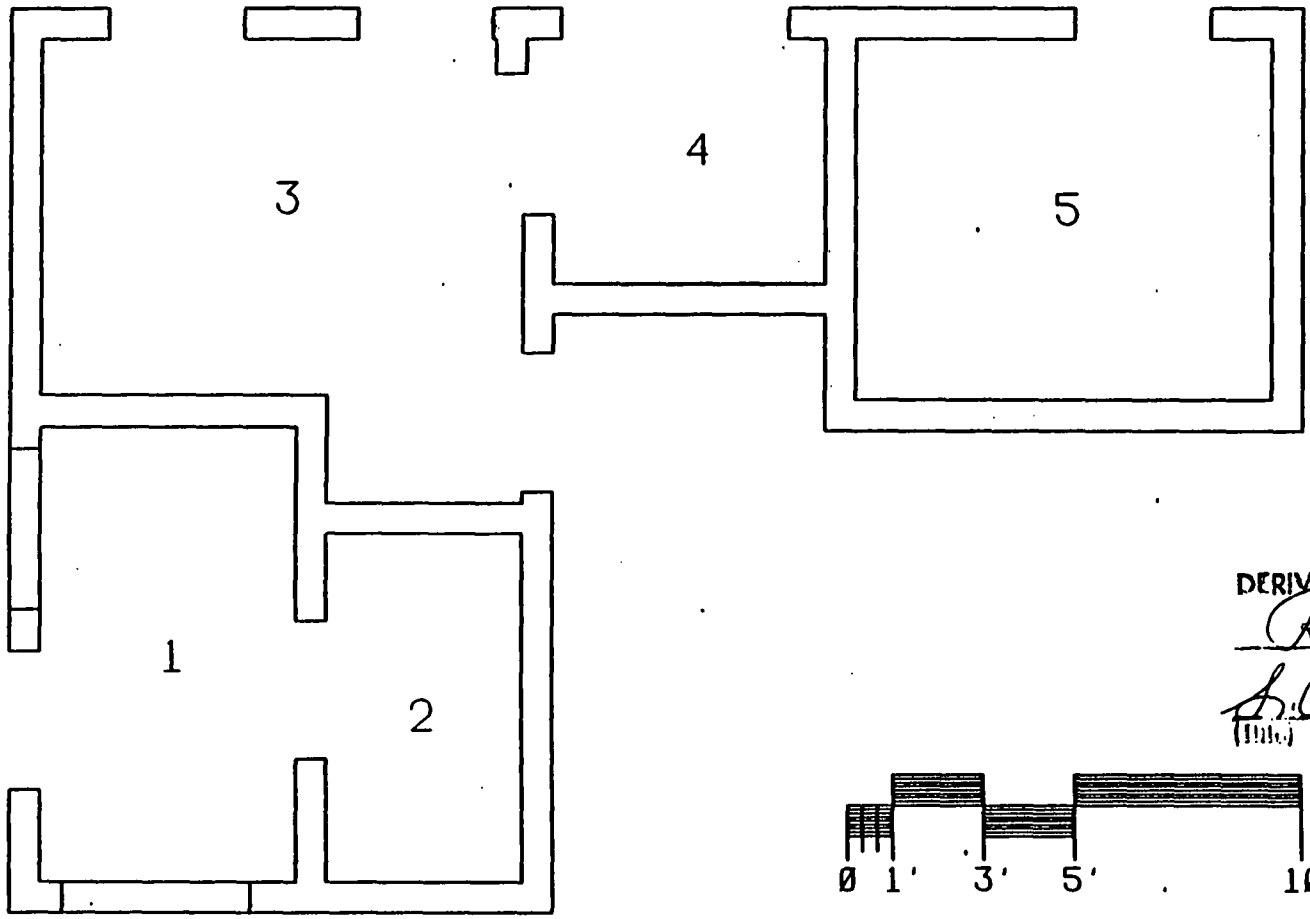
0	12/12/91	ASBUILT ISSUE	DCH				DVD	



UNCLASSIFIED

DERIVATIVE CLASSIFIER

R D Myers (Name)

S. Class Anal 2/29/96 (Title) (Date)

BLDG GP-44
FIRST FLOOR
BLDG CODE:3533

APPROVALS:	DATE:
SAFETY COMMITTEE REVIEWED:	
___NONE ___TRUEDOC ___TEVOC ___CHDOC	
TECH. REVP.	
GR. MGR.	
TRUEDOC	
TEVOC	
CHDOC	

NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

DESIGN ENG	PROJ MGR
DRAWN	ENG SUPV
CP & QE	PROD REV
CHK MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	0					

PRAY CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

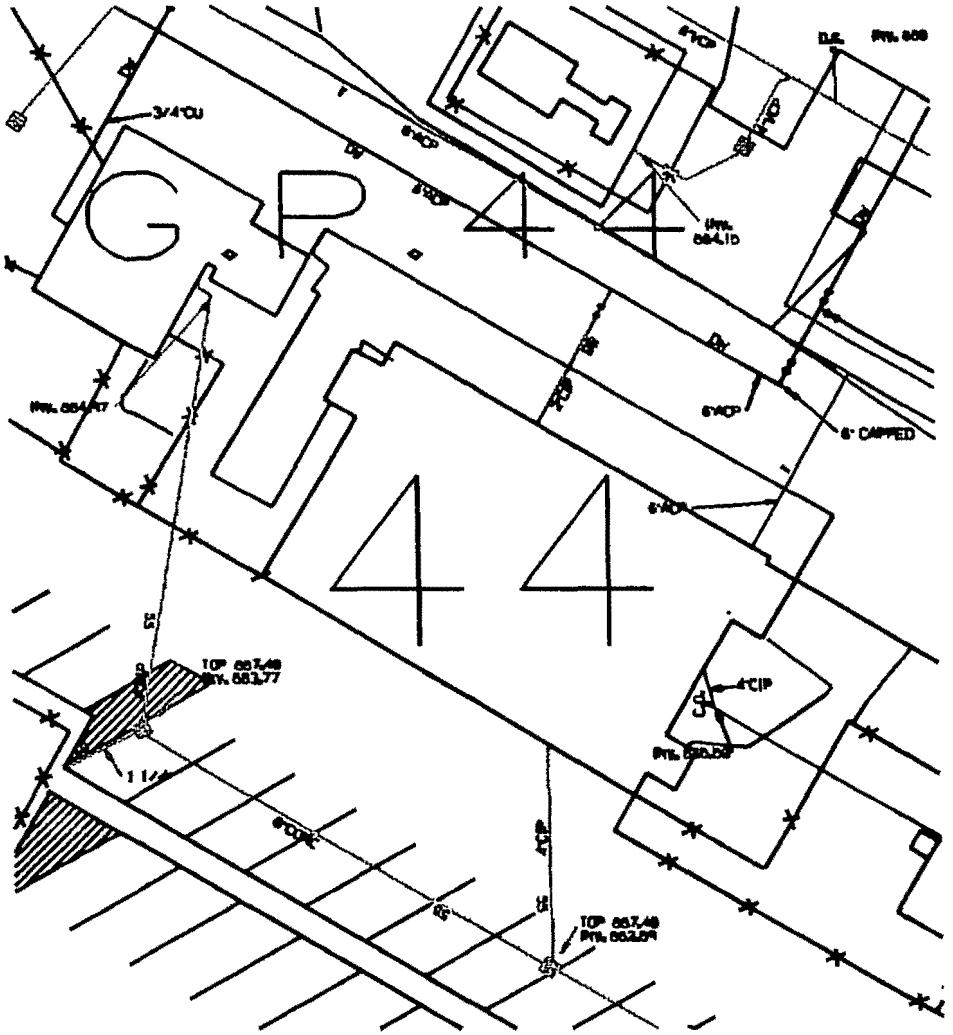
TITLE: BLDG GP-44 FLOOR PLANS

(U) TITLE CLASSIFICATION

SIZE: C | DRAWING NUMBER: FSC911310 | JOB NUMBER: 12335

DWG TYPE: SFP | FROM: BLDG GP-44 | CHECK: 14845 | SCALE: AS NOTED | SHEET: 1 OF 1

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



E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
GP-44

DATE: 2/29/96

UNCLASSIFIED

Appendix E

Aerial Photographs

Appendix F

Environmental Appraisal Report of the Mound Plant (Extract)

9.13 BUILDING GP-44

9.13.1 Scope of Building GP-44 Report

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

The appraisal team performed a walk-through of Building GP-44 on the mornings of January 29 and February 6, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.13.6.1) was used to record findings. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9..6.2). The appraisers were accompanied by the building manager on the January 29 visit. Keys to the Decontamination and Decommissioning (D&D) clothing storage area were subsequently obtained and the walk-through on February 6 was conducted without the building or process managers.

9.13.2 Description of Building GP-44

Building GP-44, a former guard post, is a 365-square-foot, one-story structure. It is of concrete block construction, has a built-up membrane coaltar roof, with a slab-on-grade foundation. Its location is shown in Attachment 3, Section 9.13.6.3. The building is surrounded by Building 44 to the northeast, a parking lot to the east, Building SW to the southwest, and a roadway to the west. The building is serviced by potable water and electric service of 240V (*Mound Facility Physical Characterization*, 12-1-93). Electric space heaters and window air conditioners are installed.

Building GP-44 was constructed in 1964 (MD-10391, *Asbestos Program Manual*, 9-14-95). Floor plans are presented as Attachment 4, Section 9.13.6.5. Building GP-44 is programmed for Safe Shutdown but has been assigned low priority. The building contains an equipment room, the former guard office (Rooms 1 and 2), and clothing storage in Room 4, and unused (new) D&D personnel clothing supplies. Except for one chair and desk in Room 1, all furnishings, including the washer and dryer, have been removed; Room 3 is empty. When GP-44 was an active guard post, Room 4 was used for uniform storage and Room 3 was used as a laundry room for security uniforms.

9.13.3 Summary of Findings

One issue of concern was identified during the walk-through and during review of reference materials. The building is not occupied one a regular basis.

9.13.4 Observations

9.13.4.1 Air Emissions

There have been no fumehoods in the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust. No air emissions permit applications have been submitted to Ohio Environmental Protection Agency for activities in the building.

9.13.4.2 Wastewater Emissions

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

9.13.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground lines, presented as Attachment 6, the building is serviced by a sanitary line. There are no lavatory facilities. The single interior sanitary drain is located in Room 3 and was used for the formerly installed washing machine. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort; therefore, neither dye tests nor smoke tests were conducted.

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged (after treatment) to the Great Miami River. There is no monitoring of building effluent. Based upon discussions with the building manager, effluent from Building GP-44 did not deviate from that expected by the sanitary treatment plant manager.

9.13.4.2.2 Storm Wastewater

The one interior floor drain and the exterior of the building are serviced by a storm line. The interior drain and exterior grates and drains were not tested to confirm that they connect to the storm drainage system. Inspection showed no sign of odors, colored discharges, or scarring which would indicate that any materials other than storm water has entered the storm drainage system.

9.13.4.2.3 Process Wastewater

Wastewater contaminated with radioactive materials was not generated in the building, as only security personnel uniforms and not soiled D&D clothing were washed in the building.

9.13.4.2.4 Chemicals

Washing detergents and janitorial supplies have not been stored in the building for over two years, according to the process manager. No chemicals of any type were found in the building during the site visit.

9.13.4.3 Potable and Service Water

Potable water is supplied to the building and the only outlet appeared to have serviced the washer. The water heater was removed. No backflow prevention device is installed. There is no visible point of a potential cross connection. There is no fountain or bottle water fixtures. Service water is not supplied nor distributed within the building.

9.13.4.4 Chemical Storage and Hazardous Materials

Chemicals are not stored in the building.

The building is not equipped with appropriate fire extinguishers. One should be installed inside the building entrance to Room 3, since the storage room is still occupied.

There was no Emergency Evacuation Plan, and signs were not posted within the spaces. The appraisal team believes neither are required because of the building status.

There are no aboveground storage tanks in or around the building and no underground storage tanks are associated with this building. There are no sumps, separators, or catch basins, in or around the building.

The building has been tested and it is assumed that it contains asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). Visual inspection revealed that such material is most probable within the floor tiles.

There are no capacitors or transformers containing PCB's located in the building (1995 PCB Annual Document Log). There is no record of past presence.

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

9.13.4.5 Solid, Hazardous, and Radioactive Waste

Solid wastes generated is primarily cardboard boxed. Solid wastes are removed by D & D personnel and taken to Building 120 (process manager's office) where they are removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a contractor. The disposal permit is maintained by the Waste Management Group. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

9.13.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856. There does not appear to be additional opportunitites for waste minimization activities within Building GP-44.

9.13.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.13.6.6). The environmental appraisal of Building GP-44 indicates that the following action item should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

GP-44-1 As long as the building is being used for storage, it should be equipped with an appropriate fire extinguisher.

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name GP-44

Appraisers:
Team #4

Name	Discipline
MARK GILLIAT	ENGINEER
MARSHA VANNET	CHEMIST
MYRON SMITH, Jr.	ENGINEER
—	

Building Manager: Bob Ward (x-3821)

Process Manager: RAYMOND MARTIN (x-5557)

Date: 29 JANUARY & 6 MARCH 1986

ENVIRONMENTAL APPRAISAL CHECKLIST

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Safe Drinking Water Act	7
RCRA Hazardous Waste	8
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TSCA—PCB	14
Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y / N Y / N	NONE
	Is the building in operation? What are the processes and where do they discharge to?	(Y)/ N NONE	STORAGE ONLY
	Do the floor drains, sinks & toilets appear to be draining properly?	(Y)/ N	FLOOR DRAIN ONLY
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	FLOOR DRAIN TO STORM UNUSED DRAIN TO SANITARY
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y / (N) _____ _____ Y / N Y / N	
	Are there any manholes, catch basins, drains, or fill pipes in or around the building? If so, are there any unusual appearances, colors, and/or odors? Describe in comment section. Can chemicals flow into the drain?	Y / (N) Y / N Y / N	

9.13-9

Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

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

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

CAA Checklist

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

TABLE A

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

Blank

Source: _____

9.13-11

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team 4 Date: 1/29 & 3/6 1996

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

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

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

HM Checklist

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

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Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Source: _____

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	Y / (N)	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	Y / N	N/A
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y / N	NONE
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / (N)	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
			Blank

Source: _____

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Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

RCRA Screening Checklist

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

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 2/6 1996

RCRA Checklist

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

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Environmental Appraisal Checklist

Building Name: Appraisers: Date: 1/29 & 3/6 1996

RCRA Checklist

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

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

RCRA Checklist

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

General Comments:

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

RCRA Checklist

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

Blank

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Asbestos Screening Checklist

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

Asbestos Checklist

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

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

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Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: TEAM #4 Date: 1/29 & 3/6 1996

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

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

TSCA Checklist

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

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

TSCA Checklist

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

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Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

TSCA Checklist

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

GENERAL COMMENTS:

Building Name: 6P-44 Appraisers: Team #4. Date: 1/24 & 3/6 1996

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: TEAM #4 Date: 1/29 & 3/6 1996

Low-Level Waste and Transuranic Waste Checklist

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

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

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Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

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

Building Name: 6P-44 Appraisers: Team # 4 Date: 1/29 & 3/6 1996

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

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Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Waste Minimization/Pollution Prevention Activities Checklist

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

B Blank

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1994

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal Checklist

Building Name: 6P-44 Appraisers: Team # 4 Date: 1/29 & 3/6 1996

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

Environmental Appraisal Checklist

Building Name: GP-44 Appraisers: Team #4 Date: 1/29 & 3/6 1996

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

9.13-35

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Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: K. KOEHLER Phone: 4886

1. What are the access requirements (training, requirements, etc.)?

NONE

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

NONE

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

4. Provide a physical description of the building.

Building GP-44 is a 365-ft^2 structure of concrete blocks with brick facing. It has a BUM roof (asphalt), electrical heat, and window air conditioning. Building is not contaminated with any radioactive or energetic materials.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Two-thirds of the building is used for uniform storage, laundry, and issue. The remainder is used for security records storage.

Source: Mound Buildings, 5-9-95

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

Source: Mound Buildings, 5-9-95

9.13-39

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process(es) Housed: Storage and laundry

How Wastes Are Generated:

No details on waste generation available.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

9. In the last six months, have any modifications been made to the building or to processes in the building? Yes No

10. Does the building have air emission sources? No

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
			Y / N					
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

Source: PCB Annual Document Log

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

Source: PCB Annual Document Log

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

Chemical Name	State	Amount (MAX)
None		

Source: Chemical Inventory 1994

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

NONE

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

NONE

23. Where do excess janitorial supplies go?

NONE

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

NONE

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

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

Source: _____

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

Materials	Amount

Source: _____

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

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

Building Manager's Questionnaire

Building Name: GP-44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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Appendix G

Radiological Summary/Information

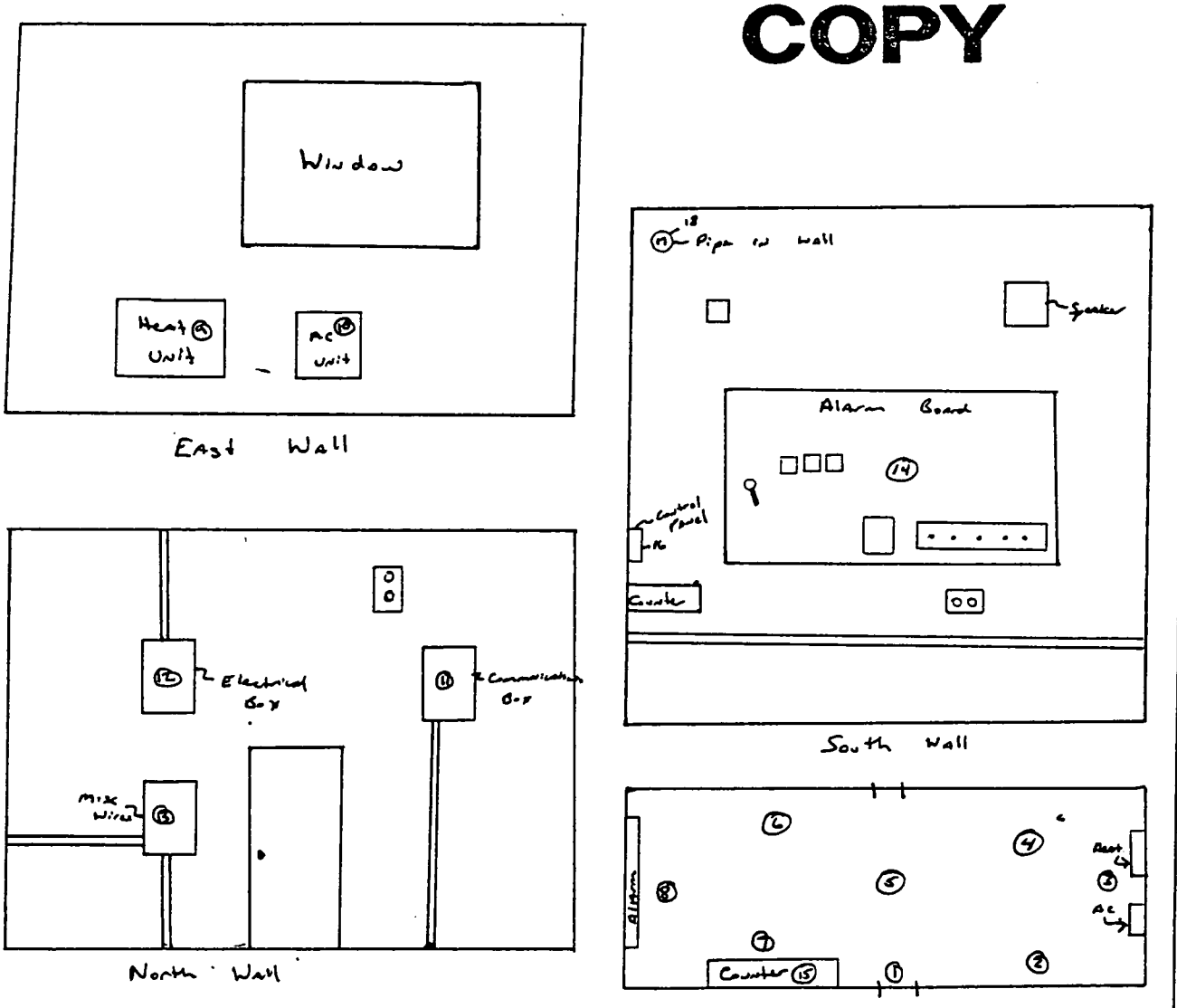
30-9 C1/C18 PH

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Bldg 44 Guard Post Rm 1	SURVEY NO. 98-SM-032
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 1/26/98
	TIME: 1315

MAP/DRAWING

COPY



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

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Electra	5394/5414	6.9.98

[redacted] 8258	Date: 1/26/98
[redacted] 5681	Date: 1-27-98
[redacted] e/HP#) 6056	Date: 2-10-98

ML-9620 (8-97)

Unit 1 Group B 18

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
1				Floor
2				Floor
3	S	S	S	Floor
4	E	E	E	Floor
5	E	E	E	Floor
6				Floor
7	A	A	A	Floor
8	T	T	T	Floor
9	T	T	T	Heat Vent
10	A	A	A	AC Vent
11	C	C	C	Phone Box
12	H	H	H	Elec Box
13	E	E	E	Wire Box
14	D	D	D	Rad Alarm Board
15				Counter
16				Control Panel

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
17	See	Attached		Pipe 1
18				Pipe 2

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COPY

COMMENTS:

NOTES:

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

Health Physics Counting Lab -- Wipe Analysis

Date: 1/27/98
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\Sme1B007.csv
Batch Ended: 1/27/98 9:37
Crosstalk Correction: Applied
Cal. Due Date: 12/18/98

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

System Serial #: 64937
Batch ID: T 98-SM-032 ADKISON BLDG.44/GUARD POST GR.B (18) .

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
13	1	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	1/27/98 9:09
36	2	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/27/98 9:10
139	3	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/27/98 9:12
13	4	0.824	1.76	<MDA	1.67	2.74	<MDA	1.50	1/27/98 9:14
108	5	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/27/98 9:15
18	6	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	1/27/98 9:17
21	7	0.824	1.76	<MDA	1.67	2.74	<MDA	1.50	1/27/98 9:19
123	8	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	1/27/98 9:21
40	9	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	1/27/98 9:22
5	10	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	1/27/98 9:24
2	11	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/27/98 9:26
4	12	0.000	1.78	<MDA	4.91	3.48	<AL	1.50	1/27/98 9:27
73	13	0.824	1.76	<MDA	1.67	2.74	<MDA	1.50	1/27/98 9:29
114	14	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	1/27/98 9:31
17	15	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	1/27/98 9:32
14	16	0.858	1.75	<MDA	0.15	2.28	<MDA	1.50	1/27/98 9:34
98	17	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	1/27/98 9:36
78	18	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	1/27/98 9:37

COPY

27 Jan 98 10:51 ALPHA/BETA - 1.01
Protocol #: 4 PW 5CC H3 #403727 User : 568

Time: 2.00
Data Mode: DPM Nuclide: SM-PW-U6 Quench Set: SM-PW-U6
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	18.6	0	0.0	6.40
Region B:	2.0	18.6	0	0.0	6.30
Region C:	20.0	2000	0	0.0	15.60

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
98-SM-032 ADKISON BLDG.44 GUARD POST (C1-C18) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT4.DAT
Count Data Filename: C:\DATA\SDATA4.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	6.40	6.30	15.60	620.76	0	B		0.00
0	2.00	424.10	404.20	10.40	588.59	0		836.35	84.30
1	2.00	0.00	0.00	0.00	523.50	0		0.00	0.00
2	2.00	2.60	2.70	0.00	480.03	0		5.60	9.78
3	2.00	0.00	0.00	0.00	546.99	0		0.00	0.00
4	2.00	4.10	4.20	4.40	541.98	0		8.47	10.04
5	2.00	5.10	4.70	0.90	471.25	0		11.04	10.98
6	2.00	0.10	0.20	3.90	437.54	0		0.23	9.06
7	2.00	1.60	1.70	0.00	513.66	0		3.38	9.11
8	2.00	1.60	1.70	0.00	495.29	0		3.42	9.21
9	2.00	0.60	0.70	1.90	438.17	0		1.38	9.33
10	2.00	2.10	1.70	0.00	389.22	0		5.24	11.04
11	2.00	3.10	3.20	0.00	452.11	0		6.92	10.38
12	2.00	0.60	0.20	0.00	497.55	0		1.28	8.68
13	2.00	7.60	6.70	3.90	527.56	0		15.95	11.66
14	2.00	0.10	0.20	0.00	479.33	0		0.22	8.50
15	2.00	2.60	2.70	0.00	511.68	0		5.50	9.61
16	2.00	1.60	1.20	0.00	526.53	0		3.36	9.05
17	2.00	2.10	2.20	0.00	517.76	0		4.43	9.34
18	2.00	3.10	3.20	0.00	511.45	0		6.56	9.84

✓

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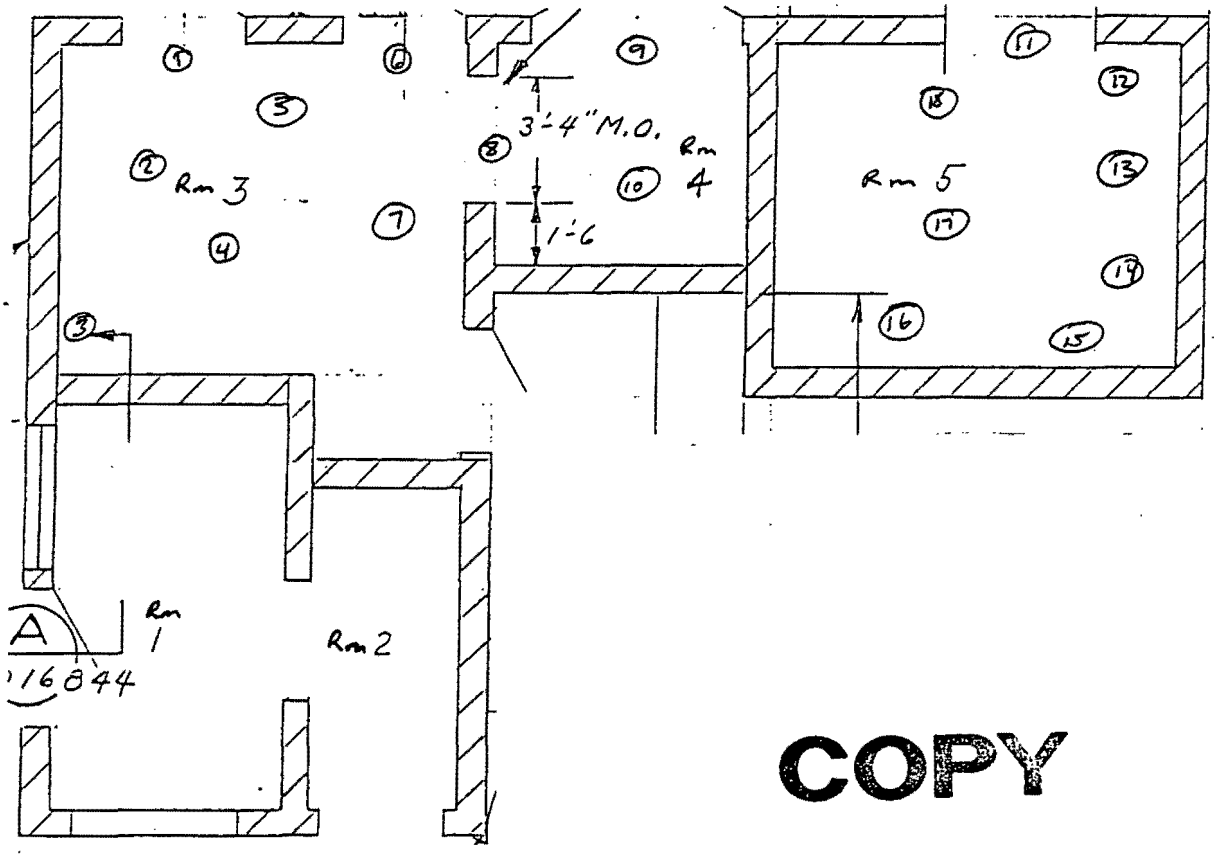
RADIOLOGICAL SURVEY DATA SHEET

G1/G18 30-9

LOCATION: (BLDG./AREA/ROOM) Bldg 44 Rooms 3+4	SURVEY NO. 98-5M-036
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 1/28/98
	TIME: 1320

MAP/DRAWING



COPY

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

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Electra	5353/ 5348	2-21-98

[redacted]	8258	Date: 1-28-98
	5681	Date: 1-29-98
	P#) 056	Date: 2-10-98

Unit 1 Group E

ML-9620 (8-97)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
1				
2				
3	S	S	S	
4	E	E	E	
5	E	E	E	
6				
7	A	A	A	
8	T	T	T	
9	T	T	T	
10	A	A	A	
11	C	C	C	
12	H	H	H	
13	E	E	E	
14	D	D	D	
15				
16				

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
17				
18				
		NEE		

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COPY

COMMENTS:

NOTES:

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

Health Physics Counting Lab -- Wipe Analysis

Date: 1/29/98
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\Sme1E005.csv
Batch Ended: 1/29/98 10:40
Crosstalk Correction: Applied
Cal. Due Date: 12/18/98

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

System Serial #: 64937
Batch ID: T 98-SM-036 ADKISON BLDG.44/3&4 GR.E (18) CYR

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
42	1	0.688	1.81	<MDA	7.74	4.09	<AL	1.50	1/29/98 10:11
131	2	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/29/98 10:13
36	3	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	1/29/98 10:15
6	4	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	1/29/98 10:16
66	5	0.925	1.74	<MDA	0.00	1.70	<MDA	1.50	1/29/98 10:18
115	6	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	1/29/98 10:20
42	7	2.586	2.40	<AL	0.00	1.70	<MDA	1.50	1/29/98 10:21
139	8	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	1/29/98 10:23
70	9	0.925	1.74	<MDA	0.00	1.70	<MDA	1.50	1/29/98 10:25
7	10	0.824	1.76	<MDA	1.67	2.74	<MDA	1.50	1/29/98 10:26
56	11	7.499	3.75	<AL	0.00	2.28	<MDA	1.50	1/29/98 10:28
78	12	0.858	1.75	<MDA	0.15	2.28	<MDA	1.50	1/29/98 10:30
98	13	0.000	1.76	<MDA	1.87	2.74	<MDA	1.50	1/29/98 10:31
14	14	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	1/29/98 10:33
17	15	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/29/98 10:35
114	16	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	1/29/98 10:36
73	17	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	1/29/98 10:38
4	18	0.000	1.76	<MDA	1.87	2.74	<MDA	1.50	1/29/98 10:40

✓ ✓ ✓ ✓

COPY

3 of 4

29 Jan 98 12:23 ALPHA/BETA - 1.01
Protocol #: 2 PW 5CC H3 #403727 User : 568

Time: 2.00
Data Mode: DPM Nuclide: SM-PW-U6 Quench Set: SM-PW-U6
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5 -	18.6	0	0.0	7.10
Region B:	2.0 -	18.6	0	0.0	7.00
Region C:	20.0 -	2000	0	0.0	14.20

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
98-SM-036 ADKISON BLDG.44/3&4 (61-618) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT2.DAT
Count Data Filename: C:\DATA\SDATA2.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.10	7.00	14.20	612.12	1	B		0.00
0	2.00	383.90	368.00	3.80	596.25	0		755.13	78.05
1	2.00	0.00	0.00	0.30	508.54	0		0.00	0.00
2	2.00	1.40	1.00	0.00	492.45	0		3.00	9.55
3	2.00	0.00	0.00	0.00	410.64	0		0.00	0.00
4	2.00	0.00	0.00	3.80	510.85	0		0.00	0.00
5	2.00	0.90	1.00	0.00	499.32	0		1.92	9.27
6	2.00	0.40	0.50	0.00	494.80	0		0.86	9.04
7	2.00	0.00	0.00	0.00	522.19	0		0.00	0.00
8	2.00	0.90	1.00	0.00	532.27	0		1.88	9.08
9	2.00	0.00	0.00	0.00	554.95	0		0.00	0.00
10	2.00	0.00	0.00	0.00	558.66	0		0.00	0.00
11	2.00	0.00	0.00	0.30	439.48	0		0.00	0.00
12	2.00	0.00	0.00	0.00	484.00	0		0.00	0.00
13	2.00	0.40	0.50	0.00	494.11	0		0.86	9.04
14	2.00	0.00	0.00	2.30	501.75	0		0.00	0.00
15	2.00	0.00	0.00	0.00	538.69	0		0.00	0.00
16	2.00	0.00	0.00	0.00	512.85	0		0.00	0.00
17	2.00	2.40	2.00	0.00	480.33	0		5.18	10.09
18	2.00	0.00	0.00	0.00	444.36	0		0.00	0.00

✓

COPY

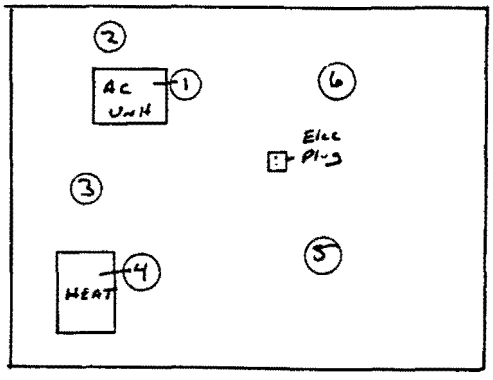
30-9 J1/J37 P3

RADIOLOGICAL SURVEY DATA SHEET

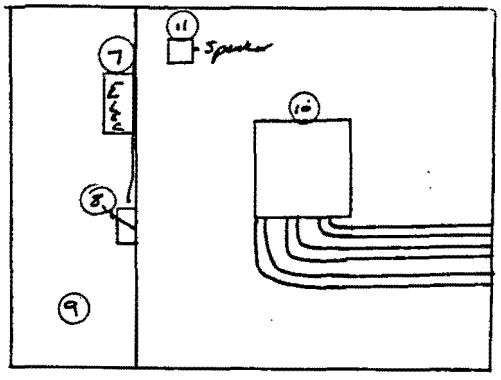
LOCATION: (BLDG./AREA/ROOM) Bldg 44 Guard Post	SURVEY NO. 98-SM-043
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 2/9/98
	TIME: 0820

MAP/DRAWING

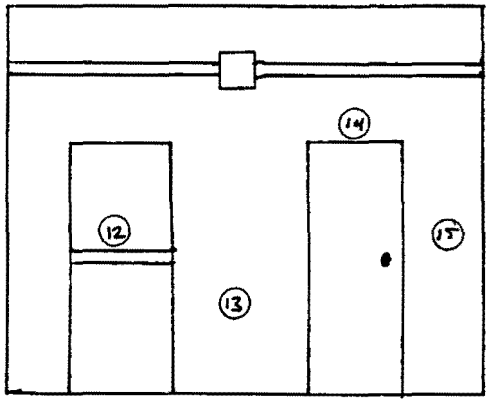
Rm 3



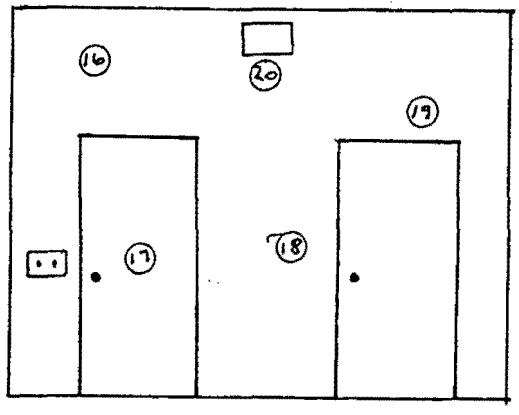
South Wall



East Wall



North Wall



West Wall

COPY

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date			Date:
Electra	5293/5300	7-30-98	[redacted]	8258	2.9.98
					Date:
				5681	2-10-98
				(P#)	Date:
				6052	2-10-98

Unit 2 Group F 37

ML-9620 (8-97)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
1				
2				
3	S	S	S	
4	E	E	E	
5	E	E	E	
6				
7	A	A	A	
8	T	T	T	
9	T	T	T	
10	A	A	A	
11	C	C	C	
12	H	H	H	
13	E	E	E	
14	D	D	D	
15				
16				

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
17				
18				
19	S	S	S	
20	E	E	E	
21	E	E	E	
22				
23	A	A	A	
24	T	T	T	
25	T	T	T	
26	A	A	A	
27	C	C	C	
28	H	H	H	
29	E	E	E	
30	D	D	D	
31				
32				

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COPY

COMMENTS: * All directe readings were less than Action Limits. Direct readings were taken in the same spots at smears.
Action Limits Are 100 DPM/ALPHA + 5,000 DPM/Beta

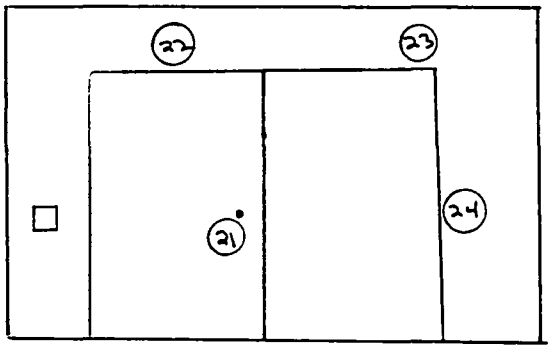
NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample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

RADIOLOGICAL SURVEY DATA SHEET

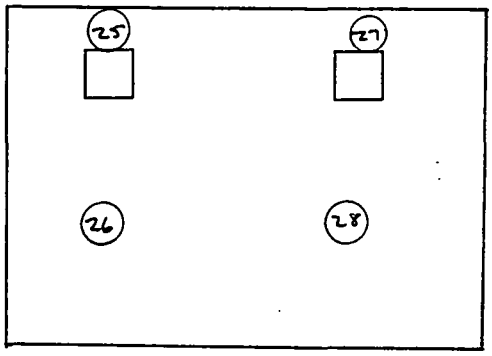
LOCATION: (BLDG./AREA/ROOM) Bldg 44 Guard Post	SURVEY NO. 98-SM-043
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 2/9/98
	TIME: 0820

MAP/DRAWING

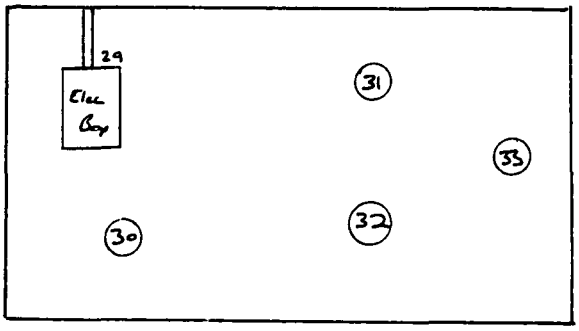
Rm 4



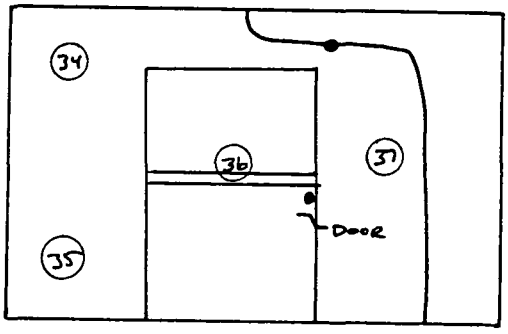
West Wall



North Wall



East Wall



South Wall

COPY

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Electra	5293/5300	7-30-98

[redacted] 8258	Date: 2.9.98
Counted by: (Signature/HP#)	Date:
Reviewed/Approved by: (Signature/HP#)	Date:

ML-9620 (8-97)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
33	See	Attached		
34				
35				
36				
37				

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COPY

COMMENTS: * All direct readings were less than Action Limits

NOTES:

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

Health Physics Counting Lab -- Wipe Analysis

Date: 2/10/98
Counting Unit id: 2
Data file name: C:\LBXL\UNIT2\Sme2F001.csv
Batch Ended: 2/10/98 10:36
Crosstalk Correction: Applied
Cal. Due Date: 11/26/98

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

System Serial #: 59544
Batch ID: X 98-SM-043 ADKISON BLDG. 44 GUARD POST GR.F (37 .

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
42	1	0.000	2.01	<MDA	2.93	3.17	<MDA	1.50	2/10/98 9:35
33	2	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 9:36
40	3	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 9:38
73	4	0.757	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 9:40
116	5	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 9:41
39	6	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 9:43
115	7	0.542	2.02	<MDA	4.27	3.51	<AL	1.50	2/10/98 9:45
47	8	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 9:46
13	9	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 9:48
36	10	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 9:50
3	11	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 9:51
138	12	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 9:53
5	13	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 9:55
119	14	2.690	2.71	<AL	0.00	1.77	<MDA	1.50	2/10/98 9:57
128	15	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 9:58
127	16	0.000	2.01	<MDA	2.93	3.17	<MDA	1.50	2/10/98 10:00
21	17	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:02
38	18	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:03
98	19	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 10:05
70	20	2.690	2.71	<AL	0.00	1.77	<MDA	1.50	2/10/98 10:07
2	21	0.614	2.01	<MDA	2.75	3.17	<MDA	1.50	2/10/98 10:08
12	22	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 10:10
146	23	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 10:12
17	24	0.685	1.99	<MDA	1.24	2.78	<MDA	1.50	2/10/98 10:14
21	25	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 10:15
126	26	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 10:17
36	27	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:19
69	28	4.480	3.30	<AL	0.00	2.33	<MDA	1.50	2/10/98 10:20
33	29	0.829	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:22
2	30	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 10:24

COPY

Health Physics Counting Lab -- Wipe Analysis

Date: 2/10/98
Counting Unit id: 2
Data file name: C:\LBXL\UNIT2\Sme2F001.csv
Batch Ended: 2/10/98 10:36
Crosstalk Correction: Applied
Cal. Due Date: 11/26/98

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

System Serial #: 59544
Batch ID: X 98-SM-043 ADKISON BLDG. 44 GUARD POST GR.F (37 .

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
8	31	4.408	3.30	<AL	0.88	2.78	<MDA	1.50	2/10/98 10:25
11	32	0.000	1.99	<MDA	1.41	2.78	<MDA	1.50	2/10/98 10:27
95	33	0.829	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:29
91	34	0.757	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 10:31
131	35	0.901	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:32
16	36	0.000	1.97	<MDA	0.00	1.77	<MDA	1.50	2/10/98 10:34
19	37	0.000	1.98	<MDA	0.00	2.33	<MDA	1.50	2/10/98 10:36
		✓		✓	✓		✓		

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10 Feb 98 11:10 ALPHA/BETA - 1.01 Page #1
Protocol #: 3 PW 5CC H3 #403727 User : 56

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

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	5.50
Region B:	2.0	- 18.6	0	0.0	5.20
Region C:	20.0	- 2000	0	0.0	14.20

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
98-SM-043 ADKISON BLDG.44 GUARD POST (J1-J37) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT3.DAT
Count Data Filename: C:\DATA\SDATA3.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	5.50	5.20	14.20	594.99	0	B		0.00
0	2.00	1717.00	1628.30	8.80	647.55	0	E	3190.63	257.78
1	2.00	3.00	3.30	0.00	492.91	0		6.40	9.36
2	2.00	0.50	0.80	0.00	549.61	0		1.02	7.70
3	2.00	0.00	0.00	3.80	540.19	0		0.00	0.00
4	2.00	7.50	6.80	3.30	615.52	0		14.55	10.36
5	2.00	0.50	0.80	0.30	606.21	0		0.98	7.35
6	2.00	0.00	0.00	0.00	554.42	0		0.00	0.00
7	2.00	3.00	3.30	4.80	456.59	0		6.62	9.69
8	2.00	1.00	0.80	0.00	527.55	0		2.09	8.17
9	2.00	1.50	1.80	2.30	500.14	0		3.19	8.56
10	2.00	1.50	1.80	0.00	531.81	0		3.13	8.40
11	2.00	2.00	2.30	0.00	581.48	0		3.95	8.20
12	2.00	5.50	4.80	5.30	557.35	0		11.14	10.00
13	2.00	11.00	10.80	1.30	525.47	0		23.07	12.55
14	2.00	2.50	2.80	0.80	444.11	0		5.66	9.66
15	2.00	4.50	4.80	0.00	510.80	0		9.51	9.98
16	2.00	3.00	3.30	1.80	252.34	0		11.22	16.41
17	2.00	8.50	7.80	7.30	575.54	0		16.87	10.97
18	2.00	5.00	4.80	0.30	593.51	0		9.82	9.48
19	2.00	3.50	3.30	0.80	580.80	0		6.92	8.90
20	2.00	0.00	0.00	0.30	420.94	0		0.00	0.00
21	2.00	0.50	0.80	0.00	568.61	0		1.00	7.54
22	2.00	5.00	5.30	5.30	559.79	0		10.10	9.76
23	2.00	6.00	6.30	5.80	585.54	0		11.83	9.93
24	2.00	5.50	5.80	0.00	583.25	0		10.86	9.74
25	2.00	2.00	2.30	0.00	505.21	0		4.24	8.80
26	2.00	2.50	2.80	0.00	483.74	[illegible]		[illegible]	9.16
27	2.00	4.00	4.30	0.30	484.60	0		8.58	9.89
28	2.00	0.00	0.00	0.00	499.98	0		0.00	0.00
29	2.00	1.00	1.30	0.00	449.23	0		2.24	8.73
30	2.00	0.00	0.00	0.00	519.36	0		0.00	0.00
31	2.00	2.50	2.80	0.00	521.80	0		5.25	8.97
32	2.00	0.00	0.00	0.00	452.85	0		0.00	0.00
33	2.00	5.00	4.80	0.00	555.00	0		10.15	9.81
34	2.00	3.50	3.80	0.00	528.08	0		7.33	9.43
35	2.00	7.00	7.30	0.00	575.20	0		13.90	10.40

COPY

10 Feb 98 13:00 ALPHA/BETA - 1.01 Page #2
Protocol #: 3 PW 5CC H3 #403727 User : 568

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
36	2.00	1.50	1.80	5.30	476.93	0		3.23	8.67
37	2.00	0.00	0.00	0.00	523.21	0		0.00	0.00

✓

COPY

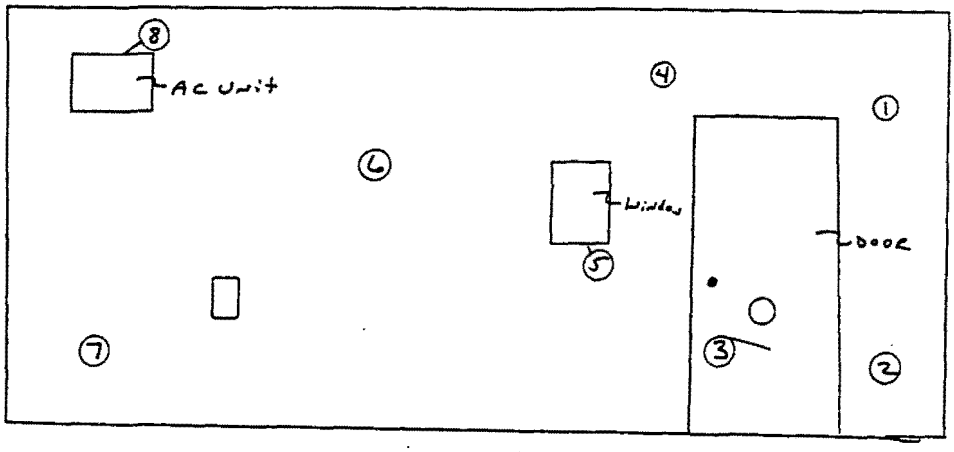
JOB 1 R1/R40 R3

RADIOLOGICAL SURVEY DATA SHEET

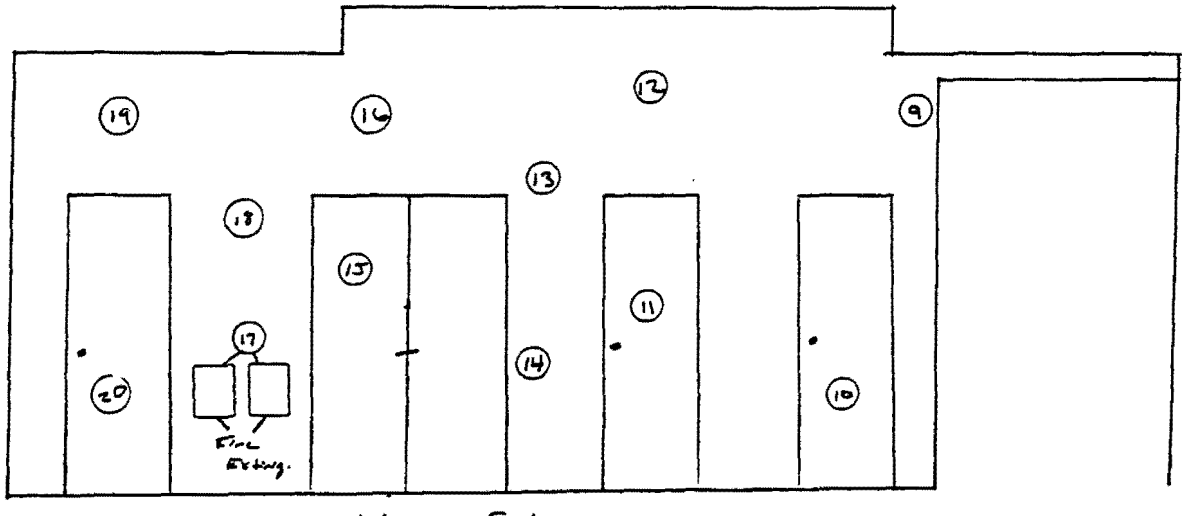
LOCATION: (BLDG./AREA/ROOM) Bldg 44 Guard Shack Exterior	SURVEY NO. 98-SM-045
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 2/10/98
	TIME: 0900

MAP/DRAWING

COPY



South Side



West Side

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

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Eberline	5293/5300	7-30-98

[redacted]	8258	Date: 2-10-98
	5681	Date: 2-10-98
	6056	Date: 2-11-98

Unit 1 Group D (40)

ML-9620 (8-97)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
1				
2				
3	S	S	S	
4	E	E	E	
5	E	E	E	
6				
7	A	A	A	
8	T	T	T	
9	T	T	T	
10	A	A	A	
11	C	C	C	
12	H	H	H	
13	E	E	E	
14	D	D	D	
15				
16				

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments
17				
18				
19	S	S	S	
20	E	E	E	
21	E	E	E	
22				
23	A	A	A	
24	T	T	T	
25	T	T	T	
26	A	A	A	
27	C	C	C	
28	H	H	H	
29	E	E	E	
30	D	D	D	
31				
32				

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COPY

COMMENTS: Direct Surveys were taken at same spots as smears. The direct readings were less than Action Limits.

OTES:

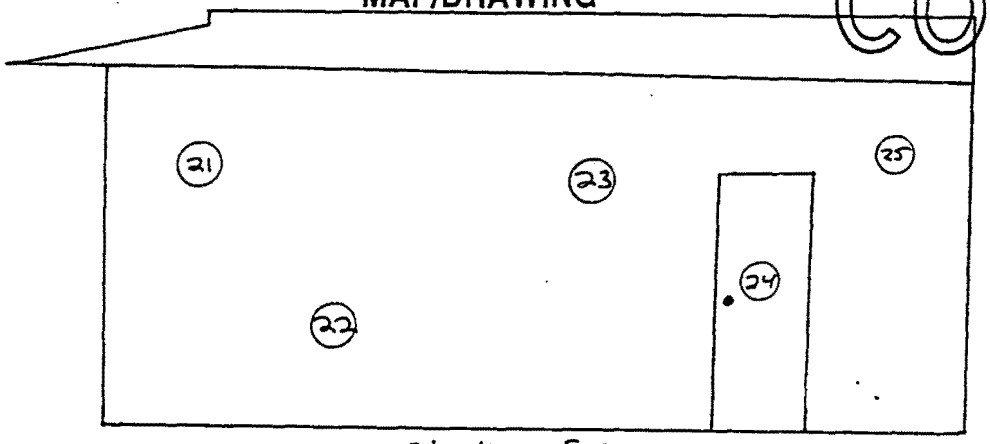
- See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
- To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results attached, write "see attached" in column.
- Annotate special sample type (e.g.,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

RADIOLOGICAL SURVEY DATA SHEET

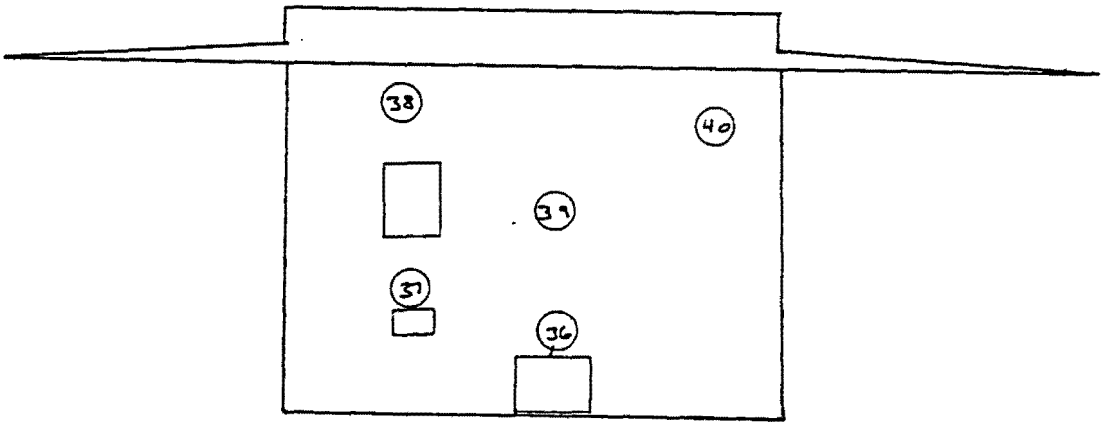
LOCATION: (BLDG./AREA/ROOM) Bldg 44 Guard Shack Exterior	SURVEY NO. 98-SM-045
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 2/10/98
	TIME: 0900

MAP/DRAWING

COPY



North Side



East Side

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
[redacted]tra	5293/5300	7-30-98

[redacted] 8258	Date: 2.10.98
Counted by: (Signature/HP#)	Date:
Reviewed/Approved by: (Signature/HP#)	Date:

IL-9620 (8-97)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
33	See attached			
34				
35				
36				
37				
38				
39				
40				

COPY

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COMMENTS:

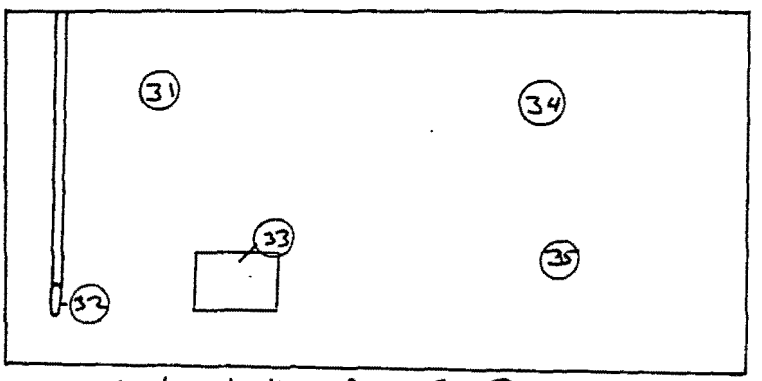
NOTES:
See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
Annotate special sample type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

RADIOLOGICAL SURVEY DATA SHEET

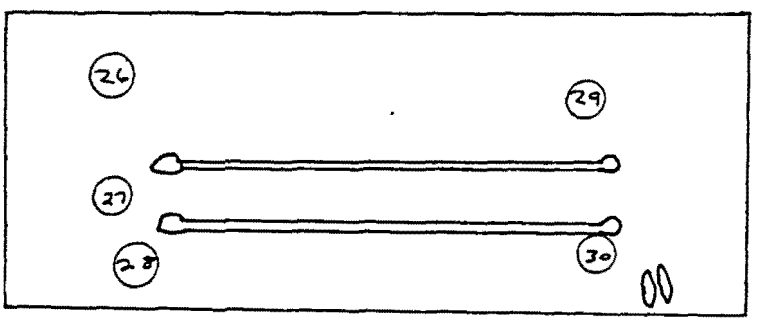
LOCATION: (BLDG./AREA/ROOM) Bldg 44 Guard Shack	SURVEY NO. 98-SM-045
PURPOSE: Contamination Survey	RWP NO. N/A
	DATE: 2-10-98
	TIME: 0900

MAP/DRAWING

COPY



North Wall of Rm 5



East Side of Rm 5

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
[redacted]tra	5253/5300	7.30.98

[redacted] 8258	Date: 2-10-98
Counted by: (Signature/HP#)	Date:
Reviewed/Approved by: (Signature/HP#)	Date:

IL-9620 (8-97)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Charge Authorization No. _____

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments

COPY

☐ All swipes < MD10019, Table 2.2 values except as noted.

Swipes (dpm/100cm²)

Sample #	β/γ	Alpha	Tritium	Comments

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

AIR SAMPLE DATA

Sample ID or Serial #	Date & Time On	Date & Time Off	Flow Rate	Activity (DAC)

COMMENTS:

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

Health Physics Counting Lab -- Wipe Analysis

Date: 2/10/98
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\Sme1D000.csv
Batch Ended: 2/10/98 15:06
Crosstalk Correction: Applied
Cal. Due Date: 12/18/98

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

System Serial #: 64937
Batch ID: X 98-SM-045 ADKISON BLDG.44 GUARD SHACK EXT. G .

		Alpha Activity			Beta Activity				
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	Count time (min)	Completion Date - Time
21	1	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	2/10/98 14:01
126	2	0.000	1.76	<MDA	1.87	2.74	<MDA	1.50	2/10/98 14:03
69	3	4.212	2.92	<AL	0.00	1.70	<MDA	1.50	2/10/98 14:04
33	4	0.000	1.76	<MDA	1.87	2.74	<MDA	1.50	2/10/98 14:06
2	5	2.416	2.44	<AL	4.50	3.48	<AL	1.50	2/10/98 14:08
8	6	0.925	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:09
11	7	0.000	1.76	<MDA	1.87	2.74	<MDA	1.50	2/10/98 14:11
95	8	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:13
91	9	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:14
131	10	2.518	2.41	<AL	0.00	2.28	<MDA	1.50	2/10/98 14:16
16	11	0.824	1.76	<MDA	1.67	2.74	<MDA	1.50	2/10/98 14:18
19	12	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:19
43	13	0.824	1.76	<MDA	1.67	2.74	<MDA	1.50	2/10/98 14:21
40	14	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:23
78	15	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:24
100	16	0.892	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:26
139	17	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:28
144	18	0.925	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:29
14	19	0.892	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:31
9	20	0.000	1.76	<MDA	1.87	2.74	<MDA	1.50	2/10/98 14:33
35	21	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:34
14	22	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:36
132	23	0.892	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:38
133	24	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:39
138	25	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:41
36	26	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:43
4	27	0.925	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:45
73	28	0.756	1.78	<MDA	4.70	3.48	<AL	1.50	2/10/98 14:46
42	29	4.178	2.93	<AL	0.00	2.28	<MDA	1.50	2/10/98 14:48
33	30	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:50

~~Page 1 of 2~~
AMS
2-11-98

Health Physics Counting Lab -- Wipe Analysis

Date: 2/10/98
Counting Unit id: 1
Data file name: C:\LBXL\UNIT1\Sme1D000.csv
Batch Ended: 2/10/98 15:06
Crosstalk Correction: Applied
Cal. Due Date: 12/18/98

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

System Serial #: 64937
Batch ID: X 98-SM-045 ADKISON BLDG.44 GUARD SHACK EXT. G .

		Alpha Activity			Beta Activity			Count	Completion
Carrier	Sample	DPM	σ	flags	DPM	σ	flags	time (min)	Date - Time
40	31	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:51
73	32	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 14:53
116	33	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	2/10/98 14:55
39	34	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 14:56
115	35	0.000	1.77	<MDA	3.39	3.13	<MDA	1.50	2/10/98 14:58
47	36	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 15:00
13	37	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 15:01
36	38	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 15:03
3	39	0.000	1.75	<MDA	0.35	2.28	<MDA	1.50	2/10/98 15:05
36	40	0.000	1.74	<MDA	0.00	1.70	<MDA	1.50	2/10/98 15:06

✓ ✓ ✓ ✓

COPY

Ans 2-11-98

10 Feb 98 15:46 ALPHA/BETA - 1.01 Page #1
Protocol #: 3 PW 5CC H3 #403727 User : 5681

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

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	6.80
Region B:	2.0	- 18.6	0	0.0	6.70
Region C:	20.0	- 2000	0	0.0	13.10

COPY

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
98-SM-045 ADKISON BLDG.44 EXTERIOR (K1-K40) CYR
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT3.DAT
Count Data Filename: C:\DATA\SDATA3.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	6.80	6.70	13.10	598.57	1	B		0.00
0	2.00	1762.70	1667.30	12.90	656.32	0	E	3239.44	261.13
1	2.00	0.70	0.30	7.40	558.64	0		1.42	8.54
2	2.00	3.70	3.80	0.00	504.04	0		7.87	10.38
3	2.00	1.20	1.30	32.90	418.30	0		2.85	10.27
4	2.00	5.20	4.80	0.90	564.85	0		10.47	10.44
5	2.00	0.00	0.00	1.90	385.39	0		0.00	0.00
6	2.00	0.00	0.00	3.40	478.42	0		0.00	0.00
7	2.00	2.70	2.80	2.40	439.36	0		6.19	10.69
8	2.00	0.00	0.00	1.90	495.79	0		0.00	0.00
9	2.00	3.70	3.80	0.00	549.78	0		7.58	9.99
10	2.00	3.20	3.30	1.90	419.14	0		7.58	11.31
11	2.00	1.70	1.30	1.40	580.83	0		3.37	8.80
12	2.00	0.00	0.00	0.00	451.65	0		0.00	0.00
13	2.00	2.70	1.80	3.40	531.42	0		5.65	9.76
14	2.00	3.20	2.80	0.00	492.91	0		6.85	10.22
15	2.00	0.00	0.00	4.40	446.21	0		0.00	0.00
16	2.00	0.70	0.80	0.00	545.04	0		1.44	8.67
17	2.00	1.20	1.30	4.90	589.53	0		2.37	8.54
18	2.00	0.00	0.00	0.00	539.65	0		0.00	0.00
19	2.00	3.20	2.80	2.40	556.07	0		6.51	9.71
20	2.00	0.00	0.00	0.90	591.21	0		0.00	0.00
21	2.00	0.00	0.00	0.00	577.47	0		0.00	0.00
22	2.00	1.70	0.80	0.00	548.54	0		3.49	9.11
23	2.00	1.20	1.30	0.00	565.20	0		2.42	8.71
24	2.00	0.00	0.00	0.00	503.99	0		0.00	0.00
25	2.00	0.00	0.00	2.40	545.05	0		0.00	0.00
26	2.00	6.20	5.30	1.40	496.69	0		13.25	11.49
27	2.00	0.20	0.30	0.00	460.90	0		0.44	8.98
28	2.00	0.20	0.30	0.40	454.11	0		0.45	9.10
29	2.00	0.00	0.00	6.90	439.93	0		0.00	0.00
30	2.00	0.00	0.00	4.90	395.27	0		0.00	0.00
31	2.00	1.20	0.80	0.90	535.39	0		2.50	9.02
32	2.00	0.20	0.30	0.00	523.08	0		0.42	8.61
33	2.00	0.00	0.00	0.90	484.68	0		0.00	0.00
34	2.00	1.20	1.30	0.40	555.16	0		2.44	8.81
35	2.00	0.70	0.80	0.00	525.02	0		1.47	8.86

Ark 2-11-98

10 Feb 98 17:35 ALPHA/BETA - 1.01 ~~Page #2~~

Protocol #: 3 PW 5CC H3 #403727 User : 568

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
36	2.00	0.00	0.00	0.00	459.65	0		0.00	0.00
37	2.00	0.00	0.00	0.00	373.05	0		0.00	0.00
38	2.00	4.20	4.30	0.90	547.52	0		8.63	10.23
39	2.00	0.00	0.00	0.00	520.96	0		0.00	0.00
40	2.00	0.00	0.00	2.40	472.41	0		0.00	0.00

✓

COPY

Appendix H

Asbestos Survey/Information

Fax Transmittal Memo 7672

To EVAN
Company
Location
Fax #
Telephone #
Comments

No. of Pages
Today's Date 2/11
Time 08:11
From Scott Davidson
Company
Location
Dept. Charge
Fax #
Telephone #
Original Disposition: ☐ Destroy ☐ Return ☐ Call for pickup

NVLAP Accredited

DATACHEM LABORATORIES
FiberFAX℠
Polarized Light Microscopy Asbestos Analysis Summary

Client: EG&E Mound Applied Technologies — Date: 1/30/98
Sample Set ID Number: 98-A-0435 — Page: 1

Client Sample #:	98012707	98012708	98012709	98012710
DataChem Laboratories Sample #:	98-02697	98-02698	98-02699	98-02700
MACROSCOPIC EXAMINATION:				
Sample Accepted or Rejected:	Accepted	Accepted	Accepted	Accepted
Homogeneity:	Homog.	Homog.	Homog.	Homog.
Color:	White	Tan	Brown	Grey
Texture:	Crumbly	Crumbly	Fibrous	Fibrous
Sample Description:	Material	Material	Material	Material
Analysis:	PLM	PLM	PLM	PLM
ASBESTIFORM MINERALS:				
% Chrysotile:				
% Amosite:				
% Crocidolite:				
% Tremolite-Actinolite:				
% Anthophyllite:				
% Total Asbestos	ND	ND	ND	ND
OTHER MATERIALS:				
% Cellulose:	Trace	>5≤10	>90≤100	>3≤5
% Fibrous Glass:				>70≤80
% Other Fibers:				
% Resin/Binder:				
% Other Non-Fibrous:	>90≤100	>90≤100	>3≤5	>10≤20

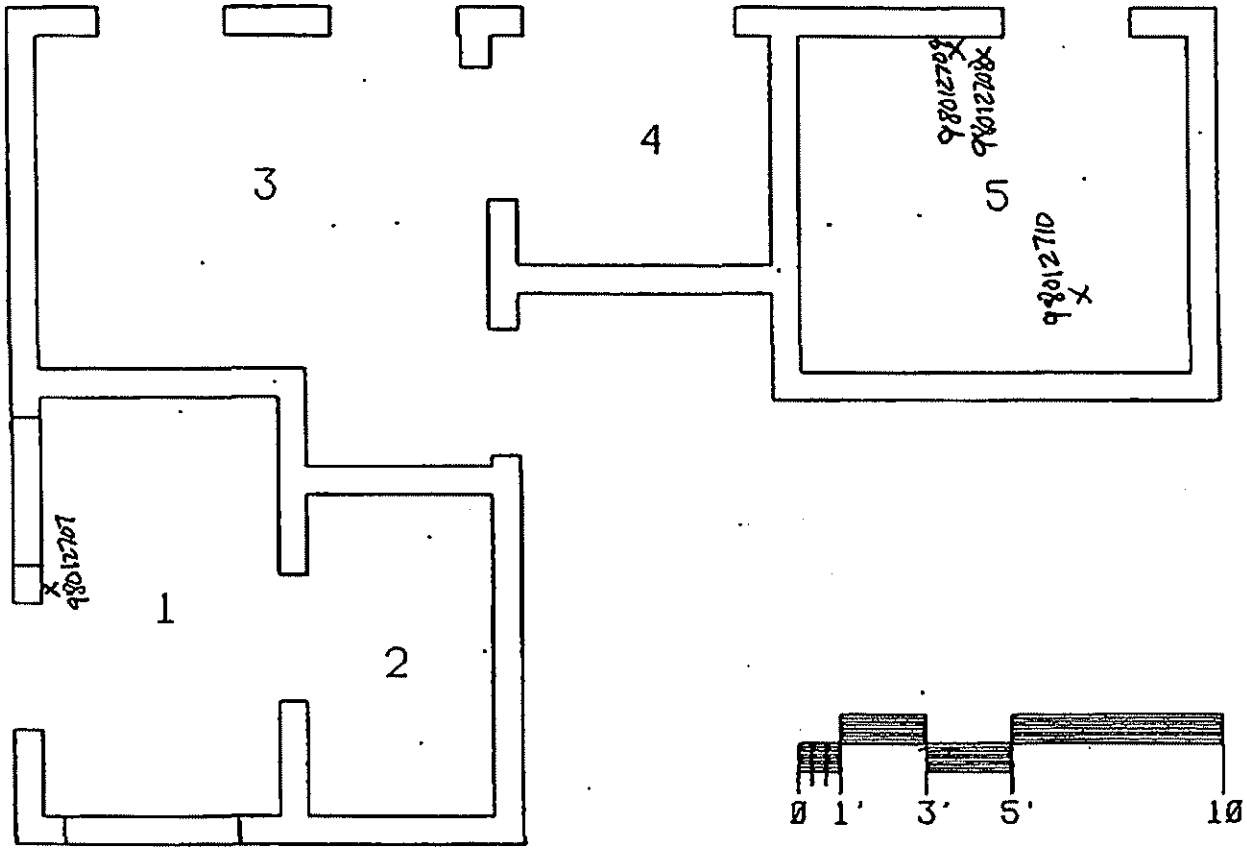
Special Prep. Procedures:
*Notes:

Shelly Krummen
Shelly Krummen
Microscopist

All values are in percent by area by visual estimate. The Federal Register/Vol. 55, No. 224/Tuesday, November 20, 1990/Rules and Regulations states..."If the asbestos content is estimated to be less than 10% by a method other than point counting....(the analysis) be repeated using the point counting technique with PLM." Any of the above samples can be reanalyzed by point counting at the client's request, if deemed necessary by the client. Separate phases are analyzed and reported individually.
ND=Non-Detected Trace=<1%

©1998 DataChem Laboratories

LTR	DATE	REVISION	BY	CHKD	DWD	UNCLS	APPRD	A
B	12/12/91	ASBUILT ISSUE	DCW				DWD	



98012707 - Plaster material over masonry wall
98012708 - Insulating Baker Material (white/gray) behind vinyl type wallcovering
98012709 - Vinyl wallpaper type material
98012710 - Ceiling tile bulk sample 12"x12"

DOES NOT CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION

Reviewing Official: J. A. NESHEIM
EMCBC Classifier Name Office
Date: 08-26-08

BLDG GP-44
FIRST FLOOR
BLDG CODE:3533

NOT FOR PUBLIC DISSEMINATION

MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SHEET	1 2 3 4 5 6	TITLE	BLDG GP-44 FLOOR PLANS		
TOTAL	9				
FIELD CLASSIFICATION					
~~UCNI~~		SIZE C	DRAWING NUMBER FSC911310	JOB NUMBER 12335	
DWG TYPE SFP	FROM BLDG GP-44	CODE 14865		SHEET 1 OF 1	
SOURCE MO-REL.-12/12/91			OPTION MO-BR3-V3.4		

Appendix I

Lead Summary/Information

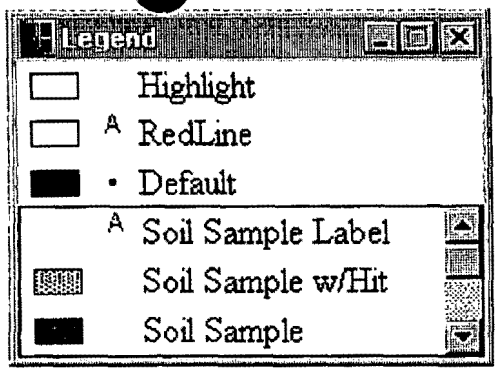
Appendix J

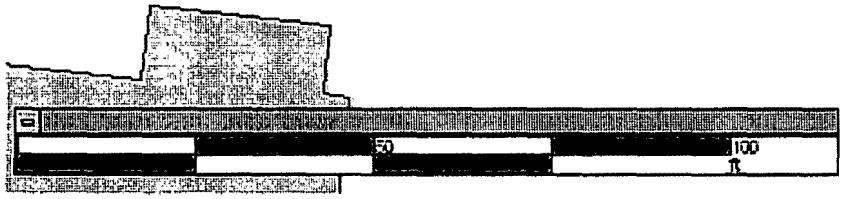
Chemical History

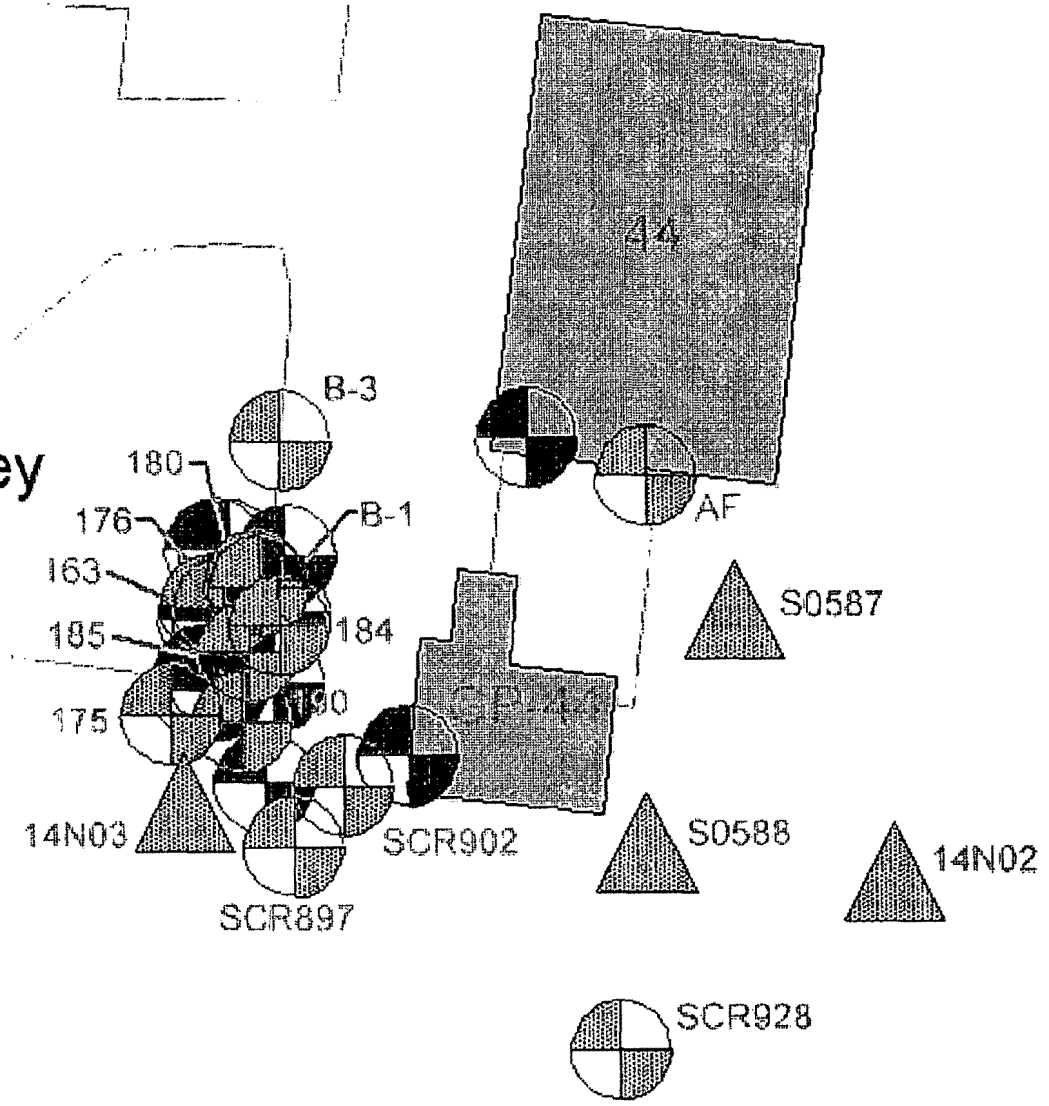
Appendix K

Noted Soil Contamination, Vicinity

Soil Contamination Survey around GP-44







Source: MOUND Environmental Restoration Geographic Information System

Location_name	Location_type	Collection_date	Media	Value_name	Measured_value	Value_unit	Detection_limit	End_depth	Start_depth	Depth_unit	Chem_class
163	Excavation	19960720	Soil	Plutonium-238	31.5	PCI/G	24.4	0.5	0	FT	RAD
175	Excavation	19960806	Soil	Radium-226	1.5	PCI/G		0.5	0	FT	RAD
175	Excavation	19960806	Soil	Thorium-232	0.8	PCI/G		0.5	0	FT	RAD
176	Excavation	19960720	Soil	Plutonium-238	68.7	PCI/G	36.4	0.5	0	FT	RAD
180	Excavation	19960806	Soil	Cesium-137	0.2	PCI/G		0.5	0	FT	RAD
180	Excavation	19960806	Soil	Radium-226	1.7	PCI/G		0.5	0	FT	RAD
180	Excavation	19960806	Soil	Thorium-232	0.8	PCI/G		0.5	0	FT	RAD
184	Excavation	19960720	Soil	Plutonium-238	30.4	PCI/G	22.8	0.5	0	FT	RAD
185	Excavation	19960806	Soil	Radium-226	1.6	PCI/G		0.5	0	FT	RAD
185	Excavation	19960806	Soil	Thorium-232	0.7	PCI/G		0.5	0	FT	RAD
190	Excavation	19960806	Soil	Radium-226	1.3	PCI/G		0.5	0	FT	RAD
190	Excavation	19960806	Soil	Thorium-232	0.5	PCI/G		0.5	0	FT	RAD
14N02	Surface location	19940922	Soil	Total Aromatic Hydrocarbons	271761	IC		1.5	0	FT	GENERA
14N02	Surface location	19940922	Soil	Total C5 TO C11 Petrolium Hydrocarbons	1067475	IC		1.5	0	FT	GENERA
14N02	Surface location	19940922	Soil	Total Semivolatile Hydrocarbons	11940	IC		1.5	0	FT	GENERA
14N03	Surface location	19940922	Soil	Total Aromatic Hydrocarbons	1133788	IC		1.5	0	FT	GENERA
14N03	Surface location	19940922	Soil	Total C5 TO C11 Petrolium Hydrocarbons	1348935	IC		1.5	0	FT	GENERA
AF	Borehole	19940418	Soil	1,2-Dichloroethane	2	UG/KG		6	0	IN	ORVOA
AF	Borehole	19940418	Soil	Aluminum	14200	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Anthracene	48	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Arsenic	8	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Barium	123	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Benzo(a)anthracene	540	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Benzo(a)pyrene	640	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Benzo(b)fluoranthene	830	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Benzo(g,h,i)perylene	320	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Benzo(k)fluoranthene	580	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Benzoic Acid	140	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Beryllium	0.76	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Calcium	32400	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Cesium-137	0.27	PCI/G		6	0	IN	RAD
AF	Borehole	19940418	Soil	Chloride	206	MG/KG		6	0	IN	ANION
AF	Borehole	19940418	Soil	Chromium	17.6	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Chrysene	840	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Cobalt	10.1	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Copper	17.8	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Fluoranthene	1000	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Fluoride	3.1	MG/KG		6	0	IN	ANION
AF	Borehole	19940418	Soil	Indeno(1,2,3-cd)pyrene	330	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Iron	22800	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Lead	66.6	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Magnesium	15200	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Manganese	733	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Nickel	20.7	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Phenanthrene	320	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Plutonium-238	4.66	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Plutonium-238	27	PCI/G		6	0	IN	RAD
AF	Borehole	19940418	Soil	Plutonium-239/240	0.0236	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Potassium	1100	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Potassium-40	16	PCI/G		6	0	IN	RAD

AF	Borehole	19940418	Soil	Pyrene	1100	UG/KG		6	0	IN	ORSVO
AF	Borehole	19940418	Soil	Radium-226	2.46	PCI/G		6	0	IN	RAD
AF	Borehole	19940418	Soil	Thorium-228	1.24	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Thorium-230	1.68	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Thorium-232	1.29	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Thorium-232	2.1	PCI/G		6	0	IN	RAD
AF	Borehole	19940418	Soil	Uranium-234	0.821	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Uranium-235	0.0429	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Uranium-238	0.868	PCI/G		2	0	IN	RAD
AF	Borehole	19940418	Soil	Vanadium	28	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Zinc	264	MG/KG		6	0	IN	INORG
AF	Borehole	19940418	Soil	Plutonium-238	3.45	PCI/G		12	2	IN	RAD
AF	Borehole	19940418	Soil	Plutonium-239/240	0.0331	PCI/G		12	2	IN	RAD
AF	Borehole	19940418	Soil	Plutonium-242	0.00426	PCI/G		12	2	IN	RAD
AF	Borehole	19940418	Soil	Aluminum	19600	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Arsenic	10.3	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Barium	165	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Benzoic Acid	90	UG/KG		24	18	IN	ORSVO
AF	Borehole	19940418	Soil	Beryllium	1	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Calcium	4930	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Chloride	329	MG/KG		24	18	IN	ANION
AF	Borehole	19940418	Soil	Chromium	21.8	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Cobalt	10.9	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Copper	17.8	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Fluoride	2.2	MG/KG		24	18	IN	ANION
AF	Borehole	19940418	Soil	Iron	29600	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Lead	16.6	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Magnesium	4160	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Manganese	596	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Methylene Chloride	22	UG/KG		24	18	IN	ORVOA
AF	Borehole	19940418	Soil	Nickel	24.4	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Plutonium-238	25	PCI/G		24	18	IN	RAD
AF	Borehole	19940418	Soil	Potassium	1060	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Potassium-40	18.1	PCI/G		24	18	IN	RAD
AF	Borehole	19940418	Soil	Radium-226	2.57	PCI/G		24	18	IN	RAD
AF	Borehole	19940418	Soil	Sodium	948	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Sulfate	85.7	MG/KG		24	18	IN	ANION
AF	Borehole	19940418	Soil	Vanadium	36.5	MG/KG		24	18	IN	INORG
AF	Borehole	19940418	Soil	Zinc	69.2	MG/KG		24	18	IN	INORG
B-1	Borehole	19950418	Soil	Aluminum	4780	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Aluminum	9180	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Aroclor-1254	65	UG/KG	35	7	5	FT	ORPPB
B-1	Borehole	19950418	Soil	Arsenic	4.2	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Arsenic	6.9	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Barium	25.2	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Barium	74.2	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Benzo(a)anthracene	27	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(a)anthracene	37	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(a)pyrene	25	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(a)pyrene	38	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(b)fluoranthene	26	UG/KG		7	5	FT	ORSVO

B-1	Borehole	19950418	Soil	Benzo(b)fluoranthene	43	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(g,h,i)perylene	28	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(k)fluoranthene	23	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Benzo(k)fluoranthene	34	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Beryllium	0.4	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Beryllium	0.97	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Bis(2-ethylhexyl)phthalate	30	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Butyl Benzyl Phthalate	350	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Calcium	188000	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Calcium	65400	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Chloride	116	MG/KG	5.3	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Chloride	55.3	MG/KG	2.7	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Chromium	4.9	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Chromium	10.7	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Chrysene	38	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Chrysene	45	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Cobalt	4.6	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Cobalt	8.3	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Copper	6	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Copper	13.8	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Di-n-butyl Phthalate	68	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Fluoranthene	61	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Fluoranthene	77	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Fluoride	3.6	MG/KG	2.6	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Fluoride	4.4	MG/KG	2.5	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Indeno(1,2,3-cd)pyrene	22	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Iron	12300	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Iron	18800	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Lead	12.2	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Lead	14.6	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Lithium	7.7	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Lithium	6.1	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Magnesium	20700	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Magnesium	12400	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Manganese	339	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Manganese	223	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Methylene Chloride	27	UG/KG	10	7	5	FT	ORVOA
B-1	Borehole	19950418	Soil	Methylene Chloride	19	UG/KG		7	5	FT	ORVOA
B-1	Borehole	19950418	Soil	Molybdenum	1.5	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Nickel	6.3	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Nickel	14.8	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Nitrate-Nitrite-N	3.6	MG/KG	0.21	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Nitrate-Nitrite-N	2.5	MG/KG	0.21	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Percent Soilds	94.1	%	0.1	7	5	FT	GENERA
B-1	Borehole	19950418	Soil	Percent Soilds	94.3	%	0.1	7	5	FT	GENERA
B-1	Borehole	19950418	Soil	Phenanthrene	32	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Phenanthrene	25	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Plutonium-238	0.23	PCI/G	0.02	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Plutonium-238	2.07	PCI/G	0.04	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Potassium	997	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Potassium	789	MG/KG		7	5	FT	INORG

B-1	Borehole	19950418	Soil	Pyrene	58	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Pyrene	68	UG/KG		7	5	FT	ORSVO
B-1	Borehole	19950418	Soil	Sodium	254	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Sodium	437	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Sulfate	62.8	MG/KG	53.1	7	5	FT	ANION
B-1	Borehole	19950418	Soil	Thorium-228	0.82	PCI/G	0.05	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Thorium-228	0.57	PCI/G	0.02	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Thorium-230	1.31	PCI/G	0.03	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Thorium-230	1.05	PCI/G	0.02	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Thorium-232	0.64	PCI/G	0.03	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Thorium-232	0.6	PCI/G	0.02	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Tritium	3	PCI/G	1.7	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Uranium-234	0.82	PCI/G	0.02	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Uranium-234	0.53	PCI/G	0.01	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Uranium-235	0.02	PCI/G	0.01	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Uranium-238	1.02	PCI/G	0.02	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Uranium-238	0.62	PCI/G	0.01	7	5	FT	RAD
B-1	Borehole	19950418	Soil	Vanadium	6.8	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Vanadium	19.4	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Zinc	50.6	MG/KG		7	5	FT	INORG
B-1	Borehole	19950418	Soil	Zinc	46.7	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Aluminum	4820	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Arsenic	3.5	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Barium	28.3	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Beryllium	0.27	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Calcium	200000	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Chloride	67.4	MG/KG	2.8	7	5	FT	ANION
B-3	Borehole	19950418	Soil	Chromium	5.2	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Cobalt	4.5	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Copper	7.2	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Fluoride	5.6	MG/KG	2.6	7	5	FT	ANION
B-3	Borehole	19950418	Soil	Iron	11200	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Lead	8.5	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Lithium	2.6	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Magnesium	31000	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Manganese	352	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Methylene Chloride	4	UG/KG		7	5	FT	ORVOA
B-3	Borehole	19950418	Soil	Nickel	7.2	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Nitrate-Nitrite-N	1.2	MG/KG	0.22	7	5	FT	ANION
B-3	Borehole	19950418	Soil	Percent Soilds	90.9	%	0.1	7	5	FT	GENERA
B-3	Borehole	19950418	Soil	Plutonium-238	4.09	PCI/G	0.03	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Plutonium-239/240	0.05	PCI/G	0.02	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Potassium	810	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Sodium	208	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Thorium-228	0.86	PCI/G	0.02	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Thorium-230	0.98	PCI/G	0.02	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Thorium-232	0.84	PCI/G	0.02	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Uranium-234	0.56	PCI/G	0.01	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Uranium-238	0.72	PCI/G	0.01	7	5	FT	RAD
B-3	Borehole	19950418	Soil	Vanadium	8.4	MG/KG		7	5	FT	INORG
B-3	Borehole	19950418	Soil	Zinc	31.3	MG/KG		7	5	FT	INORG

S0587	Surface location	19840901	Soil	Plutonium-238	13.4	PCI/G	0.01	0	0	FT	RAD
S0588	Surface location	19840901	Soil	Plutonium-238	1.23	PCI/G	0.01	0	0	FT	RAD
SCR897	Borehole	19931005	Soil	Plutonium-238	26	PCI/G		0	0	FT	RAD
SCR902	Borehole	19890313	Soil	Plutonium-238	37	PCI/G		1	1	FT	RAD
SCR902	Borehole	19890313	Soil	Thorium-232	2.6	PCI/G		1	1	FT	RAD
SCR902	Borehole	19890313	Soil	Thorium-232	4.1	PCI/G		1	1	FT	RAD
SCR928	Borehole	19931012	Soil	Plutonium-238	25	PCI/G		0	0	FT	RAD

Appendix L

General Work Plan for Building GP-44

General Work Plan for Building GP-44 Decontamination and Demolition at the Mound Site, Miamisburg, Ohio

February 1998

DRAFT 1

COPY

1.0 PROJECT SCOPE

This project will remove the superstructure, slab and foundation of GP-44.

2.0 PROJECT EXECUTION

This section will address the work activities which will be executed

1) Perform Structure Characterization
2) Perform Safe Shutdown
3) Isolate Utilities
4) Establish Site Access Control
5) Perform Interior Decontamination and Demolition Activities
6) Perform Structure Demolition
7) Perform Foundation Removal

2.1 STRUCTURE CHARACTERIZATION

A thorough characterization was completed on the structure to provide the following information:

Physical Characterization

A complete set of building construction drawings were obtained and reviewed for accuracy. The building was constructed in 1964 as a guard entrance post and the same utilization continued with minor architectural changes occurring in 1976. The guard post was converted to a storage area in 1988 when a new entrance guard post in Building 102 was activated for the SM/PP area. There is no steam or condensate lines associated with the building. Originally, the building was heated with a propane heater and did not contain air conditioning. These systems were abandoned prior to 1976 and "window" type heating and A/C units were installed in each of the rooms. The electrical service to the building is supplied from the AF substation (near building 50) via an underground electrical duct.

On December 9, 1997 an engineering survey was performed on GP-44 - SM/PP Guard Post. The Structure (265 sq. ft.) was found to be "run-down" and is in fair condition.

Radiological Characterization

GP-44 was surveyed during January and Feburary of 1998 as part of this project. Direct and loose contamination surveys were conducted and dose rates were taken. Smears were counted for alpha, beta and tritium. All results were less than the applicable limits identified in MD-10019, Mound Radiological Control Manual, Table 2-2, Summary of Contamination Values (MD-10019, Table 2-2 is based on values in DOE Order 5400.5 and 10 CFR 835).

The highest "loose" alpha reading was 7.499 dpm/100 sq. cm. The highest beta reading was 7.74 dpm/100 sq. cm. The highest tritium result was 23.07 dpm/ 100 sq. cm. All direct fixed readings were less than 100 dpm/100 sq. cm alpha and less than 5000 dpm/100sq. cm. beta. The dose rates were less than 5 mrem/hour.

Asbestos Characterization

Existing Asbestos Surveys were used as a basis from which to start the asbestos characterization. Additional Characterization was added as necessary based on structure walk through and the information gathered during the physical characterization. Listed below are the locations where Asbestos has been identified:

- Floor tile is assumed to contain asbestos. The floor tile is in good condition and will be removed as demolition debris.
- Ceiling tile and a wall section were sampled for asbestos and the results were negative.
- Built-up roof may contain some asbestos material but the roof is in good condition and will be removed as demolition debris.

Chemical Characterization

Chemical information was collected on the structure. This information was collected during the physical characterization and based on the walkthrough. The following items have been identified for removal as regulated materials:

- CFC's - Several "window type" air conditioning units are located in each of the rooms in GP-44. These units are charged with Freon. These units will be removed from the building prior to demolition.
- PCB's - Several florescent light fixtures are present in one room. The ballasts will be checked and removed prior to demolition.
- LEAD - The cast iron pipe joints inside the building are packed with oakum and lead. If possible this will be segregated after demolition.

2.2 SAFE SHUTDOWN

Safe Shutdown will be performed on the structure as required. Safe shutdown will consist of the following: Safety walkdown, inventory, securing the area, flushing of equipment and piping, and waste removal.

2.2.1 Safety Walkdown

Safety walkdown was performed on 12/9/97 by the project team. In addition, the fire protection engineer will perform a Fire Hazard Analysis (FHA) of the building prior to demolition.

2.2.2 Inventory

Members from the project team walked down the building to identify and inventory equipment and supplies contained within the structure. The items to be salvaged will be taken to building 61 or utilized by other groups at the plant. These items include old security electronic equipment, miscellaneous equipment, hand tools and materials. All property items associated with the building were located.

2.3 Isolate Utilities

The isolation of utilities associated with GP-44 will be accomplished as Maintenance activities and the normal Job Safety & Hazard Analysis (JSHA) used in maintaining and modifying utility lines on site will be utilized. These utilities include:

- Domestic water- the domestic water take-off for GP-44 has an isolation valve off the main line which requires investigation to insure the water is isolated. Should the isolation valve be in the open position, the branch line will be unearthed at the main line and the valve will be closed.

- Fire alarm lines- the fire alarm lines will be disconnected. The building does not contain a fire sprinkler system.

- Telephone lines - phone lines to be disconnected.

- Air conditioning (window type) - the units will be removed from the building prior to demolition.

- Electrical power- the electrical power is from an underground 480v/3phase line from a motor control center located in the AF Substation (ckt 4). The circuit will be opened and the conducters will be disconnected from the disconnect.

- Security signal lines - a considerable number of abandoned security signal lines will be removed after verification of need. This includes alarm signal lines and video camera lines.

2.4 Establish Site Access Control

The following control zones and air monitoring controls will be established around GP-44:

2.4.1 Project Control Zones

2.4.1.1 Support Zone (SZ)

The SZ will be established around the building during the structure demolition phase of the project using orange construction fencing or barricade tape as appropriate. The zone will typically be established a distance of 75 feet from the building so that it will also delineate the demolition limits. On the east side of the building it will not be feasible to establish the 75 foot zone, due to the parking lot. However when demolition of the structure begins, the parking lot will be barricaded to ensure that the 75 foot zone is established. The SZ boundaries will delineate the construction/demolition boundary of the project.

2.4.1.2 Contamination Reduction Zone (CRZ)

A contamination reduction zone will not be required for this project.

2.4.1.3 Exclusion Zone (EZ)

An exclusion zone will not be required for this project.

2.4.2 Air Monitoring

Three types of air monitoring will be used as required during the D&D activities. They are:

1) Personnel Monitoring
2) Support Zone perimeter monitoring
3) Site perimeter Air monitoring

2.4.2.1 Personnel Monitoring

Personnel monitoring will be performed as required by the Job Safety & Health Analysis (JSHA). The workers will be monitored to ensure that engineering controls are maintaining airborne concentrations of contaminants is below action levels for the PPE being worn. Should Breathing Zone (BZ) monitoring show elevated concentrations above action levels, the work will be stopped. Engineering controls and work practice controls will be re-evaluated, and corrective actions taken to reduce airborne levels. This monitoring is anticipated as a negative determination during demolition (nonfriable asbestos floor tile).

2.4.2.2 Perimeter Air Monitoring

Perimeter air monitoring will not be required.

2.4.2.3 Support Zone Air Monitoring

At the perimeter of the SZ, air monitoring will occur. Should the limits be exceeded, the project engineering controls will be re-evaluated and corrected. The corrections may be in the form of adding additional dust control, re-evaluation of the removal technique and equipment being used or, prewetting prior to removal. Monitoring is anticipated to insure demolition (nonfriable asbestos floor tile) is within environmental exposure limits.

2.4.2.4 Site Perimeter Air Monitoring

Site perimeter air monitoring will continue at the locations currently being sampled. Additional locations may be added as determined by the project team during various project activities. Should the limit be exceeded, work will be stopped and the project engineering controls will be re-evaluated and corrected.

2.5 Perform Interior Decontamination And Demolition Activities

Upon completion of the characterization and safe shutdown activities the following will be completed:

2.5.1 Temporary Facilities and Utilities

No temporary facilities will be required for this project. Utilities will be provided to the facility by bringing in electric, water and/or gas or by using portable generators, water tanks etc.

2.5.2 Structure Utility Isolation

Prior to performing structure decontamination and/or demolition non-essential utilities will be disconnected. Where possible the lines will be disconnected at the main feed outside the structure. Utilities which are cut within the structure will be isolated using Lock Out Tag Out procedures. Workers will be informed which lines are still energized. Prior to structure demolition all utilities will be isolated by disconnecting outside of the structure at the main feed. This shall be verified prior to demolition by the superintendent.

2.5.3 Construction Hazard Abatement

SUPERSTRUCTURES: Prior to start of interior work a safety walk through will be conducted to abate the unsafe structural conditions which may be present as a result of Safe Shutdown /salvage operations. During the course of the walkdown all hazards associated with unsound structures, platforms, stairways, and ladders, as well as unprotected openings in walls, floors, and platforms will be field identified. The Safety walkdown will be performed by the Project Engineer, Superintendent, Industrial Safety and Health representative or one of their designees. This walkdown was performed and no unsafe structural conditions were observed in GP-44.

2.5.4 General Housekeeping

Debris or equipment will be cleared from the perimeter of the building as required to provide safe access to the structure or active work areas. The cleared debris will be taken and disposed of in accordance with the Waste Management Plan.

Floor areas and walkways, within building superstructures, which are required for access to areas where other interior work activities will take place will be inspected for trip and slip hazards. All loose debris in these areas will be removed. Other trip hazards such as concrete curbs, floor projections, concrete pedestals etc. shall be identified and sprayed with florescent orange spray paint.

All excess material and equipment shall be removed from the building.

2.5.5 Regulated Waste Handling

Regulated wastes requiring special handling per the Waste Management Plan will be removed from the structure where feasible and handled in accordance with the Waste Management Plan.

2.5.6 Pre-Structure Removal Activities

1. Remove florescent light tubes and ballasts, and store for Waste Management representative.

2.6 Perform Structural Demolition

2.6.1 Dust Control

Water and/or amended water shall be used for dust control during all activities which have the potential for generating dust. Haul roads shall be watered, if required to minimize dust on active haul routes.

2.6.2 Structure Demolition

1. Establish Support/Demolition Zone with orange construction fence, 75 feet from building perimeter. This will require temporary closure of a section of the parking lot on the east side of the building while demolition work with heavy duty equipment is in progress.

2. Demolition will require excavators with bucket, shear and grapple. Front loaders may also be used for loading construction debris.

3. Demolition of the building will start on the west side of the building and continue toward

the east side of the building.

NOTE: Any unusual or unexpected materials encountered during demolition will be set aside for examination and evaluation by the project engineer and the waste coordinator.

2.6.3 Foundation Removal

Radiological data associated with the building slab indicates no surface contamination and the core boring near the building indicates soil contamination levels within release criteria standards. Therefore the slab will be evaluated from a general safety hazard standpoint (i.e. slab elevation creates tripping hazard or snow plow removal hazard) and a determination concerning final removal will be made.

For foundation removal, if required, will be accomplished using heavy equipment such as excavator mounted hoe-ram, shear or concrete crusher, dozer, etc. Prior to foundation removal a review of the existing construction drawings will be conducted to identify subsurface features such as sumps, utilities, etc. Where drawings are available, a marked up set will be provided to the field showing these features along with the limits of removal.

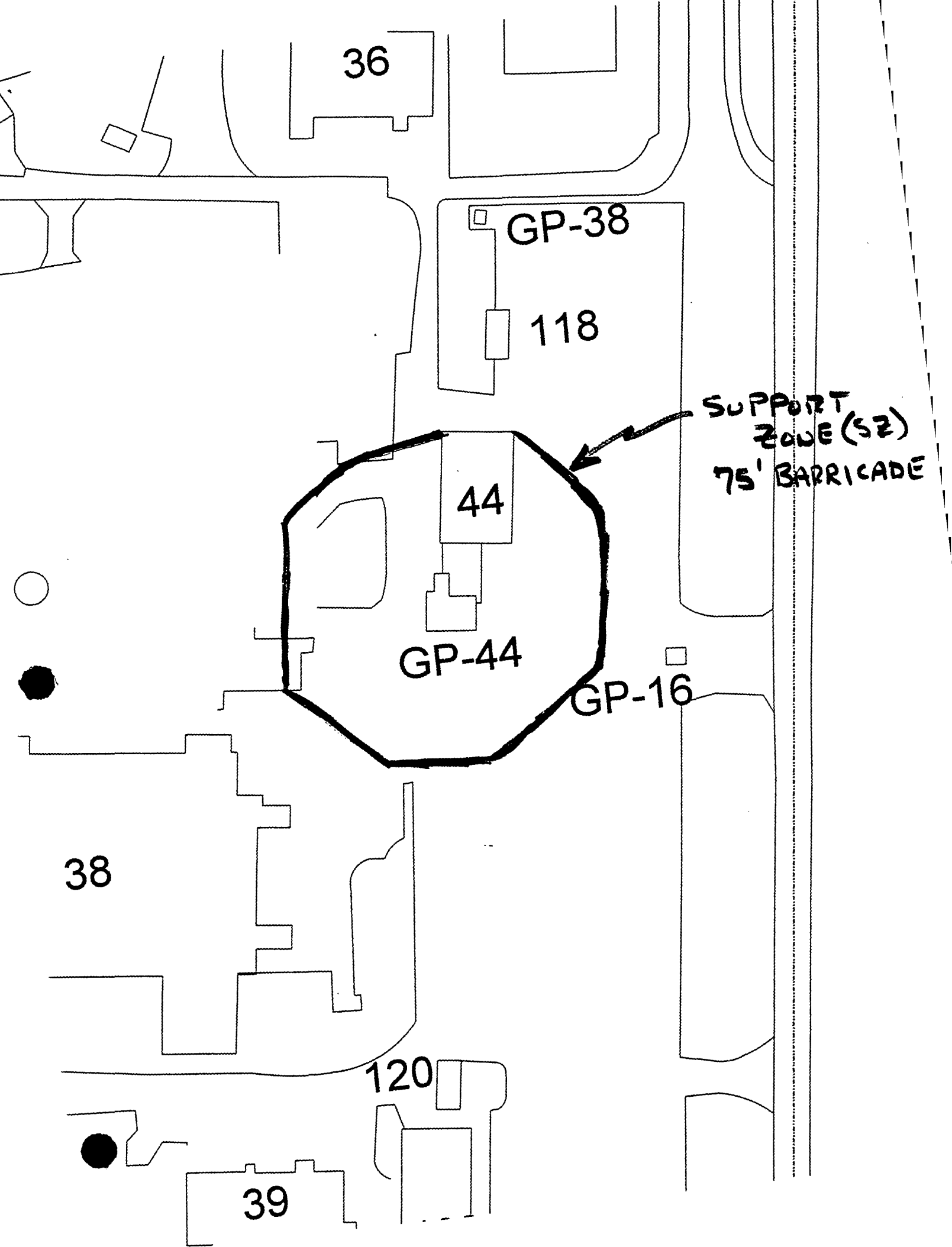
2.6.4 Debris Sizing, Loading, Hauling and Disposal

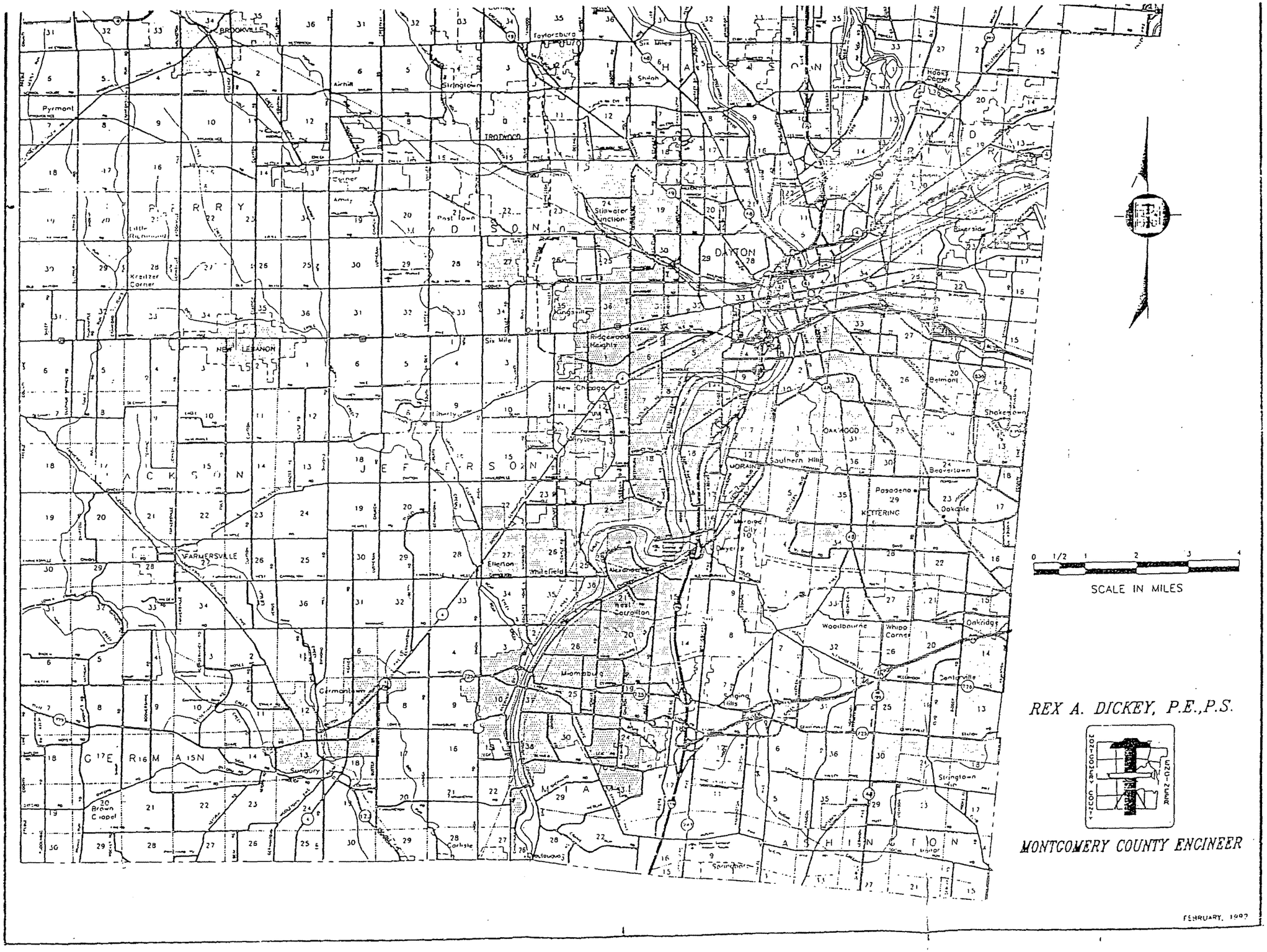
As the structure and foundation (if required) is demolished, and debris from various work areas is encountered, the debris will be segregated into the following categories:

Steel for Recycle - Steel such as bulletproof plate steel on building outer surfaces will be segregated for recycle unless otherwise noted in this plan. This material will only be sized to facilitate hauling.

All other debris will be sized for loading into roll-off containers for sanitary landfill in accordance with the Waste Management Plan.

Cement, concrete and other masonry debris which is free of large "non-masonry" type material will be separated and transported via haulers to the spoils area in accordance with the Waste Management Plan.


36
GP-38
118
SUPPORT ZONE (SZ)
75' BARRICADE
44
GP-44
GP-16
38
120
39



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

MONTGOMERY COUNTY ENGINEER

FEBRUARY, 1992

FSD ✱

Legend

PROJECTS
- Test Fire Valley
- SM/PP Hill
- Main Hill Non-RAD
- Waste Management
- Main Hill Tritium
- Main Hill RAD
- Isotope Power

PRS STATUS
- D & D PRS's
- NFA PRS's
- NFAPS PRS's
- RA,FA,UB PRS's

0 100 200 400 600 800 1000
Scale in Feet

✱	✱✱/✱✱/✱✱	✱	✱	✱	✱	
ISS	DATE	REVISION	BY	CHKR	ENG	M

MOUND
Environmental Restoration Geographic Information System

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

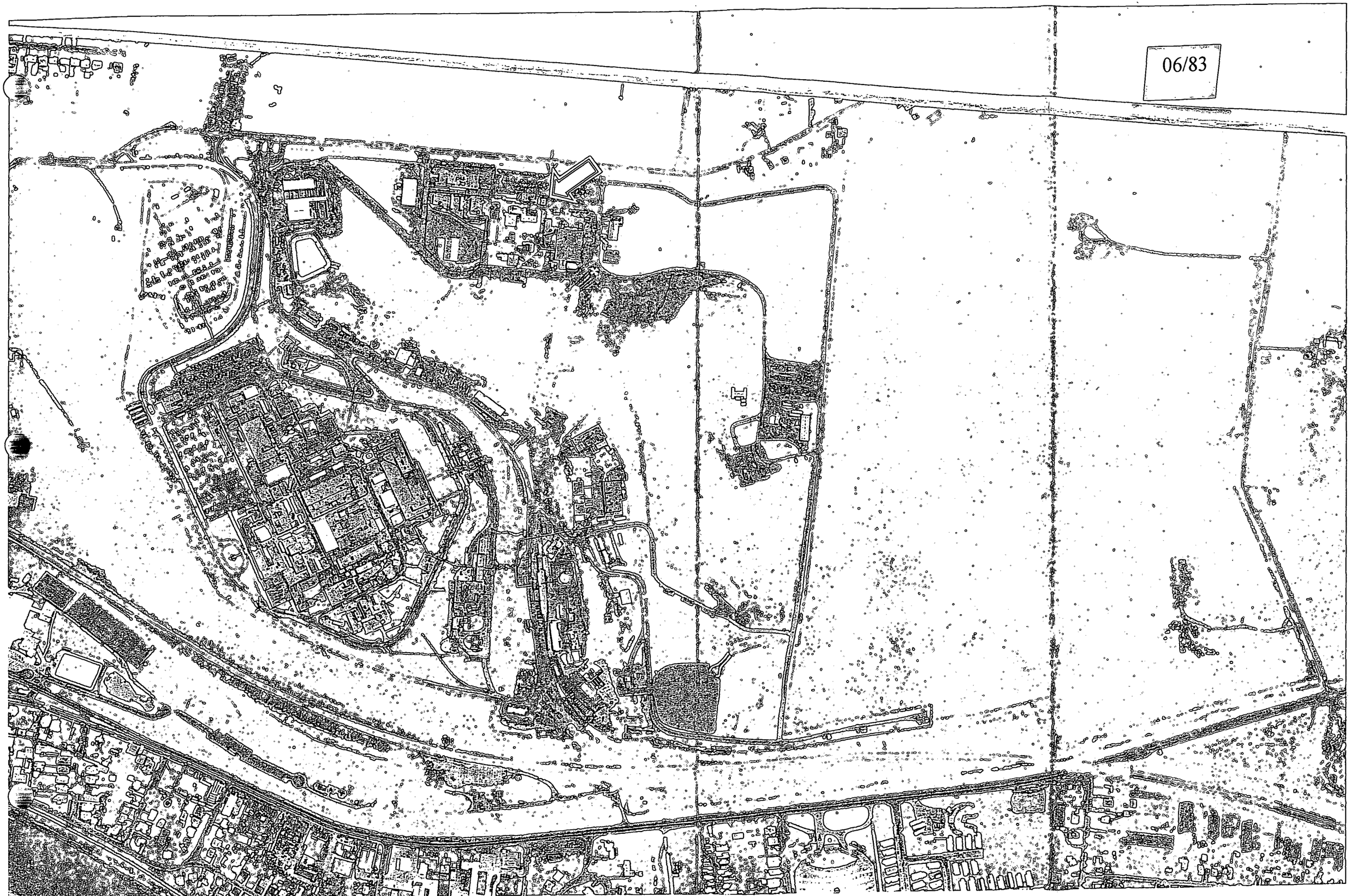
PART CLASSIFICATION

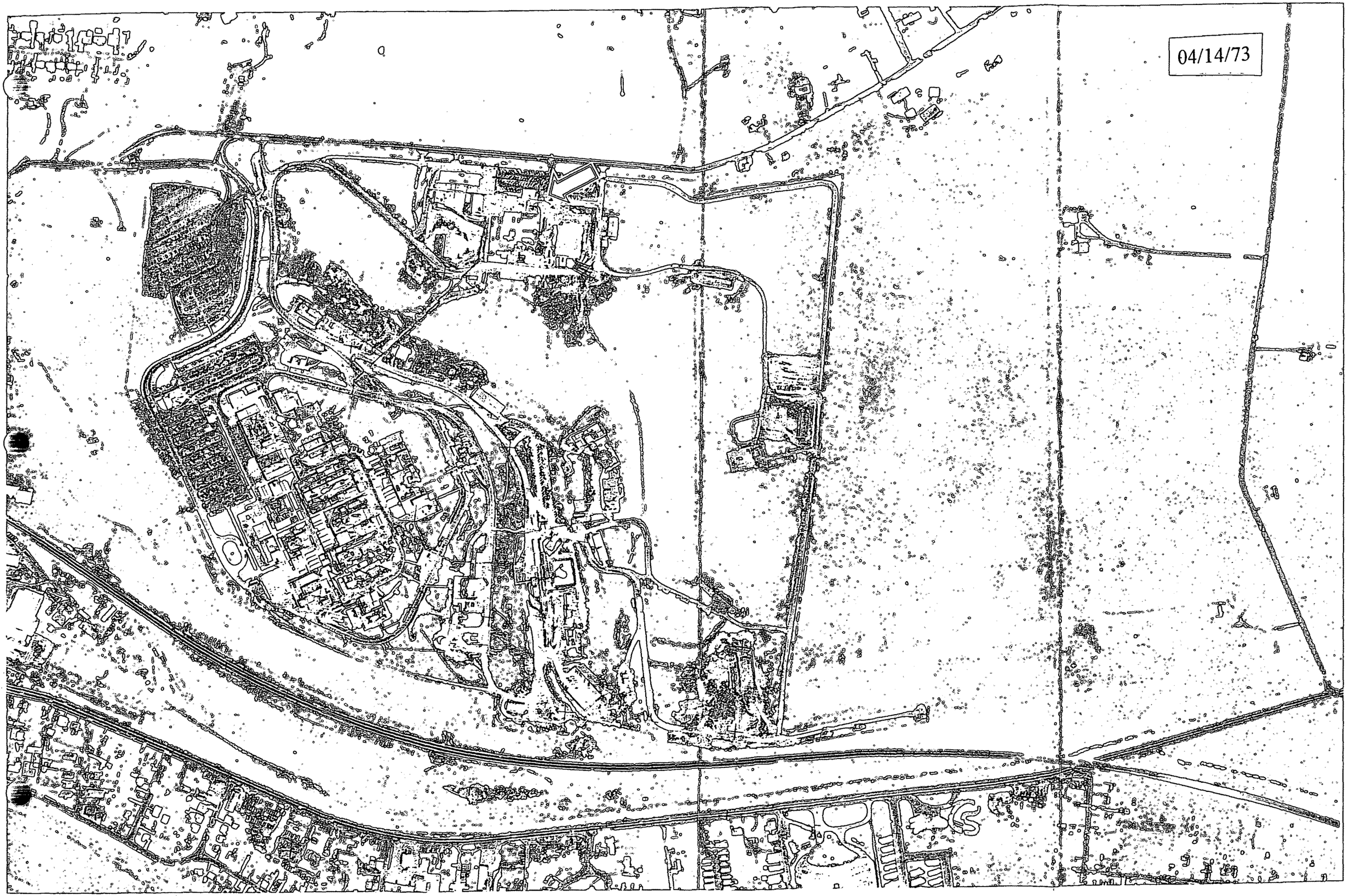
( ) TITLE CLASSIFICATION

Building Ownership with PRS's

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: D
DRAWING NUMBER: FSD ✱
JOB NUMBER: ✱
DWG TYPE: ✱
PRMG
CAGEC: ✱
SCALE: ✱
SHEET 1 OF ✱
STATUS: MD-REL-✱✱/✱✱/✱✱
ORIGIN: MSTATION 5.0

04/04/94


06/83


04/14/73

04/07/65

11/19/59